2014 Groundwater Monitoring Report for the Dump Road Area and Main Terminal Area of Martin State Airport 701 Wilson Point Road Middle River, Maryland

Prepared for:

Lockheed Martin Corporation

Prepared by:

Tetra Tech, Inc.

November 2014



Michael Martin, P.G.
Regional Manager



Anthony Apanavage, P.G.
Project Manager

TABLE OF CONTENTS

Section			Page
ACRONYMS			**v**
1	**INTRODUCTION**		**1-1**
2	**SITE BACKGROUND**		**2-1**
2.1	DUMP ROAD AREA		2-1
2.2	MAIN TERMINAL		2-3
3	**INVESTIGATION APPROACH AND METHODOLOGY**		**3-1**
3.1	SYNOPTIC GROUNDWATER-LEVEL MEASUREMENTS		3-1
3.2	GROUNDWATER SAMPLING		3-1
3.3	LABORATORY ANALYSES		3-3
3.4	DOCUMENTATION		3-4
3.5	EQUIPMENT DECONTAMINATION		3-4
3.6	WASTE MANAGEMENT		3-4
3.7	GENERAL SAMPLING PROCEDURES, NOMENCLATURE, AND HANDLING		3-5
3.8	DATA VALIDATION		3-5
4	**RESULTS**		**4-1**
4.1	DUMP ROAD AREA		4-1
	4.1.1	Groundwater Level Data	4-2
	4.1.2	Groundwater Chemical Data	4-2
4.2	MAIN TERMINAL		4-10
	4.2.1	Groundwater Level Data	4-10
	4.2.2	Groundwater Chemical Data	4-10
5	**SUMMARY**		**5-1**
6	**REFERENCES**		**6-1**

APPENDICES

APPENDIX A—GROUNDWATER-LEVEL RECORD SHEETS

APPENDIX B—MONITORING WELL PURGING AND SAMPLING RECORDS

APPENDIX C—ANALYTICAL DATA TABLES

APPENDIX D—DATA-VALIDATION REPORTS WITH CHAIN OF CUSTODY FORMS (ON CD)

TABLE OF CONTENTS (continued)

LIST OF FIGURES

Page

Figure 1-1 Martin State Airport and Study Areas Location Map 1-3

Figure 2-1 Martin State Airport and Surrounding Features 2-5

Figure 2-2 Site Features and Areas of Concern—Dump Road Area 2-6

Figure 2-3 Recognized Environmental Conditions—Main Terminal Area 2-7

Figure 3-1 Groundwater Monitoring Well Locations—Dump Road Area and Main Terminal Area 3-10

Figure 4-1 Groundwater Elevation Contours, March 2014—Upper Surficial-Aquifer, Dump Road Area 4-101

Figure 4-2 Groundwater Elevation Contours, March 2014—Intermediate Surficial-Aquifer, Dump Road Area 4-102

Figure 4-3 Groundwater Elevation Contours, March 2014—Lower Surficial-Aquifer, Dump Road Area 4-103

Figure 4-4 Concentrations of Trichloroethene, *cis*-1,2-Dichloroethene and Vinyl Chloride Exceeding Groundwater Standards, 2014—Upper Surficial-Aquifer, Dump Road Area 4-104

Figure 4-5 Concentrations of Trichloroethene, *cis*-1,2-Dichloroethene, and Vinyl Chloride Exceeding Groundwater Standards, 2014—Intermediate Surficial-Aquifer, Dump Road Area 4-105

Figure 4-6 Concentrations of Trichloroethene, *cis*-1,2-Dichloroethene, and Vinyl Chloride Exceeding Groundwater Standards, 2014—Lower-Surficial- and Deep-Confined-Aquifers, Dump Road Area 4-106

Figure 4-7 Concentrations of Benzene Exceeding the Groundwater Standard, 2014—Dump Road Area 4-107

Figure 4-8 Concentrations of 1,4-Dioxane Exceeding the Groundwater Screening Criterion, 2014—Dump Road Area 4-108

Figure 4-9 Concentrations of Total Metals Exceeding Groundwater Standards, 2014—Upper Surficial-Aquifer, Dump Road Area 4-109

Figure 4-10 Concentrations of Dissolved Metals Exceeding Groundwater Standards, 2014—Upper Surficial-Aquifer, Dump Road Area 4-110

TABLE OF CONTENTS (continued)

LIST OF FIGURES (continued)

Figure 4-11 Concentrations of Total Metals Exceeding Groundwater Standards, 2014—Intermediate Surficial-Aquifer, Dump Road Area 4-111

Figure 4-12 Concentrations of Dissolved Metals Exceeding Groundwater Standards, 2014—Intermediate Surficial-Aquifer, Dump Road Area 4-112

Figure 4-13 Concentrations of Total and Dissolved Metals Exceeding Groundwater Standards, 2014—Lower-Surficial- and Deep-Confined-Aquifers, Dump Road Area 4-113

Figure 4-14 Concentrations of Petroleum Hydrocarbons Exceeding Groundwater Standards, 2014—Upper Surficial-Aquifer, Dump Road Area 4-114

Figure 4-15 Groundwater Elevation Contour Map, March 2014—Main Terminal Area 4-115

Figure 4-16 Concentrations of Organic Compounds Exceeding Groundwater Standards, 2014—Main Terminal Area 4-116

Figure 4-17 Concentrations of Total and Dissolved Metals Exceeding Groundwater Standards, 2014—Main Terminal Area 4-117

LIST OF TABLES

Page

Table 3-1 List of Groundwater Monitoring Wells and Chemical Analyses, 2014 3-7

Table 4-1 Groundwater and Surface Water Levels and Elevations, March 24-–25, 2014, Dump Road Area and Main Terminal Area 4-2

Table 4-2 Statistical Summary of Groundwater Sampling Results—2014, Dump Road Area 4-15

Table 4-3 Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples—2014, Dump Road Area 4-20

Table 4-4 Statistical Summary of Groundwater Sampling Results—2014, Main Terminal Area 4-92

Table 4-5 Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples—2014, Main Terminal Area 4-94

This page intentionally left blank.

ACRONYMS

BTEX	benzene, toluene, ethylbenzene, and xylenes
CD	compact disc
cis-1,2-DCE	*cis*-1,2-dichloroethene
cVOCs	chlorinated volatile organic compounds
DA	Drum Area
DCE	dichloroethene
DO	dissolved oxygen
DRA	Dump Road Area
DRO	diesel-range organics
GRO	gasoline-range organics
IDW	investigation-derived waste
Lockheed Martin	Lockheed Martin Corporation
MAA	Maryland Aviation Administration
MDANG	Maryland Air National Guard
MDE	Maryland Department of the Environment
µg/L	microgram(s) per liter
mg/L	milligram(s) per liter (i.e., parts per million)
mL/min	milliliter(s) per minute
MSA	Martin State Airport
MT	Main Terminal
NAA	natural-attenuation assessment
NAVD88	National Vertical Datum of 1988
NTU	nephelometric turbidity unit
ORP	oxidation-reduction potential
pCi/L	picocurie(s) per liter
PHA	Petroleum Hydrocarbon Area
PPE	personal protective equipment
QA/QC	quality assurance/quality control
SVOC	semivolatile organic compound
Tetra Tech	Tetra Tech, Inc.
TB	trip blank
TCE	trichloroethene

TDS	total dissolved solids
TIC	tentatively identified compound
TPH	total petroleum hydrocarbon
TT Area East	Taxiway Tango Area East
TT Median Area	Taxiway Tango Median Area
USDOT	United States Department of Transportation
USEPA	United State Environmental Protection Agency
UST	underground storage tank
VAS	vertical aquifer-sampling
VC	vinyl chloride
VOC	volatile organic compound

Section 1
Introduction

This report summarizes groundwater sampling procedures and chemical results for groundwater sampling conducted in March–May 2014 at the Dump Road Area (DRA) and Main Terminal (MT) area of Martin State Airport (MSA) in Middle River, Maryland. Figure 1-1 shows the locations of Martin State Airport, the Dump Road Area, and the Main Terminal area and the monitoring wells sampled. Tetra Tech, Inc. (Tetra Tech) prepared this report on behalf of Lockheed Martin Corporation (Lockheed Martin) in accordance with the *Martin State Airport 2014 Groundwater Monitoring Work Plan* (Tetra Tech, Inc., 2013a). Sampling objectives are to:

- provide a current round of groundwater data for selected monitoring wells for the Dump Road Area and Main Terminal area
- better understand the nature and extent of contamination in groundwater
- evaluate the natural attenuation of the chemicals of concern in groundwater at Martin State Airport

These data, in conjunction with previously collected site data, will support the numerical modeling of shallow-groundwater flow patterns and the discharge of groundwater to Frog Mortar Creek, and will provide the scientific and engineering basis to select and implement a cost-effective and state-approved remedial alternative for the site.

Groundwater samples were chemically analyzed for volatile organic compounds (VOCs), semivolatile compounds (SVOCs) (including 1,4-dioxane), total metals, and dissolved metals. Select groundwater samples were also analyzed for perchlorate (a propellant constituent), total petroleum hydrocarbon (TPH)-diesel-range organics (DRO), total petroleum hydrocarbon-gasoline-range organics (GRO), hexavalent chromium, total radium, radium-228, haloacetic acids, and natural-attenuation assessment (NAA) parameters. This report is organized as follows:

Section 2—Site Background: Briefly summarizes the sites and references recent reports containing detailed background information related to the project.

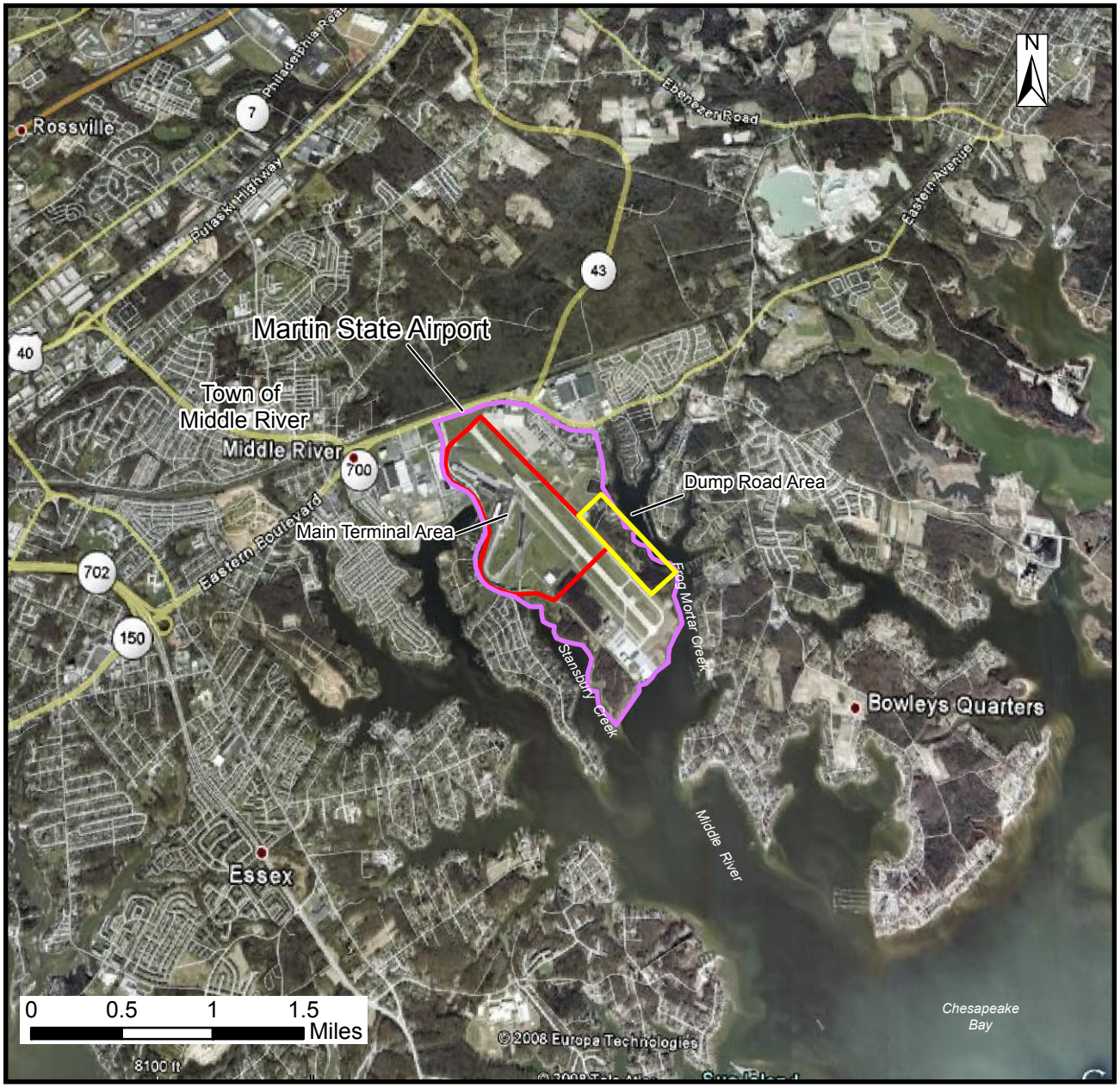
Section 3—Investigation Approach and Methodology: Presents the technical approach to the groundwater monitoring and describes the field methodology employed for the study.

Section 4—Results: Presents the investigation results.

Section 5—Summary: Summarizes the investigation findings.

Section 6—References: Cites references used to compile this report.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\Martin State Airport and Main Terminal Area_10 02 13.mxd)
10/2/2013 -- 4:53:09 PM



Source: Google Earth Pro, 2008

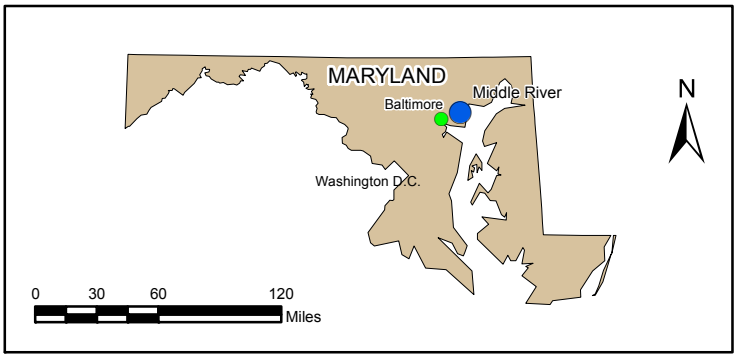


FIGURE 1-1

MARTIN STATE AIRPORT AND STUDY AREAS LOCATION MAP

Lockheed Martin, Martin State Airport
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
10/2/13	MP

TETRA TECH

Section 2
Site Background

Martin State Airport (MSA) is at 701 Wilson Point Road in Middle River, Maryland. It is bounded by Frog Mortar Creek to the east and Stansbury Creek to the west (Figure 2-1). These creeks conjoin at the southern boundary of the site and continue south to feed Middle River and Chesapeake Bay. The Dump Road Area (DRA) in the southeastern portion of MSA is bounded by Frog Mortar Creek to the east and the main airport runway to the west. The Main Terminal (MT) area comprises approximately 280 acres in the northwestern portion of MSA, just east of Wilson Point Road and Dark Head Cove. The MT area consists of the main terminal building, aircraft hangars and fueling stations, several taxiways, and the northern portion of the runway.

Lockheed Martin Corporation (Lockheed Martin) has conducted detailed investigations at the DRA and at the MT since 1999 and 2010, respectively. Lockheed Martin has also conducted additional investigations at Strawberry Point, Greater Strawberry Point, and Frog Mortar Creek (Figure 2-1). Investigations of these latter areas are not discussed in this report because they are being addressed under separate investigation programs.

2.1 DUMP ROAD AREA

Environmental investigations of MSA began in the mid-1980s, when the Maryland Department of the Environment (MDE) conducted site inspections related to stored drums and a reported chemical dump. In 1989, MDE conducted a preliminary assessment of MSA that identified fill areas and ponds, the latter of which were reportedly used from the 1930s through the 1960s to dispose of spent battery acid, acid-type strippers, and other acidic solutions (MDE, 1989). Detailed investigations of the DRA began after July 1991, when the Maryland Aviation Administration (MAA) encountered four buried drums adjacent to Taxiway Tango during trenching to install an electrical cable. Discovery of these drums led to investigation of the surrounding area for possible soil and groundwater contamination, as required by MDE in its letters of January 6, 1992 and January 14, 1997 to MAA (MDE, 1992; 1997).

MAA conducted several investigations of the DRA from 1991–1998. These studies identified four areas where environmental sampling investigations have been focused: the Taxiway Tango Median Area (TT Median Area), the Petroleum Hydrocarbon Area (PHA), Pond 1, and the Drum Area (DA). These early investigation areas are shown in Figure 2-2.

From 1999 to 2010, Lockheed Martin conducted a remedial investigation (Tetra Tech, 2012a) and supplemental fieldwork to further delineate the extent of soil, groundwater, and pond-sediment chemical contamination indicated by earlier DRA studies. Through geophysical surveys, membrane-interface probes, test pits, soil borings, and chemical analyses of soil and pond sediment samples, the remedial investigation identified large areas of buried fill and debris and surface and subsurface soil contamination in and around the buried fill material and in pond sediment. The extent of buried fill and debris was estimated to be present over approximately 25 acres of the DRA (see Figure 2-2).

A 2012 review of historical aerial photographs (Tetra Tech, 2013a) identified and mapped what appear to be open burning areas, open pits or ponds, soil or debris piles, possible ammunition bunkers, ground scars, and fill areas (see shaded areas on Figure 2-2). Several of these historical features coincide with areas of elevated contaminant concentrations in soil and/or groundwater; these areas were later identified as possible contaminant-source areas and were subsequently investigated in 2012–2014 (Tetra Tech, 2013b and 2014b,c).

Trichloroethene (TCE) (a metal degreaser) and TCE-degradation daughter products have been detected in groundwater throughout the investigation area, with the highest concentrations appearing in the upper and intermediate regions of the surficial aquifer. At the DRA, TCE concentrations have been detected in groundwater ranging from 0.5 to 490,000 micrograms per liter (µg/L). 1,4-Dioxane, benzene, toluene, xylenes, and several metals (typically co-located with chlorinated solvents) are also considered chemicals of concern in groundwater. TCE-degradation daughter products (e.g., dichloroethene [DCE], vinyl chloride [VC], etc.) are typically co-located with TCE at MSA.

Additional details regarding DRA background and history, including details of previous environmental investigations and discussions of contaminant source areas at the DRA, are in the *Dump Road Area Characterization of Possible Source Areas Report* (Tetra Tech, Inc. [Tetra Tech], 2013b), and therefore are discussed only briefly below. A detailed chronological

discussion of investigations at the DRA from 1985–2012 is provided as Appendix A of the *Dump Road Source-Areas Investigation Work Plan* (Tetra Tech, 2012c).

2.2 MAIN TERMINAL

Previous investigations directly related to the MT area include the *Environmental Evaluation Report for Martin State Airport Main Terminal* (Tetra Tech, 2010a) and the *Environmental Evaluation Addendum for Martin State Airport Main Terminal* (Tetra Tech, 2010b). These evaluations concentrated on environmental impacts resulting from practices carried out between 1929 and 1975, when the Glenn L. Martin Company and Martin Marietta owned and operated on the property. Possible areas of environmental concern in the MT area were identified through historical aerial photographs, facility records, local and federal library documents, museum records, regulatory data, environmental database reviews, interviews with former employees, and locating/reviewing environmental reports and data.

Nine recognized environmental conditions (RECs)[1] (RECs #1–9) were identified in the MT area during the environmental evaluation (Tetra Tech, 2010a), along with five potential RECs (RECs #10–14). The addendum report (Tetra Tech, 2010b) identified eight additional RECs (RECs #15–22) and provides supplemental details on 10 of 14 initial/possible RECs. Additional information obtained during development of the addendum report led to upgrading potential REC #14 to a full REC because an underground storage tank (UST) had once been at that location. Locations of the MT area RECs (exclusive of potential RECs #10–13) are shown in Figure 2-3.

A Phase II environmental site assessment for the MT area was conducted in 2010–2012 (Tetra Tech, 2012b and 2013c). Soil and groundwater samples were collected and analyzed for possible organic and inorganic constituents, based on historical site uses and operations. Twelve wells were installed around the perimeter of the airport hangars and airport terminal building near the identified MT-area RECs. Results of these groundwater studies indicated benzene (a petroleum volatile organic compound [VOC]) at well MT-MW02S at concentrations of 50.5 micrograms

[1] *Recognized environmental conditions (RECs) at a site are based on the presence or likely presence of hazardous substances and/or petroleum products under conditions that could indicate a historical, existing, or potential release to the property's structures, soil, groundwater, or surface water.*

per liter (µg/L) in 2011 and 87 µg/L in 2012. These concentrations exceed the MDE groundwater standard (5 µg/L) for benzene.

Seven other VOCs (acetone, carbon disulfide, carbon tetrachloride, chloroform, chloromethane, naphthalene, and toluene) were detected in the groundwater samples collected in 2012, but detected concentrations were below MDE groundwater standards. However, concentrations of total petroleum hydrocarbons (TPH)-gasoline-range organics (GRO), TPH-diesel-range organics (DRO), beryllium, nickel, and vanadium in several groundwater samples also exceeded MDE groundwater standards. Detected concentrations of semivolatile organic compounds (SVOCs), including 1,4-dioxane, did not exceed the MDE groundwater standards in the 2010–2012 samples. Additional details for the MT-area background and history, including details of previous environmental investigations and REC discussions, are available in several previous documents (Tetra Tech, 2010a, 2010b, 2012b, and 2013c) and are not repeated herein.

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\MSA Main Terminal and Surrounding Features_revised 1 13 12.mxd)
1/13/2012 -- 1:01:35 PM



Source: Google Earth Pro, 2010

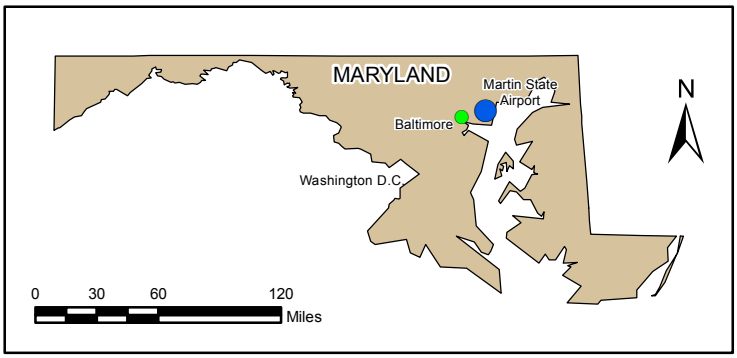


FIGURE 2-1

MARTIN STATE AIRPORT AND SURROUNDING FEATURES

Dump Road Area
Lockheed Martin, Martin State Airport
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
1/13/12	MP

TETRA TECH

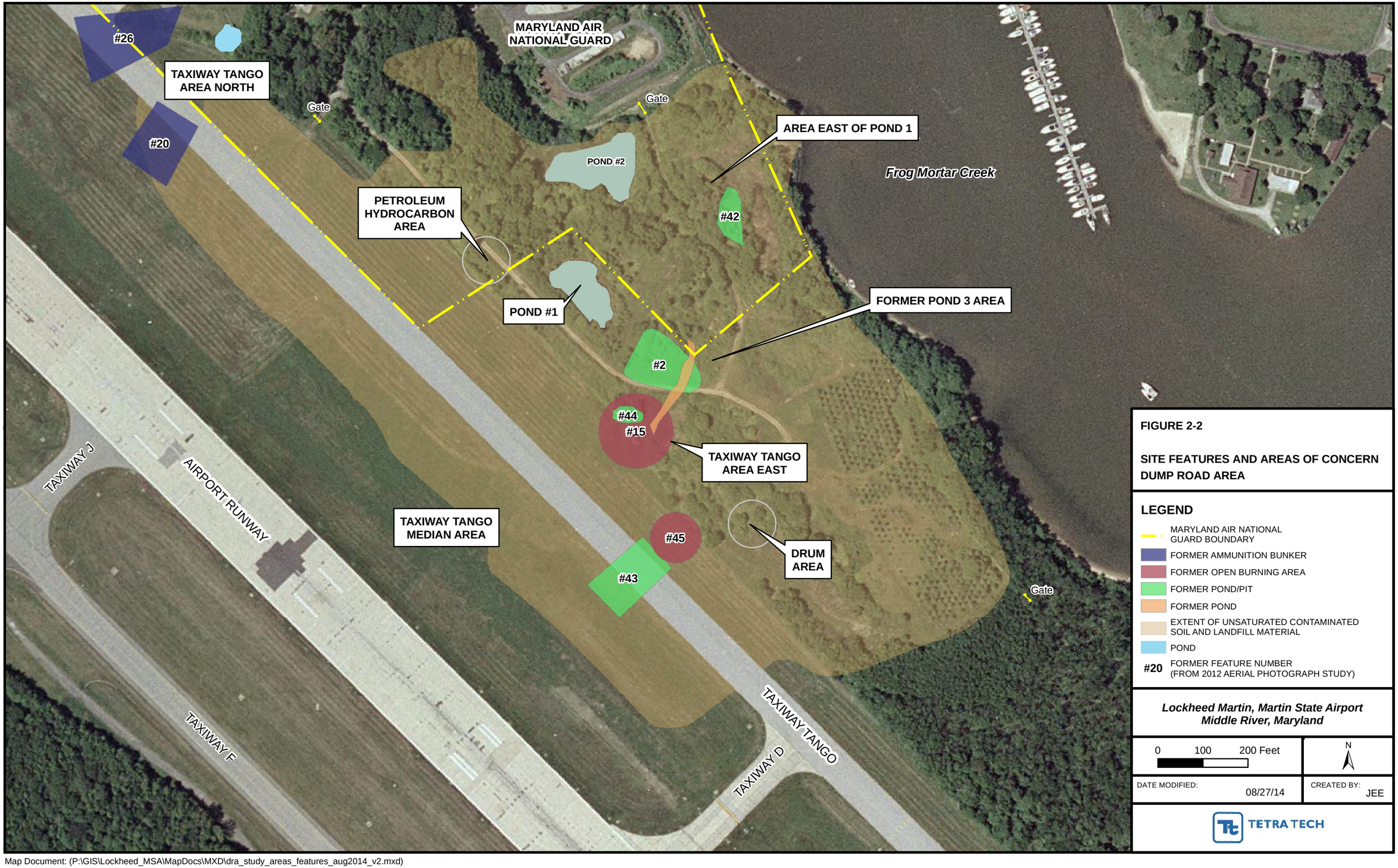


FIGURE 2-2

SITE FEATURES AND AREAS OF CONCERN
DUMP ROAD AREA

LEGEND

- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- #20 FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 08/27/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_study_areas_features_aug2014_v2.mxd)
08/27/14 -- JEE

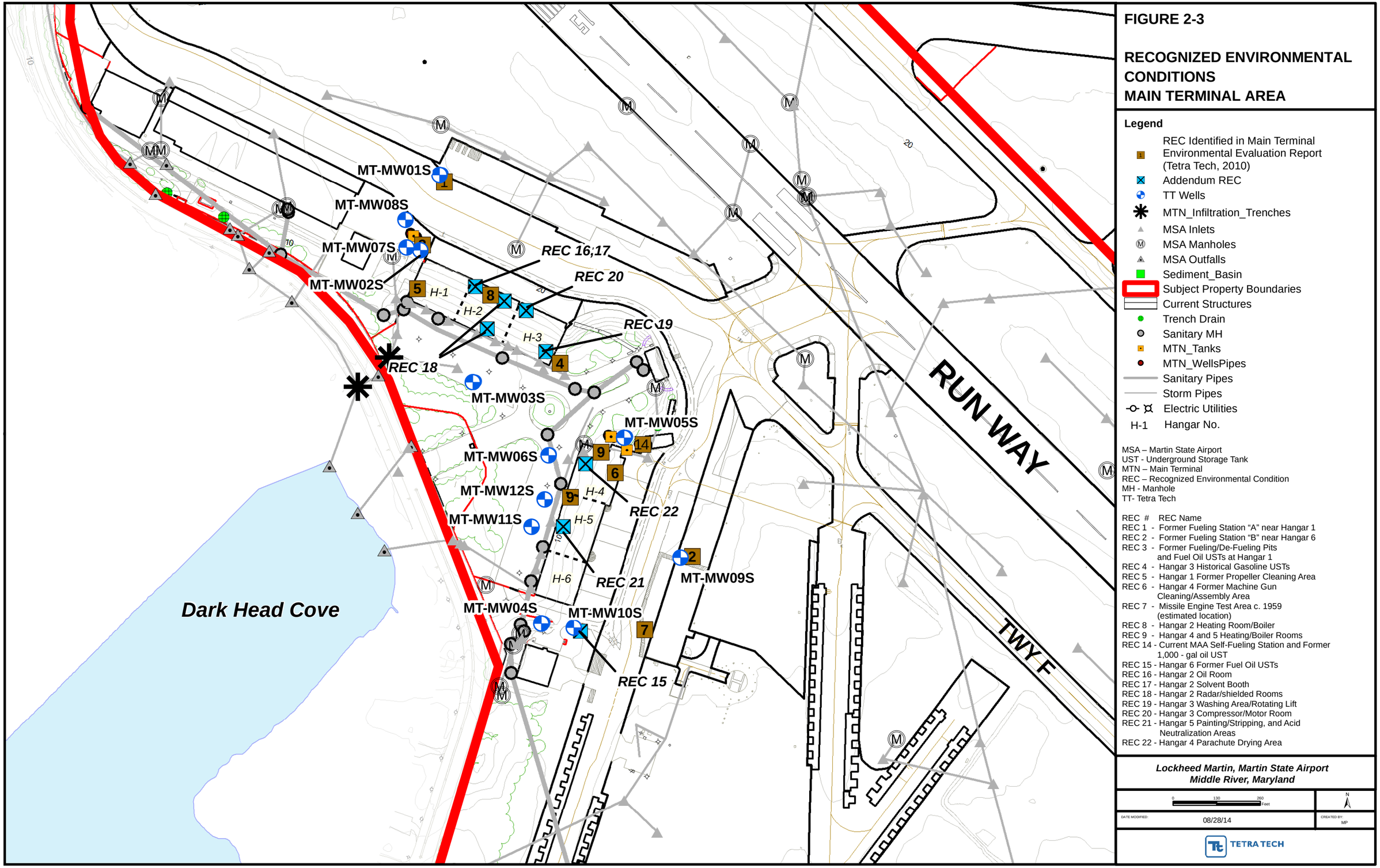


FIGURE 2-3

RECOGNIZED ENVIRONMENTAL CONDITIONS MAIN TERMINAL AREA

Legend

- REC Identified in Main Terminal Environmental Evaluation Report (Tetra Tech, 2010)
- Addendum REC
- TT Wells
- MTN_Infiltration_Trenches
- MSA Inlets
- MSA Manholes
- MSA Outfalls
- Sediment_Basin
- Subject Property Boundaries
- Current Structures
- Trench Drain
- Sanitary MH
- MTN_Tanks
- MTN_WellsPipes
- Sanitary Pipes
- Storm Pipes
- Electric Utilities
- H-1 Hangar No.

MSA – Martin State Airport
UST - Underground Storage Tank
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
TT- Tetra Tech

REC # REC Name
REC 1 - Former Fueling Station "A" near Hangar 1
REC 2 - Former Fueling Station "B" near Hangar 6
REC 3 - Former Fueling/De-Fueling Pits and Fuel Oil USTs at Hangar 1
REC 4 - Hangar 3 Historical Gasoline USTs
REC 5 - Hangar 1 Former Propeller Cleaning Area
REC 6 - Hangar 4 Former Machine Gun Cleaning/Assembly Area
REC 7 - Missile Engine Test Area c. 1959 (estimated location)
REC 8 - Hangar 2 Heating Room/Boiler
REC 9 - Hangar 4 and 5 Heating/Boiler Rooms
REC 14 - Current MAA Self-Fueling Station and Former 1,000 - gal oil UST
REC 15 - Hangar 6 Former Fuel Oil USTs
REC 16 - Hangar 2 Oil Room
REC 17 - Hangar 2 Solvent Booth
REC 18 - Hangar 2 Radar/shielded Rooms
REC 19 - Hangar 3 Washing Area/Rotating Lift
REC 20 - Hangar 3 Compressor/Motor Room
REC 21 - Hangar 5 Painting/Stripping, and Acid Neutralization Areas
REC 22 - Hangar 4 Parachute Drying Area

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 130 260 Feet

N

DATE MODIFIED: 08/28/14

CREATED BY: MP

TETRA TECH

Map Document: (PGH P:\Germantown GIS\MartinStateAirport-LMC\MapDocs\MXD\Maps\Terminal One Recs 01 27 12.mxd)
08/28/14 -- JEE

Section 3
Investigation Approach and Methodology

This report summarizes the 2014 groundwater sampling program for the Dump Road Area (DRA) and Main Terminal (MT) area. The investigation measured synoptic groundwater-levels and sampled groundwater for laboratory chemical analyses. The 2014 groundwater sampling round augments groundwater level measurements and sampling data obtained from 2003–2013 for the DRA and 2010–2013 for the MT area.

3.1 SYNOPTIC GROUNDWATER-LEVEL MEASUREMENTS

A synoptic round of water-level measurements was conducted on March 24–25, 2014. Static water levels were measured using an electronic graduated water-level meter. The static water level was determined by lowering the meter's probe into the well until an audible tone indicated that the air/water interface had been reached. The water level relative to the top of the well casing was recorded to the nearest 0.01 foot based on measurements collected from the meter's graduated cable. Groundwater-level measurement sheets are in Appendix A.

3.2 GROUNDWATER SAMPLING

Groundwater samples were collected in March–May 2014 from 107 wells at the DRA and 12 wells at the MT area as part of the annual monitoring program (Figure 3-1). Sampling included four deep confined-aquifer wells (MW-27D, MW-29D, MW-30D, and MW-31D); these four wells are the only wells installed in permeable zones below the surficial aquifer of concern. The groundwater sampling program is summarized in Table 3-1. The following sections outline well purging, sampling, and analytical procedures.

***Well purging*—**Monitoring wells were purged using low-flow-purging techniques before sample collection. Groundwater was purged using a peristaltic pump fitted with dedicated, disposable Teflon®-lined tubing, or by using a submersible pump positioned in the center of the well's

saturated screen. The pumping rate during purging ranged between 100–300 milliliters per minute (mL/min), and was frequently measured using a graduated cylinder. The purge rate was adjusted (but not allowed to fall below 100 mL/min) to minimize groundwater drawdown from the initial static water level.

During groundwater purging, water-level drawdown and groundwater parameters (including pH [a measure of acidity and alkalinity], temperature, specific conductance, dissolved oxygen [DO], oxidation-reduction potential [ORP], and turbidity) were measured and recorded every five to 10 minutes until purging was complete. Data were recorded in the appropriate site-specific logbook and on low-flow-purge data sheets. Water-quality parameters were measured using an inline water-quality meter. Turbidity readings were collected using a separate turbidity meter.

Purging was considered complete when the monitored water-quality parameters stabilized, when three saturated well-casing volumes had been removed, or when the well had been purged dry. Stabilization was considered achieved when three consecutive readings (taken at five-minute intervals) were within ±0.1 standard units for pH, ±3% for specific conductance and temperature, ±10% for DO and ORP, and less than 10 nephelometric turbidity units (NTUs) for turbidity. If the monitoring well was purged dry, the water level in the well was allowed to recover a minimum of 80% of its initial static water level before groundwater was sampled. Well purging and sample record sheets are in Appendix B. All purged water was collected in United States Department of Transportation (USDOT)-approved 55-gallon steel drums, which were properly labeled and staged at a location approved by the Maryland Air National Guard (MDANG) and Lockheed Martin Corporation (Lockheed Martin).

Sample collection—Monitoring wells were sampled after purging using the same dedicated tubing or submersible pump that had been used during purging. Groundwater samples were collected using low-flow-sampling protocols at the same pumping rate used during well purging. Groundwater was pumped directly into the appropriate sample containers (including all VOC samples), or into a certified-clean disposable container (supplied by the laboratory), which was then used to pour the collected water directly into the appropriate sample containers.

3.3 LABORATORY ANALYSES

Groundwater samples were collected and analyzed by an off-site laboratory using the following methods (see Table 3-1 for details):

- analysis for VOCs plus tentatively identified compounds (TICs), Freon 22 (chlorodifluoromethane), and Freon 113 by United States Environmental Protection Agency (USEPA) Method 8260C—(107 DRA monitoring wells and 12 MT-area wells).
- 1,4-dioxane by USEPA Method 8270C SIM—(107 DRA wells and 12 MT-area wells)
- perchlorate by USEPA SW846 Method 6850—(37 DRA wells)
- mercury by USEPA SW846 Method 7470A—(107 DRA wells and 12 MT-area wells)
- hexavalent chromium by USEPA Method 218.6—(30 DRA wells)
- total and dissolved priority pollutant metals by USEPA Method 6020B—(107 DRA wells and 12 MT-area wells)
- Total radium and radium-228 by USEPA 900-series methods—(10 DRA wells in the upper, intermediate, and lower surficial-aquifer, and in the deep confined-aquifer)
- gasoline-range organics (GRO) and diesel-range organics (DRO) by SW846 Method 8015B—(49 DRA wells and 12 MT-area shallow monitoring wells screened in the upper surficial-aquifer)
- natural-attenuation assessment (NAA) parameters—(nine monitoring wells were analyzed using USEPA SW846 protocols for NAA parameters [nitrate, nitrite, ammonia nitrogen, phosphate, sulfate, total alkalinity, dissolved organic carbon, total iron, total manganese, total potassium, total calcium, total magnesium, total chloride, total sodium, total silica, and total dissolved solids (TDS)]). Methane, ethane, and ethene were analyzed using Microseeps® AM 20GAX protocols.

Hexavalent chromium was analyzed by USEPA Method 218.6 (ion chromatography) with a specified detection limit of 0.02 µg/L, a value lower than the method's published detection limit (0.10 µg/L). Perchlorate was analyzed by USEPA Method 6850 with a specified detection limit of 1 µg/L. One trip blank per cooler per day was collected for VOC analysis samples for quality assurance/quality control (QA/QC) purposes. Matrix-spike and matrix-spike duplicate samples were collected on a 1:20 basis. Chemical results for this sampling event are discussed in Section 4. A table listing the chemical results for all samples is in Appendix C.

3.4 DOCUMENTATION

A master site logbook was maintained as an overall record of field activities. Sample documentation consists of completed chain of custody reports and matrix-specific sample log sheets. The chain of custody report is a standardized form summarizing and documenting pertinent sample information, such as sample identification and type, matrix, date and time of collection, preservation, and requested analyses. Sample custody procedures document sample acquisition and integrity. Chain of custody reports are included with the data validation reports in Appendix D.

3.5 EQUIPMENT DECONTAMINATION

Reusable equipment (e.g., water-level meter) was decontaminated before and after each use. Small, reusable equipment was decontaminated as follows:

- Liquinox® and potable-water wash
- potable-water rinse
- distilled-water rinse
- air drying
- collecting decontamination solutions for disposal

Decontamination rinsate was transferred to properly labeled 55-gallon drums staged at a facility-approved location. Dedicated and/or disposable equipment was used for groundwater purging and sampling and did not require decontamination.

3.6 WASTE MANAGEMENT

Investigation-derived waste (IDW) consisting of decontamination rinsate water, monitoring well purge water, and personal protective equipment (PPE) was generated during groundwater characterization. PPE was brushed off, placed in trash bags, and disposed of in a facility trash receptacle. Dedicated and disposable equipment was also rinsed off and disposed of in a facility trash receptacle. Well purge water was collected and stored in USDOT-approved 55-gallon drums. All drums were properly labeled and logged on a drum inventory form. The drums were profiled and removed from the site as nonhazardous waste.

3.7 GENERAL SAMPLING PROCEDURES, NOMENCLATURE, AND HANDLING

A master site logbook was maintained at the site as an overall record of field activities. Each sample received a unique sample identification consisting of the site location, well number, and a six-digit sampling date. For example, the groundwater sample collected on May 23, 2014 from monitoring well MSA-DMW-2S was labeled MSA-DMW-2S-042314. Trip blanks were labeled with a "TB" prefix, followed by the blank's six-digit submittal date (e.g., TB-042314). Field-related sample-handling considerations include selection of sample containers, preservatives, allowable holding times, and requested analyses.

Proper custody procedures were followed throughout all phases of sample collection and handling. Chain of custody protocols were used throughout sample handling to document the integrity of sample containers. Such protocols demonstrate that the samples were handled and transferred in a manner that would prevent or detect tampering.

Empty sample containers were released under signature from the laboratory and accepted under signature by the sampler or other individual responsible for maintaining custody until the sample containers were transferred to the sampling team. Groundwater samples were collected in these containers, released under signature from the sampling team, and then accepted under signature by the laboratory. Transport containers returning to the laboratory were sealed with strapping tape and a tamper-resistant custody seal. The custody seal shows the signature of the individual releasing the transport container, along with the date and time.

3.8 DATA VALIDATION

Data validation involves having a party independent of the laboratory review data provided by the laboratory to ensure that specific criteria have been met. These criteria concern specifications that are not sample dependent; they specify performance requirements that should be fully under a laboratory's control. For data analyses of organic chemicals, specific validation areas include blanks, performance-evaluation-standard materials, and instrument-performance checks. For data analyses involving inorganic chemicals, specific validation areas include blanks, calibration standards, calibration-verification standards, laboratory-control standards, and interference-check standards. The analytical laboratory supplies the chemical data as hard-copy reports and electronic databases.

Once the investigation was complete, chemical data were validated by Tetra Tech, Inc. (Tetra Tech) in accordance with established USEPA protocols to assess the reliability and accuracy of the data. This review was based on the USEPA Region 3 modifications to the *National Functional Guidelines for Data Review* (USEPA, 1993 and 1994) and the specifics of the analytical method used. Data validation reports are in Appendix D (on compact disc).

Validation of these data concluded that they are acceptable for their intended uses (i.e., risk screening and risk assessment), except for data qualified as unreliable (UR flags). The data qualifiers (i.e., flags) applied to the chemical results during data validation are listed below:

J The analyte is considered present in the sample, but the value is estimated and may not meet highest accuracy or precision standards. In this program, samples were qualified with "*J*" because quantitation was above the method detection limit but below the laboratory reporting-limit.

NJ The analyte has been tentatively identified. This qualifier indicates presumptive evidence of a compound. Special methods may be required to confirm its presence or absence in future sampling efforts.

U Not detected; the analyte is considered not detected at the reported value.

UJ The analyte was not detected. However, the quantitation or detection limit may be inaccurate or imprecise.

UR The non-detect result is considered qualitatively or quantitatively unreliable. Results flagged with "UR" data qualifiers include hexachlorocyclopentadiene (two samples), 2-chloroethyl vinyl-ether (five samples), 3-3'-dichlorobenzidine (one sample), nitrate (two samples), orthophosphate (two samples), and hexavalent chromium (eight samples).

Two of these flags (i.e., *J,* and NJ) appear on the chemical results tables in Section 4; all flags can be found in Appendices C and D.

Table 3-1

List of Sampled Groundwater Monitoring Wells and Chemical Analyses, 2014
Dump Road Area and Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

Monitoring Well	Chemical Analyses										
	VOCs (TICs, Freon 22, Freon 113) (USEPA 8260B)	1,4-Dioxane (USEPA 8270C SIM)	Perchlorate[1] (USEPA 6850)	Hexavalent Chromium[2] (USEPA 218.6)	Total PPM (USEPA 6020B)	Dissolved PPM (USEPA 6020B)	Mercury (USEPA 7470A)	TPH-GRO and TPH-DRO (USEPA 8015B)	Total Radium, Radium 228 (USEPA 900 Series)	Haloacetic Acids (USEPA 552.1 - 552.4)	Natural Attenuation Parameters[3,4]
Upper Surficial-Aquifer											
MW-3	X	X			X	X	X	X	X		
MW-4	X	X			X	X	X	X			
MW-5	X	X			X	X	X	X			
MW-6	X	X			X	X	X	X			
DMW-1S	X	X		X	X	X	X	X			
DMW-2S	X	X	X		X	X	X	X		X	
DMW-3S	X	X		X	X	X	X	X		X	
DMW-4S	X	X			X	X	X	X			
DMW-5S	X	X			X	X	X	X		X	
DMW-6S	X	X		X	X	X	X	X	X		
DMW-7S	X	X			X	X	X	X			
DMW-9S	X	X			X	X	X	X			X
DMW-10S	X	X			X	X	X	X			
DMW-11S	X	X			X	X	X	X			X
MW-16S	X	X			X	X	X	X	X		
MW-17S	X	X			X	X	X	X			
MW-18S	X	X			X	X	X	X			X
MW-20S	X	X			X	X	X	X			
MW-23S	X	X			X	X	X	X			
MW-24S	X	X			X	X	X	X			
MW-25S	X	X			X	X	X	X			
MW-26S	X	X			X	X	X	X			
MW-32S	X	X			X	X	X	X			
MW-33S	X	X			X	X	X	X			
MW-34S	X	X			X	X	X	X			
MW-35S	X	X			X	X	X	X			
MW-36S	X	X			X	X	X	X			
MW-37S	X	X			X	X	X	X			
MW-38S	X	X			X	X	X	X			
MW-39S	X	X			X	X	X	X			
MW-40S	X	X			X	X	X	X			
MW-41S	X	X			X	X	X	X			
MW-42S	X	X			X	X	X	X			
MW-43S	X	X			X	X	X	X			
MW-44S	X	X			X	X	X	X			
MW-45S	X	X			X	X	X	X			
MW-46S	X	X	X	X	X	X	X	X			
MW-47S	X	X	X	X	X	X	X	X			
MW-48S	X	X	X	X	X	X	X	X			X
MW-49S	X	X	X	X	X	X	X	X			
MW-50S	X	X	X	X	X	X	X	X			
MW-51S	X	X	X	X	X	X	X	X			
MW-52S	X	X		X	X	X	X	X			
MW-53S	X	X		X	X	X	X	X			
MW-54S	X	X		X	X	X	X	X			

Table 3-1

List of Sampled Groundwater Monitoring Wells and Chemical Analyses, 2014
Dump Road Area and Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

Monitoring Well	Chemical Analyses										
	VOCs (TICs, Freon 22, Freon 113) (USEPA 8260B)	1,4-Dioxane (USEPA 8270C SIM)	Perchlorate[1] (USEPA 6850)	Hexavalent Chromium[2] (USEPA 218.6)	Total PPM (USEPA 6020B)	Dissolved PPM (USEPA 6020B)	Mercury (USEPA 7470A)	TPH-GRO and TPH-DRO (USEPA 8015B)	Total Radium, Radium 228 (USEPA 900 Series)	Haloacetic Acids (USEPA 552.1 - 552.4)	Natural Attenuation Parameters[3,4]
MT-MW-01S	X	X			X	X	X	X			
MT-MW-02S	X	X			X	X	X	X			
MT-MW-03S	X	X			X	X	X	X			
MT-MW-04S	X	X			X	X	X	X			
MT-MW-05S	X	X			X	X	X	X			
MT-MW-06S	X	X			X	X	X	X			
MT-MW-07S	X	X			X	X	X	X			
MT-MW-08S	X	X			X	X	X	X			
MT-MW-09S	X	X			X	X	X	X			
MT-MW-10S	X	X			X	X	X	X			
MT-MW-11S	X	X			X	X	X	X			
MT-MW-12S	X	X			X	X	X	X			
Intermediate Surficial-Aquifer											
DMW-1A	X	X		X	X	X	X				
DMW-2A	X	X	X		X	X	X				
DMW-3I	X	X			X	X	X		X		
DMW-4I	X	X	X		X	X	X				
DMW-5I	X	X	X		X	X	X				
DMW-6I	X	X			X	X	X		X		
DMW-7I	X	X	X		X	X	X				
DMW-8I	X	X		X	X	X	X				
DMW-9I	X	X			X	X	X				X
DMW-10I	X	X			X	X	X				
DMW-11I	X	X			X	X	X				
MW-14I	X	X			X	X	X				
MW-15I	X	X	X		X	X	X				
MW-16I	X	X			X	X	X		X		
MW-17I	X	X	X		X	X	X				
MW-18I	X	X	X		X	X	X				X
MW-20I	X	X	X		X	X	X				
MW-21I	X	X	X		X	X	X				
MW-24I	X	X	X		X	X	X				
MW-25I	X	X			X	X	X				
MW-30I	X	X			X	X	X				
MW-32I	X	X			X	X	X				
MW-33I	X	X		X	X	X	X				
MW-34I	X	X			X	X	X				
MW-40I	X	X			X	X	X				
MW-41I	X	X			X	X	X				
MW-42I	X	X			X	X	X				
MW-46I	X	X	X	X	X	X	X				
MW-46D	X	X	X	X	X	X	X				
MW-47I	X	X	X	X	X	X	X				
MW-47D	X	X	X	X	X	X	X				
MW-48I	X	X	X	X	X	X	X				X
MW-48D	X	X	X	X	X	X	X				X

Table 3-1

List of Sampled Groundwater Monitoring Wells and Chemical Analyses, 2014
Dump Road Area and Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

Monitoring Well	Chemical Analyses										
	VOCs (TICs, Freon 22, Freon 113) (USEPA 8260B)	1,4-Dioxane (USEPA 8270C SIM)	Perchlorate[1] (USEPA 6850)	Hexavalent Chromium[2] (USEPA 218.6)	Total PPM (USEPA 6020B)	Dissolved PPM (USEPA 6020B)	Mercury (USEPA 7470A)	TPH-GRO and TPH-DRO (USEPA 8015B)	Total Radium, Radium 228 (USEPA 900 Series)	Haloacetic Acids (USEPA 552.1 - 552.4)	Natural Attenuation Parameters[3,4]
MW-49I	X	X	X	X	X	X	X				
MW-49D	X	X	X	X	X	X	X				
MW-50I	X	X	X	X	X	X	X				
MW-50D	X	X	X	X	X	X	X				
MW-51I	X	X	X	X	X	X	X				
MW-52I	X	X		X	X	X	X	X			
MW-52D	X	X		X	X	X	X	X			
MW-53I	X	X		X	X	X	X	X			
MW-54I	X	X		X	X	X	X	X			
Lower Surficial-Aquifer											
DMW-1B	X	X			X	X	X				
DMW-2B	X	X			X	X	X				
DMW-3D	X	X			X	X	X		X		
DMW-4D	X	X	X		X	X	X				
DMW-6D	X	X	X		X	X	X		X		
DMW-7D	X	X			X	X	X				
DMW-9D	X	X			X	X	X				X
MW-14D	X	X		X	X	X	X				
MW-15D	X	X	X	X	X	X	X				
MW-17D	X	X		X	X	X	X				
MW-19D	X	X			X	X	X				
MW-20D	X	X	X		X	X	X				
MW-21D	X	X			X	X	X				
MW-22D	X	X			X	X	X				
MW-23D	X	X			X	X	X				
MW-51D	X	X	X	X	X	X	X				
Deep Confined Aquifer Wells											
MW-27D	X	X	X	X	X	X	X		X		
MW-29D	X	X	X	X	X	X	X		X		
MW-30D	X	X	X	X	X	X	X				
MW-31D	X	X	X	X	X	X	X				

Notes:

1 Perchlorate was analyzed by USEPA Method 6850 with a specified detection limit of 1 µg/L.

2 Hexavalent chromium was analyzed by USEPA Method 218.6 (ion chromotography) with a specified detection limit of 0.02 µg/L, which is lower than the method's published detection limit of 0.10 µg/L.

3 Natural attenuation parameters: nitrate, nitrite, ammonium nitrogen, phosphate, sulfate, total alkalinity, dissolved organic carbon, total iron total calcium, total manganese, total potassium, total magnesium, total chloride, total silica, total dissolved solids, methane, ethane and ethene.

4 Natural attenuation parameters were analyzed by USEPA Method SW846, and methane, ethane, and ethene were analyzed using Microseeps © AM 20GAX

Wells not Sampled:

RW1S	MW19I	DMW5D
OW1S	MW22I	DMW8D
MW2	MW23I	MW18D
DMW8S	MW26I	
MW15S	MW28I	

Abbreviations:

µg/L - micrograms per liter
DRO - diesel-range organics
GRO - gasoline-range organics
PPM - priority pollutant metals
TICs - tentatively identified compounds
TPH - total petroleum hydrocarbons
USEPA - Unites States Environmental Protection Agency
VOCs - volatile organic compounds

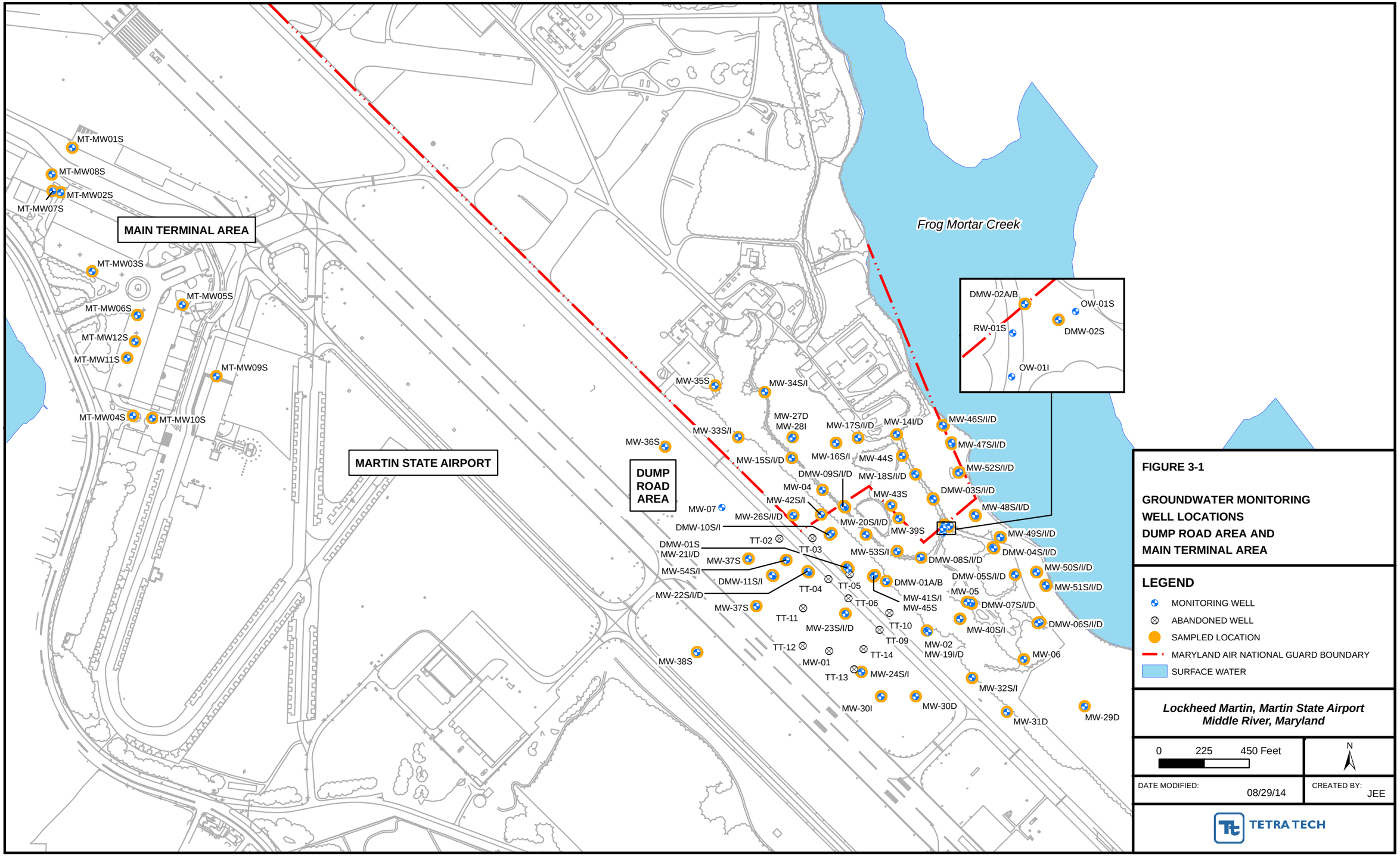


FIGURE 3-1

GROUNDWATER MONITORING WELL LOCATIONS DUMP ROAD AREA AND MAIN TERMINAL AREA

LEGEND

- MONITORING WELL
- ABANDONED WELL
- SAMPLED LOCATION
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- SURFACE WATER

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 225 450 Feet

N

DATE MODIFIED: 08/29/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\msa_gw_locs_all_aug2014.mxd)
08/29/14 -- JEE

Section 4
Results

This section presents the results of the 2014 groundwater-elevation data and groundwater sampling and chemical analysis programs for the Dump Road Area (DRA) and Main Terminal (MT) area of Martin State Airport (MSA). These results are compared against current Maryland Department of the Environment (MDE) groundwater standards (MDE, 2008) and other state standards/criteria where MDE has not established standards. At present, MDE has not established an advisory level or standard for 1,4-dioxane in drinking water or groundwater. Several states (e.g., California, Colorado, Connecticut, Florida, Maine, Massachusetts, Michigan, and North Carolina) have established drinking water standards or action levels for 1,4-dioxane. These values range from California's action level of 3 micrograms per liter (µg/L) to Michigan's drinking water standard of 85 µg/L (United States Environmental Protection Agency [USEPA], 2006 and 2009, respectively).

USEPA has also published a preliminary remedial goal of 6.1 µg/L for 1,4-dioxane in tap water (USEPA, 2006) and a risk-based regional screening level of 0.67 µg/L for tap water (USEPA, 2013). The current advisory level or the most stringent standard for 1,4-dioxane is used as a comparison criterion to evaluate its groundwater concentrations in this report. Therefore, the California Department of Health Services advisory level (3 µg/L) is used herein as the groundwater screening level for 1,4-dioxane.

4.1 DUMP ROAD AREA

DRA groundwater levels were measured on March 24–25, 2014. Groundwater samples were collected from 107 DRA monitoring wells for chemical analyses in March–May 2014. Sampling at one well (MW-29D) was delayed until late May because an active bird nest was in the annulus between the protective casing and the well casing. Two other deep confined-aquifer wells (MW-30D and MW-31D) and newly installed wells (MW-52S/I/D through MW-54S/I) were also sampled at that time. Other wells were sampled from March through the first day of May.

4.1.1 Groundwater Level Data

Table 4-1 lists March 2014 groundwater level measurements and computed groundwater elevations for the wells sampled at MSA. Figures 4-1 through 4-3 show the DRA groundwater-elevation contour maps for the upper, intermediate, and lower surficial-aquifer zones, respectively. As presented in Table 4-1, static groundwater levels in the sampled wells were measured and recorded as groundwater depths measured from the top of the well casings, and were converted to elevations based on the North American Vertical Datum of 1988 (NAVD88). Groundwater elevations for the surficial aquifer ranged from 0.07 feet below NAVD88 at well MW-49S (near Frog Mortar Creek) to 7.8 feet above NAVD88 at well MW-44S (adjacent to Pond 2). Accounting for well-casing stick-up for aboveground well-casing risers and well stick-down for flush-mounted well designs, groundwater depths in the surficial aquifer ranged from approximately 1.5 to 18.5 feet below grade. Shallow groundwater was encountered adjacent to Pond 2 (well MW-44S) and in the western part of the site near the airport runway (e.g., wells MW-24S and DMW-11S); deeper groundwater was found in the eastern portion of the site along the top of the fill embankment near Frog Mortar Creek.

As shown in Figures 4-1 through 4-3, groundwater in the upper, intermediate, and lower surficial-aquifer generally flows east–northeast from the runway and taxiway to Frog Mortar Creek. Consistent with previous water level measurements, the 2014 results show elevated groundwater levels at DMW-3S, DMW-11S, MW-36S, MW-43S, and MW-44S (Figure 4-1), indicating local groundwater mounding near Ponds 1 and 2. These shallow wells are installed in a clay-rich material above the more permeable sands in which the surrounding wells are installed. Therefore, groundwater levels in these wells may reflect localized perched groundwater in this portion of the DRA.

4.1.2 Groundwater Chemical Data

Groundwater samples were collected from the DRA wells to evaluate and confirm the horizontal and vertical extent of groundwater contamination at the DRA, and to assess the natural attenuation of VOCs in the subsurface. Validated analytical results are in Appendices C and D. Validated groundwater-chemical data were used to generate a statistical summary table (Table 4-2) that lists only detected analytes.

A positive detections (or "hits") table was also generated from these data (Table 4-3). Gray shading in Table 4-3 indicates results that exceed MDE groundwater standards or the California advisory level for 1,4-dioxane. Table C-1 in Appendix C is similar to Table 4-3, except that it summarizes both detected and nondetected results. Data validation reports and chain of custody forms are on compact disc (CD) in Appendix D. The following sections discuss the results of the groundwater-chemical analyses for the DRA.

4.1.2.1 Volatile Organic Compounds

A wide range of volatile organic compounds (VOCs) was detected in groundwater (Table 4-2). *cis*-1,2-Dichloroethene (*cis*-1,2-DCE), trichloroethene (TCE), and vinyl chloride (VC) are the most frequently detected constituents. These chlorinated VOCs (cVOCs) were detected in approximately 76%, 73%, and 66% of the samples collected, respectively (Table 4-3). The maximum detected concentrations of TCE (50,000 micrograms per liter [µg/L]), *cis*-1,2-DCE (37,000 µg/L), and VC (17,000 µg/L) are several orders of magnitude (i.e., powers of 10) greater than their groundwater standards (5 µg/L, 70 µg/L, and 2 µg/L, respectively). Petroleum-related VOCs (such as benzene, toluene, ethylbenzene, and xylenes [BTEX]) were detected less frequently, ranging from 6% of samples for ethylbenzene to 29% of samples for benzene. BTEX were also detected at lower concentrations than the cVOCs (e.g., maximum benzene is 310 µg/L [MSA-DMW-09S] with a groundwater standard of 5 µg/L).

VOCs exceeding groundwater standards in the upper, intermediate, and lower surficial-aquifer zones are shown in Figures 4-4, 4-5, and 4-6, respectively. The results for the current round are similar to those of previous groundwater sampling rounds. The lateral and vertical distributions of cVOCs in groundwater confirm that several source areas at the site contribute to groundwater contamination (Figures 4-4 through 4-6). These areas include the Taxiway Tango Median Area (TT Median Area), the Petroleum Hydrocarbon Area (PHA), Taxiway Tango Area East (TT Area East), former Pond 3, the Drum Area (DA), and the area east of Pond 1; see Figure 2-2 for the locations of these areas.

Taxiway Tango Median Area—The TT Median Area is in the western portion of the DRA near wells MW-54S/I and DMW-11S (Figures 4-4 through 4-6; Table 4-2). Historically, DMW-11S has contained the highest concentrations of cVOCs in this area (up to 52,000 µg/L for TCE, and up to 53,000 µg/L for *cis*-1,2-DCE in 2004). Wells MW-54S/I were installed northeast of wells

DMW-11S/I, in an area where elevated concentrations of cVOCs were detected in the upper and intermediate surficial-aquifer zones during vertical aquifer-sampling (VAS) in 2013. TCE concentrations (28,000 µg/L) detected in groundwater samples collected in 2014 from MW-54S and MW-54I are nearly 10 times the TCE concentration at DMW-11S (3,100 µg/L). MW-54S also has a toluene concentration (15,000 µg/L) that exceeds its Maryland Department of the Environment (MDE) groundwater standard (1,000 µg/L).

From 2004–2010, TCE concentrations at DMW-11S ranged from 29,000–52,000 µg/L but declined sharply to concentrations ranging from 3,100–16,000 since 2011. Historical data are not available for MW-54S/I, so it is unclear if TCE at DMW-11S migrated downgradient to MW-54S/I, or if MW-54S/I is simply an extension of the TT Median Area TCE-source area. However, an elevated TCE concentration detected in shallow soil (260,000 micrograms per kilogram at 6–8 feet) during drilling and soil sampling at MW-54S/I suggests that this area is an extension of the TT Median Area source area.

Petroleum Hydrocarbon Area—This area is in the central portion of the site (Figure 2-2) near well DMW-9 and Pond 1 (Figures 4-4 through 4-6). In the PHA area, the greatest concentrations of cVOCs are reported for the intermediate surficial-aquifer wells (Figures 4-4 through 4-6; Table 4-3), where most wells have concentrations of TCE, *cis*-1,2-DCE, and VC in excess of groundwater standards. The highest concentrations of *cis*-1,2-DCE (9,400 µg/L) and VC (8,800 µg/L) in this area are in the upper surficial-aquifer zone at well DMW-9S. However, TCE was detected at higher concentrations in wells DMW-9I (800 µg/L) and DMW-9D (2,500 µg/L) as compared to surrounding wells in the PHA.

The maximum detected benzene concentration in the DRA for this round is at well DMW-9S (310 µg/L [*J* qualified]) in the PHA (Table 4-2 and Figure 4-7); this concentration is more than 60 times higher than the groundwater standard (5 µg/L). Other wells in this area with benzene exceedances are DMW-9I (25 µg/L [*J* qualified]), MW-20S (20 µg/L [*J* qualified]), MW-14I (12 µg/L [*J* qualified]), MW-16S (7.5 µg/L), and MW-42S (19 µg/L [*J* qualified]). MW-16S and MW-52S/I/D are hydraulically downgradient of DMW-9S (Figures 4-1 through 4-3), which may explain the presence of benzene at these locations.

TT Area East—This area is in the central portion of the DRA near wells MW-45S, MW-41S/I, and DMW-1A/B. Historical aerial photographs indicate that a former open burning area and a

pond/pit were once in this area. Well MW-45S appears to be installed in the TCE source area in this area. During this round, the total cVOC concentration at MW-45S is 104,000 µg/L, comprised of TCE (50,000 µg/L), *cis*-1,2-DCE (37,000 µg/L), and VC (17,000 µg/L). Concentrations of benzene are at DMW-01B (14 µg/L [*J* qualified]), MW-41S (26 µg/L [*J* qualified]), MW-41I (8.2 µg/L), MW-45S (120 µg/L [*J* qualified]) also exceed its MDE groundwater standard (5 µg/L).

Former Pond 3—This area is in the central portion of the DRA south of Pond 1 (Figure 2-2) at wells MW-53S/I and DMW-8S/I/D. Wells MW-54S/I were also installed in the former Pond 3 area, where elevated concentrations of cVOCs were detected in the upper and intermediate surficial-aquifer zones during VAS in 2013. TCE concentrations at MW-53S (60 µg/L) and MW-53I (4,700 µg/L) in 2014 are substantially lower than TCE concentrations (3,600-490,000 µg/L) detected during VAS at similar depths.

Drum Area—This area is in the southern portion of the site between wells MW-2/MW-19, MW-5/DMW-7, and MW-40S/I. It extends downgradient and to the east at wells DMW-4, DMW-5, MW-50, and MW-51. The highest VOC concentrations in this area are in the upper surficial-aquifer near wells MW-2/MW-19, MW-5/DMW-7, MW-40S/I, and DMW-5; one or more of the three primary cVOCs (TCE, *cis*-1,2-DCE, and VC) exceed their respective groundwater standards in these wells (see Figures 4-4 through 4-6 and Table 4-2). The highest total cVOC concentrations (i.e., 33,400 µg/L in 2007) in this area are generally detected at well DMW-7S. Concentrations of TCE (3,600 µg/L), *cis*-1,2-DCE (14,000 µg/L), and VC (2,100 µg/L) at DMW-7S in 2014 total 19,700 µg/L.

Area East of Pond 1—This area is in the northeastern portion of the site between Pond 1 and Frog Mortar Creek. The highest cVOC concentrations are near Frog Mortar Creek (Figures 4-4 through 4-6). TCE at wells MW-52I (26,000 µg/L) and MW-52D (16,000 µg/L), located east of a wetland area and a former pond or pit observed on historical photographs, appears to be at the lowest drainage point behind the berm constructed when the former Limehouse Cove was being filled. cVOC concentrations in well MW-46I are as much as 45 times above their respective MDE groundwater standards. Concentrations at MW-46I suggest that high cVOC concentrations extend north of the area currently being monitored at the DRA, indicating that VOC exceedances likely extend north to the Maryland Air National Guard (MDANG) armory area.

***Taxiway Tango Area North*—**TCE exceeds its screening level (5 µg/L) at several intermediate wells north and west of Pond 2. TCE concentrations at MW-16I (960 µg/L) and MW-17I (750 µg/L) both exceed its groundwater standard (Table 4-3 and Figure 4-5). These exceedances suggest that the groundwater-contaminant plume extends northwest of wells DMW-9S/I/D (Figures 4-4 and 4-5), likely extending north to the MDANG armory area.

***Shoreline wells*—**Wells MW-46S/I/D through MW-52S/I/D form a northwest–southeast trending line on the embankment along the Frog Mortar Creek shoreline. The six highest TCE concentrations in these wells range from 3,400–26,000 µg/L. They are centered around new wells MW-52I (26,000 µg/L)/MW-52D (16,000 µg/L), extending northwest to MW-47I (3,400 µg/L) and southeast to wells MW-48I (4,200 µg/L), MW-49I (4,800 µg/L), and MW-49D (5,800 µg/L). TCE concentrations decreased from 2013–2014 in nine of 18 wells. Note that TCE concentrations have decreased at MW-50S (13,000 µg/L in 2013, compared to 730 µg/L in 2014) and at MW-49D (from 9,300 µg/L in 2013 to 5,800 µg/L in 2014). All other TCE concentrations in shoreline wells were 730 µg/L or less, and all but three wells (MW-46S, MW-48S, and MW-50D) had TCE concentrations exceeding the groundwater standard (5 µg/L).

***Deep confined-aquifer wells*—**Trace concentrations of three VOCs (acetone, 2-butanone, and carbon disulfide) were detected in three of the deep confined-aquifer wells (Table 4-3). The concentrations were low (0.22–7.2 µg/L) and below groundwater standards, which range from 100–700 µg/L for carbon disulfide and 2-butanone, respectively.

***Natural-attenuation assessment parameters*—**Nine groundwater samples in the current (2014) round were analyzed for natural-attenuation assessment (NAA) parameters. Groundwater samples for NAA parameters were collected from four wells in the upper surficial-aquifer zone (DMW-9S, DMW-11S, MW-18S, and MW-48S), from three wells in the intermediate surficial-aquifer zone (DMW-9I, MW-18I, and MW-48I), and from two wells in the lower surficial-aquifer zone (DMW-9D and MW-48D). These wells are in presumed VOC source-areas. Locations of these wells are shown on Figures 4-4 through 4-5.

NAA parameters include alkalinity, chloride, dissolved organic carbon, nitrate, nitrite, orthophosphate, sulfate, total dissolved solids, calcium, iron, magnesium, manganese, potassium, sodium, and analysis for dissolved gasses ethane, ethene, and methane. NAA parameters were measured in the field as well as at the laboratory. Field measurements of NAA parameters used

for this evaluation (i.e., groundwater pH [a measure of acidity or alkalinity], oxidation-reduction potential [ORP], dissolved oxygen [DO], and temperature) are recorded on the field forms in Appendix B.

NAA analyses evaluate whether anaerobic reductive-dechlorination of cVOCs is occurring at the site. This information will be used during the evaluation of remedial alternatives to determine whether site conditions can be enhanced to stimulate anaerobic reductive-dechlorination by adding electron donors and/or adjusting groundwater pH. Anaerobic reductive-dechlorination is evident at the site, as shown by detection of the TCE breakdown product *cis*-1,2-DCE.

cis-1,2-DCE also appears to be degrading readily in the upper and intermediate zones, as indicated by the VC found at wells DMW-9S/I, DMW-11S, MW-18S/I, MW-48S/I/D. Further, ethene concentrations greater than 10 µg/L at five of nine wells, and elevated chloride concentrations at wells DMW-9S/I and MW-18S/I, indicate that complete mineralization of VOC contaminants is likely occurring at these locations. Methane concentrations at these wells also indicate anaerobic conditions. BTEX at DMW-9S and DMW-11S provide a carbon source that is expected to enhance biodegradation of cVOCs at the PHA and Pond 1 Area plume and, to a lesser extent, the Taxiway Tango plume area.

Other NAA parameters indicate favorable conditions for reductive dechlorination in the upper and intermediate surficial-aquifer zones. Elevated methane concentrations (greater than 500 µg/L) detected at DMW-9S, DMW-9I, and DMW-11S were slightly above the favorable assessment criterion. High methane concentrations at these locations indicate fermentation is occurring; thus, the potential for complete anaerobic dechlorination exists at these locations.

4.1.2.2 1,4-Dioxane

1,4-Dioxane was detected in 67% of the 2014 groundwater samples (Table 4-2 and Figure 4-8), at concentrations ranging from 0.43*J* (MW-16I) to 1,000 µg/L (MW-45S). The average of the detected 1,4-dioxane concentrations is 107.2 µg/L. The highest concentrations occur primarily in the upper and intermediate surficial-aquifer zones east of Taxiway Tango, in an area northeast and hydraulically downgradient of well MW-45S (DMW-2A [450 µg/L], and DMW-2S [310 µg/L]). High 1,4-dioxane concentrations were also detected in wells east of Pond 1 (DMW-3S/DMW-3I [440 µg/L and 420 µg/L, respectively] and DMW-18I [190 µg/L]), and in

the northernmost portion of the site (MW-16S at 240 µg/L). Fifty-four samples exceeded the California Department of Health Services advisory level (3 µg/L). Substantially lower concentrations (ranging from 1.6 to 896 µg/L) of 1,4-dioxane are reported for wells at the Drum Area plume. 1,4-Dioxane was not detected in the deep confined-aquifer groundwater samples (i.e., MW-27D, MW-29D, MW-30D, and MW-31D).

Levels of 1,4-dioxane in high cVOC-concentration areas generally decreased from 2009 to 2012, but have since started to increase. The largest decrease occurred at well DMW-1A; the 2009 concentration (490 µg/L) decreased in 2010 (91 µg/L), remained steady in 2011 (93 µg/L), and then decreased again in 2012 (68 µg/L). In 2013, the 1,4-dioxane concentration at DMW-1A increased to 170 µg/L, and also increased slightly (180 µg/L) during this round (2014).

1,4-Dioxane was also detected in groundwater in lower surficial-aquifer samples in an area co-located with the highest VOC concentrations. 1,4-Dioxane was detected south and southwest of Pond 1 along the longitudinal axis of the VOC-plume, extending eastward from well DMW-1B (56 µg/L) to wells DMW-2A (450 µg/L) and DMW-4D (48 µg/L). Wells MW-45S and DMW-1A appear to be near or in the presumed 1,4-dioxane source in this area.

4.1.2.3 Metals

Tables 4-2 and 4-3 summarize detections of total metals (unfiltered groundwater samples) and dissolved metals (filtered groundwater samples). Metals concentrations that exceed MDE groundwater standards are in Table 4-3 and Figures 4-9 through 4-13. Concentrations of 11 total metals and eight dissolved metals exceed groundwater standards in one or more groundwater samples collected in 2014.

As shown in Table 4-3, concentrations of iron, manganese, vanadium, arsenic, nickel, and cadmium exceed standards most frequently. The maximum concentrations of arsenic, cadmium, iron, manganese, vanadium, and nickel exceed standards by more than one order of magnitude. Figure 4-15 shows the maximum of the dissolved (filtered) and total (unfiltered) exceedances for cadmium, nickel, and vanadium (the three metals that most frequently exceed standards). Well MW-45S appears to be installed in the cadmium and chromium source in this area. Cadmium and chromium concentrations at MW-45S during this round are 4,700 µg/L and 9,300 µg/L, which are several times higher than the elevated cadmium and chromium concentrations in wells

DMW-1A and DMW-1B (cadmium only) located near MW-45S. No exceedances of hexavalent chromium were detected in any of the 38 samples in which it was analyzed for. Only the common metals iron, manganese and vanadium (in one sample) exceed groundwater standards in samples collected from the deep confined-aquifer wells (i.e., MW-27D, MW-29D, MW-30D, and MW-31D).

4.1.2.4 Petroleum Hydrocarbons

As shown in Table 4-2, total petroleum hydrocarbon diesel-range organics (TPH-DRO) were detected in 51% of the 2014 groundwater samples, at concentrations ranging from 470 to 3,200 µg/L. TPH-gasoline-range organics (TPH-GRO) were detected in 89% of the 2014 groundwater samples, at concentrations ranging from 26–52,000 µg/L. TPH-DRO and TPH-GRO exceedances of the screening level (47 µg/L for both) are on Figure 4-14. The average detected concentration of TPH-DRO is 1,420 µg/L, whereas the highest concentration reported is for well DMW-52S (3,200 µg/L). The highest concentration of TPH-GRO reported for 2014 is at well DMW-54S (52,000*J* µg/L); the average detected concentration is 4,327 µg/L.

4.1.2.5 Perchlorate

Thirty-seven groundwater samples were analyzed for perchlorate (Table 4-2). Perchlorate was detected in 18 of 37 (49%) groundwater samples at concentrations ranging from 0.083–4.8 µg/L. Concentrations at wells DMW-04D (4.8 µg/L) and MW-49I (4.2 µg/L) are the only perchlorate results to exceed the standard (2.6 µg/L).

4.1.2.6 Radium-228 and Total Radium

As shown in Table 4-2, radium-228 and total radium were detected in 2014 in eight of 10 groundwater samples. Radium-228 concentrations range from 0.712 to 9.91 picocuries per liter (pCi/L). The average detected radium-228 concentration in the surficial aquifer is 4.33 pCi/L, with the highest radium-228 concentration reported at well DMW-6I (9.91 pCi/L), screened in the intermediate surficial-aquifer in the southeastern part of the site. The radium-228 concentration at DMW-6I (9.91 pCi/L), as well as the radium-228 concentrations at DMW-3I (9.15 pCi/L) and DMW-6D (7.56 pCi/L), exceed the groundwater standard (5 pCi/L). However, concentrations of total radium (0.394–3.45 pCi/L) did not exceed its groundwater standard (5 pCi/L).

4.2 MAIN TERMINAL

Static groundwater levels and groundwater samples for laboratory chemical analyses were collected from 12 MT-area monitoring wells. This section presents groundwater elevation data collected on March 24, 2014 and the chemical results from collected groundwater samples (March 26–28, 2014). The MT-area groundwater samples were analyzed for VOCs, 1,4-dioxane, total and dissolved metals, TPH-DRO, and TPH-GRO.

4.2.1 Groundwater Level Data

Groundwater level measurements and computed elevations for upper surficial-aquifer wells MT-MW01S through MT-MW12S are in Table 4-1; these data are graphically depicted on Figure 4-15. Depth to groundwater ranged from just below the ground surface (in the low elevation area south of hangars H-1 to H-3 at well MT-MW03S) to approximately 12 feet below the ground surface (at the upslope ends of the hangar buildings at wells MT-MW08S [hangar H-1] and MT-MW10S [hangar H-6]). As shown in Figure 4-15, groundwater from the airport terminal area generally flows southwest toward Dark Head Cove.

4.2.2 Groundwater Chemical Data

Validated groundwater chemical data in the MT area were used to generate a statistical summary table (Table 4-4). Positive detections (or "hits") generated from these data are also in Table 4-5. Gray shading in Table 4-5 indicates results that exceed MDE groundwater standards or (for 1,4-dioxane) the California advisory level (3 µg/L). Table C-2 in Appendix C is similar to Table 4-3, except that it summarizes both detected and nondetected results. Data validation reports and chain of custody forms are on compact disc (CD) in Appendix D. The following sections discuss groundwater results for the MT area. Figure 4-16 shows detected organic compounds that exceed the groundwater standards. Figure 4-17 illustrates metals exceedances in groundwater.

4.2.2.1 VOCs and SVOCs

A wide range of VOCs was detected in groundwater at the MT area (Tables 4-4 and 4-5). However, most VOCs were detected infrequently (in one to three of 12 samples). VOCs were primarily detected in well MT-MW02S, on the western side of hangar H-1 in an area where former underground storage tanks (USTs) were previously used to store fuel.

The only VOC exceedance in groundwater samples was benzene (13 µg/L) at well MT-MW02S. This concentration less than the concentration detected in 2013 (18 µg/L), but still higher than the groundwater standard (5 µg/L). Other VOCs were detected at low concentrations that do not exceed cleanup target levels.

4.2.2.2 Metals

Groundwater samples were analyzed for both total (i.e., unfiltered) and dissolved (i.e., filtered) metals. Sixteen metals were detected in groundwater samples collected from wells MT-MW01S through MT-MW12S. Four metals (beryllium, iron, manganese, and nickel) were detected at concentrations exceeding screening criteria, primarily in wells around hangars H-4 through H-6. Beryllium exceeded the MDE standard (4 µg/L) in five unfiltered samples (concentrations ranging from 4.3 µg/L to 87 µg/L) and in five filtered samples (concentrations ranging from 4.3 µg/L to 86 µg/L). Nickel exceeded its standard (73 µg/L) in six of 12 wells sampled, in both unfiltered and filtered samples.

4.2.2.3 Petroleum Hydrocarbons

TPH-GRO was detected in all 12 MT wells at concentrations ranging from 32*J* to 510 µg/L. Most GRO results are *J*-qualified (i.e., estimated). Three detections exceed the MDE groundwater standard (47 µg/L). The highest GRO exceedance was detected at MT-MW02S (510 µg/L). The other two standard exceedances are 57 µg/L and 58 µg/L, which are within the same order of magnitude as the standard.

TPH-DRO was detected at six sampling locations (MT-MW01S, MT-MW02S, MT-MW03S, MT-MW06S, MT-MW07S, and MTW-MW08S) at concentrations ranging from 610–5,200 µg/L. All six detections exceed the MDE groundwater standard (47 µg/L). TPH-DRO at similar concentrations was detected at MT-MW02S during previous sampling rounds (4,900 µg/L in 2011, 3,700 µg/L in 2012, 4,700 µg/L in 2013, and 5,200 µg/L in 2014). However, concentrations at MT-MW01S have increased since 2011 (1.8 µg/L in 2011, 540*B* µg/L in 2012, 700 µg/L in 2013, and 1,300 µg/L in 2014).

Table 4-1

Groundwater and Surface Water Levels and Elevations, March 24-25, 2014
Dump Road Area and Main Terminal Area
Lockheed Matin, Martin State Airport, Middle River, Maryland

Well ID	Aquifer Level	Elevation Top of PVC NAVD88 Feet	Depth to Groundwater Top of Well Casing 3/24/2014 Feet	Groundwater Elevation NAVD88 3/24/2014 Feet
DMW-1S	S	11.08	7.91	3.17
DMW-2S	S	21.75	20.59	1.16
DMW-3S	S	16.52	10.98	5.54
DMW-4S	S	20.52	20.22	0.30
DMW-5S	S	21.34	20.64	0.70
DMW-6S	S	18.62	17.35	1.27
DMW-7S	S	21.84	20.12	1.72
DMW-8S	S	15.80	12.49	3.31
DMW-9S	S	11.45	8.60	2.85
DMW-10S	S	10.29	6.82	3.47
DMW-11S	S	9.20	3.33	5.87
MW-15S	S	8.60	5.03	3.57
MW-16S	S	10.20	8.48	1.72
MW-17S	S	7.61	4.85	2.76
MW-18S	S	8.89	8.10	0.79
MW-20S	S	12.44	9.73	2.71
MW-23S	S	10.01	6.75	3.26
MW-24S	S	7.72	3.23	4.49
MW-25S	S	9.69	4.76	4.93
MW-26S	S	11.72	7.69	4.03
MW-03	S	11.19	7.68	3.51
MW-32S	S	7.27	5.15	2.12
MW-33S	S	9.97	6.47	3.50
MW-34S	S	7.44	4.15	3.29
MW-35S	S	12.63	NM	--
MW-36S	S	11.88	6.00	5.88
MW-37S	S	10.70	6.12	4.58
MW-38S	S	10.81	NM	--
MW-39S	S	15.70	11.79	3.91
MW-40S	S	17.48	15.51	1.97
MW-41S	S	10.23	7.19	3.04
MW-42S	S	8.88	NM	--
MW-43S	S	18.08	12.00	6.08
MW-44S	S	9.21	1.41	7.80
MW-45S	S	10.03	6.96	3.07
MW-46S	S	11.26	10.13	1.13
MW-47S	S	11.96	11.58	0.38
MW-48S	S	19.92	19.16	0.76
MW-49S	S	19.84	19.91	-0.07
MW-50S	S	12.55	11.76	0.79
MW-51S	S	9.69	9.15	0.54
MW-04	S	10.34	6.11	4.23
MW-05	S	22.65	20.99	1.66
MW-06	S	15.72	13.71	2.01
MW-07	S	10.90	6.19	4.71
DMW-1A	I	12.05	9.06	2.99
DMW-2A	I	21.65	20.89	0.76
DMW-3I	I	16.45	15.50	0.95
DMW-4I	I	20.48	19.74	0.74
DMW-5I	I	21.39	20.70	0.69
DMW-6I	I	18.64	17.81	0.83
DMW-7I	I	21.90	20.59	1.31
DMW-8I	I	16.30	14.83	1.47
DMW-9I	I	11.40	8.77	2.63
MW-1[(1)]	I	10.69	NM	--
DMW-10I	I	10.27	7.29	2.98
DMW-11I	I	9.15	5.65	3.50
MW-14I	I	11.72	7.85	3.87

Table 4-1

Groundwater and Surface Water Levels and Elevations, March 24-25, 2014
Dump Road Area and Main Terminal Area
Lockheed Matin, Martin State Airport, Middle River, Maryland

Well ID	Aquifer Level	Elevation Top of PVC NAVD88 Feet	Depth to Groundwater Top of Well Casing 3/24/2014 Feet	Groundwater Elevation NAVD88 3/24/2014 Feet
MW-15I	I	8.79	5.89	2.90
MW-16I	I	10.06	7.54	2.52
MW-17I	I	7.68	5.60	2.08
MW-18I	I	8.91	8.17	0.74
MW-19I	I	7.90	6.16	1.74
MW-02	I	8.40	6.29	2.11
MW-20I	I	12.39	9.67	2.72
MW-21I	I	10.83	7.86	2.97
MW-22I	I	11.01	7.67	3.34
MW-23I	I	10.07	6.90	3.17
MW-24I	I	7.68	4.50	3.18
MW-25I	I	9.72	6.25	3.47
MW-26I	I	11.67	8.62	3.05
MW-28I	I	8.65	5.86	2.79
MW-30I	I	7.52	4.62	2.90
MW-32I	I	7.28	5.26	2.02
MW-33I	I	10.02	6.55	3.47
MW-34I	I	7.37	4.23	3.14
MW-40I	I	17.59	15.94	1.65
MW-41I	I	10.23	7.20	3.03
MW-42I	I	8.87	NM	--
MW-46I	I	11.19	10.97	0.22
MW-46D	I	11.67	11.15	0.52
MW-47I	I	11.94	11.64	0.30
MW-47D	I	12.04	11.68	0.36
MW-48I	I	19.94	19.13	0.81
MW-48D	I	20.12	19.26	0.86
MW-49I	I	19.59	19.24	0.35
MW-49D	I	19.60	19.01	0.59
MW-50I	I	12.64	11.85	0.79
MW-50D	I	13.12	12.44	0.68
MW-51I	I	9.61	8.89	0.72
MW-51D	I	9.55	9.01	0.54
MW-14D	DD	11.56	10.80	0.76
MW-27D	DD	8.39	1.98	6.41
MW-29D	DD	11.43	7.48	3.95
MW-30D	DD	8.26	3.50	4.76
MW-31D	DD	6.95	2.99	3.96
DMW-1B	D	12.04	9.54	2.50
DMW-2B	D	21.66	20.66	1.00
DMW-3D	D	16.46	15.52	0.94
DMW-4D	D	20.44	19.90	0.54
DMW-5D	D	21.38	20.78	0.60
DMW-6D	D	18.51	17.81	0.70
DMW-7D	D	21.94	20.62	1.32
DMW-8D	D	16.35	14.83	1.52
DMW-9D	D	11.41	9.37	2.04
MW-15D	D	8.77	5.89	2.88
MW-16D	D	10.22	7.71	2.51
MW-17D	D	7.56	4.89	2.67
MW-18D	D	8.88	8.06	0.82
MW-19D	D	7.94	6.13	1.81
MW-20D	D	12.40	10.55	1.85
MW-21D	D	10.78	8.49	2.29
MW-22D	D	11.02	8.15	2.87
MW-23D	D	10.03	7.43	2.60
MW-26D	D	11.66	8.31	3.35
MW-51D	D	9.55	9.01	0.54

Table 4-1

Groundwater and Surface Water Levels and Elevations, March 24-25, 2014
Dump Road Area and Main Terminal Area
Lockheed Matin, Martin State Airport, Middle River, Maryland

Well ID	Aquifer Level	Elevation Top of PVC NAVD88 Feet	Depth to Groundwater Top of Well Casing 3/24/2014 Feet	Groundwater Elevation NAVD88 3/24/2014 Feet
Main Terminal Wells				
MT-MW-01S	S	17.61	5.43	12.18
MT-MW-02S	S	17.76	4.69	13.07
MT-MW-03S	S	3.68	0.00	3.68
MT-MW-04S	S	12.59	3.72	8.87
MT-MW-05S	S	12.37	5.54	6.83
MT-MW-06S	S	6.79	1.65	5.14
MT-MW-07S	S	16.89	8.97	7.92
MT-MW-08S	S	18.19	10.03	8.16
MT-MW-09S	S	15.33	6.46	8.87
MT-MW-010S	S	15.1	12.16	2.94
MT-MW-011S	S	7.33	2.20	5.13
MT-MW-012S	S	7.55	2.79	4.76
MSA-Staff01-Removed	SW	4.69	2	2.69
MSA-Staff02 (POLICE STATION)	SW	6.83	2.4	4.43

1 Well has been sealed and abandoned in accordance with state regulations and is no longer in use
"--" - Not available or not measured
S - Upper surficial aquifer
I - Intermediate surficial aquifer
D - Lower surficial aquifer
DD - Deep confined aquifer or below the lower surficial aquifer
NAVD88 - North American Vertical Datum of 1988.
NAD83 - North American Datum of 1983
PVC - polyvinyl chloride

Table 4-2

Statistical Summary of Groundwater Sampling Results, 2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

Parameter	Frequency of Detection	Minimum Non-Detect	Maximum Non-Detect	Minimum Result	Maximum Result	Location of Max Detect	Average of Positive Results	Average of All Results	Standard Deviation
Volatile organic compounds (µg/L)									
1,1,1-TRICHLOROETHANE	7/107	0.22	220	1.3 J	100 J	MSA-DMW-07S	46.40	9.80	23.31
1,1-DICHLOROETHANE	7/107	0.15	150	0.42 J	49 J	MSA-DMW-07S	22.20	6.26	14.30
1,1-DICHLOROETHENE	25/107	0.19	190	0.81 J	220	MSA-DMW-04I	46.54	15.02	39.02
1,2,3-TRIMETHYLBENZENE	3/107	0.0059	5.9	10 J	52 J	MSA-DMW-09S	34.33	1.15	6.42
1,2,4-TRICHLOROBENZENE	13/107	0.15	150	1.8 J	740 J	MSA-MW-45S	146.85	21.40	86.65
1,2,4-TRIMETHYLBENZENE	3/107	0.12	120	8.6 J	100 J	MSA-DMW-09S	68.87	5.64	16.38
1,2-DICHLOROBENZENE	3/107	0.13	130	0.19 J	3	MSA-MW-16S	1.66	4.46	11.23
1,2-DICHLOROETHANE	31/107	0.22	220	0.27 J	430 J	MSA-MW-45S	39.34	16.64	50.18
1,3-DICHLOROBENZENE	4/107	0.14	140	0.15 J	170 J	MSA-MW-45S	43.19	5.80	19.35
1,3-DICHLOROPROPANE	1/107	0.16	160	0.59 J	0.59 J	MSA-DMW-10S	0.59	5.41	13.71
1,4-DICHLOROBENZENE	3/107	0.13	130	0.39 J	2.3	MSA-MW-44S	1.36	4.45	11.23
2-BUTANONE	1/107	0.57	570	2.2 J	2.2 J	MSA-MW-31D	2.20	19.21	48.97
ACETONE	7/107	1.1	1200	1.2 J	11	MSA-DMW-06S	5.01	38.99	98.44
BENZENE	31/107	0.13	130	0.15 J	310 J	MSA-DMW-09S	24.70	9.95	33.58
BROMODICHLOROMETHANE	1/107	0.15	150	3.6	3.6	MSA-MW-50D	3.60	5.09	12.82
CARBON DISULFIDE	6/107	0.13	130	0.19 J	0.81 J	MSA-MW-29D	0.37	4.47	11.23
CARBON TETRACHLORIDE	10/107	0.13	110	0.69 J	3100	DR-MW-54I	399.17	40.25	308.70
CHLOROBENZENE	22/107	0.15	150	0.21 J	370	MSA-MW-20S	58.21	16.01	48.20
CHLORODIBROMOMETHANE	1/107	0.18	180	0.31 J	0.31 J	MSA-MW-50D	0.31	6.10	15.50
CHLOROETHANE	2/107	0.29	290	1.2 J	10	MSA-MW-41I	5.60	9.93	24.98
CHLOROFORM	22/107	0.16	130	0.18 J	7200	DR-MW-54S	598.8	126.4	871.1
CIS-1,2-DICHLOROETHENE	81/107	0.17	4.3	0.2 J	37000	MSA-MW-45S	2176	1647	4852
DICHLORODIFLUOROMETHANE	1/107	0.31	310	0.49 J	0.49 J	MSA-DMW-10S	0.49	10.55	26.81
ETHYLBENZENE	6/107	0.17	170	0.31 J	1100	MSA-DMW-09S	259.42	19.75	113.67
M+P-XYLENES	6/107	0.24	240	1.2 J	13000	MSA-DMW-09S	3425	199	1444
METHYLENE CHLORIDE	10/107	0.33	3000	1.1 J	980 J	DR-MW-54I	220.37	47.06	189.63
NAPHTHALENE	1/107	0.24	240	120	120	MSA-MW-44S	120.00	9.24	23.31
O-XYLENE	7/107	0.14	140	0.75 J	900	MSA-DMW-09S	185.91	16.48	94.28
SEC-BUTYLBENZENE	1/107	0.13	130	1	1	MSA-DMW-10S	1.00	4.43	11.24
TERT-BUTYLBENZENE	1/107	0.13	130	0.74 J	0.74 J	MSA-DMW-10S	0.74	4.42	11.24
TERTIARY-BUTYL ALCOHOL	4/107	3.9	3900	21 J	400 J	MSA-DMW-01B	188.25	137.19	336.36
TETRACHLOROETHENE	1/107	0.29	290	5.8	5.8	MSA-MW-44S	5.80	9.89	24.98
TOLUENE	22/107	0.13	44	0.14 J	15000	DR-MW-54S	1055.5	218.5	1500.8

Table 4-2

Statistical Summary of Groundwater Sampling Results, 2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 2 of 5

Parameter	Frequency of Detection	Minimum Non-Detect	Maximum Non-Detect	Minimum Result	Maximum Result	Location of Max Detect	Average of Positive Results	Average of All Results	Standard Deviation
TOTAL XYLENES	7/107	0.14	140	2 J	14000	MSA-DMW-09S	3138.8	209.7	1547.1
TRANS-1,2-DICHLOROETHENE	34/107	0.19	190	0.23 J	260	MSA-DMW-03S	27.93	13.76	35.94
TRICHLOROETHENE	78/107	0.17	17	0.21 J	50000	MSA-MW-45S	3287.35	2396.55	6902.43
VINYL CHLORIDE	71/107	0.22	22	0.27 J	17000	MSA-MW-45S	895.14	594.13	1949.65
Volatile gases (µg/L)									
ETHANE	8/9	0.19	0.19	0.22 J	260 J	MSA-DMW-11S	45.4	40.3	84.3
ETHENE	9/9			1.6	2000	MSA-DMW-09S	270.1	270.1	653.4
METHANE	9/9			57	1000	MSA-DMW-11S	457.4	457.4	337.1
Tentatively identified compounds (µg/L)									
ACETALDEHYDE	1/1			1.8 NJ	1.8 NJ	MSA-MW-31D	1.80	1.80	
CARBONYL SULFIDE	1/1			9.1 NJ	9.1 NJ	MSA-MW-31D	9.1	9.1	
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	1/1			2.3 NJ	2.3 NJ	MSA-DMW-10S	2.3	2.3	
2-OCTANONE	1/1			7.6 NJ	7.6 NJ	MSA-MW-33I	7.6	7.6	
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	1/1			1.9 NJ	1.9 NJ	MSA-DMW-10S	1.9	1.9	
BUTANE, 2-METHYL-	1/1			3 NJ	3 NJ	MSA-DMW-10S	3	3	
CYCLOHEXANE	1/1			2.2 NJ	2.2 NJ	MSA-DMW-10S	2.2	2.2	
CYCLOHEXANE, METHYL-	1/1			2.8 NJ	2.8 NJ	MSA-DMW-10S	2.8	2.8	
CYCLOHEXANE, PROPYL-	1/1			1 NJ	1 NJ	MSA-DMW-10S	1	1	
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	1/1			1.1 NJ	1.1 NJ	MSA-DMW-10S	1.1	1.1	
DI-SEC-BUTYL ETHER	1/1			0.9 NJ	0.9 NJ	MSA-MW-23S	0.9	0.9	
FORMAMIDE, N-METHYLTHIO	1/1			0.78 NJ	0.78 NJ	MSA-MW-21D	0.78	0.78	
N-BUTYL ETHER	1/1			1.3 NJ	1.3 NJ	MSA-DMW-10S	1.3	1.3	
PENTANE, 2,2,4-TRIMETHYL-	1/1			1.1 NJ	1.1 NJ	MSA-MW-50I	1.1	1.1	
PENTANE, 2,3,3-TRIMETHYL-	1/1			1.5 NJ	1.5 NJ	MSA-DMW-10S	1.5	1.5	
PENTANE, 2-METHYL-	1/1			2.6 NJ	2.6 NJ	MSA-DMW-10S	2.6	2.6	
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	2/2			2.8 NJ	4 NJ	MSA-MW-44S	3.40	3.40	0.85
Semivolatile organic compounds (µg/L)									
1,1-BIPHENYL	1/7	0.13	2.5	0.18 J	0.18 J	DR-MW-54I	0.18	0.54	0.43
1,4-DIOXANE	72/107	0.23	0.77	0.43 J	1000	MSA-MW-45S	107.2	72.2	154.5
2,4-DIMETHYLPHENOL	2/7	0.24	4.9	0.78 J	10 J	DR-MW-54S	5.39	2.31	3.47
2-METHYLNAPHTHALENE	3/7	0.35	1.8	0.16 J	2.1 J	DR-MW-52I	1.39	0.87	0.82
2-METHYLPHENOL	3/7	0.67	3.3	0.61 J	350	DR-MW-54S	117.8	51.0	131.9
3&4-METHYLPHENOL	3/7	3.1	16	1.8 J	410	DR-MW-54S	138.4	61.8	153.6
4-NITROPHENOL	1/7	0.28	5.6	1.7 J	1.7 J	DR-MW-54I	1.70	1.38	0.90

Table 4-2

Statistical Summary of Groundwater Sampling Results, 2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

Parameter	Frequency of Detection	Minimum Non-Detect	Maximum Non-Detect	Minimum Result	Maximum Result	Location of Max Detect	Average of Positive Results	Average of All Results	Standard Deviation
ACENAPHTHENE	1/7	0.043	0.86	1.5	1.5	DR-MW-52S	1.50	0.37	0.52
ACETOPHENONE	2/7	0.33	6.6	4.7	7.4 J	DR-MW-54S	6.05	2.77	2.58
CAPROLACTAM	1/7	0.19	3.9	7.6 J	7.6 J	DR-MW-54S	7.60	1.74	2.67
DIBENZOFURAN	1/7	0.02	0.39	0.34 J	0.34 J	DR-MW-54I	0.34	0.13	0.11
DIETHYL PHTHALATE	1/7	0.59	12	1 J	1 J	DR-MW-54I	1.00	2.54	2.00
FLUORENE	2/7	0.039	0.79	0.2	1.1 J	DR-MW-52S	0.65	0.33	0.36
NAPHTHALENE	5/7	0.25	0.41	1	8.3	DR-MW-54S	5.48	3.96	3.55
PHENANTHRENE	2/7	0.06	1.2	0.18 J	0.76 J	DR-MW-52S	0.47	0.35	0.26
PHENOL	3/7	2.4	12	0.82 J	23	DR-MW-54S	10.44	6.30	7.77
Metals (µg/L)									
ANTIMONY	11/107	0.11	4.2	0.49 J	4.9 J	DR-MW-54S	2.00	0.41	0.78
ARSENIC	85/107	0.11	3.2	0.13 J	52	MSA-MW-47I	8.23	6.69	9.01
BARIUM	102/107	4.4	30	5.6	360	MSA-MW-42S	41.78	40.27	42.51
BERYLLIUM	54/107	0.031	1.3	0.067 J	9.7	MSA-MW-49D	2.24	1.19	1.99
CADMIUM	74/107	0.026	0.42	0.03 J	4700	MSA-MW-45S	115.8	80.1	476.1
CALCIUM	9/9			8800	340000	MSA-MW-48S	95311	95311	104306
CHROMIUM	99/107	0.13	1.5	0.16 J	9300	MSA-MW-45S	102.88	95.22	898.42
COBALT	103/107	0.028	0.29	0.15 J	490	MSA-DMW-02A	73.3	70.6	99.7
COPPER	58/107	0.24	11	0.24 J	650	MSA-DMW-05S	57.5	31.6	87.0
IRON	97/100	25	90	76 J	160000	MSA-MW-24S	19259	18682	29222
LEAD	49/107	0.14	7.3	0.14 J	29	MSA-DMW-07D	3.92	1.99	4.21
MAGNESIUM	9/9			6500	130000	MSA-MW-18I	41722	41722	37048
MANGANESE	98/100	2.4	2.4	6.6	8200	MSA-MW-06	1930	1892	2154
MANGANESE	98/100	2.4	2.4	6.6	8200	MSA-MW-16S	1930	1892	2154
MERCURY	13/107	0.12	0.12	0.14 J	4	MSA-DMW-04D	1.00	0.17	0.49
MOLYBDENUM	35/107	0.81	2.6	0.87 J	45	MSA-MW-50D	3.39	1.40	4.39
NICKEL	103/107	0.37	0.98	0.49 J	550	MSA-MW-24S	52.75	50.79	75.04
POTASSIUM	9/9			910 J	29000	MSA-MW-18I	9523	9523	8796
SELENIUM	74/107	0.34	8.2	0.34 J	84	MSA-MW-24S	10.17	7.23	16.01
SILICON DIOXIDE	9/9			3000	45000	MSA-DMW-09I	16533	16533	13814
SILVER	12/107	0.0083	4.4	0.009 J	0.59 J	MSA-MW-30D	0.15	0.11	0.33
SODIUM	9/9			8100	330000	MSA-MW-18I	102233	102233	100309
THALLIUM	6/107	0.4	10	0.4 J	1.1 J	MSA-MW-41I	0.66	0.52	0.85
VANADIUM	58/107	0.15	11	0.18 J	130	MSA-MW-24S	9.40	5.65	14.84

Table 4-2

Statistical Summary of Groundwater Sampling Results, 2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 4 of 5

Parameter	Frequency of Detection	Minimum Non-Detect	Maximum Non-Detect	Minimum Result	Maximum Result	Location of Max Detect	Average of Positive Results	Average of All Results	Standard Deviation
ZINC	7/7			33 J	910	DR-MW-54I	388.0	388.0	349.3
Dissolved metals (µg/L)									
ANTIMONY	7/107	0.11	4.2	0.4 J	3.8 J	DR-MW-52S	1.49	0.28	0.55
ARSENIC	75/107	0.063	3.2	0.11 J	33	MSA-MW-39S	7.2	5.2	6.3
BARIUM	98/107	2.6	26	5.1	360	MSA-MW-42S	39.9	37.1	42.5
BERYLLIUM	49/107	0.031	1.2	0.041 J	13	MSA-MW-49I	2.33	1.12	2.06
CADMIUM	62/107	0.026	0.66	0.033 J	4700	MSA-MW-45S	131.3	76.1	473.7
CHROMIUM	89/107	0.13	1.1	0.15 J	9300	MSA-MW-45S	108.9	90.6	898.8
COBALT	102/107	0.02	0.56	0.029 J	490	MSA-DMW-02A	74.87	71.38	101.87
COPPER	47/107	0.24	7.3	0.31 J	290	MSA-MW-24S	27.79	12.67	33.56
IRON	88/100	12	95	110	160000	MSA-MW-24S	20115	17703	29125
LEAD	26/107	0.14	4.3	0.15 J	9.7	MSA-DMW-07I	2.61	0.78	1.52
MANGANESE	97/100	1.9	3.2	2.6 J	8400 J	MSA-DMW-07S	1987	1928	2201
MERCURY	5/107	0.12	0.12	0.14 J	0.4	MSA-DMW-06D	0.25	0.07	0.04
MOLYBDENUM	23/107	0.81	2.6	0.88 J	43	MSA-MW-50D	4.01	1.20	4.19
NICKEL	105/107	0.21	0.45	1.2 J	560	MSA-MW-24S	51.77	50.80	75.63
SELENIUM	72/107	0.34	8.2	0.34 J	86	MSA-MW-24S	8.84	6.15	13.26
SILVER	5/107	0.0083	4.4	0.009 J	0.076 J	MSA-MW-30D	0.03	0.09	0.33
THALLIUM	3/107	0.4	4.7	0.94 J	2.3 J	MSA-MW-18S	1.68	0.46	0.62
VANADIUM	47/107	0.15	5.1	0.23 J	120	MSA-MW-24S	7.09	3.53	12.74
ZINC	7/7			35 J	870	DR-MW-54I	370.9	370.9	336.7
Miscellaneous parameters (ug/L)									
HEXAVALENT CHROMIUM (ug/L)	9/30	0.04	10	0.028 J	0.753 J	MSA-MW-30D	0.19	0.93	1.86
Miscellaneous parameters (mg/L)									
ALKALINITY	8/9	1.9	1.9	4.4 J	420	MSA-DMW-09S	183.3	163.0	165.8
AMMONIA-N	8/9	0.092	0.092	0.25	9	MSA-MW-18S	2.54	2.27	2.94
CALCIUM HARDNESS AS CACO3	9/9			22	850	MSA-MW-48S	241.9	241.9	260.7
CHLORIDE	9/9			19 J	400	MSA-MW-18S	143.6	143.6	123.8
DISSOLVED ORGANIC CARBON	9/9			2	25	MSA-MW-18S	10.28	10.28	8.41
HARDNESS AS CACO3	9/9			49	1000	MSA-MW-48S	405.44	405.44	336.55
MAGNESIUM HARDNESS AS CACO3	9/9			27	470	MSA-MW-18I	167	167	133.9
NITRATE-N	2/7	0.023	0.023	0.36	1.1	MSA-MW-48I	0.73	0.22	0.41
NITRITE-N	1/9	0.012	0.012	0.29	0.29	MSA-MW-48I	0.29	0.04	0.09
ORTHOPHOSPHATE-P	4/7	0.044	0.044	0.42 J	1.5	MSA-MW-48I	0.91	0.53	0.57

Table 4-2

Statistical Summary of Groundwater Sampling Results, 2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 5 of 5

Parameter	Frequency of Detection	Minimum Non-Detect	Maximum Non-Detect	Minimum Result	Maximum Result	Location of Max Detect	Average of Positive Results	Average of All Results	Standard Deviation
PERCHLORATE (ug/L)	18/37	0.082	0.082	0.083 J	4.8	MSA-DMW-04D	0.75	0.39	1.03
SULFATE	9/9			65 J	1100	MSA-MW-18S	378.3	378.3	344.1
TOTAL DISSOLVED SOLIDS	9/9			180	2200	MSA-MW-18S	920.0	920.0	637.8
Total petroleum hydrocarbons (µg/L)									
GASOLINE RANGE ORGANICS	42/49	25	100	26 J	52000 J	DR-MW-54S	4326.7	3711.5	10023.7
DIESEL RANGE ORGANICS	25/49	210	270	470 J	3200	DR-MW-52S	1420.4	783.2	871.9
Radionuclides (pCi/L)									
RADIUM-228	8/10	0.217	0.531	0.712 J	9.91	MSA-DMW-06I	4.33	3.50	3.93
TOTAL RADIUM	8/10	0.0394	0.164	0.394 J	3.45	MSA-DMW-03D	1.67	1.35	1.32

µg/L - micrograms per liter
mg/L - milligrams per liter
pCi/L - picoCuries per liter

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 1 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-01A MSA-DMW-1A-041014 20140410	MSA-DMW-01B MSA-DMW-1B-041014 20140410	MSA-DMW-01S MSA-DMW-1S-050114 20140501	MSA-DMW-02A MSA-DMW-2A-042414 20140424	MSA-DMW-02B MSA-DMW-2B-042214 20140422	MSA-DMW-02S MSA-DMW-2S-042314 20140423
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	30 J	--	6.3 J
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	270	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	--	--	74 J	--	6.5 J
1,3-DICHLOROBENZENE	2	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	2.1 J	--	--	--
BENZENE	5	--	14 J	--	21 J	--	12
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--
CHLOROBENZENE	100	--	--	--	--	--	7.4 J
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	40 J	--	2.8 J
CIS-1,2-DICHLOROETHENE	70	2900	1700	--	4000	5.2	670
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--
METHYLENE CHLORIDE	5	150 J	--	--	--	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	400 J	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	100 J	--	--	--	--	--
TOTAL XYLENES	10000	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	12 J	--	--	0.39 J	3.5 J
TRICHLOROETHENE	5	4800	970	--	10000	1.9	870
VINYL CHLORIDE	2	1000	1500	--	990	--	340
Volatile Gasses (µg/L)							
ETHANE	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 2 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-01A MSA-DMW-1A-041014 20140410	MSA-DMW-01B MSA-DMW-1B-041014 20140410	MSA-DMW-01S MSA-DMW-1S-050114 20140501	MSA-DMW-02A MSA-DMW-2A-042414 20140424	MSA-DMW-02B MSA-DMW-2B-042214 20140422	MSA-DMW-02S MSA-DMW-2S-042314 20140423
ETHENE	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	180	56	--	450	--	310
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	--	--	0.71 J	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 3 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-01A MSA-DMW-1A-041014 20140410	MSA-DMW-01B MSA-DMW-1B-041014 20140410	MSA-DMW-01S MSA-DMW-1S-050114 20140501	MSA-DMW-02A MSA-DMW-2A-042414 20140424	MSA-DMW-02B MSA-DMW-2B-042214 20140422	MSA-DMW-02S MSA-DMW-2S-042314 20140423
ARSENIC	10	3.9 J	26	--	4.8 J	1.2 J	3 J
BARIUM	2000	13	18	20	12	22	17
BERYLLIUM	4	--	--	--	1.8	0.18 J	0.93 J
CADMIUM	5	1400	280	0.5 J	650	--	77
CALCIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	120	43	--	20	17	2.8
COBALT	NA	56	28	--	490	4.5	75
COPPER	1300	12	19	--	34	14	10
IRON	300	9300	36000	150	32000	1900	3900
LEAD	15	--	2.3	0.96 J	3.7	6.9	0.19 J
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	2300	3000	6.6	8000	40	2200
MERCURY	2	--	0.53	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	--	1.4 J
NICKEL	73	180	50	--	140	7.1	35
POTASSIUM	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	4 J	2.2 J	--	16	--	7.5
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	--	--	--	--	0.009 J
SODIUM	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	--	--	1.1 J	9.5	6.5	--
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	--	--	0.74 J	--	--	--
ARSENIC	10	3.8 J	8.5	--	4.5 J	--	2.4 J
BARIUM	2000	13	16	22	11	11	19
BERYLLIUM	4	--	--	--	1.8	0.041 J	0.74 J
CADMIUM	5	1300	280	0.54 J	650	--	32
CHROMIUM	100	96	7.5	--	5.2	3.2	2.8
COBALT	NA	56	29	--	490	1.5	85
COPPER	1300	18	15	4.8	33	6.8	--
IRON	300	9900	28000	--	32000	370	4100 J
LEAD	15	--	--	--	3.8	1.5	--
MANGANESE	50	2300	3300	2.6 J	8000	11	2400
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	--	1.4 J
NICKEL	73	180	53	1.6 J	140	3.5	39
SELENIUM	50	4.3 J	1.5 J	--	16	--	5.6
SILVER	100	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 4 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-01A MSA-DMW-1A-041014 20140410	MSA-DMW-01B MSA-DMW-1B-041014 20140410	MSA-DMW-01S MSA-DMW-1S-050114 20140501	MSA-DMW-02A MSA-DMW-2A-042414 20140424	MSA-DMW-02B MSA-DMW-2B-042214 20140422	MSA-DMW-02S MSA-DMW-2S-042314 20140423
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	--	--	0.87 J	7.9	1.1 J	--
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	0.076 J	NA	0.125 J	NA	NA	NA
PERCHLORATE	2.6	NA	NA	NA	0.11 J	NA	--
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	NA	NA	--	NA	NA	740
DIESEL-RANGE ORGANICS	47	NA	NA	--	NA	NA	2200
Radionuclides (pCi/L)							
RADIUM-228	5	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	5	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 5 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-03 MSA-MW-3-042114 20140421	MSA-DMW-03D MSA-DMW-3D-042214 20140422	MSA-DMW-03I MSA-DMW-3I-042214 20140422	MSA-DMW-03S MSA-DMW-3S-042214 20140422	MSA-MW-04 MSA-MW-4-041614 20140416	MSA-DMW-04D MSA-DMW-4D-042314 20140423
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	--	38 J	--	--	25 J
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	370	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	--	60 J	--	--	--
1,3-DICHLOROBENZENE	2	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--
BENZENE	5	--	--	--	--	0.19 J	--
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--
CHLOROBENZENE	100	--	--	--	--	--	--
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	95	0.46 J	8200	920	--	630
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--
METHYLENE CHLORIDE	5	1.1 J	--	--	--	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	--	--	72 J	14 J	--	12 J
TOTAL XYLENES	10000	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	--	--	260	--	14 J
TRICHLOROETHENE	5	9.9	4.5	13000	15 J	--	5400
VINYL CHLORIDE	2	3.8	--	2800	2500	--	55 J
Volatile Gasses (µg/L)							
ETHANE	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 6 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-03 MSA-MW-3-042114 20140421	MSA-DMW-03D MSA-DMW-3D-042214 20140422	MSA-DMW-03I MSA-DMW-3I-042214 20140422	MSA-DMW-03S MSA-DMW-3S-042214 20140422	MSA-MW-04 MSA-MW-4-041614 20140416	MSA-DMW-04D MSA-DMW-4D-042314 20140423
ETHENE	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	9.2	--	420	440	--	48
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	--	--	--	--	2.1	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 7 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-03 MSA-MW-3-042114 20140421	MSA-DMW-03D MSA-DMW-3D-042214 20140422	MSA-DMW-03I MSA-DMW-3I-042214 20140422	MSA-DMW-03S MSA-DMW-3S-042214 20140422	MSA-MW-04 MSA-MW-4-041614 20140416	MSA-DMW-04D MSA-DMW-4D-042314 20140423
ARSENIC	10	1.1 J	1.5 J	5.1	7.8	--	23
BARIUM	2000	52	77	12	54	25	27 J
BERYLLIUM	4	0.078 J	0.97 J	0.14 J	--	--	5.2
CADMIUM	5	0.38 J	0.71 J	120	6.2	12	26
CALCIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	0.92 J	2.5	2.6	2.3	0.68 J	8.7
COBALT	NA	2.1	94	210	0.61 J	0.81 J	160
COPPER	1300	10	--	5.3	7.8	19	70
IRON	300	1100	870	47000	1200	740	2700
LEAD	15	--	1.3	--	1.5	1	2.9
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	92	600	5000	190	320	5600
MERCURY	2	--	--	--	--	--	4
MOLYBDENUM	NA	1.7 J	--	--	3.1 J	2.2 J	0.92 J
NICKEL	73	4.1	89	73	1.2 J	41	120
POTASSIUM	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	--	1.3 J	7.4	--	0.42 J	70
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	--	--	--	0.14 J	0.06 J
SODIUM	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	0.97 J	2.6 J	6.8	1.3 J	--	7.7
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--
ARSENIC	10	1.1 J	1.2 J	5.3	9.4	--	16
BARIUM	2000	61	74	11	58	25	18
BERYLLIUM	4	--	0.91 J	0.13 J	--	--	4.4
CADMIUM	5	0.24 J	--	110	0.94 J	11	24
CHROMIUM	100	0.66 J	1.2 J	2.3	1.2 J	0.44 J	1.8 J
COBALT	NA	4.1	91	220	--	0.79 J	150
COPPER	1300	--	--	5.1	--	15	70
IRON	300	1700	710	49000	200	250	450 J
LEAD	15	--	--	--	--	--	0.72 J
MANGANESE	50	210	600	5200	170	320	5400
MERCURY	2	--	--	--	--	--	0.3
MOLYBDENUM	NA	1.3 J	--	--	4.6 J	2.2 J	--
NICKEL	73	5.4	89	76	1.3 J	42	110
SELENIUM	50	--	1.2 J	7.6	--	0.36 J	60
SILVER	100	--	--	--	--	--	0.013 J

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 8 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-03 MSA-MW-3-042114 20140421	MSA-DMW-03D MSA-DMW-3D-042214 20140422	MSA-DMW-03I MSA-DMW-3I-042214 20140422	MSA-DMW-03S MSA-DMW-3S-042214 20140422	MSA-MW-04 MSA-MW-4-041614 20140416	MSA-DMW-04D MSA-DMW-4D-042314 20140423
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	0.35 J	1.3 J	5.9	1.2 J	--	0.37 J
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	NA	NA	NA	--	NA	NA
PERCHLORATE	2.6	NA	NA	NA	NA	NA	4.8
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	92 J	NA	NA	680 J	--	NA
DIESEL-RANGE ORGANICS	47	--	NA	NA	890	--	NA
Radionuclides (pCi/L)							
RADIUM-228	5	0.857 J	4.29	9.15	NA	NA	NA
TOTAL RADIUM	5	0.914	3.45	3.34	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 9 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-04I MSA-DMW-4I-042314 20140423	MSA-DMW-04S MSA-DMW-4S-042314 20140423	MSA-MW-05 MSA-MW5-040714 20140407	MSA-DMW-05I MSA-DMW-5I-041814 20140418	MSA-DMW-05S MSA-DMW-5S-041814 20140418	MSA-MW-06 MSA-MW-6-041014 20140410
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	96	--	--	--	--	--
1,1-DICHLOROETHANE	90	34 J	4.7 J	--	--	--	--
1,1-DICHLOROETHENE	7	220	16	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	14	--	--	--	--
1,3-DICHLOROBENZENE	2	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--
BENZENE	5	--	--	--	--	--	--
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--
CHLOROBENZENE	100	--	--	--	0.72 J	--	--
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	2200	110	4000	54	1200	0.35 J
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--
METHYLENE CHLORIDE	5	--	--	--	2.2 J	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	--	--	--	--	--	--
TOTAL XYLENES	10000	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	28 J	--	72 J	2.2 J	--	--
TRICHLOROETHENE	5	6200	1200	--	93	7000	--
VINYL CHLORIDE	2	750	20	800	8.4	35 J	--
Volatile Gasses (µg/L)							
ETHANE	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 10 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-04I MSA-DMW-4I-042314 20140423	MSA-DMW-04S MSA-DMW-4S-042314 20140423	MSA-MW-05 MSA-MW5-040714 20140407	MSA-DMW-05I MSA-DMW-5I-041814 20140418	MSA-DMW-05S MSA-DMW-5S-041814 20140418	MSA-MW-06 MSA-MW-6-041014 20140410
ETHENE	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	71	34	7.9	3.8	20	0.93 J
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 11 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-04I MSA-DMW-4I-042314 20140423	MSA-DMW-04S MSA-DMW-4S-042314 20140423	MSA-MW-05 MSA-MW5-040714 20140407	MSA-DMW-05I MSA-DMW-5I-041814 20140418	MSA-DMW-05S MSA-DMW-5S-041814 20140418	MSA-MW-06 MSA-MW-6-041014 20140410
ARSENIC	10	11	5.2	2.3 J	7	16	--
BARIUM	2000	29	20	18	16	--	9.6
BERYLLIUM	4	5.1	1.8	--	2.4	4	--
CADMIUM	5	33	61	--	5.1	6.9	1.9
CALCIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	29	9.1	0.3 J	10	90	0.91 J
COBALT	NA	70	76	0.15 J	77	65	46
COPPER	1300	170	20	--	150	650	3.5
IRON	300	52000	23000	29000 J	28000	23000	70000
LEAD	15	6.3	6.6	--	4	--	--
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	5200	5500	1500 J	1900	3600	8200
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	2.1 J	--	2.3 J	--	2.2 J	--
NICKEL	73	59	35	--	75	60	32
POTASSIUM	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	23	9.5	0.47 J	24	33	2.2 J
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA
SILVER	100	0.35 J	0.043 J	--	--	--	--
SODIUM	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	21	8.3	--	--	9.3	10
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--
ARSENIC	10	7.4	4.5 J	2.3 J	7.6	15	--
BARIUM	2000	12	13	19	16	--	10
BERYLLIUM	4	4.7	1.5	--	2.6	4.1	--
CADMIUM	5	14	20	--	5.3	3.8	1.8
CHROMIUM	100	4.8 J	1.4 J	0.3 J	6.5	20	0.69 J
COBALT	NA	76	79	0.29 J	85	68	49
COPPER	1300	60	5.5	--	52	42	--
IRON	300	54000 J	23000 J	29000 J	31000	22000	68000
LEAD	15	2.2	1.6	--	3.4	--	--
MANGANESE	50	5800	6000	1500 J	2100	3500	8200
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	2.3 J	--	--	--
NICKEL	73	58	35	1.8 J	84	64	37
SELENIUM	50	19	9.5	--	27	32	2.1 J
SILVER	100	0.018 J	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-04I MSA-DMW-4I-042314 20140423	MSA-DMW-04S MSA-DMW-4S-042314 20140423	MSA-MW-05 MSA-MW5-040714 20140407	MSA-DMW-05I MSA-DMW-5I-041814 20140418	MSA-DMW-05S MSA-DMW-5S-041814 20140418	MSA-MW-06 MSA-MW-6-041014 20140410
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	13	0.95 J	--	--	8	--
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	NA	NA	NA	NA	NA	NA
PERCHLORATE	2.6	0.96	NA	NA	--	NA	NA
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	NA	500	980 J	NA	3500 J	--
DIESEL-RANGE ORGANICS	47	NA	--	--	NA	--	--
Radionuclides (pCi/L)							
RADIUM-228	5	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	5	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 13 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-06D MSA-DMW-6D-042414 20140424	MSA-DMW-06I MSA-DMW-6I-042414 20140424	MSA-DMW-06S MSA-DMW-6S-050114 20140501	MSA-DMW-07D MSA-DMW-7D-041614 20140416	MSA-DMW-07I MSA-DMW-7I-041614 20140416	MSA-DMW-07S MSA-DMW7S-040714 20140407
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	--	--	--	--	4.5 J	100 J
1,1-DICHLOROETHANE	90	--	--	--	--	--	49 J
1,1-DICHLOROETHENE	7	--	--	--	--	1.3 J	98 J
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	--	--	--	2.5 J	--
1,3-DICHLOROBENZENE	2	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	11	--	--	--
BENZENE	5	--	--	--	--	0.76 J	--
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--
CHLOROBENZENE	100	--	--	--	--	5.1 J	--
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	--	--	2.9	--	360	14000
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--
METHYLENE CHLORIDE	5	--	--	--	--	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	--	--	--	--	--	30 J
TOTAL XYLENES	10000	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	--	--	--	9	100 J
TRICHLOROETHENE	5	--	--	0.58 J	--	270	3600
VINYL CHLORIDE	2	--	--	--	--	87	2100
Volatile Gasses (µg/L)							
ETHANE	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-06D MSA-DMW-6D-042414 20140424	MSA-DMW-06I MSA-DMW-6I-042414 20140424	MSA-DMW-06S MSA-DMW-6S-050114 20140501	MSA-DMW-07D MSA-DMW-7D-041614 20140416	MSA-DMW-07I MSA-DMW-7I-041614 20140416	MSA-DMW-07S MSA-DMW7S-040714 20140407
ETHENE	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	--	--	0.55 J	--	12	96
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-06D MSA-DMW-6D-042414 20140424	MSA-DMW-06I MSA-DMW-6I-042414 20140424	MSA-DMW-06S MSA-DMW-6S-050114 20140501	MSA-DMW-07D MSA-DMW-7D-041614 20140416	MSA-DMW-07I MSA-DMW-7I-041614 20140416	MSA-DMW-07S MSA-DMW7S-040714 20140407
ARSENIC	10	--	1.5 J	7	--	9.1	2.9 J
BARIUM	2000	56	14	43	41	26	12
BERYLLIUM	4	0.71 J	4	--	0.69 J	5	0.42 J
CADMIUM	5	0.77 J	5.9	--	1.1	22	0.48 J
CALCIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	2	43	1 J	24	14	0.37 J
COBALT	NA	34	61	5.2	11	94	17 J
COPPER	1300	22	78	--	30	370	--
IRON	300	2000	28000	150000	5500	29000	24000 J
LEAD	15	2.8	2.3	--	29	15	--
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	990	4200	1400	37	3100	8100 J
MERCURY	2	1.6	0.4	--	0.25	--	--
MOLYBDENUM	NA	--	2 J	--	--	2.9 J	--
NICKEL	73	38	58	38	21	80	17 J
POTASSIUM	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	3.4 J	4 J	0.77 J	--	22	3.6 J
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	--	--	--	0.2 J	--
SODIUM	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	1.6 J	--	1.2 J	--	15	--
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--
ARSENIC	10	--	1.3 J	6.2	--	8.6	2.8 J
BARIUM	2000	53	11	38	40	14	12
BERYLLIUM	4	0.65 J	3.5	--	0.55 J	4.8	0.42 J
CADMIUM	5	0.73 J	4.3	--	1	18	0.49 J
CHROMIUM	100	0.53 J	15	--	1.5 J	6.1	0.35 J
COBALT	NA	34	53	5	10	100	17 J
COPPER	1300	27	31	--	27	38	--
IRON	300	1600	24000	140000	130	31000	25000 J
LEAD	15	2.3	1.5	--	6.5	9.7	--
MANGANESE	50	1000	3700	1300	35	3400	8400 J
MERCURY	2	0.4	0.14 J	--	0.17 J	--	--
MOLYBDENUM	NA	--	--	--	--	--	--
NICKEL	73	39	50	2.6 J	19	84	18 J
SELENIUM	50	3.2 J	3.3 J	0.75 J	--	22	3.6 J
SILVER	100	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 16 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-06D MSA-DMW-6D-042414 20140424	MSA-DMW-06I MSA-DMW-6I-042414 20140424	MSA-DMW-06S MSA-DMW-6S-050114 20140501	MSA-DMW-07D MSA-DMW-7D-041614 20140416	MSA-DMW-07I MSA-DMW-7I-041614 20140416	MSA-DMW-07S MSA-DMW7S-040714 20140407
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	--	0.23 J	0.45 J	--	14	--
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	NA	NA	--	NA	NA	NA
PERCHLORATE	2.6	0.12 J	NA	NA	NA	--	NA
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	NA	NA	--	NA	NA	5400 J
DIESEL-RANGE ORGANICS	47	NA	NA	1400	NA	NA	550
Radionuclides (pCi/L)							
RADIUM-228	5	7.56	9.91	0.712 J	NA	NA	NA
TOTAL RADIUM	5	2.25	2.04	0.41 J	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 17 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-08I MSA-DMW-8I-041614 20140416	MSA-DMW-09D MSA-DMW-9D-042414 20140424	MSA-DMW-09I MSA-DMW-9I-042814 20140428	MSA-DMW-09S MSA-DMW-9S-042814 20140428	MSA-DMW-10I MSA-DMW-10I-041014 20140410	MSA-DMW-10S MSA-DMW-10S-041014 20140410
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	2 J	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	52 J	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	100 J	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	1.8
1,2-DICHLOROETHANE	5	5.3 J	--	--	--	--	0.47 J
1,3-DICHLOROBENZENE	2	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	0.59 J
1,4-DICHLOROBENZENE	75	--	--	--	--	--	0.39 J
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--
BENZENE	5	2.7 J	--	25 J	310 J	--	2
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	18 J	--	0.69 J	--
CHLOROBENZENE	100	--	--	--	190 J	--	--
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	--	--	--
CHLOROFORM	80	2.3 J	140	--	--	0.69 J	--
CIS-1,2-DICHLOROETHENE	70	440	360	2500	9400	5.5	--
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	0.49 J
ETHYLBENZENE	700	--	--	--	1100	--	--
M+P-XYLENES	NA	--	--	--	13000	--	--
METHYLENE CHLORIDE	5	--	--	51 J	300 J	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	900	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	1
TERT-BUTYLBENZENE	NA	--	--	--	--	--	0.74 J
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	--	--	--	3000	--	--
TOTAL XYLENES	10000	--	--	--	14000	--	--
TRANS-1,2-DICHLOROETHENE	100	2.2 J	--	--	--	--	1.1
TRICHLOROETHENE	5	640	2500	800	130 J	12	0.25 J
VINYL CHLORIDE	2	220	35 J	740	8800	0.42 J	21
Volatile Gasses (µg/L)							
ETHANE	NA	NA	--	8.1	46	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-08I MSA-DMW-8I-041614 20140416	MSA-DMW-09D MSA-DMW-9D-042414 20140424	MSA-DMW-09I MSA-DMW-9I-042814 20140428	MSA-DMW-09S MSA-DMW-9S-042814 20140428	MSA-DMW-10I MSA-DMW-10I-041014 20140410	MSA-DMW-10S MSA-DMW-10S-041014 20140410
ETHENE	NA	NA	7.6	66	2000	NA	NA
METHANE	NA	NA	220	660	850	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	2.3 NJ
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	1.9 NJ
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	3 NJ
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	2.2 NJ
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	2.8 NJ
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	1 NJ
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	1.1 NJ
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	1.3 NJ
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	1.5 NJ
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	2.6 NJ
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	55	48	220	30	0.99	11
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	--	--	1.5 J	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-08I MSA-DMW-8I-041614 20140416	MSA-DMW-09D MSA-DMW-9D-042414 20140424	MSA-DMW-09I MSA-DMW-9I-042814 20140428	MSA-DMW-09S MSA-DMW-9S-042814 20140428	MSA-DMW-10I MSA-DMW-10I-041014 20140410	MSA-DMW-10S MSA-DMW-10S-041014 20140410
ARSENIC	10	17	3.5 J	13	1.9 J	4.1 J	18
BARIUM	2000	16	41	68	91	18	22
BERYLLIUM	4	8.5	0.52 J	1.9	--	--	--
CADMIUM	5	130	--	3	--	0.12 J	--
CALCIUM	NA	NA	8800	58000	82000	NA	NA
CHROMIUM	100	40	1.1 J	30	2.7	3.5	2.8
COBALT	NA	180	300	280	--	1.2	3.2
COPPER	1300	110	8.7	47	--	3.9	--
IRON	300	11000	13000	8900	29000	1300	46000
LEAD	15	6.9	1.8	23	--	1.8	--
MAGNESIUM	NA	NA	6500	29000	59000	NA	NA
MANGANESE	50	6200	2200	4200	3400	23	1300
MERCURY	2	--	--	0.96	--	0.14 J	--
MOLYBDENUM	NA	1.7 J	--	2.9 J	--	1.4 J	--
NICKEL	73	130	41	80	--	2.4	0.87 J
POTASSIUM	NA	NA	910 J	12000	11000	NA	NA
SELENIUM	50	43	0.67 J	7.8	1.3 J	0.41 J	0.57 J
SILICON DIOXIDE	NA	NA	9100	45000	5500	NA	NA
SILVER	100	--	--	--	--	--	--
SODIUM	NA	NA	32000	91000	160000	NA	NA
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	--	1.8 J	46	11	11	--
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--
ARSENIC	10	16	3.6 J	3.6 J	1.7 J	4.3 J	18
BARIUM	2000	11	42	36	90	16	21
BERYLLIUM	4	8.3	0.63 J	1.2	--	--	--
CADMIUM	5	98	--	0.96 J	--	--	--
CHROMIUM	100	4.1 J	0.55 J	2.7	1.3 J	1.8 J	0.97 J
COBALT	NA	180 J	310	270	--	1.1	3.3
COPPER	1300	42 J	--	7	--	--	--
IRON	300	10000 J	13000	2400	27000	1000	48000
LEAD	15	6.6 J	1.4	2.1	--	--	--
MANGANESE	50	6400 J	2300	4800	3300	22	1300
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	1.4 J	--
NICKEL	73	130 J	43	70	--	2.5	2.6
SELENIUM	50	42	0.74 J	5	0.97 J	0.41 J	0.47 J
SILVER	100	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-08I MSA-DMW-8I-041614 20140416	MSA-DMW-09D MSA-DMW-9D-042414 20140424	MSA-DMW-09I MSA-DMW-9I-042814 20140428	MSA-DMW-09S MSA-DMW-9S-042814 20140428	MSA-DMW-10I MSA-DMW-10I-041014 20140410	MSA-DMW-10S MSA-DMW-10S-041014 20140410
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	--	1 J	3.5 J	11	10	--
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	7.6	160	420	NA	NA
AMMONIA-N	NA	NA	--	4.8	2.1	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	22	140	210	NA	NA
CHLORIDE	NA	NA	51	130	180	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	2.3	7.8	22	NA	NA
HARDNESS AS CACO3	NA	NA	49	270	450	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	27	120	240	NA	NA
NITRATE-N	NA	NA	--	--	--	NA	NA
NITRITE-N	NA	NA	--	--	--	NA	NA
ORTHOPHOSPHATE-P	NA	NA	--	--	0.75	NA	NA
SULFATE	NA	NA	65 J	260	180	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	180	710	900	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	--	NA	NA	NA	NA	NA
PERCHLORATE	2.6	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	NA	NA	NA	25000	NA	96 J
DIESEL-RANGE ORGANICS	47	NA	NA	NA	2900	NA	1300
Radionuclides (pCi/L)							
RADIUM-228	5	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	5	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 21 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-11I MSA-DMW-11I-041414 20140414	MSA-DMW-11S MSA-DMW-11S-041414 20140414	MSA-MW-14D MSA-MW-14D-040914 20140409	MSA-MW-14I MSA-MW-14I-040914 20140409	MSA-MW-15D MSA-MW15D-033114 20140331	MSA-MW-15I MSA-MW15I-033114 20140331
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	1.8 J	120 J	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	--	--	--	--	--
1,3-DICHLOROBENZENE	2	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	1.2 J	--	--	--
BENZENE	5	--	--	--	12 J	--	--
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--
CHLOROBENZENE	100	--	--	--	190	--	--
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	--	--	--
CHLOROFORM	80	2.7 J	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	190 J	11000	--	1200	--	110
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--
METHYLENE CHLORIDE	5	--	--	--	--	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	280 J	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	--	100 J	--	6 J	--	--
TOTAL XYLENES	10000	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	--	--	11 J	--	1.8 J
TRICHLOROETHENE	5	110 J	3100	--	10 J	--	340
VINYL CHLORIDE	2	24	4900	--	1200	--	8.8
Volatile Gasses (µg/L)							
ETHANE	NA	NA	260 J	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 22 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-11I MSA-DMW-11I-041414 20140414	MSA-DMW-11S MSA-DMW-11S-041414 20140414	MSA-MW-14D MSA-MW-14D-040914 20140409	MSA-MW-14I MSA-MW-14I-040914 20140409	MSA-MW-15D MSA-MW15D-033114 20140331	MSA-MW-15I MSA-MW15I-033114 20140331
ETHENE	NA	NA	250 J	NA	NA	NA	NA
METHANE	NA	NA	1000	NA	NA	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	--	3.8	--	57 J	--	--
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-11I MSA-DMW-11I-041414 20140414	MSA-DMW-11S MSA-DMW-11S-041414 20140414	MSA-MW-14D MSA-MW-14D-040914 20140409	MSA-MW-14I MSA-MW-14I-040914 20140409	MSA-MW-15D MSA-MW15D-033114 20140331	MSA-MW-15I MSA-MW15I-033114 20140331
ARSENIC	10	2 J	4.5 J	--	26	--	1.2 J
BARIUM	2000	13	47	7.9	18	5.6	8
BERYLLIUM	4	--	--	0.4 J	--	--	0.1 J
CADMIUM	5	0.031 J	0.18 J	0.11 J	0.098 J	--	--
CALCIUM	NA	NA	100000	NA	NA	NA	NA
CHROMIUM	100	6.8	1.3 J	2.9	1.8 J	1.1 J	2.5
COBALT	NA	1.1	8.4	7.8 J	14 J	10	15
COPPER	1300	10	--	5.7	--	4.8	5
IRON	300	1100	27000	3300 J	75000 J	510	1600
LEAD	15	3.3	--	--	--	--	0.66 J
MAGNESIUM	NA	NA	25000	NA	NA	NA	NA
MANGANESE	50	30	610	37 J	2000 J	40	67
MERCURY	2	2.1	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	--	--
NICKEL	73	2.2	2.9	32 J	12 J	15	20
POTASSIUM	NA	NA	5100	NA	NA	NA	NA
SELENIUM	50	--	1.1 J	--	0.91 J	--	--
SILICON DIOXIDE	NA	NA	3000	NA	NA	NA	NA
SILVER	100	--	--	--	--	--	--
SODIUM	NA	NA	8100	NA	NA	NA	NA
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	13	--	--	--	0.37 J	1.7 J
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--
ARSENIC	10	--	4.2 J	--	26	--	--
BARIUM	2000	--	48	--	17	5.1	--
BERYLLIUM	4	--	--	--	--	--	--
CADMIUM	5	--	--	0.061 J	--	--	--
CHROMIUM	100	0.69 J	0.95 J	0.5 J	0.93 J	0.32 J	0.78 J
COBALT	NA	1	7.4	7.3 J	14 J	11	12
COPPER	1300	9.3	--	--	--	4.4	2.8
IRON	300	130	29000	490 J	76000 J	160	540
LEAD	15	0.92 J	--	--	--	--	--
MANGANESE	50	26	630	35 J	2000 J	40	52
MERCURY	2	0.22	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	--	--
NICKEL	73	1.6 J	2.5	31 J	11 J	17	17
SELENIUM	50	--	0.67 J	--	0.71 J	--	--
SILVER	100	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 24 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-DMW-11I MSA-DMW-11I-041414 20140414	MSA-DMW-11S MSA-DMW-11S-041414 20140414	MSA-MW-14D MSA-MW-14D-040914 20140409	MSA-MW-14I MSA-MW-14I-040914 20140409	MSA-MW-15D MSA-MW15D-033114 20140331	MSA-MW-15I MSA-MW15I-033114 20140331
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	--	--	--	--	--	--
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	260	NA	NA	NA	NA
AMMONIA-N	NA	NA	0.68	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	260	NA	NA	NA	NA
CHLORIDE	NA	NA	34	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	13	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	360	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	100	NA	NA	NA	NA
NITRATE-N	NA	NA	--	NA	NA	NA	NA
NITRITE-N	NA	NA	--	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	0.42 J	NA	NA	NA	NA
SULFATE	NA	NA	130	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	510	NA	NA	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	NA	NA	0.028 J	NA	0.097	NA
PERCHLORATE	2.6	NA	NA	NA	NA	0.7	0.27 J
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	NA	5100 J	NA	NA	NA	NA
DIESEL-RANGE ORGANICS	47	NA	1100	NA	NA	NA	NA
Radionuclides (pCi/L)							
RADIUM-228	5	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	5	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 25 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-16I MSA-MW16I-040314 20140403	MSA-MW-16S MSA-MW16S-040314 20140403	MSA-MW-17D MSA-MW17D-040814 20140408	MSA-MW-17I MSA-MW17I-040814 20140408	MSA-MW-17S MSA-MW17S-040814 20140408	MSA-MW-18I MSA-MW18I-040114 20140401
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	3.4 J	0.81 J	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	1.8 J	--	--	--	55 J
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	3	--	--	--	--
1,2-DICHLOROETHANE	5	3.1 J	--	--	--	--	--
1,3-DICHLOROBENZENE	2	--	1.2 J	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	1.4 J	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--
BENZENE	5	--	7.5	--	--	0.2 J	--
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--
CHLOROBENZENE	100	--	0.73 J	--	--	--	44 J
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	180	79	--	84	0.87 J	1300
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--
METHYLENE CHLORIDE	5	--	--	--	--	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	--	--	--	--	--	--
TOTAL XYLENES	10000	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	3.3 J	--	--	--	--	--
TRICHLOROETHENE	5	960	--	0.45 J	750	--	9200
VINYL CHLORIDE	2	16	170	--	6.9 J	7.3	670
Volatile Gasses (µg/L)							
ETHANE	NA	NA	NA	NA	NA	NA	7

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 26 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-16I MSA-MW16I-040314 20140403	MSA-MW-16S MSA-MW16S-040314 20140403	MSA-MW-17D MSA-MW17D-040814 20140408	MSA-MW-17I MSA-MW17I-040814 20140408	MSA-MW-17S MSA-MW17S-040814 20140408	MSA-MW-18I MSA-MW18I-040114 20140401
ETHENE	NA	NA	NA	NA	NA	NA	60
METHANE	NA	NA	NA	NA	NA	NA	560
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	0.43 J	240	--	--	0.58 J	190
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-16I MSA-MW16I-040314 20140403	MSA-MW-16S MSA-MW16S-040314 20140403	MSA-MW-17D MSA-MW17D-040814 20140408	MSA-MW-17I MSA-MW17I-040814 20140408	MSA-MW-17S MSA-MW17S-040814 20140408	MSA-MW-18I MSA-MW18I-040114 20140401
ARSENIC	10	33	2.9 J	3.3 J	4.8 J	6.5	3.8 J
BARIUM	2000	18	52	14	9.2	53	69
BERYLLIUM	4	--	0.95 J	--	--	--	--
CADMIUM	5	--	--	--	--	--	2.5 J
CALCIUM	NA	NA	NA	NA	NA	NA	170000
CHROMIUM	100	1.4 J	4	1.3 J	0.4 J	0.8 J	1.5 J
COBALT	NA	30	120	8.4 J	12 J	0.35 J	49
COPPER	1300	--	--	--	--	--	--
IRON	300	6500	27000	6000 J	1500 J	23000 J	97000
LEAD	15	2.6	--	--	--	--	--
MAGNESIUM	NA	NA	NA	NA	NA	NA	130000
MANGANESE	50	54	8200	46 J	26 J	650 J	2500
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	--	0.97 J
NICKEL	73	44	100	10 J	21 J	12 J	38
POTASSIUM	NA	NA	NA	NA	NA	NA	29000
SELENIUM	50	0.37 J	0.91 J	--	0.49 J	0.36 J	0.82 J
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	28000
SILVER	100	--	--	--	--	--	--
SODIUM	NA	NA	NA	NA	NA	NA	330000
THALLIUM	2	--	0.65 J	--	--	--	--
VANADIUM	4	1.9 J	2.9 J	2.5 J	--	--	1.9 J
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--
ARSENIC	10	23	--	3.1 J	3.6 J	6.7	3.7 J
BARIUM	2000	--	51	12	7.8	56	65
BERYLLIUM	4	--	--	--	--	--	--
CADMIUM	5	--	--	--	--	--	3.2 J
CHROMIUM	100	--	3.1	0.23 J	0.15 J	0.57 J	1.1 J
COBALT	NA	19	120	8 J	11 J	0.34 J	57
COPPER	1300	--	--	--	--	--	--
IRON	300	2500	26000	4900 J	950 J	24000 J	99000
LEAD	15	--	--	--	--	--	--
MANGANESE	50	31	8100	44 J	24 J	700 J	2700
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	--	--
NICKEL	73	26	96	12 J	22 J	16 J	43
SELENIUM	50	--	0.37 J	0.43 J	0.52 J	0.37 J	0.7 J
SILVER	100	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-16I MSA-MW16I-040314 20140403	MSA-MW-16S MSA-MW16S-040314 20140403	MSA-MW-17D MSA-MW17D-040814 20140408	MSA-MW-17I MSA-MW17I-040814 20140408	MSA-MW-17S MSA-MW17S-040814 20140408	MSA-MW-18I MSA-MW18I-040114 20140401
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	--	1.3 J	--	--	--	1.4 J
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	NA	NA	NA	NA	34
AMMONIA-N	NA	NA	NA	NA	NA	NA	2.4
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	430
CHLORIDE	NA	NA	NA	NA	NA	NA	270
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	8.9
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	900
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	470
NITRATE-N	NA	NA	NA	NA	NA	NA	--
NITRITE-N	NA	NA	NA	NA	NA	NA	--
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA	--
SULFATE	NA	NA	NA	NA	NA	NA	520
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	1300
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	NA	NA	--	NA	NA	NA
PERCHLORATE	2.6	NA	NA	NA	0.16 J	NA	--
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	NA	100	NA	NA	34 J	NA
DIESEL-RANGE ORGANICS	47	NA	--	NA	NA	--	NA
Radionuclides (pCi/L)							
RADIUM-228	5	1.01	1.13	NA	NA	NA	NA
TOTAL RADIUM	5	0.571	0.394 J	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 29 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-18S MSA-MW18S-040114 20140401	MSA-MW-19D MSA-MW-19D-042114 20140421	MSA-MW-20D MSA-MW20D-033114 20140331	MSA-MW-20I MSA-MW20I-033114 20140331	MSA-MW-20S MSA-MW20S-033114 20140331	MSA-MW-21D MSA-MW-21D-041414 20140414
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	8.6 J	16 J	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	8.1 J	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	7 J	--	0.67 J	--	--	--
1,3-DICHLOROBENZENE	2	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--
BENZENE	5	--	--	--	4 J	20 J	--
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--
CHLOROBENZENE	100	--	--	--	23	370	--
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	--	--	--
CHLOROFORM	80	--	--	0.18 J	--	--	0.59 J
CIS-1,2-DICHLOROETHENE	70	210	0.23 J	2.1	830	1300	--
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	7.8 J	--
M+P-XYLENES	NA	--	--	--	--	--	--
METHYLENE CHLORIDE	5	--	--	--	--	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	6.4 J	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	--	--	--	--	9.2 J	--
TOTAL XYLENES	10000	--	--	--	--	6.4 J	--
TRANS-1,2-DICHLOROETHENE	100	--	--	--	3.5 J	25	--
TRICHLOROETHENE	5	1500	13	19	94	300	--
VINYL CHLORIDE	2	110	--	--	790	890	--
Volatile Gasses (µg/L)							
ETHANE	NA	1.2	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 30 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-18S MSA-MW18S-040114 20140401	MSA-MW-19D MSA-MW-19D-042114 20140421	MSA-MW-20D MSA-MW20D-033114 20140331	MSA-MW-20I MSA-MW20I-033114 20140331	MSA-MW-20S MSA-MW20S-033114 20140331	MSA-MW-21D MSA-MW-21D-041414 20140414
ETHENE	NA	6.4	NA	NA	NA	NA	NA
METHANE	NA	190	NA	NA	NA	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	0.78 NJ
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	33	1.6	2.7	8	170	--
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	0.7 J

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-18S MSA-MW18S-040114 20140401	MSA-MW-19D MSA-MW-19D-042114 20140421	MSA-MW-20D MSA-MW20D-033114 20140331	MSA-MW-20I MSA-MW20I-033114 20140331	MSA-MW-20S MSA-MW20S-033114 20140331	MSA-MW-21D MSA-MW-21D-041414 20140414
ARSENIC	10	7.9	2.5 J	1.2 J	4.8 J	20	0.74 J
BARIUM	2000	41	54	120	15	14 J	61
BERYLLIUM	4	2.2	2	1	--	0.99 J	--
CADMIUM	5	110	1.3	2.6	--	--	--
CALCIUM	NA	57000	NA	NA	NA	NA	NA
CHROMIUM	100	1.6 J	7.4	2	0.23 J	2.5 J	0.76 J
COBALT	NA	310	230	130	15	4.6	0.36 J
COPPER	1300	29	--	6.9	--	--	6.5
IRON	300	26000	550	250	37000	130000	76 J
LEAD	15	--	--	--	--	0.34 J	0.21 J
MAGNESIUM	NA	44000	NA	NA	NA	NA	NA
MANGANESE	50	4100	3000	1600	1400	4300	--
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	--	--
NICKEL	73	170	110	54	2.8 J	1.8 J	2
POTASSIUM	NA	8200	NA	NA	NA	NA	NA
SELENIUM	50	17	3.1 J	2.3 J	--	15	--
SILICON DIOXIDE	NA	11000	NA	NA	NA	NA	NA
SILVER	100	--	--	--	--	--	0.009 J
SODIUM	NA	150000	NA	NA	NA	NA	NA
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	--	4.7 J	0.18 J	0.58 J	13	1.2 J
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	0.72 J
ARSENIC	10	8.6	2.3 J	--	4.5 J	18	0.77 J
BARIUM	2000	42	54	120	14	14	64
BERYLLIUM	4	2.4	2.1	0.94 J	--	0.82 J	--
CADMIUM	5	110	1	2.5	--	--	--
CHROMIUM	100	1.5 J	7.2	0.41 J	--	2.1 J	0.57 J
COBALT	NA	310	240	120	14	4.6	0.36 J
COPPER	1300	32	--	7.9	--	--	7.5
IRON	300	24000	540	--	37000	130000	--
LEAD	15	--	--	--	--	--	--
MANGANESE	50	4500	3100	1500	1400	4200	--
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	--	--
NICKEL	73	180	110	56	2.1 J	1.6 J	3.2
SELENIUM	50	19	2.8 J	2 J	--	13	--
SILVER	100	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-18S MSA-MW18S-040114 20140401	MSA-MW-19D MSA-MW-19D-042114 20140421	MSA-MW-20D MSA-MW20D-033114 20140331	MSA-MW-20I MSA-MW20I-033114 20140331	MSA-MW-20S MSA-MW20S-033114 20140331	MSA-MW-21D MSA-MW-21D-041414 20140414
THALLIUM	2	2.3 J	--	--	--	--	--
VANADIUM	4	--	4.5 J	--	0.32 J	8.7	1.1 J
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	190	NA	NA	NA	NA	NA
AMMONIA-N	NA	9	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	160	NA	NA	NA	NA	NA
CHLORIDE	NA	400	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	25	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	370	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	210	NA	NA	NA	NA	NA
NITRATE-N	NA	--	NA	NA	NA	NA	NA
NITRITE-N	NA	--	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	--	NA	NA	NA	NA	NA
SULFATE	NA	1100	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	2200	NA	NA	NA	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	NA	NA	NA	NA	NA	NA
PERCHLORATE	2.6	NA	NA	--	--	NA	NA
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	690	NA	NA	NA	1600	NA
DIESEL-RANGE ORGANICS	47	--	NA	NA	NA	2900	NA
Radionuclides (pCi/L)							
RADIUM-228	5	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	5	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 33 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-21I MSA-MW-21I-041414 20140414	MSA-MW-22D MSA-MW-22D-042114 20140421	MSA-MW-23D MSA-MW-23D-041114 20140411	MSA-MW-23S MSA-MW-23S-041114 20140411	MSA-MW-24I MSA-MW-24I-041114 20140411	MSA-MW-24S MSA-MW-24S-041114 20140411
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	5.4 J	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	--	--	--	--	--
1,3-DICHLOROBENZENE	2	--	--	--	0.15 J	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--
BENZENE	5	--	--	--	2	--	0.15 J
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	4.8	--	12	--
CHLOROBENZENE	100	--	--	--	0.21 J	--	--
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	--	--	--
CHLOROFORM	80	--	--	3.2	--	1.5 J	--
CIS-1,2-DICHLOROETHENE	70	440	--	--	2	--	--
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--
METHYLENE CHLORIDE	5	--	--	--	--	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	--	--	--	--	--	--
TOTAL XYLENES	10000	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	4.7 J	--	--	--	--	--
TRICHLOROETHENE	5	150	--	1.1	0.32 J	110	--
VINYL CHLORIDE	2	200	--	--	5.8	--	--
Volatile Gasses (µg/L)							
ETHANE	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 34 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-21I MSA-MW-21I-041414 20140414	MSA-MW-22D MSA-MW-22D-042114 20140421	MSA-MW-23D MSA-MW-23D-041114 20140411	MSA-MW-23S MSA-MW-23S-041114 20140411	MSA-MW-24I MSA-MW-24I-041114 20140411	MSA-MW-24S MSA-MW-24S-041114 20140411
ETHENE	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	0.9 NJ	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	3.2	--	--	3.4	--	1.2
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-21I MSA-MW-21I-041414 20140414	MSA-MW-22D MSA-MW-22D-042114 20140421	MSA-MW-23D MSA-MW-23D-041114 20140411	MSA-MW-23S MSA-MW-23S-041114 20140411	MSA-MW-24I MSA-MW-24I-041114 20140411	MSA-MW-24S MSA-MW-24S-041114 20140411
ARSENIC	10	15	7	1.7 J	6	1 J	29
BARIUM	2000	19	60	35	96	14	15
BERYLLIUM	4	--	0.3 J	0.47 J	--	0.79 J	6.9
CADMIUM	5	--	0.93 J	0.78 J	1.8	0.15 J	5
CALCIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	0.35 J	17	2.5	2.3	3.8	14 J
COBALT	NA	7.1	8.9	16	8	14	410
COPPER	1300	--	22	18	--	13	290
IRON	300	22000	4500	5300	15000	2800	160000
LEAD	15	0.71 J	14	2	--	--	--
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	570	51	210	850	280	4600
MERCURY	2	--	--	0.26	--	--	--
MOLYBDENUM	NA	0.98 J	1.9 J	--	1.5 J	--	--
NICKEL	73	1.8 J	9.8	16	6.7	5.5	550
POTASSIUM	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	0.43 J	1 J	0.77 J	--	1.3 J	84
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	0.19 J	--	--	--	--
SODIUM	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	0.64 J	--	--	--	--
VANADIUM	4	0.59 J	19	--	--	--	130
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--
ARSENIC	10	15	4.9 J	--	6.1	--	29
BARIUM	2000	19	42	31	99	12	15
BERYLLIUM	4	--	0.075 J	0.33 J	--	0.78 J	6.6
CADMIUM	5	--	0.2 J	0.68 J	0.7 J	0.15 J	5.2
CHROMIUM	100	0.27 J	4.1	--	1.8 J	--	13 J
COBALT	NA	6.5	6.6	15	8.1	14	410
COPPER	1300	--	6.9	6.3	--	8.7	290
IRON	300	21000	1800	5000	16000	1100	160000
LEAD	15	--	2.7	--	--	--	--
MANGANESE	50	560	44	200	880	270	4700
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	0.88 J	1.4 J	--	1.5 J	--	--
NICKEL	73	1.7 J	6.4	15	7.4	6.1	560
SELENIUM	50	--	0.34 J	0.42 J	--	0.96 J	86
SILVER	100	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-21I MSA-MW-21I-041414 20140414	MSA-MW-22D MSA-MW-22D-042114 20140421	MSA-MW-23D MSA-MW-23D-041114 20140411	MSA-MW-23S MSA-MW-23S-041114 20140411	MSA-MW-24I MSA-MW-24I-041114 20140411	MSA-MW-24S MSA-MW-24S-041114 20140411
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	0.49 J	5.4	--	--	--	120
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	NA	NA	NA	NA	NA	NA
PERCHLORATE	2.6	--	NA	NA	NA	0.12 J	NA
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	NA	NA	NA	39 J	NA	26 J
DIESEL-RANGE ORGANICS	47	NA	NA	NA	--	NA	--
Radionuclides (pCi/L)							
RADIUM-228	5	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	5	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-25I MSA-MW-25I-041114 20140411	MSA-MW-25S MSA-MW-25S-041114 20140411	MSA-MW-26S MSA-MW26S-033114 20140331	MSA-MW-27D MSA-MW-27D-050114 20140501	MSA-MW-29D MSA-MW-29D-052714 20140527	MSA-MW-30D MSA-MW-30D-052714 20140527
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	--	--	--	--	--
1,3-DICHLOROBENZENE	2	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	--	3.3 J	--	--
BENZENE	5	--	--	--	--	--	--
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	0.81 J	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--
CHLOROBENZENE	100	--	--	--	--	--	--
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	--	20	18	--	--	--
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--
METHYLENE CHLORIDE	5	--	--	--	--	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	--	--	--	--	--	--
TOTAL XYLENES	10000	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	1.1	--	--	--	--
TRICHLOROETHENE	5	--	0.29 J	0.29 J	--	--	--
VINYL CHLORIDE	2	--	1.5	5.6	--	--	--
Volatile Gasses (µg/L)							
ETHANE	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-25I MSA-MW-25I-041114 20140411	MSA-MW-25S MSA-MW-25S-041114 20140411	MSA-MW-26S MSA-MW26S-033114 20140331	MSA-MW-27D MSA-MW-27D-050114 20140501	MSA-MW-29D MSA-MW-29D-052714 20140527	MSA-MW-30D MSA-MW-30D-052714 20140527
ETHENE	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	--	--	--	--	--	--
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	--	--	--	--	0.8 J	0.96 J

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-25I MSA-MW-25I-041114 20140411	MSA-MW-25S MSA-MW-25S-041114 20140411	MSA-MW-26S MSA-MW26S-033114 20140331	MSA-MW-27D MSA-MW-27D-050114 20140501	MSA-MW-29D MSA-MW-29D-052714 20140527	MSA-MW-30D MSA-MW-30D-052714 20140527
ARSENIC	10	7.7	2.6 J	--	--	0.13 J	0.94 J
BARIUM	2000	26	45	61	15	--	48
BERYLLIUM	4	--	--	--	--	0.067 J	0.21 J
CADMIUM	5	0.13 J	0.095 J	1	--	0.048 J	0.89 J
CALCIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	--	--	0.43 J	--	0.32 J	16
COBALT	NA	2.9	0.8 J	0.51 J	3.6	1.1	40
COPPER	1300	--	6.5	5.4	--	--	--
IRON	300	1700	370	890	--	--	1700
LEAD	15	--	--	0.15 J	--	--	8
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	38	18	120	120	8	720
MERCURY	2	--	--	--	--	--	0.2
MOLYBDENUM	NA	1.6 J	1.2 J	2.8 J	--	--	0.89 J
NICKEL	73	5.2	7.8	2.6 J	7.8	2.2	5.5
POTASSIUM	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	--	0.34 J	--	--	--	0.58 J
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	--	--	--	0.012 J	0.59 J
SODIUM	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	0.66 J	--	--	--
VANADIUM	4	--	--	0.81 J	--	--	4.8 J
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	--	--	--	--	0.88 J	0.61 J
ARSENIC	10	8	2.4 J	--	--	0.11 J	0.39 J
BARIUM	2000	25	45	55	13	--	24
BERYLLIUM	4	--	--	--	--	0.047 J	0.12 J
CADMIUM	5	0.14 J	0.092 J	0.61 J	--	0.04 J	0.47 J
CHROMIUM	100	--	--	0.2 J	--	0.24 J	3
COBALT	NA	3.1	0.71 J	0.029 J	3.1	1.1	3
COPPER	1300	--	7.4	4.8	--	--	--
IRON	300	1400	--	--	--	--	110
LEAD	15	--	--	--	--	--	--
MANGANESE	50	37	18	12	94	8.4	39
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	1.6 J	1.2 J	2.9 J	--	--	--
NICKEL	73	7.2	7.6	4.3	7.3	3.2	4.7
SELENIUM	50	0.43 J	--	0.35 J	--	--	--
SILVER	100	--	--	--	--	0.009 J	0.076 J

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-25I MSA-MW-25I-041114 20140411	MSA-MW-25S MSA-MW-25S-041114 20140411	MSA-MW-26S MSA-MW26S-033114 20140331	MSA-MW-27D MSA-MW-27D-050114 20140501	MSA-MW-29D MSA-MW-29D-052714 20140527	MSA-MW-30D MSA-MW-30D-052714 20140527
THALLIUM	2	--	--	0.94 J	--	--	--
VANADIUM	4	--	--	0.23 J	--	--	0.85 J
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	NA	NA	NA	--	0.097	0.753 J
PERCHLORATE	2.6	NA	NA	NA	0.085 J	0.083 J	--
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	NA	42 J	34 J	NA	NA	NA
DIESEL-RANGE ORGANICS	47	NA	--	--	NA	NA	NA
Radionuclides (pCi/L)							
RADIUM-228	5	NA	NA	NA	--	--	NA
TOTAL RADIUM	5	NA	NA	NA	--	--	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-30I MSA-MW-30I-042814 20140428	MSA-MW-31D MSA-MW-31D-052714 20140527	MSA-MW-32I MSA-MW-32I-041014 20140410	MSA-MW-32S MSA-MW-32S-041014 20140410	MSA-MW-33I MSA-MW33I-033114 20140331	MSA-MW-33S MSA-MW33S-033114 20140331
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	--	--	--	--	--
1,3-DICHLOROBENZENE	2	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--
2-BUTANONE	700	--	2.2 J	--	--	--	--
ACETONE	550	--	7.2 J	--	--	8.6 J	--
BENZENE	5	--	--	--	--	--	--
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	--	0.22 J	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--
CHLOROBENZENE	100	--	--	--	--	--	--
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	--	--	--	--	--	0.2 J
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--
METHYLENE CHLORIDE	5	17 J	--	--	--	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	--	--	0.52 J	1.1	--	--
TOTAL XYLENES	10000	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	--	--	--	--	--
TRICHLOROETHENE	5	900	--	--	--	--	0.48 J
VINYL CHLORIDE	2	--	--	--	--	--	--
Volatile Gasses (µg/L)							
ETHANE	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-30I MSA-MW-30I-042814 20140428	MSA-MW-31D MSA-MW-31D-052714 20140527	MSA-MW-32I MSA-MW-32I-041014 20140410	MSA-MW-32S MSA-MW-32S-041014 20140410	MSA-MW-33I MSA-MW33I-033114 20140331	MSA-MW-33S MSA-MW33S-033114 20140331
ETHENE	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	1.8 NJ	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	9.1 NJ	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	7.6 NJ	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	0.47 J	--	--	--	--	--
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	--	0.49 J	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-30I MSA-MW-30I-042814 20140428	MSA-MW-31D MSA-MW-31D-052714 20140527	MSA-MW-32I MSA-MW-32I-041014 20140410	MSA-MW-32S MSA-MW-32S-041014 20140410	MSA-MW-33I MSA-MW33I-033114 20140331	MSA-MW-33S MSA-MW33S-033114 20140331
ARSENIC	10	0.9 J	1.1 J	--	4.6 J	1.7 J	--
BARIUM	2000	31	74	30	43	70	24
BERYLLIUM	4	--	0.22 J	--	0.32 J	--	--
CADMIUM	5	--	0.8 J	1.4	0.38 J	--	--
CALCIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	0.86 J	3.2	2.7	3.2	0.22 J	0.93 J
COBALT	NA	33	7.8	13	34	3.1	--
COPPER	1300	--	--	5.2	5.5	4.4	8.2
IRON	300	2000	6700	2500	7400	770	540
LEAD	15	--	--	2.3	1.7	--	1
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	82	1700	680	1400	9.2	--
MERCURY	2	--	--	--	--	--	0.14 J
MOLYBDENUM	NA	--	--	--	--	--	--
NICKEL	73	41	9.8	17	18	5.6	1.3 J
POTASSIUM	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	--	0.44 J	0.74 J	0.53 J	--	--
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	0.064 J	--	0.11 J	--	--
SODIUM	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	0.4 J	--	--	--
VANADIUM	4	0.99 J	0.94 J	--	--	2.1 J	2.6 J
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	--	0.4 J	--	--	--	--
ARSENIC	10	0.82 J	0.97 J	--	4.4 J	1.5 J	--
BARIUM	2000	32	75	28	41	67	22
BERYLLIUM	4	--	0.15 J	--	--	--	--
CADMIUM	5	--	--	0.93 J	0.13 J	--	--
CHROMIUM	100	0.65 J	2.9	1.1 J	1.5 J	--	0.54 J
COBALT	NA	38	2.4	12	34	0.61 J	--
COPPER	1300	--	--	3.3	--	5.1	6.8
IRON	300	2500	5900	450	5200	--	--
LEAD	15	--	--	--	--	--	--
MANGANESE	50	91	1800	690	1500	--	--
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	--	--
NICKEL	73	45	3.6	16	18	4.7	1.9 J
SELENIUM	50	0.42 J	0.37 J	--	0.39 J	--	--
SILVER	100	--	0.013 J	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-30I MSA-MW-30I-042814 20140428	MSA-MW-31D MSA-MW-31D-052714 20140527	MSA-MW-32I MSA-MW-32I-041014 20140410	MSA-MW-32S MSA-MW-32S-041014 20140410	MSA-MW-33I MSA-MW33I-033114 20140331	MSA-MW-33S MSA-MW33S-033114 20140331
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	0.57 J	0.63 J	--	--	1.9 J	2 J
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	NA	0.081	NA	NA	0.25 J	NA
PERCHLORATE	2.6	NA	--	NA	NA	NA	NA
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	NA	NA	NA	--	NA	30 J
DIESEL-RANGE ORGANICS	47	NA	NA	NA	--	NA	--
Radionuclides (pCi/L)							
RADIUM-228	5	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	5	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 45 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-34I MSA-MW-34I-032714 20140327	MSA-MW-34S MSA-MW-34S-032714 20140327	MSA-MW-35S MSA-MW35S-032814 20140328	MSA-MW-36S MSA-MW-36S-041114 20140411	MSA-MW-37S MSA-MW-37S-041114 20140411	MSA-MW-38S MSA-MW-38S-042114 20140421
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	0.42 J	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	2.2	0.27 J	--	--	--	--
1,3-DICHLOROBENZENE	2	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--
BENZENE	5	1.8	--	--	--	--	--
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	0.33 J	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--
CHLOROBENZENE	100	0.26 J	--	--	--	--	--
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	7.6	2.2	9.5	--	--	--
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--
M+P-XYLENES	NA	14	--	--	--	--	--
METHYLENE CHLORIDE	5	--	--	--	--	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	3.6	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	--	--	--	--	--	--
TOTAL XYLENES	10000	18	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	--	--	--	--	--
TRICHLOROETHENE	5	0.21 J	--	2.2	--	--	--
VINYL CHLORIDE	2	47	1.4	2.8	--	--	--
Volatile Gasses (µg/L)							
ETHANE	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-34I MSA-MW-34I-032714 20140327	MSA-MW-34S MSA-MW-34S-032714 20140327	MSA-MW-35S MSA-MW35S-032814 20140328	MSA-MW-36S MSA-MW-36S-041114 20140411	MSA-MW-37S MSA-MW-37S-041114 20140411	MSA-MW-38S MSA-MW-38S-042114 20140421
ETHENE	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	--	--	2.2	--	--	--
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-34I MSA-MW-34I-032714 20140327	MSA-MW-34S MSA-MW-34S-032714 20140327	MSA-MW-35S MSA-MW35S-032814 20140328	MSA-MW-36S MSA-MW-36S-041114 20140411	MSA-MW-37S MSA-MW-37S-041114 20140411	MSA-MW-38S MSA-MW-38S-042114 20140421
ARSENIC	10	--	--	1.9 J	1.8 J	--	14
BARIUM	2000	58	66	64	25	36	46
BERYLLIUM	4	2.7	0.79 J	4.3	0.68 J	--	0.12 J
CADMIUM	5	0.15 J	0.12 J	0.097 J	--	0.04 J	--
CALCIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	0.46 J	0.72 J	1.2 J	--	--	0.45 J
COBALT	NA	230	100	330	120	10	12
COPPER	1300	4.9	4.8	--	--	--	--
IRON	300	980	260	6700	2100	510	31000
LEAD	15	0.14 J	--	1.3	--	--	--
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	140	60	450	14	1300	430
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	--	--
NICKEL	73	320	140	160	170	1.2 J	5.6
POTASSIUM	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	--	--	0.54 J	--	0.47 J	--
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	--	--	--	--	--
SODIUM	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	--	13	2.5 J	--	--	1.5 J
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--
ARSENIC	10	--	--	1.4 J	--	--	13
BARIUM	2000	56	67	67	25	36	45
BERYLLIUM	4	2.8	0.83 J	4.5	0.68 J	--	0.089 J
CADMIUM	5	0.13 J	0.11 J	0.063 J	--	0.045 J	--
CHROMIUM	100	0.43 J	0.76 J	0.57 J	--	--	0.25 J
COBALT	NA	230	110	360	120	10	11
COPPER	1300	4.8	2.4	--	--	--	--
IRON	300	920	280	5400	2100	300	30000
LEAD	15	0.15 J	--	0.45 J	--	--	--
MANGANESE	50	140	61	480	14	1300	430
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	--	--
NICKEL	73	310	150	170	170	1.5 J	5.5
SELENIUM	50	--	0.36 J	0.5 J	--	--	--
SILVER	100	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-34I MSA-MW-34I-032714 20140327	MSA-MW-34S MSA-MW-34S-032714 20140327	MSA-MW-35S MSA-MW35S-032814 20140328	MSA-MW-36S MSA-MW-36S-041114 20140411	MSA-MW-37S MSA-MW-37S-041114 20140411	MSA-MW-38S MSA-MW-38S-042114 20140421
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	--	11	1 J	--	--	0.57 J
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	NA	NA	NA	NA	NA	NA
PERCHLORATE	2.6	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	NA	40 J	40 J	27 J	30 J	32 J
DIESEL-RANGE ORGANICS	47	NA	--	750	--	--	--
Radionuclides (pCi/L)							
RADIUM-228	5	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	5	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 49 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-39S MSA-MW39S-032814 20140328	MSA-MW-40I MSA-MW40I-032814 20140328	MSA-MW-40S MSA-MW40S-032814 20140328	MSA-MW-41I MSA-MW41I-040414 20140404	MSA-MW-41S MSA-MW41S-040414 20140404	MSA-MW-42I MSA-MW42I-040214 20140402
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	--	12 J	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	4.4 J	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	3.4 J	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	0.19 J	--	--	--	--	--
1,2-DICHLOROETHANE	5	0.37 J	--	--	14	55	0.34 J
1,3-DICHLOROBENZENE	2	--	--	--	1.4 J	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--
BENZENE	5	1.5	--	--	8.2	26 J	0.83 J
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--
CHLOROBENZENE	100	4.6	--	--	24	--	--
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	10	--	--
CHLOROFORM	80	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	3	2100	3200	410	1100	25
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	0.31 J
M+P-XYLENES	NA	--	--	--	--	--	16
METHYLENE CHLORIDE	5	--	--	--	--	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	1.6
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	52 J	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	0.14 J	--	--	--	--	0.62 J
TOTAL XYLENES	10000	--	--	--	--	--	18
TRANS-1,2-DICHLOROETHENE	100	0.41 J	58	130	3.5 J	--	0.23 J
TRICHLOROETHENE	5	4	390	260	99	3000	2.4
VINYL CHLORIDE	2	2.4	52	--	510	890	13
Volatile Gasses (µg/L)							
ETHANE	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 50 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-39S MSA-MW39S-032814 20140328	MSA-MW-40I MSA-MW40I-032814 20140328	MSA-MW-40S MSA-MW40S-032814 20140328	MSA-MW-41I MSA-MW41I-040414 20140404	MSA-MW-41S MSA-MW41S-040414 20140404	MSA-MW-42I MSA-MW42I-040214 20140402
ETHENE	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	2.8 NJ	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	18	8.5	12	110	210	19
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-39S MSA-MW39S-032814 20140328	MSA-MW-40I MSA-MW40I-032814 20140328	MSA-MW-40S MSA-MW40S-032814 20140328	MSA-MW-41I MSA-MW41I-040414 20140404	MSA-MW-41S MSA-MW41S-040414 20140404	MSA-MW-42I MSA-MW42I-040214 20140402
ARSENIC	10	43	13	3.6 J	9.8	--	3.1 J
BARIUM	2000	24	12	16	27	130	38
BERYLLIUM	4	--	2.2	--	--	--	--
CADMIUM	5	--	1.7	0.03 J	--	46	--
CALCIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	1.2 J	4.6	0.28 J	2	--	0.92 J
COBALT	NA	4.8	11	18	21	87	6
COPPER	1300	--	0.4 J	0.24 J	--	4.3	--
IRON	300	43000	21000	9000	48000	--	5100
LEAD	15	0.3 J	0.39 J	0.18 J	--	--	--
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	190	4600	2900	2000	770	120
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	1.7 J	1.4 J	1.7 J
NICKEL	73	2.9	16	3.5	13	86	4.8
POTASSIUM	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	0.77 J	5	0.92 J	1.1 J	2.6 J	--
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	--	--	--	--	--
SODIUM	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	--	1.1 J	0.48 J	--
VANADIUM	4	2 J	6	--	1.5 J	--	1.8 J
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--
ARSENIC	10	33	13	3.7 J	6.9	--	--
BARIUM	2000	22	12	16	26	120	35
BERYLLIUM	4	--	2.4	--	--	--	--
CADMIUM	5	--	1.7	--	--	42	--
CHROMIUM	100	0.88 J	4.8	0.21 J	--	--	--
COBALT	NA	4.7	11	18	21	84	5.5
COPPER	1300	--	0.83 J	0.31 J	--	--	--
IRON	300	40000	21000	9100	47000	--	2500
LEAD	15	--	0.4 J	--	--	--	--
MANGANESE	50	190	4700	2900	2000	740	110
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	0.9 J	1.4 J	1.6 J
NICKEL	73	4.9	17	4.7	12	83	4.4
SELENIUM	50	0.42 J	4.8 J	0.8 J	0.67 J	2.8 J	--
SILVER	100	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-39S MSA-MW39S-032814 20140328	MSA-MW-40I MSA-MW40I-032814 20140328	MSA-MW-40S MSA-MW40S-032814 20140328	MSA-MW-41I MSA-MW41I-040414 20140404	MSA-MW-41S MSA-MW41S-040414 20140404	MSA-MW-42I MSA-MW42I-040214 20140402
THALLIUM	2	--	--	--	1.8 J	--	--
VANADIUM	4	0.92 J	6.3	--	--	--	--
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	NA	NA	NA	NA	NA	NA
PERCHLORATE	2.6	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	49 J	NA	480	NA	1400 J	NA
DIESEL-RANGE ORGANICS	47	1700	NA	1200	NA	750	NA
Radionuclides (pCi/L)							
RADIUM-228	5	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	5	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 53 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-42S MSA-MW42S-040214 20140402	MSA-MW-43S MSA-MW43S-032814 20140328	MSA-MW-44S MSA-MW44S-032814 20140328	MSA-MW-45S MSA-MW45S-040414 20140404	DR-MW-46D MSA-MW46D-040214 20140402	DR-MW-46I MSA-MW46I-040214 20140402
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	--	--	1.3 J	--	--	--
1,1-DICHLOROETHANE	90	--	--	43	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	190 J	--	1.7 J
1,2,3-TRIMETHYLBENZENE	NA	41 J	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	740 J	--	--
1,2,4-TRIMETHYLBENZENE	NA	98 J	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	--	--	430 J	--	12
1,3-DICHLOROBENZENE	2	--	--	--	170 J	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	2.3	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	--	--	1.7 J	--
BENZENE	5	19 J	--	--	120 J	--	1.8 J
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--
CHLOROBENZENE	100	--	--	--	--	--	33
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	1.2 J	--	--	--
CHLOROFORM	80	--	--	--	--	--	1.5 J
CIS-1,2-DICHLOROETHENE	70	880	0.39 J	120	37000	3.7	100
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	420	--	1.4 J	--	--	--
M+P-XYLENES	NA	7500	--	1.2 J	--	--	--
METHYLENE CHLORIDE	5	--	--	--	--	--	--
NAPHTHALENE	0.7	--	--	120	--	--	--
O-XYLENE	NA	380	--	0.75 J	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	5.8	--	--	--
TOLUENE	1000	250	--	--	2000	--	--
TOTAL XYLENES	10000	7900	--	2 J	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	--	1.4 J	160 J	--	1.1 J
TRICHLOROETHENE	5	--	--	20	50000	12	200
VINYL CHLORIDE	2	970	0.27 J	37	17000	--	90
Volatile Gasses (µg/L)							
ETHANE	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-42S MSA-MW42S-040214 20140402	MSA-MW-43S MSA-MW43S-032814 20140328	MSA-MW-44S MSA-MW44S-032814 20140328	MSA-MW-45S MSA-MW45S-040414 20140404	DR-MW-46D MSA-MW46D-040214 20140402	DR-MW-46I MSA-MW46I-040214 20140402
ETHENE	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	4 NJ	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	1.1	2.2	18	1000	--	25
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-42S MSA-MW42S-040214 20140402	MSA-MW-43S MSA-MW43S-032814 20140328	MSA-MW-44S MSA-MW44S-032814 20140328	MSA-MW-45S MSA-MW45S-040414 20140404	DR-MW-46D MSA-MW46D-040214 20140402	DR-MW-46I MSA-MW46I-040214 20140402
ARSENIC	10	4.3 J	1.4 J	1.8 J	3.4 J	--	28
BARIUM	2000	360	54	110	63	29	--
BERYLLIUM	4	--	--	--	--	--	2
CADMIUM	5	--	0.082 J	0.22 J	4700	--	--
CALCIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	2 J	0.32 J	1.3 J	9300	--	8.4
COBALT	NA	--	0.29 J	0.29 J	33	14	130
COPPER	1300	--	--	--	6.1	--	14
IRON	300	52000	340	7700	180	7000	12000
LEAD	15	--	0.17 J	1.2	--	--	--
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	920	500	1300	2500	67	1100
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	1.6 J	--	1.2 J
NICKEL	73	--	1.3 J	0.49 J	180	25	67
POTASSIUM	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	0.52 J	0.44 J	0.45 J	7.7	--	60
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	--	--	--	--	--
SODIUM	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	2.7 J	1.8 J	12	--	--	7.4
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--
ARSENIC	10	4.6 J	1.5 J	1.7 J	3.3 J	--	8.7
BARIUM	2000	360	55	110	63	28	--
BERYLLIUM	4	--	--	--	--	--	0.86 J
CADMIUM	5	--	0.033 J	--	4700	--	--
CHROMIUM	100	1.9 J	0.2 J	0.78 J	9300	--	1.1 J
COBALT	NA	--	0.36 J	0.48 J	33	18	110
COPPER	1300	--	--	--	5.8	--	--
IRON	300	52000	400	6300	--	6100	5200
LEAD	15	--	--	--	--	--	--
MANGANESE	50	940	590	1300	2400	66	1000
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	1.4 J	--	--
NICKEL	73	--	1.2 J	1.8 J	180	24	58
SELENIUM	50	0.58 J	0.46 J	0.55 J	8.2	--	20
SILVER	100	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-42S MSA-MW42S-040214 20140402	MSA-MW-43S MSA-MW43S-032814 20140328	MSA-MW-44S MSA-MW44S-032814 20140328	MSA-MW-45S MSA-MW45S-040414 20140404	DR-MW-46D MSA-MW46D-040214 20140402	DR-MW-46I MSA-MW46I-040214 20140402
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	2.6 J	1.8 J	11	--	--	0.92 J
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	NA	NA	NA	NA	--	--
PERCHLORATE	2.6	NA	NA	NA	NA	0.1 J	--
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	16000 J	45 J	150	38000 J	NA	NA
DIESEL-RANGE ORGANICS	47	1300	1200	1000	2200	NA	NA
Radionuclides (pCi/L)							
RADIUM-228	5	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	5	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	DR-MW-46S MSA-MW46S-040214 20140402	MSA-MW-47D MSA-MW47D-040814 20140408	MSA-MW-47I MSA-MW47I-040314 20140403	MSA-MW-47S MSA-MW47S-040314 20140403	MSA-MW-48D MSA-MW-48D-040914 20140409	MSA-MW-48I MSA-MW-48I-040914 20140409
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	1.3	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	1.3 J	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	19 J	1.8 J	--	88 J
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	3.6 J	50	5.6 J	2.7 J	--
1,3-DICHLOROBENZENE	2	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--
BENZENE	5	--	--	--	1.5 J	0.96 J	--
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	0.27 J	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	2.1 J	8.7 J	1.4 J	--	--
CHLOROBENZENE	100	--	--	42 J	5.9	--	--
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	--	--	--
CHLOROFORM	80	--	19	27 J	3 J	--	--
CIS-1,2-DICHLOROETHENE	70	0.52 J	38	490	64	100	510
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--
METHYLENE CHLORIDE	5	--	--	--	--	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	--	--	--	--	1.5 J	--
TOTAL XYLENES	10000	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	--	--	--	1.3 J	--
TRICHLOROETHENE	5	0.95 J	360	3400	440	180	4200
VINYL CHLORIDE	2	--	3.3 J	410	50	32	100 J
Volatile Gasses (µg/L)							
ETHANE	NA	NA	NA	NA	NA	0.22 J	0.45

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 58 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	DR-MW-46S MSA-MW46S-040214 20140402	MSA-MW-47D MSA-MW47D-040814 20140408	MSA-MW-47I MSA-MW47I-040314 20140403	MSA-MW-47S MSA-MW47S-040314 20140403	MSA-MW-48D MSA-MW-48D-040914 20140409	MSA-MW-48I MSA-MW-48I-040914 20140409
ETHENE	NA	NA	NA	NA	NA	1.6	7.4
METHANE	NA	NA	NA	NA	NA	57	110
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	2.1	14 J	120	40	21 J	NA
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	DR-MW-46S MSA-MW46S-040214 20140402	MSA-MW-47D MSA-MW47D-040814 20140408	MSA-MW-47I MSA-MW47I-040314 20140403	MSA-MW-47S MSA-MW47S-040314 20140403	MSA-MW-48D MSA-MW-48D-040914 20140409	MSA-MW-48I MSA-MW-48I-040914 20140409
ARSENIC	10	9.6	2.4 J	52	9.5	3.7 J	4 J
BARIUM	2000	56	18	--	32	27	19
BERYLLIUM	4	--	--	6.4	--	2.4	2.9
CADMIUM	5	--	--	110	1.7	14	170
CALCIUM	NA	NA	NA	NA	NA	21000	21000
CHROMIUM	100	3	0.16 J	22	0.92 J	5	6.5
COBALT	NA	5	11 J	240	46	170 J	300 J
COPPER	1300	4.5	--	290	--	29	47
IRON	300	17000	3700 J	11000	11000	570 J	1500 J
LEAD	15	--	--	--	--	--	--
MAGNESIUM	NA	NA	NA	NA	NA	17000	18000
MANGANESE	50	910	100 J	5200	4200	2600 J	4400 J
MERCURY	2	--	--	0.76	--	1.7	--
MOLYBDENUM	NA	--	--	--	--	--	--
NICKEL	73	4.5	11 J	90	17	89 J	130 J
POTASSIUM	NA	NA	NA	NA	NA	2200 J	2300 J
SELENIUM	50	0.64 J	0.58 J	76	1.1 J	10	9.4
SILICON DIOXIDE	NA	NA	NA	NA	NA	11000	9200
SILVER	100	--	--	--	--	--	--
SODIUM	NA	NA	NA	NA	NA	58000	64000
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	2.1 J	--	2.5 J	0.84 J	--	--
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--
ARSENIC	10	5.9	--	6.8	11	3.3 J	3.9 J
BARIUM	2000	51	16	--	33	26	19
BERYLLIUM	4	--	--	1.4	--	2.3	2.7
CADMIUM	5	--	--	90	--	13	150
CHROMIUM	100	2.3	--	1.3 J	--	4	5.7
COBALT	NA	4.8	10 J	280	52	160 J	310 J
COPPER	1300	--	--	14	--	27	16
IRON	300	13000	3100 J	3200	12000	280 J	1300 J
LEAD	15	--	--	--	--	--	--
MANGANESE	50	920	91 J	5500	4800	2400 J	4600 J
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	--	--
NICKEL	73	5.5	10 J	100	19	86 J	130 J
SELENIUM	50	0.5 J	0.5 J	13	1 J	9.6	9.4
SILVER	100	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	DR-MW-46S MSA-MW46S-040214 20140402	MSA-MW-47D MSA-MW47D-040814 20140408	MSA-MW-47I MSA-MW47I-040314 20140403	MSA-MW-47S MSA-MW47S-040314 20140403	MSA-MW-48D MSA-MW-48D-040914 20140409	MSA-MW-48I MSA-MW-48I-040914 20140409
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	0.85 J	--	--	0.9 J	--	--
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	NA	NA	NA	--	4.4 J
AMMONIA-N	NA	NA	NA	NA	NA	0.25	0.3
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	52	53
CHLORIDE	NA	NA	NA	NA	NA	98	110
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	2	2.4
HARDNESS AS CACO3	NA	NA	NA	NA	NA	120	130
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	70	76
NITRATE-N	NA	NA	NA	NA	NA	0.36	1.1
NITRITE-N	NA	NA	NA	NA	NA	--	0.29
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	0.98	1.5
SULFATE	NA	NA	NA	NA	NA	170	240
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	440	540
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	--	--	--	--	--	--
PERCHLORATE	2.6	--	--	0.086 J	--	--	--
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	--	NA	NA	220	NA	NA
DIESEL-RANGE ORGANICS	47	--	NA	NA	700	NA	NA
Radionuclides (pCi/L)							
RADIUM-228	5	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	5	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-48I MSA-MW-48I-041414 20140414	MSA-MW-48S MSA-MW-48S-041014 20140410	MSA-MW-49D MSA-MW-49D-041714 20140417	MSA-MW-49I MSA-MW-49I-041014 20140410	MSA-MW-49S MSA-MW-49S-041014 20140410	MSA-MW-50D MSA-MW-50D-041614 20140416
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	NA	--	56 J	--	--	--
1,1-DICHLOROETHANE	90	NA	--	23 J	--	--	--
1,1-DICHLOROETHENE	7	NA	--	150	160 J	7.4 J	--
1,2,3-TRIMETHYLBENZENE	NA	NA	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	NA	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	NA	--	--	--	--	--
1,2-DICHLOROBENZENE	600	NA	--	--	--	--	--
1,2-DICHLOROETHANE	5	NA	--	--	--	8 J	--
1,3-DICHLOROBENZENE	2	NA	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	NA	--	--	--	--	--
1,4-DICHLOROBENZENE	75	NA	--	--	--	--	--
2-BUTANONE	700	NA	--	--	--	--	--
ACETONE	550	NA	--	--	--	--	--
BENZENE	5	NA	--	--	--	--	--
BROMODICHLOROMETHANE	80	NA	--	--	--	--	3.6
CARBON DISULFIDE	100	NA	--	--	--	--	0.19 J
CARBON TETRACHLORIDE	5	NA	--	--	--	--	--
CHLOROBENZENE	100	NA	--	--	--	2.8 J	--
CHLORODIBROMOMETHANE	80	NA	--	--	--	--	0.31 J
CHLOROETHANE	4	NA	--	--	--	--	--
CHLOROFORM	80	NA	2.6 J	--	--	--	25
CIS-1,2-DICHLOROETHENE	70	NA	24	1600	1700	56	1.4
DICHLORODIFLUOROMETHANE	NA	NA	--	--	--	--	--
ETHYLBENZENE	700	NA	--	--	--	--	--
M+P-XYLENES	NA	NA	--	--	--	--	--
METHYLENE CHLORIDE	5	NA	--	--	--	--	--
NAPHTHALENE	0.7	NA	--	--	--	--	--
O-XYLENE	NA	NA	--	--	--	--	--
SEC-BUTYLBENZENE	NA	NA	--	--	--	--	--
TERT-BUTYLBENZENE	NA	NA	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	NA	--	--	--	--	--
TETRACHLOROETHENE	5	NA	--	--	--	--	--
TOLUENE	1000	NA	1.4 J	--	--	--	--
TOTAL XYLENES	10000	NA	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	NA	--	--	--	--	--
TRICHLOROETHENE	5	NA	--	5800	4800	440	2.3
VINYL CHLORIDE	2	NA	120	490	1600	29	--
Volatile Gasses (µg/L)							
ETHANE	NA	NA	40	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-48I MSA-MW-48I-041414 20140414	MSA-MW-48S MSA-MW-48S-041014 20140410	MSA-MW-49D MSA-MW-49D-041714 20140417	MSA-MW-49I MSA-MW-49I-041014 20140410	MSA-MW-49S MSA-MW-49S-041014 20140410	MSA-MW-50D MSA-MW-50D-041614 20140416
ETHENE	NA	NA	32	NA	NA	NA	NA
METHANE	NA	NA	470	NA	NA	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE[2]	3	140	1.8	39	88	60	--
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	37	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	4	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	NA
FLUORENE	24	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	NA
PHENANTHRENE	180	NA	NA	NA	NA	NA	NA
PHENOL	1100	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ANTIMONY	6	NA	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-48I MSA-MW-48I-041414 20140414	MSA-MW-48S MSA-MW-48S-041014 20140410	MSA-MW-49D MSA-MW-49D-041714 20140417	MSA-MW-49I MSA-MW-49I-041014 20140410	MSA-MW-49S MSA-MW-49S-041014 20140410	MSA-MW-50D MSA-MW-50D-041614 20140416
ARSENIC	10	NA	4 J	17	12 J	--	--
BARIUM	2000	NA	40	14 J	12	32	51
BERYLLIUM	4	NA	--	9.7	9.1	3.1	--
CADMIUM	5	NA	0.3 J	21	32	12	0.036 J
CALCIUM	NA	NA	340000	NA	NA	NA	NA
CHROMIUM	100	NA	1.5 J	7.7 J	4 J	1.7 J	0.78 J
COBALT	NA	NA	1.5	97	97 J	100	1.6
COPPER	1300	NA	--	240	110 J	13	--
IRON	300	NA	3100	7900	27000 J	9100	250
LEAD	15	NA	--	--	2.1 J	1.4	--
MAGNESIUM	NA	NA	47000	NA	NA	NA	NA
MANGANESE	50	NA	100	5500	5200 J	3700	22
MERCURY	2	NA	--	--	--	--	--
MOLYBDENUM	NA	NA	2.3 J	--	0.87 J	--	45
NICKEL	73	NA	3.6	89	57 J	41	2.4
POTASSIUM	NA	NA	15000	NA	NA	NA	NA
SELENIUM	50	NA	0.81 J	58	32 J	3.6 J	0.78 J
SILICON DIOXIDE	NA	NA	27000	NA	NA	NA	NA
SILVER	100	NA	--	--	--	--	--
SODIUM	NA	NA	27000	NA	NA	NA	NA
THALLIUM	2	NA	--	--	--	--	--
VANADIUM	4	NA	--	--	--	--	--
ZINC	5000	NA	NA	NA	NA	NA	NA
Dissolved Metals (µg/L)							
ANTIMONY	6	NA	--	--	--	--	--
ARSENIC	10	NA	3.9 J	15	12	--	--
BARIUM	2000	NA	39	13	12	21	48
BERYLLIUM	4	NA	--	9	13	2.5	--
CADMIUM	5	NA	0.066 J	21	33	11	--
CHROMIUM	100	NA	1.3 J	6.1	3.2	0.87 J	0.4 J
COBALT	NA	NA	1.5	75	100	100	1.2
COPPER	1300	NA	--	110	110	12	--
IRON	300	NA	3400	4500	26000	8700	--
LEAD	15	NA	--	--	1.4 J	--	--
MANGANESE	50	NA	110	4300	5300	3800	5.7
MERCURY	2	NA	--	--	--	--	--
MOLYBDENUM	NA	NA	2.2 J	--	--	--	43
NICKEL	73	NA	4	68	59	42	3
SELENIUM	50	NA	0.51 J	54	33	3.4 J	0.81 J
SILVER	100	NA	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-48I MSA-MW-48I-041414 20140414	MSA-MW-48S MSA-MW-48S-041014 20140410	MSA-MW-49D MSA-MW-49D-041714 20140417	MSA-MW-49I MSA-MW-49I-041014 20140410	MSA-MW-49S MSA-MW-49S-041014 20140410	MSA-MW-50D MSA-MW-50D-041614 20140416
THALLIUM	2	NA	--	--	--	--	--
VANADIUM	4	NA	--	--	--	--	--
ZINC	5000	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	390	NA	NA	NA	NA
AMMONIA-N	NA	NA	0.82	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	850	NA	NA	NA	NA
CHLORIDE	NA	NA	19 J	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	9.1	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	1000	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	190	NA	NA	NA	NA
NITRATE-N	NA	NA	--	NA	NA	NA	NA
NITRITE-N	NA	NA	--	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	--	NA	NA	NA	NA
SULFATE	NA	NA	740	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	1500	NA	NA	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	NA	--	--	--	--	0.224 J-
PERCHLORATE	2.6	NA	--	0.92	4.2	--	--
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	NA	45 J	NA	NA	260	NA
DIESEL-RANGE ORGANICS	47	NA	--	NA	NA	--	NA
Radionuclides (pCi/L)							
RADIUM-228	5	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	5	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-50I MSA-MW-50I-041414 20140414	MSA-MW-50S MSA-MW-50S-041414 20140414	MSA-MW-51D MSA-MW-51D-041714 20140417	MSA-MW-51I MSA-MW-51I-041614 20140416	MSA-MW-51S MSA-MW-51S-041614 20140416	DR-MW-52D MSA-MW-52D-052014 20140520
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	--	--	42 J
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	--	--	130 J
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	0.54 J	1.6 J	0.65 J	--	--	180 J
1,3-DICHLOROBENZENE	2	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--
BENZENE	5	--	--	--	--	--	42 J
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	0.38 J	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--
CHLOROBENZENE	100	--	1.3 J	0.7 J	--	--	140 J
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	--	--	71 J
CIS-1,2-DICHLOROETHENE	70	18	57	35	9.9	1100	5600
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--
METHYLENE CHLORIDE	5	--	--	1.3 J	--	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	--	--	--	--	--	--
TOTAL XYLENES	10000	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	0.48 J	1.6 J	1.2 J	--	13 J	--
TRICHLOROETHENE	5	60	170	94	9.9	730	16000
VINYL CHLORIDE	2	3.8	16	6.8	0.37 J	30	2200
Volatile Gasses (µg/L)							
ETHANE	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-50I MSA-MW-50I-041414 20140414	MSA-MW-50S MSA-MW-50S-041414 20140414	MSA-MW-51D MSA-MW-51D-041714 20140417	MSA-MW-51I MSA-MW-51I-041614 20140416	MSA-MW-51S MSA-MW-51S-041614 20140416	DR-MW-52D MSA-MW-52D-052014 20140520
ETHENE	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	1.1 NJ	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	--
1,4-DIOXANE[2]	3	2.1	5	2.8	1.2	5.4	570
2,4-DIMETHYLPHENOL	73	NA	NA	NA	NA	NA	--
2-METHYLNAPHTHALENE	2	NA	NA	NA	NA	NA	--
2-METHYLPHENOL	180	NA	NA	NA	NA	NA	--
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	--
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	--
ACENAPHTHENE	37	NA	NA	NA	NA	NA	--
ACETOPHENONE	NA	NA	NA	NA	NA	NA	--
CAPROLACTAM	NA	NA	NA	NA	NA	NA	--
DIBENZOFURAN	4	NA	NA	NA	NA	NA	--
DIETHYL PHTHALATE	2900	NA	NA	NA	NA	NA	--
FLUORENE	24	NA	NA	NA	NA	NA	--
NAPHTHALENE	0.7	NA	NA	NA	NA	NA	4.6
PHENANTHRENE	180	NA	NA	NA	NA	NA	--
PHENOL	1100	NA	NA	NA	NA	NA	--
Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-50I MSA-MW-50I-041414 20140414	MSA-MW-50S MSA-MW-50S-041414 20140414	MSA-MW-51D MSA-MW-51D-041714 20140417	MSA-MW-51I MSA-MW-51I-041614 20140416	MSA-MW-51S MSA-MW-51S-041614 20140416	DR-MW-52D MSA-MW-52D-052014 20140520
ARSENIC	10	8.7	12	--	5.6	2.3 J	--
BARIUM	2000	21 J	--	96	15	33	34 J
BERYLLIUM	4	3	2.7	0.63 J	2	--	1 J
CADMIUM	5	--	--	1.8	13	0.055 J	22
CALCIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	42	7.9	1.2 J	8.8	0.77 J	10
COBALT	NA	130	90	38	78	2.9	140
COPPER	1300	--	--	17	130	--	--
IRON	300	31000	27000	15000	43000	6000	NA
LEAD	15	--	--	0.91 J	4.7	--	3 J
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	2500	2100	1600	2300	860	NA
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	2.6 J	--	1.8 J	--
NICKEL	73	38	77	25	37	5.4	41
POTASSIUM	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	18	24	3 J	12	1.4 J	--
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	--	--	--	--	--
SODIUM	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	11	8.3	--	--	--	--
ZINC	5000	NA	NA	NA	NA	NA	63
Dissolved Metals (µg/L)							
ANTIMONY	6	--	--	--	--	--	--
ARSENIC	10	7.9	11	8.2	4.7 J	1.8 J	--
BARIUM	2000	22 J	--	27	15	31	32 J
BERYLLIUM	4	2.9	2.6	3.3	2.1	--	0.99 J
CADMIUM	5	--	--	4.7	2.5	--	--
CHROMIUM	100	25	7.6	3.9	7.6	0.21 J	8.4 J
COBALT	NA	130	90	100	75	3.1	140
COPPER	1300	--	--	37	7.4	--	--
IRON	300	27000	27000	19000	40000	560	NA
LEAD	15	--	--	1.4	1.8	--	2.5 J
MANGANESE	50	2600	2000	2800	2300	870	NA
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	1.3 J	--
NICKEL	73	37	76	60	34	7.7	42
SELENIUM	50	17	25	17	12	1 J	--
SILVER	100	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	MSA-MW-50I MSA-MW-50I-041414 20140414	MSA-MW-50S MSA-MW-50S-041414 20140414	MSA-MW-51D MSA-MW-51D-041714 20140417	MSA-MW-51I MSA-MW-51I-041614 20140416	MSA-MW-51S MSA-MW-51S-041614 20140416	DR-MW-52D MSA-MW-52D-052014 20140520
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	4 J	7.8	--	--	--	--
ZINC	5000	NA	NA	NA	NA	NA	51
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	--	--	--	--	--	--
PERCHLORATE	2.6	0.12 J	--	0.094 J	0.13 J	0.48 J	NA
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	NA	170 J	NA	NA	790 J	1000 J
DIESEL-RANGE ORGANICS	47	NA	--	NA	NA	640	990
Radionuclides (pCi/L)							
RADIUM-228	5	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	5	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	DR-MW-52I MSA-MW-52I-052014 20140520	DR-MW-52S MSA-MW-52S-052014 20140520	DR-MW-53I MSA-MW-53I-052114 20140521	DR-MW-53S MSA-MW-53S-052114 20140521	DR-MW-54I MSA-MW-54I-051914 20140519	DR-MW-54S MSA-MW-54S-051914 20140519
Volatiles (µg/L)							
1,1,1-TRICHLOROETHANE	200	55 J	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	14 J	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	10 J	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	210 J	12 J	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	8.6 J	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	150 J	52	76 J	1.2 J	--	--
1,3-DICHLOROBENZENE	2	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--
BENZENE	5	43 J	21 J	44 J	0.54 J	--	--
BROMODICHLOROMETHANE	80	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	34 J	--	--	--	3100	810 J
CHLOROBENZENE	100	130 J	65	--	--	--	--
CHLORODIBROMOMETHANE	80	--	--	--	--	--	--
CHLOROETHANE	4	--	--	--	--	--	--
CHLOROFORM	80	100 J	20 J	--	10	5500	7200
CIS-1,2-DICHLOROETHENE	70	5600	2800	8300	76	6400	26000
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--
ETHYLBENZENE	700	--	27 J	--	--	--	--
M+P-XYLENES	NA	--	18 J	--	--	--	--
METHYLENE CHLORIDE	5	--	--	--	1.1 J	980 J	700 J
NAPHTHALENE	0.7	--	--	--	--	--	--
O-XYLENE	NA	--	9 J	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	21 J	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--
TOLUENE	1000	--	69	150 J	2.8	2400	15000
TOTAL XYLENES	10000	--	27 J	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	22 J	--	0.55 J	--	--
TRICHLOROETHENE	5	26000	3900	4700	60	28000	28000
VINYL CHLORIDE	2	2100	660	2100	26	450 J	1700
Volatile Gasses (µg/L)							
ETHANE	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	DR-MW-52I MSA-MW-52I-052014 20140520	DR-MW-52S MSA-MW-52S-052014 20140520	DR-MW-53I MSA-MW-53I-052114 20140521	DR-MW-53S MSA-MW-53S-052114 20140521	DR-MW-54I MSA-MW-54I-051914 20140519	DR-MW-54S MSA-MW-54S-051914 20140519
ETHENE	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA
Tentatively Identified Compounds (µg/L)							
ACETALDEHYDE	NA	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA	NA
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)							
1,1-BIPHENYL	NA	--	--	--	--	0.18 J	--
1,4-DIOXANE[2]	3	500	290	380	150	140	480
2,4-DIMETHYLPHENOL	73	--	--	0.78 J	--	--	10 J
2-METHYLNAPHTHALENE	2	2.1 J	--	0.16 J	--	1.9	--
2-METHYLPHENOL	180	--	--	0.61 J	--	2.8	350
3&4-METHYLPHENOL	NA	--	--	1.8 J	--	3.5	410
4-NITROPHENOL	NA	--	--	--	--	1.7 J	--
ACENAPHTHENE	37	--	1.5	--	--	--	--
ACETOPHENONE	NA	--	--	--	--	4.7	7.4 J
CAPROLACTAM	NA	--	--	--	--	--	7.6 J
DIBENZOFURAN	4	--	--	--	--	0.34 J	--
DIETHYL PHTHALATE	2900	--	--	--	--	1 J	--
FLUORENE	24	--	1.1 J	0.2	--	--	--
NAPHTHALENE	0.7	5.5	--	1	--	8	8.3
PHENANTHRENE	180	--	0.76 J	0.18 J	--	--	--
PHENOL	1100	--	--	0.82 J	--	7.5	23
Metals (µg/L)							
ANTIMONY	6	3.6 J	2.1 J	--	4.1 J	--	4.9 J

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	DR-MW-52I MSA-MW-52I-052014 20140520	DR-MW-52S MSA-MW-52S-052014 20140520	DR-MW-53I MSA-MW-53I-052114 20140521	DR-MW-53S MSA-MW-53S-052114 20140521	DR-MW-54I MSA-MW-54I-051914 20140519	DR-MW-54S MSA-MW-54S-051914 20140519
ARSENIC	10	3.6 J	7 J	8.9 J	--	--	7.1 J
BARIUM	2000	19 J	65 J	19 J	170 J	53 J	62 J
BERYLLIUM	4	1.1 J	--	2.9 J	--	--	--
CADMIUM	5	75	1.3 J	200 J	9.1 J	120	44
CALCIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	8.5 J	6.8 J	48 J	5 J	9.1 J	28
COBALT	NA	220	13	320	61	170	79
COPPER	1300	--	--	90 J	--	--	17 J
IRON	300	NA	NA	NA	NA	NA	NA
LEAD	15	5.1 J	2.6 J	4.8 J	--	--	6.5 J
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	NA	NA	NA	NA	NA	NA
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	4.6 J	--	3.9 J	5 J	6.3 J
NICKEL	73	72	20 J	240	67	120	89
POTASSIUM	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	--	--	--	--	--	--
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	--	--	--	--	--
SODIUM	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	--	--	64 J	--	--	26
ZINC	5000	190	33 J	570	210	910	740
Dissolved Metals (µg/L)							
ANTIMONY	6	3.3 J	3.8 J	--	--	--	--
ARSENIC	10	--	6.3 J	7 J	--	--	3.9 J
BARIUM	2000	17 J	65 J	18 J	170 J	53 J	34 J
BERYLLIUM	4	1.2 J	--	2.9 J	--	--	--
CADMIUM	5	11	1.5 J	190 J	9.1 J	110	45
CHROMIUM	100	5.9 J	5.8 J	36 J	3.5 J	4.6 J	5.2 J
COBALT	NA	230	13	320	61	170	80
COPPER	1300	--	--	56 J	--	--	--
IRON	300	NA	NA	NA	NA	NA	NA
LEAD	15	2 J	2.8 J	5.4 J	2.7 J	--	--
MANGANESE	50	NA	NA	NA	NA	NA	NA
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	3.8 J	--	3.2 J	6.2 J	4.6 J
NICKEL	73	76	21 J	240	68	110	90
SELENIUM	50	--	--	--	--	--	--
SILVER	100	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 72 of 72

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2] (µg/L)	DR-MW-52I MSA-MW-52I-052014 20140520	DR-MW-52S MSA-MW-52S-052014 20140520	DR-MW-53I MSA-MW-53I-052114 20140521	DR-MW-53S MSA-MW-53S-052114 20140521	DR-MW-54I MSA-MW-54I-051914 20140519	DR-MW-54S MSA-MW-54S-051914 20140519
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	--	--	53	--	--	--
ZINC	5000	160	35 J	580	210	870	690
Miscellaneous Parameters (mg/L)							
ALKALINITY	NA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters (µg/L)							
HEXAVALENT CHROMIUM (µg/L)	100	--	--	--	--	--	--
PERCHLORATE	2.6	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	1200 J	660 J	5400 J	--	19000 J	52000 J
DIESEL-RANGE ORGANICS	47	570	3200	1400	470 J	2700	1500
Radionuclides (pCi/L)							
RADIUM-228	5	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	5	NA	NA	NA	NA	NA	NA

1 Maryland Department of the Environment (MDE) groundwater standards (MDE, 2008) unless noted.

2 State of California drinking water action level. MDE standard not available.

Shading indicates value exceeds groundwater standard or action level.

µg/L - micrograms per liter

*Although this well is identified as a deep well (suffix 'D'), it is screened in the intermediate zone of the surficial aquifer

NA - not available (second column) or not analyzed

J - chemical detected, concentration is estimated

NJ - analyte tentatively identified; concentration is estimated

mg/L - milligrams per liter

pCi/L - picoCuries per liter

Table 4-4

Statistical Summary of Groundwater Sampling Results-2014
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 1 of 2

Parameter	Frequency of Detection	Minimum Non-Detect	Maximum Non-Detect	Minimum Result	Minimum Qualifier	Maximum Result	Maximum Qualifier	Location of Max Detect	Sample of Max Detect	Average of Positive Results	Average of All Results	Standard Deviation
Volatile organic compounds (µg/L)												
1,2,3-TRIMETHYLBENZENE	1/12	0.0059	0.0059	2.3	J	2.3	J	MT-MW02S	MT-MW-02S-032614	2.3	0.1944	0.6631
1,2,4-TRIMETHYLBENZENE	1/12	0.12	0.12	0.53	J	0.53	J	MT-MW02S	MT-MW-02S-032614	0.53	0.09917	0.1357
2-BUTANONE	2/12	0.57	0.57	2.5	J	3.2	J	MT-MW07S	MT-MW-07S-032614	2.85	0.7125	1.01
4-ISOPROPYLTOLUENE	1/12	0.12	0.12	0.33	J	0.33	J	MT-MW02S	MT-MW-02S-032614	0.33	0.0825	0.07794
ACETONE	5/12	1.1	1.1	2.8	J	12	--	MT-MW08S	MT-MW-08S-032614	6.62	3.079	4.145
BENZENE	1/12	0.13	0.13	13	--	13	--	MT-MW02S	MT-MW-02S-032614	13	1.143	3.734
CARBON TETRACHLORIDE	1/12	0.13	0.13	0.3	J	0.3	J	MT-MW12S	MT-MW-12S-032814	0.3	0.08458	0.06784
CHLOROFORM	2/12	0.16	0.16	0.4	J	6.7	--	MT-MW12S	MT-MW-12S-032814	3.55	0.6583	1.905
CIS-1,2-DICHLOROETHENE	1/12	0.17	0.17	1.8	--	1.8	--	MT-MW02S	MT-MW-02S-032614	1.8	0.2279	0.4951
ETHYLBENZENE	1/12	0.17	0.17	6.3	--	6.3	--	MT-MW02S	MT-MW-02S-032614	6.3	0.6029	1.794
ISOPROPYLBENZENE	1/12	0.13	0.13	6.9	--	6.9	--	MT-MW02S	MT-MW-02S-032614	6.9	0.6346	1.973
M+P-XYLENES	1/12	0.24	0.24	4.4	--	4.4	--	MT-MW02S	MT-MW-02S-032614	4.4	0.4767	1.236
NAPHTHALENE	1/12	0.24	0.24	0.6	J	0.6	J	MT-MW02S	MT-MW-02S-032614	0.6	0.16	0.1386
N-PROPYLBENZENE	1/12	0.14	0.14	1.6	--	1.6	--	MT-MW02S	MT-MW-02S-032614	1.6	0.1975	0.4417
O-XYLENE	1/12	0.14	0.14	3.2	--	3.2	--	MT-MW02S	MT-MW-02S-032614	3.2	0.3308	0.9036
SEC-BUTYLBENZENE	1/12	0.13	0.13	0.28	J	0.28	J	MT-MW02S	MT-MW-02S-032614	0.28	0.08292	0.06207
TOTAL XYLENES	1/12	0.14	0.14	7.6	--	7.6	--	MT-MW02S	MT-MW-02S-032614	7.6	0.6975	2.174
TRICHLOROETHENE	1/12	0.17	0.17	0.37	J	0.37	J	MT-MW05S	MT-MW-5S-032714	0.37	0.1088	0.08227
Tentatively identified compounds [TICs] (µg/L)												
3,4-DIMETHYL-2-PENTANONE	1/1	--	--	4.3	NJ	4.3	NJ	MT-MW02S	MT-MW-02S-032614	4.3	4.3	--
3-PENTANOL, 2,2-DIMETHYL-	1/1	--	--	4.3	NJ	4.3	NJ	MT-MW02S	MT-MW-02S-032614	4.3	4.3	--
3-PENTANONE, 2,2-DIMETHYL-	1/1	--	--	100	NJ	100	NJ	MT-MW02S	MT-MW-02S-032614	100	100	--
3-PENTANONE, 2,4-DIMETHYL-	1/1	--	--	8.6	NJ	8.6	NJ	MT-MW02S	MT-MW-02S-032614	8.6	8.6	--
BENZENE, 1,2,4,5-TETRAMETHYL-	1/1	--	--	5.7	NJ	5.7	NJ	MT-MW02S	MT-MW-02S-032614	5.7	5.7	--
BENZENE, 1,3,5-TRIMETHYL-	1/1	--	--	36	NJ	36	NJ	MT-MW02S	MT-MW-02S-032614	36	36	--
BENZENE, 4-ETHYL-1,2-DIMETHYL-	1/1	--	--	6.3	NJ	6.3	NJ	MT-MW02S	MT-MW-02S-032614	6.3	6.3	--
CYCLOBUTANE, METHYL-	1/1	--	--	4.4	NJ	4.4	NJ	MT-MW02S	MT-MW-02S-032614	4.4	4.4	--
CYCLOHEXANE	1/1	--	--	11	NJ	11	NJ	MT-MW02S	MT-MW-02S-032614	11	11	--
CYCLOPENTANE, METHYL-	1/1	--	--	5.2	NJ	5.2	NJ	MT-MW02S	MT-MW-02S-032614	5.2	5.2	--
PROPANOIC ACID, 2-METHYL-, TERT-BUTYLDIM	1/1	--	--	2.2	NJ	2.2	NJ	MT-MW06S	MT-MW-6S-032714	2.2	2.2	--
Metals (µg/L)												
ARSENIC	6/12	0.57	1.4	0.96	J	4.1	J	MT-MW01S	MT-MW-01S-032614	2.357	1.395	1.452
BARIUM	12/12	--	--	20	--	150	--	MT-MW01S	MT-MW-01S-032614	63.83	63.83	43.58
CADMIUM	6/12	0.026	0.026	0.03	J	2.6	--	MT-MW06S	MT-MW-6S-032714	0.8215	0.4173	0.7911
CHROMIUM	12/12	--	--	0.13	J	1.3	J	MT-MW08S	MT-MW-08S-032614	0.585	0.585	0.3793
COBALT	12/12	--	--	6.3	--	640	--	MT-MW06S	MT-MW-6S-032714	220	220	227.8

Table 4-4

Statistical Summary of Groundwater Sampling Results-2014
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

Parameter	Frequency of Detection	Minimum Non-Detect	Maximum Non-Detect	Minimum Result	Minimum Qualifier	Maximum Result	Maximum Qualifier	Location of Max Detect	Sample of Max Detect	Average of Positive Results	Average of All Results	Standard Deviation
COPPER	10/12	0.24	1.2	0.88	J	76	--	MT-MW04S	MT-MW-4S-032714	22.84	19.09	25.87
IRON	12/12	--	--	47	J	120000	--	MT-MW02S	MT-MW-02S-032614	17460	17460	34780
LEAD	11/12	0.14	0.14	0.14	J	2.2	--	MT-MW05S	MT-MW-5S-032714	0.7573	0.7	0.6578
MANGANESE	12/12	--	--	74	--	11000	--	MT-MW06S	MT-MW-6S-032714	2369	2369	3281
MOLYBDENUM	4/12	0.81	0.81	1.2	J, ,	2.2	J	MT-MW03S	MT-MW-03S-032814	1.45	0.7533	0.577
NICKEL	12/12	--	--	8	--	1400	--	MT-MW06S	MT-MW-6S-032714	392.2	392.2	492.3
SELENIUM	7/12	0.34	0.34	0.35	J	1.2	J	MT-MW12S	MT-MW-12S-032814	0.6357	0.4417	0.3499
SILVER	1/12	0.0083	0.031	0.081	J	0.081	J	MT-MW06S	MT-MW-6S-032714	0.081	0.01358	0.02152
THALLIUM	1/12	0.4	0.4	0.4	J	0.4	J	MT-MW05S	MT-MW-5S-032714	0.4	0.2167	0.05774
VANADIUM	6/12	0.76	2.2	0.66	J	4	J	MT-MW07S	MT-MW-07S-032614	1.43	1.033	0.9851
Dissolved metals (µg/L)												
ARSENIC	6/12	0.56	0.85	0.74	J	3.5	J	MT-MW02S	MT-MW-02S-032614	1.95	1.147	1.181
BARIUM	12/12	--	--	19	--	140	--	MT-MW01S, MT-MW06S	MT-MW-01S-032614, MT-MW-6S-032714	62.25	62.25	42.53
BERYLLIUM	10/12	0.12	0.13	0.32	J	86	--	MT-MW06S	MT-MW-6S-032714	18.18	15.16	27.86
CADMIUM	7/12	0.026	0.026	0.027	J	2.5	--	MT-MW06S	MT-MW-6S-032714	0.7111	0.4203	0.7774
CHROMIUM	8/12	0.13	0.13	0.17	J	0.46	J	MT-MW01S	MT-MW-01S-032614	0.285	0.2117	0.1306
COBALT	12/12	--	--	6.2	--	660	--	MT-MW06S	MT-MW-6S-032714	222.5	222.5	236.8
COPPER	7/12	0.24	0.66	0.75	J	80	--	MT-MW04S	MT-MW-4S-032714	29.11	17.06	27.31
IRON	10/12	12	12	170	--	120000	--	MT-MW02S	MT-MW-02S-032614	19490	16240	35060
LEAD	6/12	0.14	0.14	0.23	J	1.5	--	MT-MW06S	MT-MW-6S-032714	0.7367	0.4033	0.4992
MANGANESE	12/12	--	--	72	--	10000	--	MT-MW06S	MT-MW-6S-032714	2298	2298	3071
MOLYBDENUM	4/12	0.81	0.81	0.83	J	2.4	J	MT-MW03S	MT-MW-03S-032814	1.358	0.7225	0.5967
NICKEL	12/12	--	--	9.8	--	1400	--	MT-MW06S	MT-MW-6S-032714	402	402	509.8
SELENIUM	5/12	0.34	0.34	0.34	J	1.1	J	MT-MW12S	MT-MW-12S-032814	0.698	0.39	0.3367
SILVER	1/12	0.0083	0.022	0.061	J	0.061	J	MT-MW06S	MT-MW-6S-032714	0.061	0.01013	0.0162
VANADIUM	6/12	0.61	1.4	0.22	J	1.5	J	MT-MW07S	MT-MW-07S-032614	0.6433	0.5525	0.336
Petroleum hydrocarbons (µg/L)												
GASOLINE-RANGE ORGANICS	12/12	--	--	32	J	510	--	MT-MW02S	MT-MW-02S-032614	80.33	80.33	135.6
DIESEL-RANGE ORGANICS	6/12	240	240	610	--	5200	--	MT-MW02S	MT-MW-02S-032614	1810	965	1458

J - chemical detected, concentration is estimated

µg/L - micrograms per liter

NJ - analyte tentatively identified; concentration is estimated

Table 4-5

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 1 of 4

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standards[1] (µg/L)	MT-MW01S MT-MW-01S-032614 3/26/2014	MT-MW02S MT-MW-02S-032614 3/26/2014	MT-MW03S MT-MW-03S-032814 3/28/2014	MT-MW04S MT-MW-4S-032714 3/27/2014	MT-MW05S MT-MW-5S-032714 3/27/2014	MT-MW06S MT-MW-6S-032714 3/27/2014
Volatile organic compounds (µg/L)							
1,2,3-TRIMETHYLBENZENE	NA	--	2.3 J	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	0.53 J	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--
4-ISOPROPYLTOLUENE	NA	--	0.33 J	--	--	--	--
ACETONE	550	2.8 J	2.9 J	4.4 J	--	--	--
BENZENE	5	--	13	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	0.4 J	--	--
CIS-1,2-DICHLOROETHENE	70	--	1.8	--	--	--	--
ETHYLBENZENE	700	--	6.3	--	--	--	--
ISOPROPYLBENZENE	66	--	6.9	--	--	--	--
M+P-XYLENES	NA	--	4.4	--	--	--	--
NAPHTHALENE	0.7	--	0.6 J	--	--	--	--
N-PROPYLBENZENE	NA	--	1.6	--	--	--	--
O-XYLENE	NA	--	3.2	--	--	--	--
SEC-BUTYLBENZENE	NA	--	0.28 J	--	--	--	--
TOTAL XYLENES	10000	--	7.6	--	--	--	--
TRICHLOROETHENE	5	--	--	--	--	0.37 J	--
Tentatively identified compounds (µg/L)							
CYCLOBUTANE, METHYL-	NA	NA	4.4 NJ	NA	NA	NA	NA
Metals (µg/L)							
ARSENIC	10	4.1 J	4 J	--	--	--	--
BARIUM	2000	150	83	44	61	22	140
BERYLLIUM	4	1.9	0.52 J	0.57 J	4.3	28	87
CADMIUM	5	--	--	--	0.16 J	0.86 J	2.6
CHROMIUM	100	1.2 J	0.5 J	0.92 J	0.31 J	0.5 J	0.32 J
COBALT	NA	200	42	8.9	230	350	640
COPPER	1300	--	15	2.4	76	33	57
IRON	300	47000	120000	4000	160	4600	47 J
LEAD	15	0.5 J	0.42 J	1.1	1.2	2.2	1.5
MANGANESE	50	2800	720	180	210	4600	11000
MOLYBDENUM	NA	1.2 J	--	2.2 J	--	--	--
NICKEL	73	83	31	21	340	700	1400
SELENIUM	50	0.38 J	0.45 J	0.35 J	--	0.71 J	1 J

Table 4-5

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 2 of 4

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standards[(1)] (µg/L)	MT-MW01S MT-MW-01S-032614 3/26/2014	MT-MW02S MT-MW-02S-032614 3/26/2014	MT-MW03S MT-MW-03S-032814 3/28/2014	MT-MW04S MT-MW-4S-032714 3/27/2014	MT-MW05S MT-MW-5S-032714 3/27/2014	MT-MW06S MT-MW-6S-032714 3/27/2014
SILVER	100	--	--	--	--	--	--
THALLIUM	2	--	--	--	--	0.4 J	--
VANADIUM	4	0.68 J	1 J	--	--	--	--
Dissolved metals (µg/L)							
ARSENIC	10	3.1 J	3.5 J	--	--	--	--
BARIUM	2000	140	85	42	61	19	140
BERYLLIUM	4	1.5	0.48 J	0.32 J	4.3	29	86
CADMIUM	5	0.031 J	--	--	0.17 J	0.89 J	2.5
CHROMIUM	100	0.46 J	0.27 J	--	0.17 J	--	0.27 J
COBALT	NA	180	42	8.7	230	370	660
COPPER	1300	--	--	0.84 J	80	29	58
IRON	300	45000	120000	1800	--	170	--
LEAD	15	0.59 J	--	--	1.3	0.36 J	1.5
MANGANESE	50	2700	750	180	220	4800	10000
MOLYBDENUM	NA	1.1 J	--	2.4 J	--	--	--
NICKEL	73	67	30	23	360	720	1400
SELENIUM	50	0.46 J	0.61 J	0.34 J	--	--	0.98 J
SILVER	100	--	--	--	--	--	0.061 J
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	0.22 J	0.63 J	--	--	--	--
Petroleum hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	36 J	510	32 J	36 J	57 J	46 J
DIESEL-RANGE ORGANICS	47	1300	5200	1900	--	--	610

Table 4-5

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standards[(1)] (µg/L)	MT-MW07S MT-MW-07S-032614 3/26/2014	MT-MW08S MT-MW-08S-032614 3/26/2014	MT-MW09S MT-MW-9S-032714 3/27/2014	MT-MW10S MT-MW-10S-032714 3/27/2014	MT-MW11S MT-MW-11S-032814 3/28/2014	MT-MW12S MT-MW-12S-032814 3/28/2014
Volatile organic compounds (µg/L)							
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--
2-BUTANONE	700	3.2 J	2.5 J	--	--	--	--
4-ISOPROPYLTOLUENE	NA	--	--	--	--	--	--
ACETONE	550	11	12	--	--	--	--
BENZENE	5	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	0.3 J
CHLOROFORM	80	--	--	--	--	--	6.7
CIS-1,2-DICHLOROETHENE	70	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--
ISOPROPYLBENZENE	66	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--
NAPHTHALENE	0.7	--	--	--	--	--	--
N-PROPYLBENZENE	NA	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--
TOTAL XYLENES	10000	--	--	--	--	--	--
TRICHLOROETHENE	5	--	--	--	--	--	--
Tentatively identified compounds (µg/L)							
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA	NA	NA
Metals (µg/L)							
ARSENIC	10	0.96 J	3.1 J	--	--	1 J	0.98 J
BARIUM	2000	23	20	52	69	74	28
BERYLLIUM	4	0.37 J	--	2.6	4.8	--	53
CADMIUM	5	--	--	0.03 J	--	0.079 J	1.2
CHROMIUM	100	0.55 J	1.3 J	0.13 J	0.7 J	0.42 J	0.17 J
COBALT	NA	19	14	6.3	140	410	580
COPPER	1300	--	2.8	0.88 J	3.2	1.1 J	37
IRON	300	11000	13000	1400	2300	3200	2800
LEAD	15	0.17 J	0.47 J	--	0.31 J	0.14 J	0.32 J
MANGANESE	50	130	74	280	430	2800	5200
MOLYBDENUM	NA	--	1.2 J	--	1.2 J	--	--
NICKEL	73	18	8	15	220	670	1200
SELENIUM	50	--	--	--	--	0.36 J	1.2 J

Table 4-5

Detected Analytes and Screening Criteria Exceedances for Groundwater Samples-2014
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland
Page 4 of 4

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standards[(1)] (µg/L)	MT-MW07S MT-MW-07S-032614 3/26/2014	MT-MW08S MT-MW-08S-032614 3/26/2014	MT-MW09S MT-MW-9S-032714 3/27/2014	MT-MW10S MT-MW-10S-032714 3/27/2014	MT-MW11S MT-MW-11S-032814 3/28/2014	MT-MW12S MT-MW-12S-032814 3/28/2014
SILVER	100	--	--	--	--	--	--
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	4 J	1.3 J	--	--	0.94 J	0.66 J
Dissolved metals (µg/L)							
ARSENIC	10	0.91 J	2.5 J	--	--	0.74 J	0.95 J
BARIUM	2000	22	19	49	68	74	28
BERYLLIUM	4	0.36 J	--	2.1	2.7	--	55
CADMIUM	5	--	--	0.027 J	--	0.06 J	1.3
CHROMIUM	100	0.18 J	0.29 J	--	0.3 J	--	0.34 J
COBALT	NA	19	14	6.2	120	420	600
COPPER	1300	--	--	0.75 J	2.2	--	33
IRON	300	10000	12000	520	590	1100	3700
LEAD	15	--	0.23 J	--	--	--	0.44 J
MANGANESE	50	140	72	280	330	2800	5300
MOLYBDENUM	NA	--	0.83 J	--	1.1 J	--	--
NICKEL	73	19	9.8	15	210	670	1300
SELENIUM	50	--	--	--	--	--	1.1 J
SILVER	100	--	--	--	--	--	--
THALLIUM	2	--	--	--	--	--	--
VANADIUM	4	1.5 J	0.29 J	--	--	0.61 J	0.61 J
Petroleum hydrocarbons (µg/L)							
GASOLINE-RANGE ORGANICS	47	34 J	33 J	46 J	58 J	35 J	41 J
DIESEL-RANGE ORGANICS	47	1100	750	--	--	--	--

1 Maryland Department of the Environment (MDE) groundwater standards (MDE, 2008).

Gray shading indicates value exceeds the groundwater standard.

-- = not detected

J - estimated concentration

µg/L - micrograms per liter (i.e., parts per billion)

MDE - Maryland Department of the Environment

MT - Main Terminal

MW - monitoring well

NA - value not available (second column) or not analyzed



FIGURE 4-1

GROUNDWATER ELEVATION CONTOURS, MARCH 2014
UPPER SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

- UPPER SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- 4.08 — GROUNDWATER ELEVATION (IN FEET, NORTH AMERICAN VERTICAL DATUM, 1988)
- 4 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL = 1 FOOT, DASHED WHERE INFERRED)
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- TAXIWAY TANGO AREA - NORTH
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- #20 — FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 08/29/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_contours_march2014_shallow.mxd)
08/29/14 -- JEE

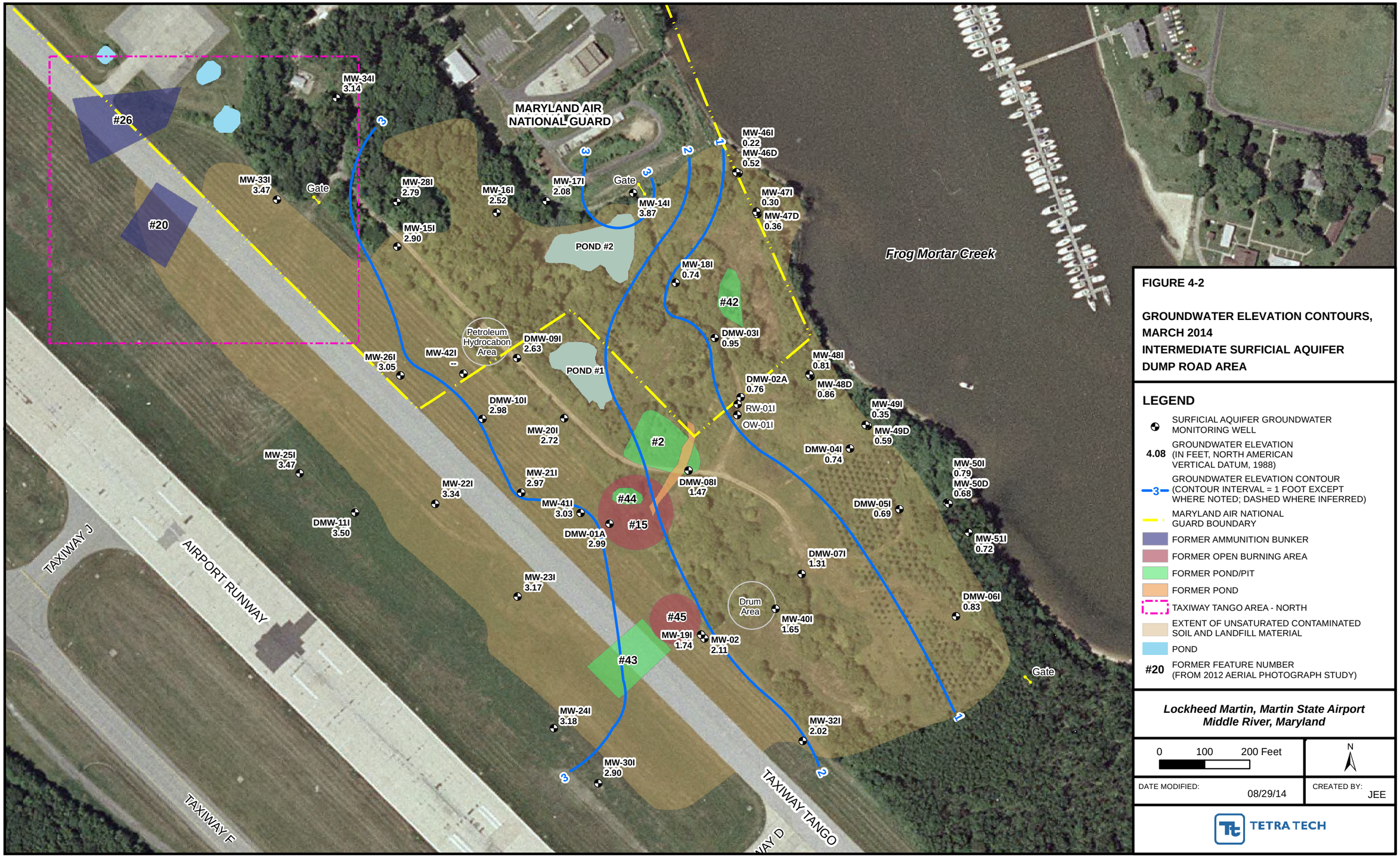


FIGURE 4-2

GROUNDWATER ELEVATION CONTOURS, MARCH 2014
INTERMEDIATE SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- 4.08 GROUNDWATER ELEVATION (IN FEET, NORTH AMERICAN VERTICAL DATUM, 1988)
- 3 GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL = 1 FOOT EXCEPT WHERE NOTED; DASHED WHERE INFERRED)
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- TAXIWAY TANGO AREA - NORTH
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- #20 FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 08/29/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_contours_march2014_intermediate.mxd)
08/29/14 -- JEE



FIGURE 4-3

GROUNDWATER ELEVATION CONTOURS, MARCH 2014
LOWER SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- 1.45 — GROUNDWATER ELEVATION (IN FEET, NORTH AMERICAN VERTICAL DATUM, 1988)
- GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL = 1 FOOT EXCEPT WHERE NOTED; DASHED WHERE INFERRED)
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- TAXIWAY TANGO AREA - NORTH
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- #20 — FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 08/29/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_contours_march2014_deep.mxd)
08/29/14 -- JEE

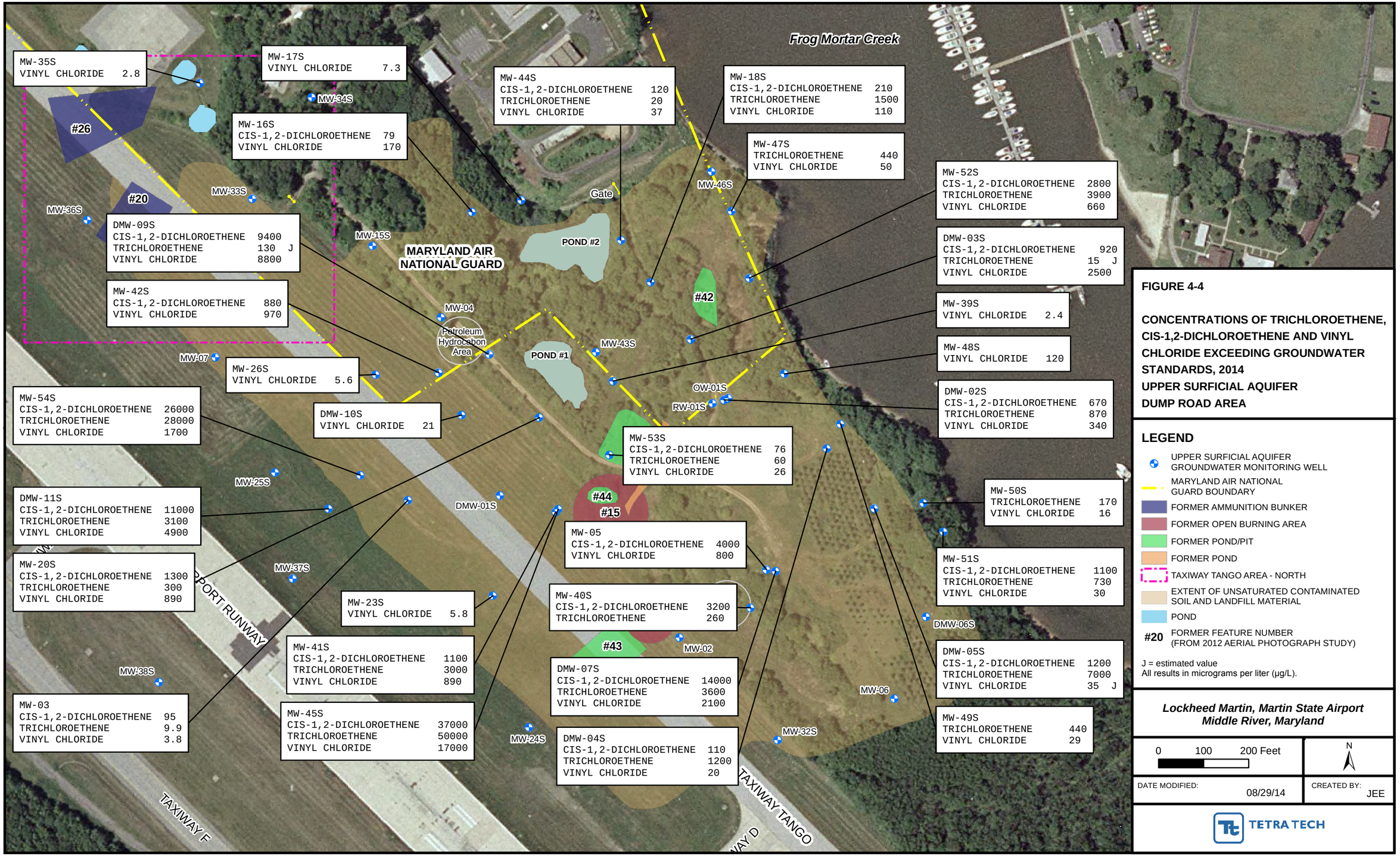


FIGURE 4-4

CONCENTRATIONS OF TRICHLOROETHENE, CIS-1,2-DICHLOROETHENE AND VINYL CHLORIDE EXCEEDING GROUNDWATER STANDARDS, 2014
UPPER SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

- UPPER SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- TAXIWAY TANGO AREA - NORTH
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- #20 FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

J = estimated value
All results in micrograms per liter (µg/L).

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 08/29/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_exc_tags_march2014_tcv.mxd)
08/29/14 -- JEE

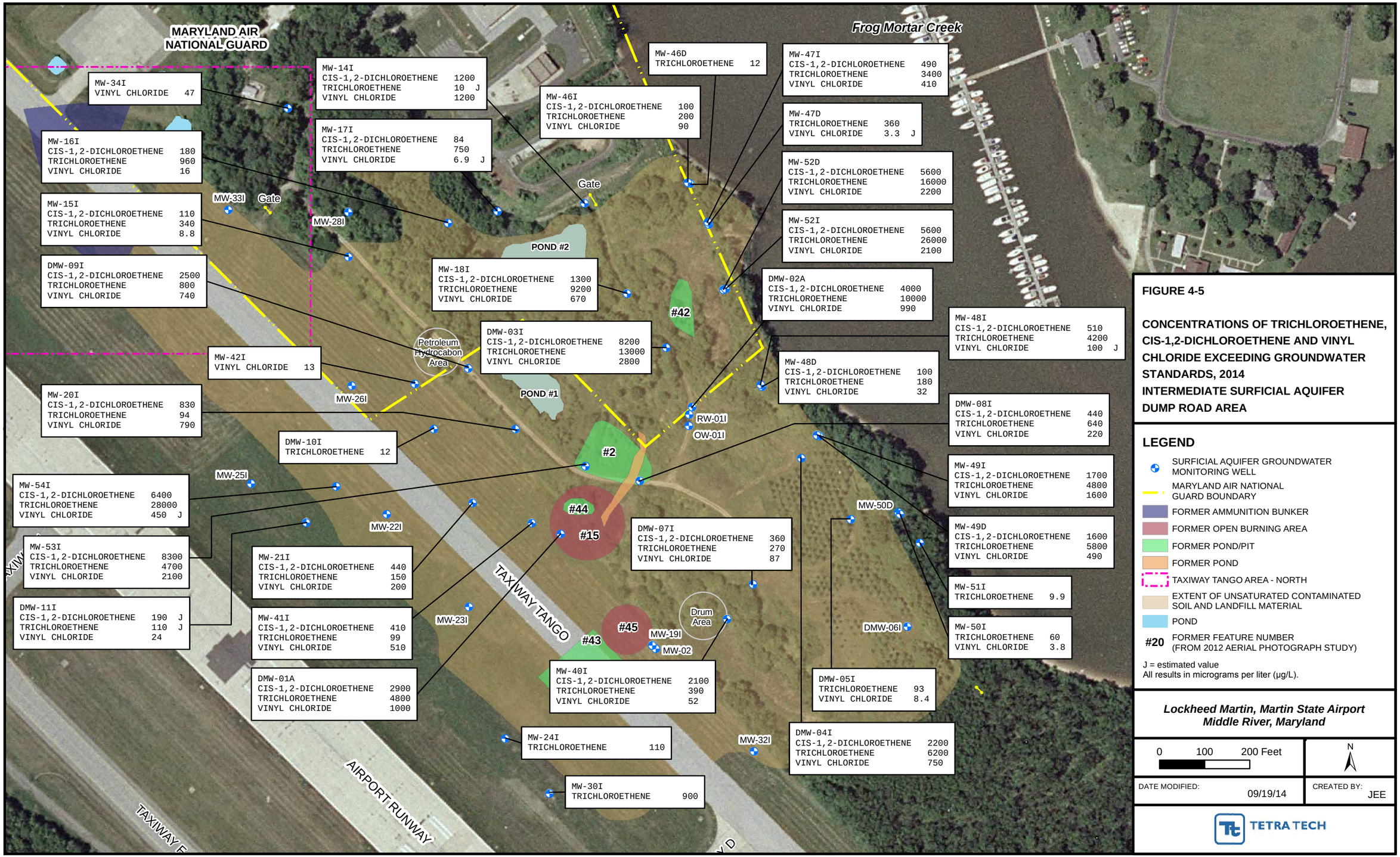


FIGURE 4-5

CONCENTRATIONS OF TRICHLOROETHENE, CIS-1,2-DICHLOROETHENE AND VINYL CHLORIDE EXCEEDING GROUNDWATER STANDARDS, 2014
INTERMEDIATE SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- TAXIWAY TANGO AREA - NORTH
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- #20 FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

J = estimated value
All results in micrograms per liter (µg/L).

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 09/19/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_exc_tags_march2014_intermediate_ctv.mxd)
09/19/14 -- JEE

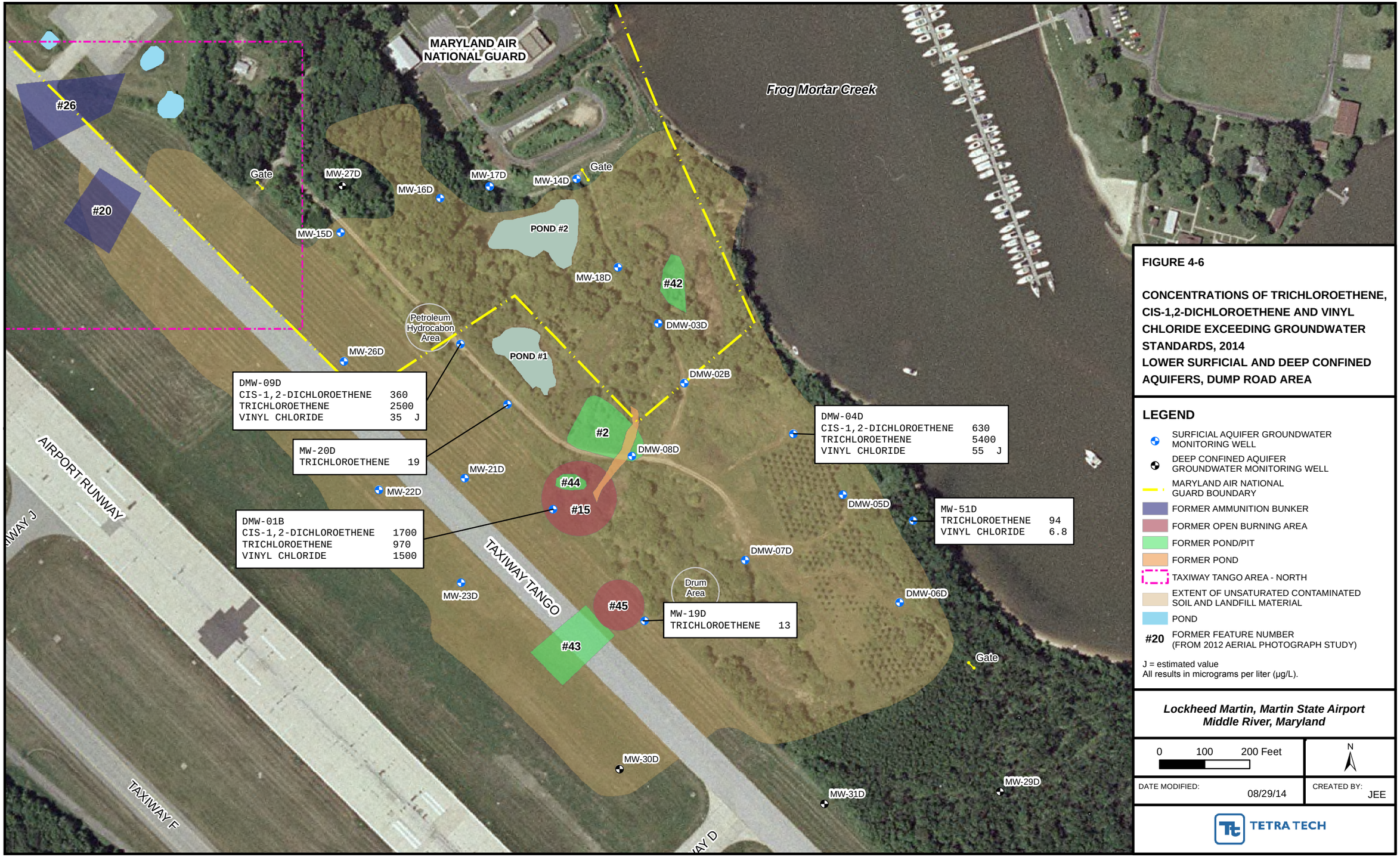


FIGURE 4-6

CONCENTRATIONS OF TRICHLOROETHENE, CIS-1,2-DICHLOROETHENE AND VINYL CHLORIDE EXCEEDING GROUNDWATER STANDARDS, 2014
LOWER SURFICIAL AND DEEP CONFINED AQUIFERS, DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- TAXIWAY TANGO AREA - NORTH
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- #20 FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

J = estimated value
All results in micrograms per liter (µg/L).

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 08/29/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_exc_tags_march2014_deep_ctv.mxd)
08/29/14 -- JEE



FIGURE 4-7

CONCENTRATIONS OF BENZENE EXCEEDING THE GROUNDWATER STANDARD, 2014
DUMP ROAD AREA

LEGEND

- SURFICIAL OR CONFINED AQUIFER GROUNDWATER MONITORING WELL
- DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- TAXIWAY TANGO AREA - NORTH
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- #20 FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

J = estimated value
All results in micrograms per liter (µg/L).

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 08/29/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_exc_tags_march2014_benzene.mxd)
08/29/14 -- JEE

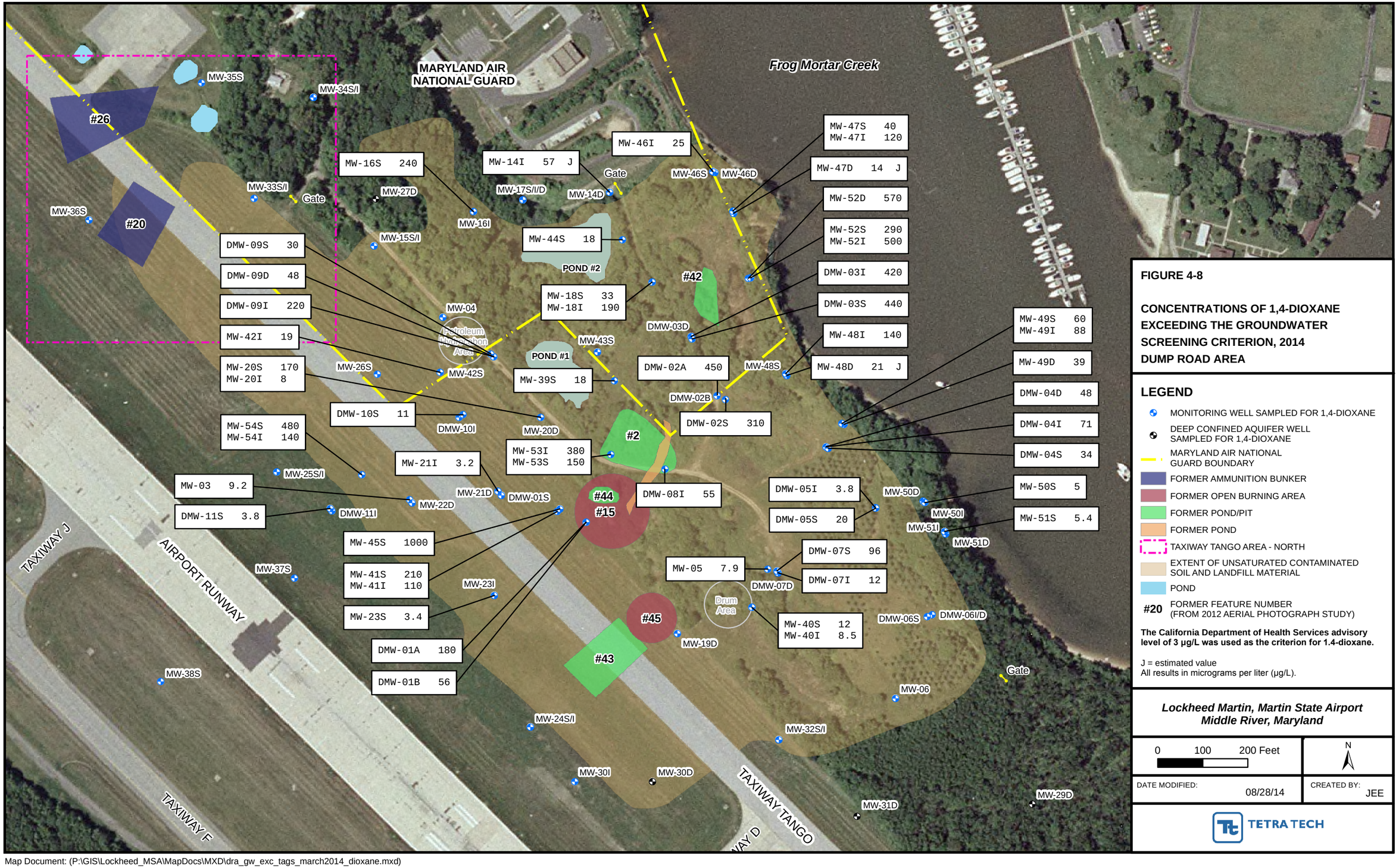


FIGURE 4-8

CONCENTRATIONS OF 1,4-DIOXANE EXCEEDING THE GROUNDWATER SCREENING CRITERION, 2014
DUMP ROAD AREA

LEGEND

- MONITORING WELL SAMPLED FOR 1,4-DIOXANE
- DEEP CONFINED AQUIFER WELL SAMPLED FOR 1,4-DIOXANE
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- TAXIWAY TANGO AREA - NORTH
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- #20 FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

The California Department of Health Services advisory level of 3 µg/L was used as the criterion for 1.4-dioxane.

J = estimated value
All results in micrograms per liter (µg/L).

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 08/28/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_exc_tags_march2014_dioxane.mxd)
08/28/14 -- JEE

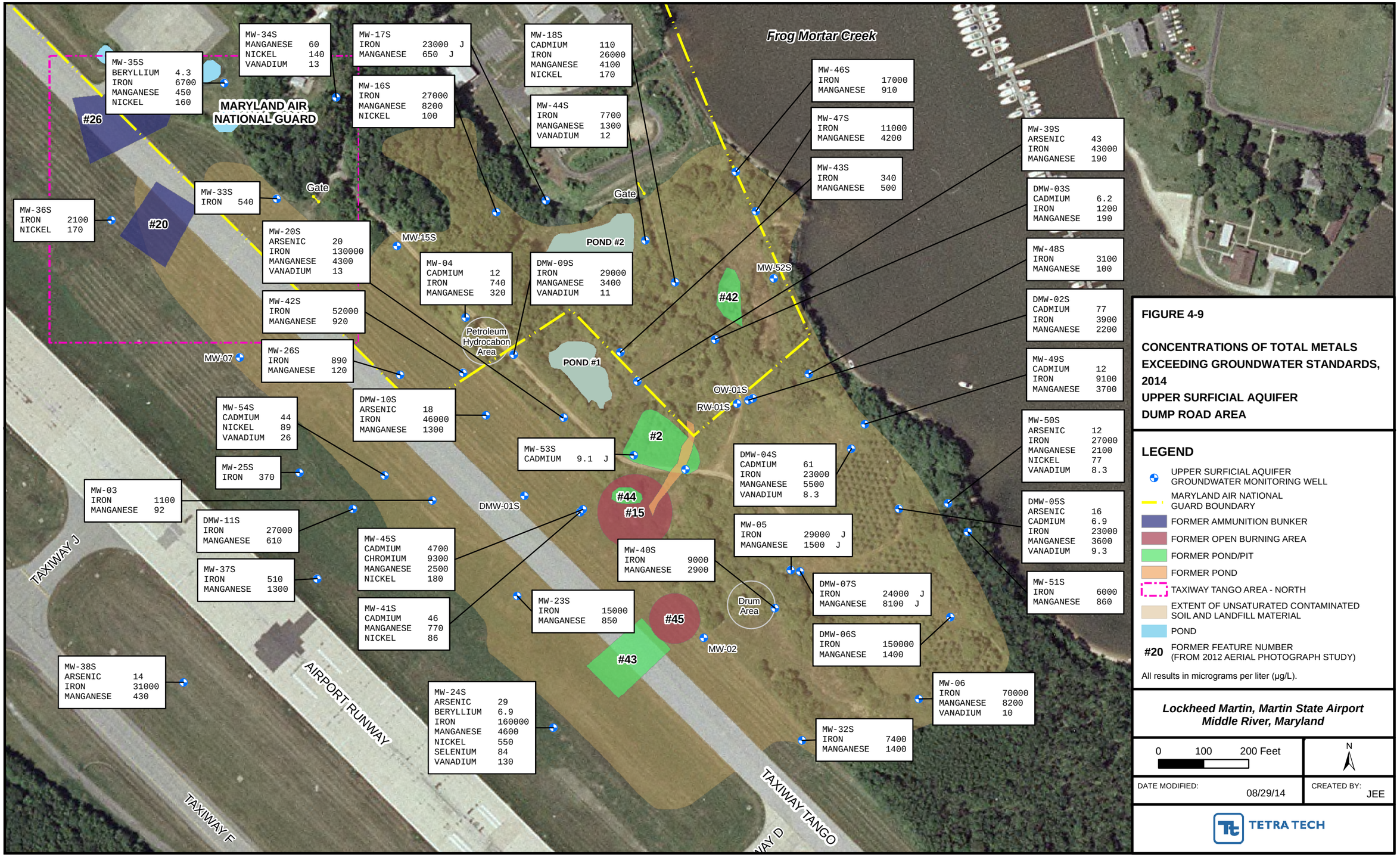


FIGURE 4-9

CONCENTRATIONS OF TOTAL METALS EXCEEDING GROUNDWATER STANDARDS, 2014
UPPER SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

- UPPER SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- TAXIWAY TANGO AREA - NORTH
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- #20 FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

All results in micrograms per liter (µg/L).

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 08/29/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_exc_tags_march2014_shallow_metals.mxd)
08/29/14 -- JEE

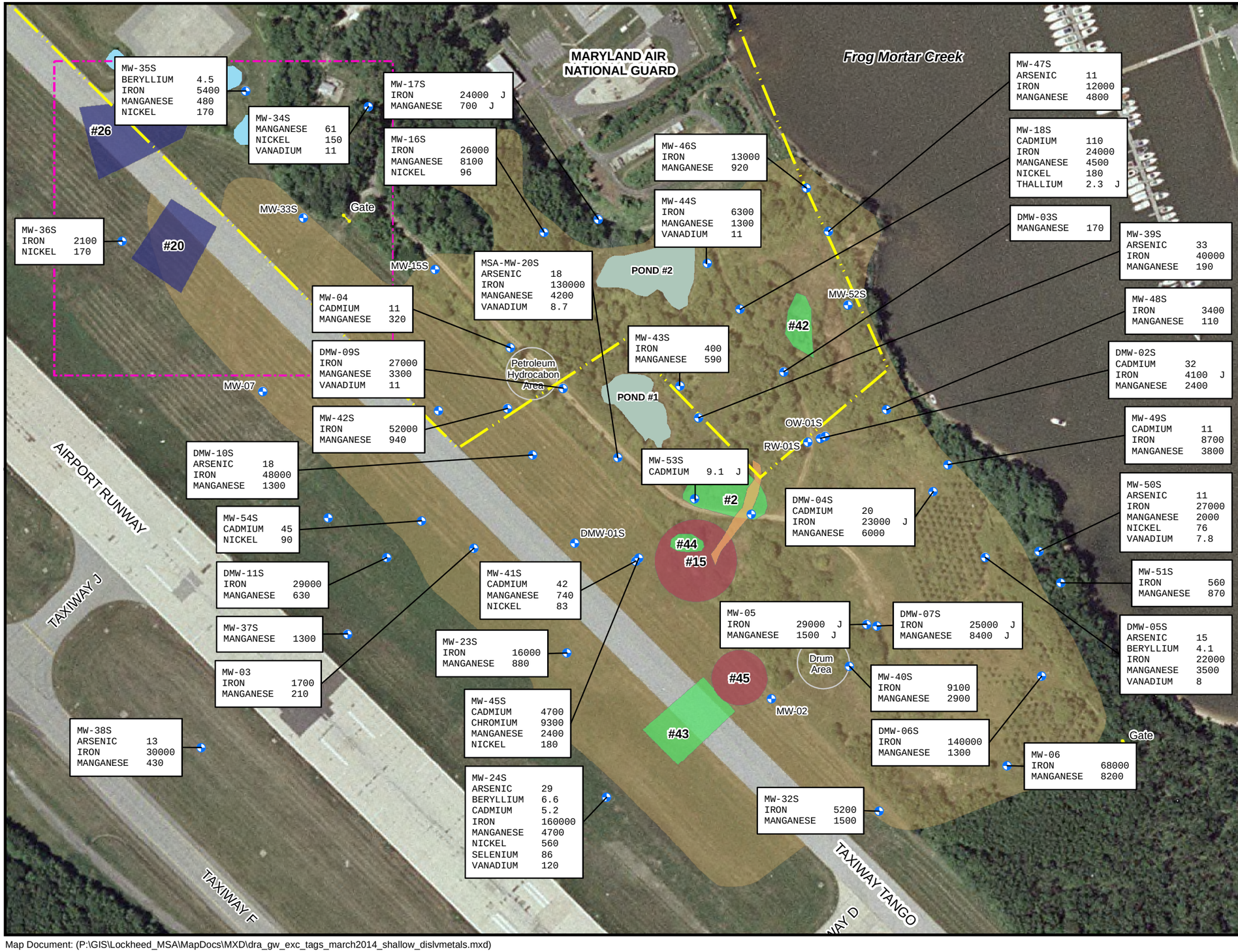


FIGURE 4-10

CONCENTRATIONS OF DISSOLVED METALS EXCEEDING GROUNDWATER STANDARDS, 2014
UPPER SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

- UPPER SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- TAXIWAY TANGO AREA - NORTH
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- #20 FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

All results in micrograms per liter (µg/L).

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 08/29/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_exc_tags_march2014_shallow_dislvmetals.mxd)
08/29/14 -- JEE

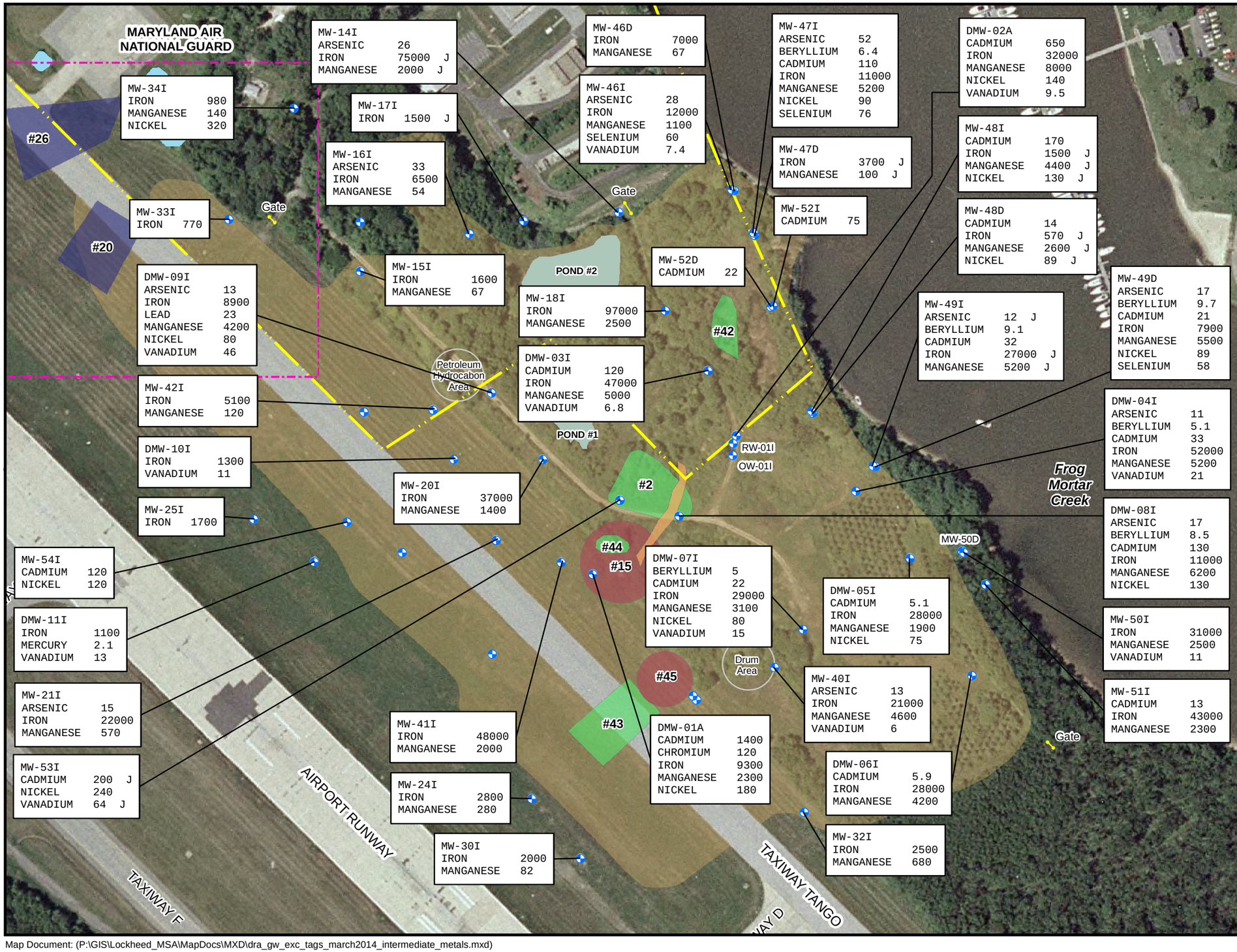


FIGURE 4-11

CONCENTRATIONS OF TOTAL METALS EXCEEDING GROUNDWATER STANDARDS, 2014
INTERMEDIATE SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- TAXIWAY TANGO AREA - NORTH
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- #20 FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

All results in micrograms per liter (µg/L).

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 08/29/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_exc_tags_march2014_intermediate_metals.mxd)
08/29/14 -- JEE

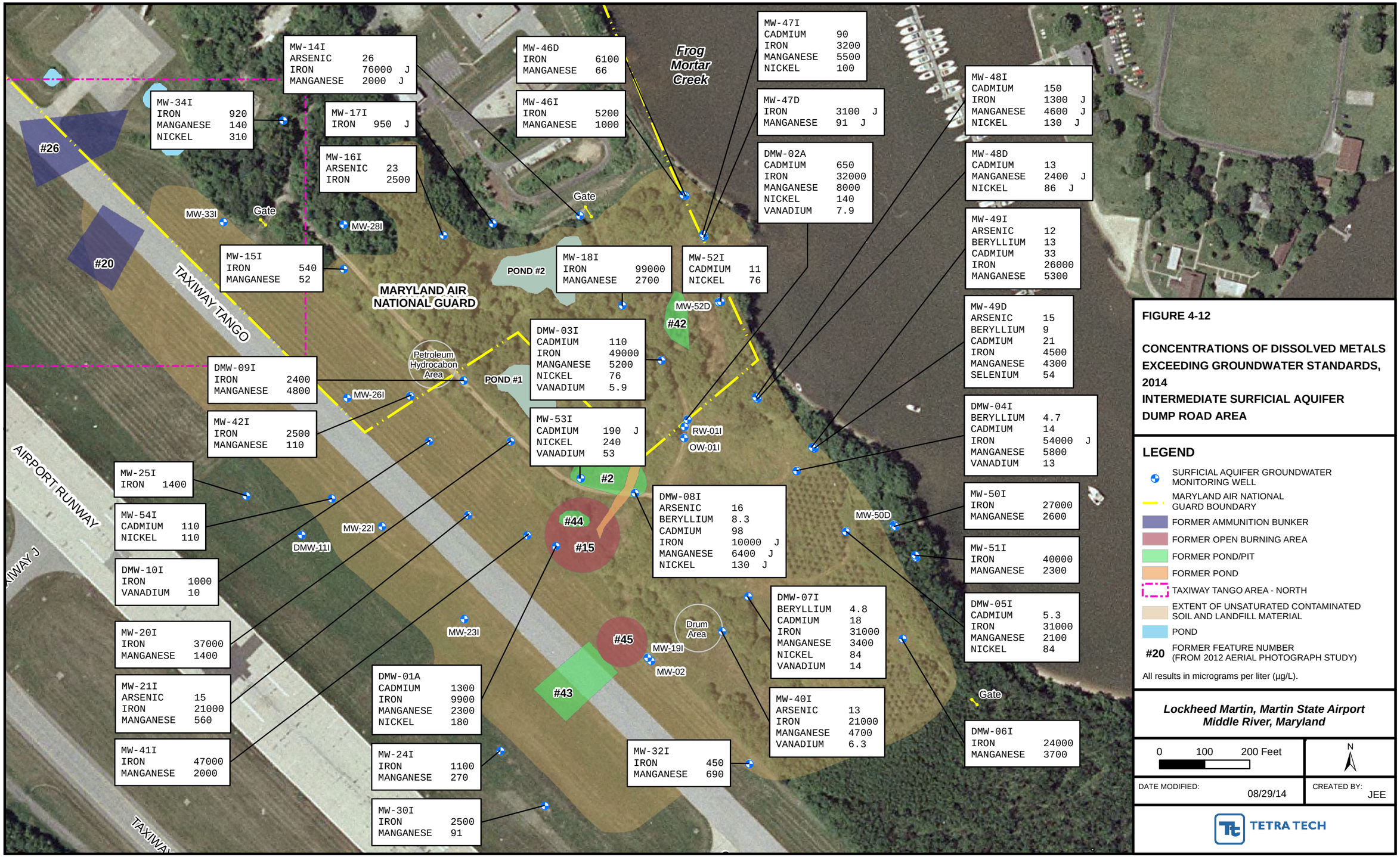


FIGURE 4-12

CONCENTRATIONS OF DISSOLVED METALS EXCEEDING GROUNDWATER STANDARDS, 2014
INTERMEDIATE SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- TAXIWAY TANGO AREA - NORTH
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- #20 FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

All results in micrograms per liter (µg/L).

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 08/29/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_exc_tags_march2014_intermediate_dislv_metals.mxd)
08/29/14 -- JEE

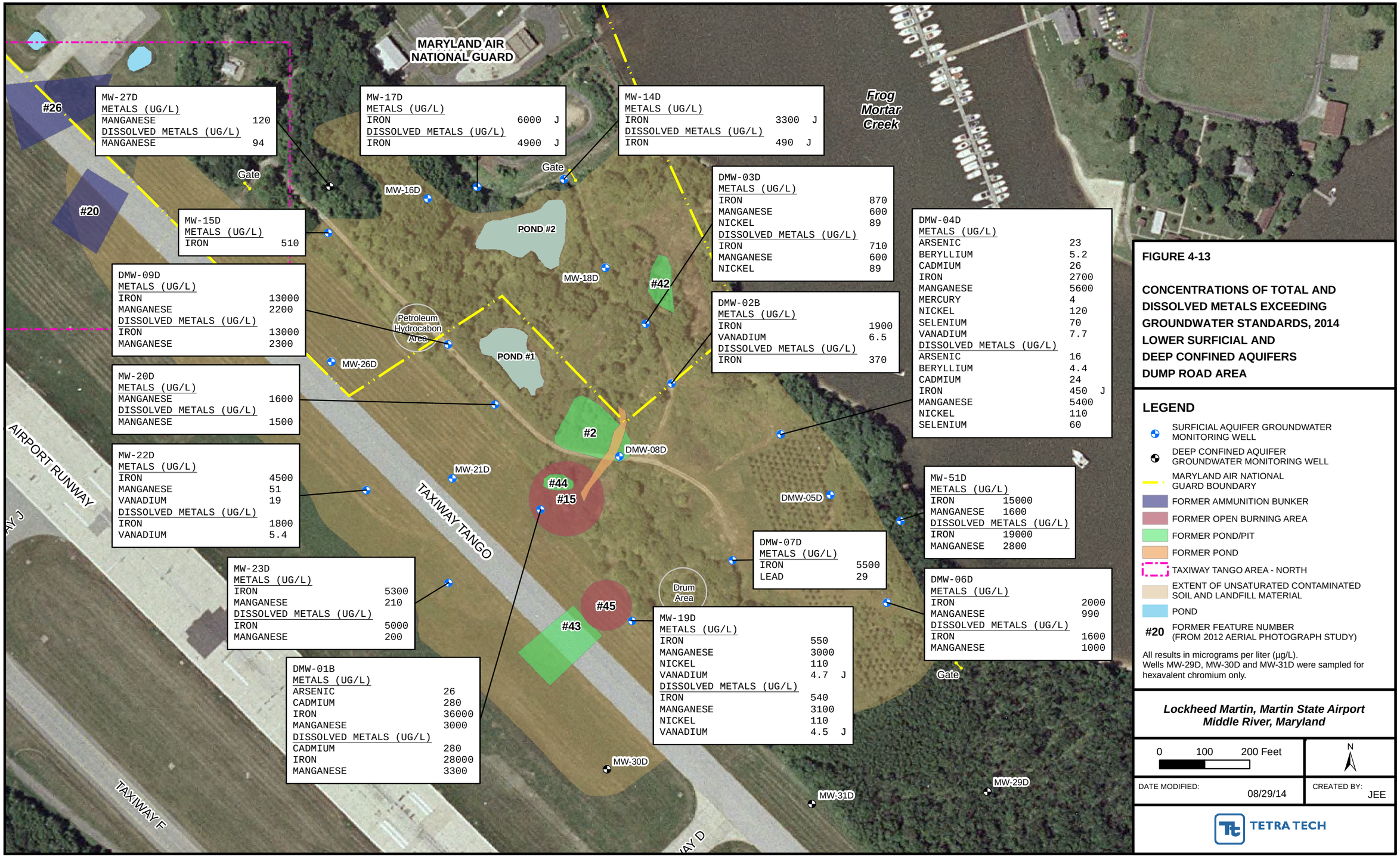


FIGURE 4-13

CONCENTRATIONS OF TOTAL AND DISSOLVED METALS EXCEEDING GROUNDWATER STANDARDS, 2014 LOWER SURFICIAL AND DEEP CONFINED AQUIFERS DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- TAXIWAY TANGO AREA - NORTH
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- #20 FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

All results in micrograms per liter (µg/L).
Wells MW-29D, MW-30D and MW-31D were sampled for hexavalent chromium only.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 08/29/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_exc_tags_march2014_deep_metals.mxd)
08/29/14 -- JEE

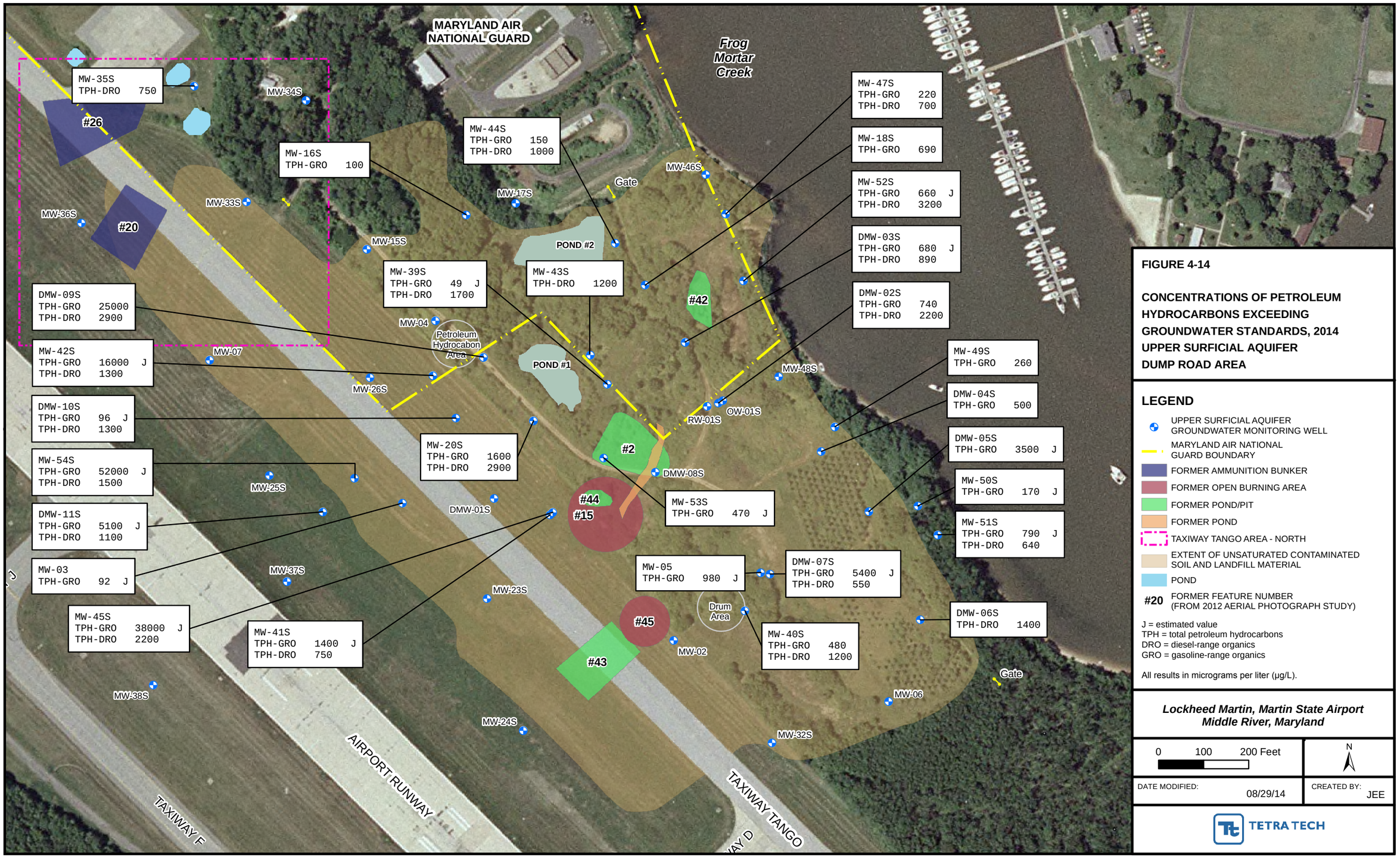


FIGURE 4-14

CONCENTRATIONS OF PETROLEUM HYDROCARBONS EXCEEDING GROUNDWATER STANDARDS, 2014 UPPER SURFICIAL AQUIFER DUMP ROAD AREA

LEGEND

- UPPER SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- TAXIWAY TANGO AREA - NORTH
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- #20 FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

J = estimated value
TPH = total petroleum hydrocarbons
DRO = diesel-range organics
GRO = gasoline-range organics

All results in micrograms per liter (µg/L).

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 08/29/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_exc_tags_march2014_shallow_tph.mxd)
08/29/14 -- JEE

MT-MW01S
12.18

MT-MW08S
8.16

MT-MW07S
7.92

MT-MW02S
13.07

MT-MW03S
3.68

MT-MW05S
6.83

MT-MW06S
5.14

MT-MW12S
4.76

MT-MW11S
5.13

MT-MW09S
8.87

MT-MW04S
8.87

MT-MW10S
2.94

FIGURE 4-15

GROUNDWATER ELEVATION CONTOUR MAP, MARCH 2014 MAIN TERMINAL AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- 1.45 GROUNDWATER ELEVATION (IN FEET, NORTH AMERICAN VERTICAL DATUM, 1988)
- GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL = 1 FOOT; DASHED WHERE INFERRED)
- MARYLAND AIR NATIONAL GUARD BOUNDARY

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 90 180 Feet

N

DATE MODIFIED: 08/28/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\mt_gw_contours_march2014.mxd)
08/28/14 -- JEE

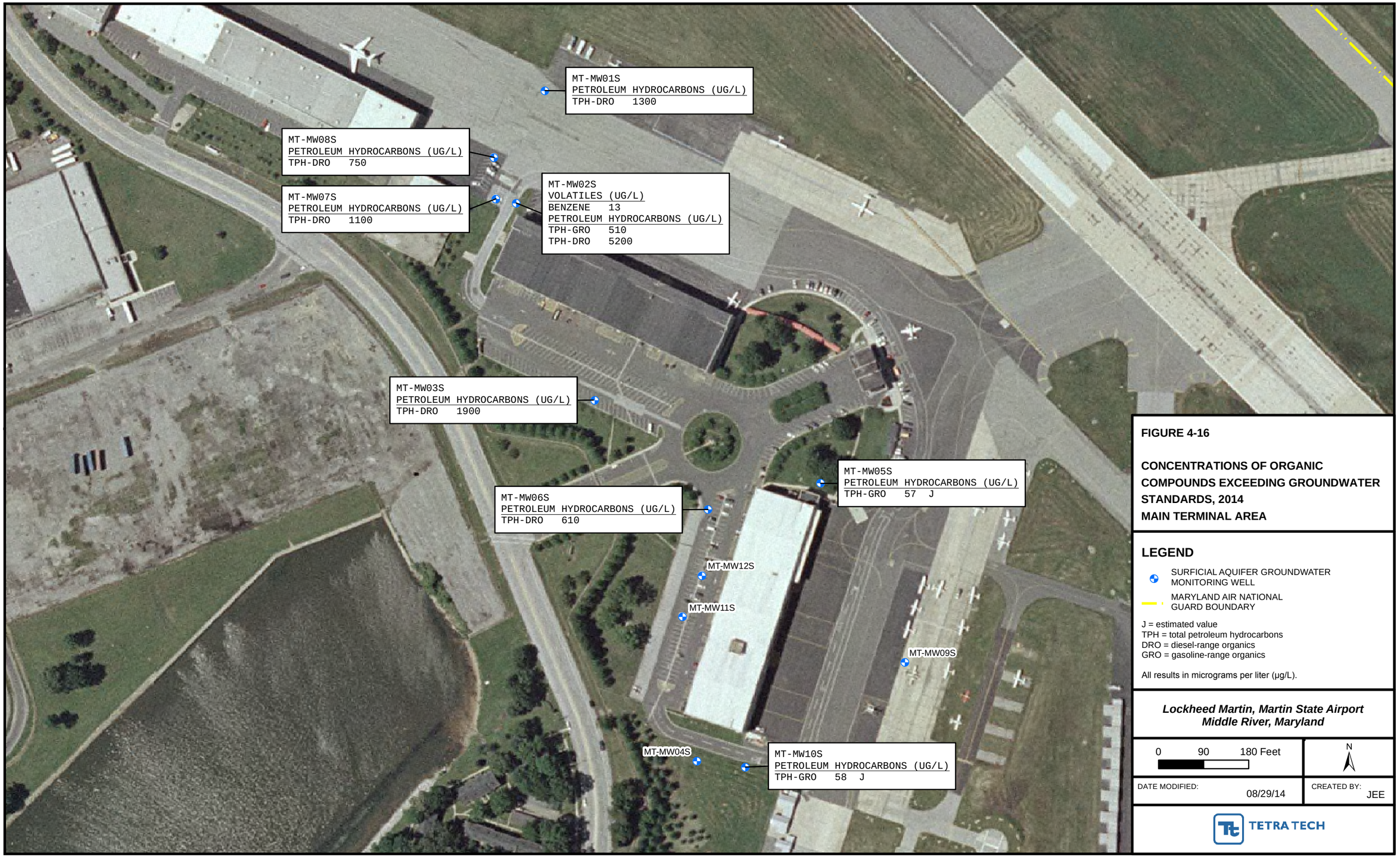


FIGURE 4-16

CONCENTRATIONS OF ORGANIC COMPOUNDS EXCEEDING GROUNDWATER STANDARDS, 2014
MAIN TERMINAL AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

J = estimated value
TPH = total petroleum hydrocarbons
DRO = diesel-range organics
GRO = gasoline-range organics

All results in micrograms per liter (µg/L).

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 90 180 Feet

N

DATE MODIFIED: 08/29/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\mt_gw_exc_tags_march2014_nonmetals.mxd)
08/29/14 -- JEE

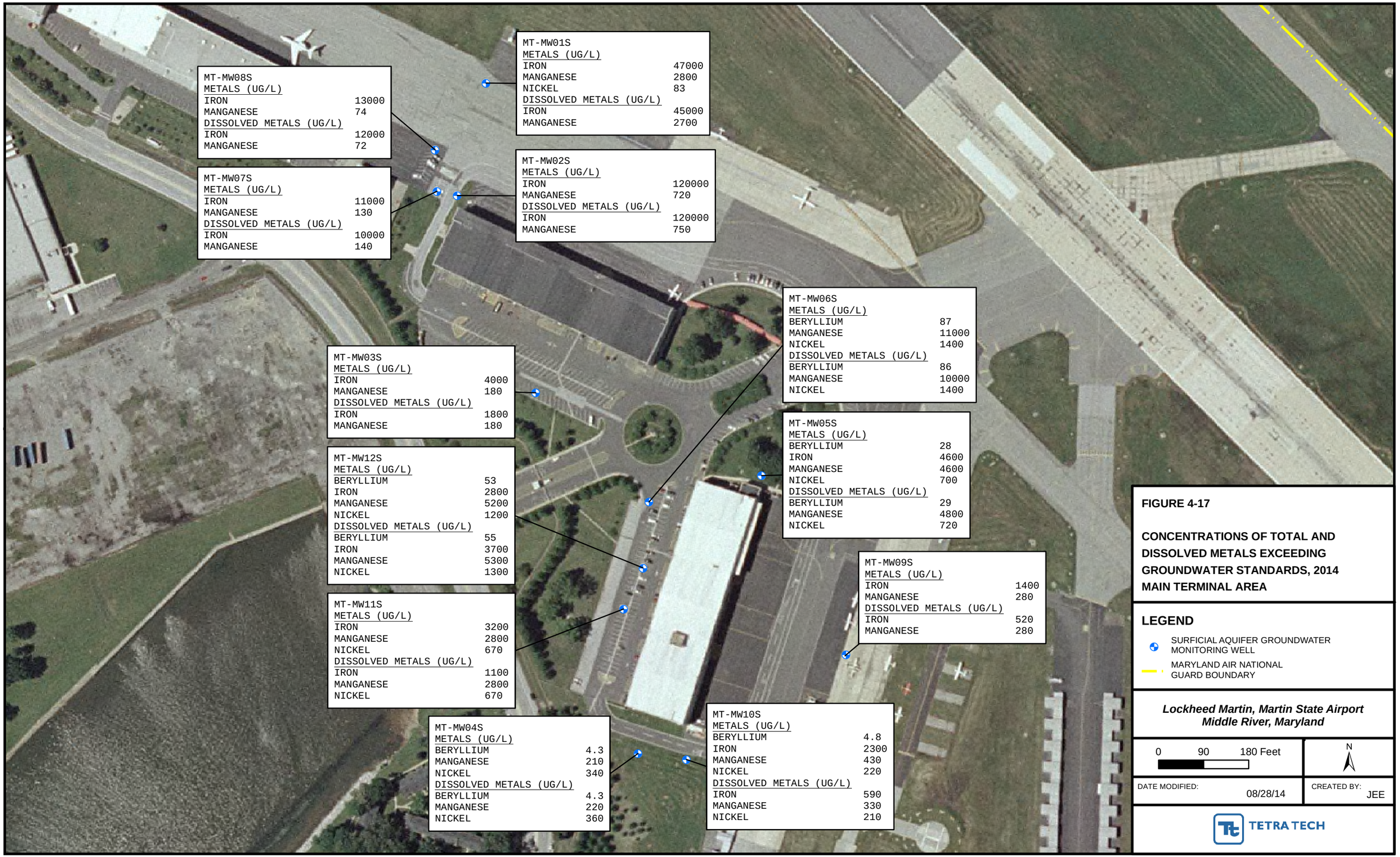


FIGURE 4-17

CONCENTRATIONS OF TOTAL AND DISSOLVED METALS EXCEEDING GROUNDWATER STANDARDS, 2014 MAIN TERMINAL AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 90 180 Feet

N

DATE MODIFIED: 08/28/14

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\mt_gw_exc_tags_march2014_metals.mxd)
08/28/14 -- JEE

Section 5
Summary

The following summarizes the findings of the 2014 groundwater sampling and analysis program for the Dump Road Area (DRA) and Main Terminal (MT) area of Martin State Airport (MSA):

Dump Road Area—

- Groundwater in the upper, intermediate, and lower surficial-aquifer zones flows east and northeast to Frog Mortar Creek.

- Concentrations of chlorinated volatile organic compounds (cVOCs) exceed Maryland Department of the Environment (MDE) groundwater standards throughout a large portion of the Dump Road Area, and at multiple depths. The two highest trichloroethene (TCE) concentrations observed in the current sampling round are 50,000 micrograms per liter (µg/L) and 28,000 µg/L, reported for upper surficial-aquifer well MW-45S (east of Taxiway Tango) and shallow and intermediate wells MW-54S/I (west of MW-45S in the Taxiway Tango median area). Multiple volatile organic compound (VOC) sources at the site have resulted in volatile organic compound plumes in groundwater extending to areas north of Pond 2, south to wells DMW-6I and DMW-7I, and west to the area between Taxiway Tango and the airport runway. Concentrations of chlorinated volatile organic compounds in groundwater are consistent

- with the 2013 results, with some exceptions.

- Samples at nine groundwater wells were analyzed for natural-attenuation assessment (NAA) parameters; anaerobic reductive-dechlorination is evidenced by the trichloroethene-breakdown product *cis*-1,2-dichloroethene. Vinyl chloride (VC), methane, ethene, and elevated chloride concentrations indicate that complete dechlorination may be occurring in the upper and intermediate surficial-aquifer zones at the Dump Road Area. However, lower relative concentrations of vinyl chloride, methane, and ethene, as well as low groundwater pH and high oxidation-reduction potential, indicate that slow or incomplete reductive-dechlorination of lower-order chlorinated volatile organic compounds may be occurring in the lower surficial-aquifer zone.

- Volatile organic compounds are in groundwater at concentrations greater than the Maryland Department of the Environment groundwater standards in delineated areas to the north, east, and west of the waste material in the central portion of the Dump Road Area.

- The semivolatile organic compound (SVOC) 1,4-dioxane was detected primarily in groundwater samples from the upper and intermediate surficial-aquifer zones.

1,4-Dioxane is co-located in areas containing the highest concentrations of chlorinated volatile organic compounds (east of Taxiway Tango at MW-45S, the area hydraulically downgradient of MW-45S, and near and east of Pond 1).

- Concentrations of 11 metals exceed groundwater standards in one or more surficial-aquifer groundwater samples. Maximum concentrations of cadmium, iron, manganese, vanadium, nickel, and chromium exceed Maryland Department of the Environment groundwater standards by more than one order of magnitude (i.e., a power of 10).

- Well MW-45S appears to be installed in the cadmium and chromium source east of Taxiway Tango. During this round, cadmium and chromium concentrations at MW-45S are 4,700 µg/L and 9,300 µg/L, which is several times higher than the elevated cadmium and chromium concentrations in wells DMW-1A and DMW-1B (cadmium only) located near MW-45S.

- Detected concentrations of hexavalent chromium do not exceed the Maryland Department of the Environment groundwater standard.

- Total petroleum hydrocarbon (TPH) diesel-range organics (DRO) and gasoline-range organics (GRO) were frequently detected in upper surficial-aquifer groundwater samples. Most concentrations exceed the Maryland Department of the Environment groundwater standard (47 µg/L).

- Perchlorate was detected in 18 of 37 groundwater samples. However, only two of these concentrations (4.8 µg/L at DMW-4D and 4.2 µg/L at MW-49I) exceed the Maryland Department of the Environment groundwater standard of 2.6 µg/L.

- Radium-228 and total radium were detected in eight of 10 groundwater samples. Radium-228 concentrations range from 0.712 picocuries per liter (pCi/L) to 9.91 pCi/L, and exceed the groundwater standard at three sampled locations (wells DMW-6I, DMW-6D, and DMW-3I). Total radium concentrations range from 0.394 pCi/L to 3.45 pCi/L, which are less than the standard of 5 pCi/L.

Main Terminal—

- Groundwater elevation data indicate that groundwater at the Main Terminal area flows southwest toward Dark Head Cove from the airport terminal area.

- Benzene and other petroleum-related volatile organic compounds (e.g., 1,2,4-trimethylbenzene, naphthalene, xylenes, etc.) were detected infrequently (in one to three samples), primarily in well MT-MW02S. This well is on the western side of hangar H-1, in an area where former underground storage tanks (USTs) were previously used to store fuel.

- One volatile organic compound (benzene) exceeded its Maryland Department of the Environment groundwater standard in the groundwater sample collected at well MT-MW02S. Benzene at MT-MW02S (13 µg/L) is less than the concentration detected during the 2013 sampling event (18 µg/L). Other volatile organic compounds were

detected, but at low concentrations that do not exceed their respective groundwater standards.

- Four metals (beryllium, iron, manganese, and nickel) were detected at concentrations exceeding Maryland Department of the Environment groundwater standards, primarily in wells around hangars H-4 through H-6.

- Gasoline-range organics were detected in all 12 wells, but only three of these detections exceed the Maryland Department of the Environment groundwater standard (47 µg/L). Diesel-range organics were detected at six sampling locations (MT-MW01S, MT-MW02S, MT-MW03S, MT-MW06S, MT-MW07S, and MTW-MW08S) at concentrations exceeding the Maryland Department of the Environment groundwater standard.

This page intentionally left blank.

Section 6
References

1. Maryland Department of the Environment (MDE), 1989. *Final Report: A Preliminary Assessment of Martin State Airport, Middle River, Maryland (MD-304)*. Prepared by the Maryland Hazardous and Solid Waste Management Administration, Maryland Department of the Environment, Baltimore, Maryland for the U.S. Environmental Protection Agency, Region 3, Philadelphia, Pennsylvania. March.

2. MDE (Maryland Department of the Environment), 1992. Letter from Ms. Arlene G. Weiner (MDE, Baltimore, Maryland) to Maryland Aviation Administration: "Subsurface Investigations." Martin State Airport, Middle River, Maryland. January 6.

3. MDE (Maryland Department of the Environment), 1997. Letter from Mr. Arthur O'Connell (MDE) to the Maryland Aviation Administration, Martin State Airport, Middle River, Maryland. January 24.

4. MDE (Maryland Department of the Environment), 2008. *MDE Cleanup Standards for Soil and Groundwater, 2008, Interim Final Guidance, Update No. 2.1*. June.

5. Tetra Tech Inc. (Tetra Tech), 2010a. *Environmental Evaluation Report for Martin State Airport Main Terminal, 701 Wilson Point Road, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. September.

6. Tetra Tech, Inc. (Tetra Tech), 2010b. *Environmental Evaluation Addendum, Martin State Airport Main Terminal, 701 Wilson Point Road, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. December.

7. Tetra Tech (Tetra Tech, Inc.), 2012a. *Remedial Investigation Report, Martin State Airport, 701 Wilson Point Road, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. April.

8. Tetra Tech (Tetra Tech, Inc.), 2012b. *Main Terminal Phase II Site Investigation Report, Martin State Airport, 701 Wilson Point Road, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. April.

9. Tetra Tech (Tetra Tech, Inc.), 2013a. *2014 Groundwater Monitoring Work Plan, Martin State Airport, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin, Bethesda, Maryland. December.

10. Tetra Tech (Tetra Tech, Inc.), 2013b. *Dump Road Area Characterization of Possible Source-Areas Report, Martin State Airport, 701 Wilson Point Road, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin, Bethesda, Maryland. April.

11. Tetra Tech, Inc. (Tetra Tech), 2012c. "Appendix A—Technical Memorandum for the Dump Road Area, Source Area Delineation" in *Dump Road Source-Areas Investigation Work Plan, Martin State Airport, 701 Wilson Point Road, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. September.

12. Tetra Tech, Inc. (Tetra Tech), 2013a. *Review and Analysis of Historical Aerial Photographs, Martin State Airport, 701 Wilson Point Road, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin, Bethesda, Maryland. January.

13. Tetra Tech, Inc. (Tetra Tech), 2013b. *Dump Road Area Characterization of Possible Source Areas Report, Martin State Airport, 701 Wilson Point Road, Middle River, Maryland.* Prepared by Tetra Tech, Inc. for Lockheed Martin Corporation, Bethesda, Maryland. May.

14. Tetra Tech, Inc. (Tetra Tech), 2014a. *Taxiway Tango soil Characterization Report.* Lockheed Martin, Martin State Airport. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation Lockheed Martin Corporation, Bethesda. January.

15. Tetra Tech, Inc. (Tetra Tech), 2014b. *Dump Road Area Characterization of Possible Source Areas Report*. Lockheed Martin, Martin State Airport. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation Lockheed Martin Corporation, Bethesda. April.

16. Tetra Tech, Inc. (Tetra Tech), 2014c. *Dump Road Area Source-Areas Design-Characterization Groundwater-Investigation Work Plan, Martin State Airport, 701 Wilson Point Road, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. January.

17. Tetra Tech (Tetra Tech, Inc.), 2013c. *Supplemental Main Terminal Phase II Site Investigation Report, Martin State Airport, 701 Wilson Point Road, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. September.

18. USEPA (U.S. Environmental Protection Agency), Region 3, 1993. *Region III Modifications to the Laboratory Data-Validation Functional Guidelines for Evaluating Inorganics Analyses*. April.

19. USEPA (U.S. Environmental Protection Agency), Region 3, 1994. *Region III Modifications to the National Functional Guidelines for Organic-Data Review*. September.

20. USEPA (U.S. Environmental Protection Agency), 2006. *Treatment Technologies for 1,4-Dioxane: Fundamentals and Field Applications*. Office of Solid Waste and Emergency Response. EPA 542-R-06-009. December.

21. USEPA (U.S. Environmental Protection Agency), 2009. *Emerging Contaminant 1,4-Dioxane*. Office of Solid Waste and Emergency Response fact sheet. EPA 505-F-09-006. September.

22. USEPA (U.S. Environmental Protection Agency), 2013. *Technical Fact Sheet—1,4-Dioxane*, Office of Solid Waste and Emergency Response fact sheet. EPA 505-F-13-001. January.

This page intentionally left blank.

APPENDIX A—GROUNDWATER-LEVEL RECORD SHEETS

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: MSA
Location: Dump Rd
Weather Conditions: Sunny 35°
Tidally Influenced: Yes ___ No X

Project No.: 112FC06183
Personnel: MP / JM
Measuring Device: Water Level meter
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MW34S	3.24.14	1130			4.15		Wells	Good
MW34I		1131			4.23			
MW27D		1140			1.98			
MW28I		1139			5.86			
MW15S		1142			5.03			
MW15I		1143			5.89			
MW15D		1144			5.89			
MW4		1145			6.11			
DMW9S		1147			8.60			
DMW9I		1148			8.77			
DMW9D		1149			9.37			
MW20S		1151			9.73			
MW20I		1152			9.67			
MW20D		1153			10.55			
DMW8S		1154			12.49			
DMW8I		1155			14.83			
DMW8D		1156			14.83			
DMW2A		1201			20.89			
DMW2B		1202			20.66			
DMW2S		1159			20.59			
DMW3S		1204			10.98			
DMW3I		1205			15.50			need screws
DMW3D		1206			15.52			
MW18S		1208			8.10			Wells Good
MW18I		1209			8.17			

* All measurements to the nearest 0.01 foot

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Martin State Airport **Project No.:** 112IC06193
Location: Dump Rd **Personnel:** WP / JM
Weather Conditions: Sunny 30° **Measuring Device:** Water Level meter
Tidally Influenced: Yes ___ No X **Remarks:**

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MW 18D	3-24-14	1210			8.06		Wells	Good
MW 14I		1214			7.85			↓
MW 14D		1215			10.80			↓
MW 17S		1324			8.85			Need Bolts
MW 17I		1325			5.60			↓
MW 17D		1326			4.89			↓
MW 16S		1320			8.48		Wells	Good
MW 16I		1321			7.54			↓
MW 16D		1322			7.71			↓
MW 46S		1332			10.13			↓
MW 46I		1333			10.97			↓
MW 46D		1334			11.15			↓
MW 47S		1336			11.58			Needs Locks
MW 47I		1337			11.64			↓
MW 47D		1338			11.68			↓
MW 44S		1342			1.41		Wells	Good
MW 39S		1346			11.79			↓
MW 43S		1348			12.00			Need Lock
MW 48S		1352			19.16			↓
MW 48I		1353			19.13			↓
MW 48D		1354			19.26			↓
MW 49S		1356			19.91			↓
MW 49I		1357			19.24			↓
MW 49D		1358			19.01			↓
MW 50D	↓	1400			12.44			↓

* All measurements to the nearest 0.01 foot

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Martin State Airport
Project No.: 112IC06183
Location: Dump Rd
Personnel: WP / JM
Weather Conditions: Sunny 30°
Measuring Device: Water Level meter
Tidally Influenced: Yes ___ No X
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MW 50S	3-24-14	1401			11.76			Need Lock
MW 50I		1402			11.85			
MW 51S		1404			9.15			
MW 51I		1405			8.89			
MW 51D		1406			9.01			
DMW 4S		1412			20.22		Wells	Good
DMW 4I		1411			19.74			
DMW 4D		1410			19.90			
MW 5		1414			20.99			
DMW 7S		1416			20.12			
DMW 7I		1417			20.59			
DMW 7D		1418			20.62			
MW 40S		1421			15.51			
MW 40I		1422			15.94			
DMW 5S		1430			20.64			
DMW 5I		1431			20.70			
DMW 5D		1432			20.78			
DMW 6S		1438			17.35			
DMW 6I		1439			17.81			
DMW 6D		1440			17.81			
MW 29D		1447			7.48			
MW 6		1451			13.71			
MW 2		1459			6.29			
MW 19I		1500			6.16			
MW 19D		1501			6.13			

* All measurements to the nearest 0.01 foot

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Mead. n State Airport **Project No.:** 112IC06183
Location: Dump Rd **Personnel:** WP / JM
Weather Conditions: Sunny **Measuring Device:** water Level meter
Tidally Influenced: Yes ___ No X **Remarks:**

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
mw32s	3-24-14	1505			5.16			Needs new
mw32I		1506			5.26			Lid
mw31D		1508			2.99		Wells	Good
MW33s		1518			6.47			
MW33I		1519			6.55			
MW26s		1524			7.69			
MW26I		1525			8.62			
MW26D		1526			8.31			
DMW10s		1529			6.82			
DMW10I		1528			7.29			
MW21I		1535			7.86			
MW21D		1534			8.49			
DMW1s		1536			7.91			
MW41s		1540			7.19			
MW41I		1541			7.20			
MW45s		1543			6.96			
DMW1A		1545			9.06			
DMW1B		1546			9.54			
MW36s	3-25-14	0933			6.00			
MW7		0959			6.19			
MW25s		1006			4.76			
MW25I		1007			6.25			
DMW11s		1015			3.33			
DMW11I		1017			5.65			
MW37s		1030			6.12			

* All measurements to the nearest 0.01 foot

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Martin State Airport **Project No.:** 112IC06191
Location: Dump Rd **Personnel:** WP / JM
Weather Conditions: Sunny 30° **Measuring Device:** Water Level meter
Tidally Influenced: Yes ___ No X **Remarks:**

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MW 22I	3-25-14	1100			7.67		Wells	Good
MW 22D		1101			8.15			
MW 3		1104			7.68			
MW 23S		1112			6.75			
MW 23I		1113			6.90			
MW 23D		1114			7.43			
MW 24S		1125			3.23			
MW 24I		1126			4.50			
MW 30D		1135			3.50			
MW 30I		1140			4.62			
MT-MW01		1215			5.43			
MT-MW02		1220			4.69			
MT-MW03		1233			Top of Casing			
MT-MW04		1247			3.72			
MT-MW05		1242			5.54			
MT-MW06		1237			1.65			
MT-MW07		1223			8.97			
MT-MW-08		1226			10.03			
MT-MW-09		1253			6.46			
MT-MW-10		1256			12.16			
MT-MW-11		1300			2.70			
MT-MW-12		1305			2.79			
Staff Gauge 01		1330			2.00			
Staff Gauge 02		1350			2.40			

* All measurements to the nearest 0.01 foot

APPENDIX B—MONITORING WELL PURGING AND SAMPLING RECORDS

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME: MSA GW 2014

INSTRUMENT NAME/MODEL: Horiba U-52, Lamotte 2020e

SITE NAME: MSA

MANUFACTURER:

PROJECT No.: 112IC06183

SERIAL NUMBER: 021781 / 10270

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
3/26/14	021781	JAM	pH 3.92	3.92 pH				
↓	↓	↓	Cond 0.00	4.47 mS/cm				
			Turb 215	1.7 NTU				
			DO 11.18	8.86 mg/L				
↓	10270	↓	Turb 0/9.76	0/10 NTU				
3/27/14	021781	JAM	pH 6.74	3.91				
↓	↓	↓	Cond 0.00	4.50				
			Turb 209	0.0				
			DO 14.36	9.65				
↓	10270	↓	Turb 0/9.78	0/10				
3/28/14	021781	JAM	pH 7.21	3.90				
↓	↓	↓	Cond 0.00	4.47				
			Turb 200	0.0				
			DO 13.62	10.10				
↓	10270	↓	Turb 0/9.79	0/10				
4/9/14	021781	JAM	pH 3.99	~~3.99~~ 4.01				
↓	↓	↓	Cond 0.00	4.45				
			Turb 237	0.0				
			DO 5.61	8.07				
↓	10270	↓	Turb 0/8.64	0/10.0				
4/10/14	021781	JAM	pH 3.71	3.99				
↓	↓	↓	Cond 2.00	4.49				
			Turb 396	0.0				
			DO 12.45	7.23				
↓	10270	↓	Turb 0/9.09	0/10				
4/11/14	021781	JAM	pH 3.99	4.00				
↓	↓	↓	Cond 0.00	4.52				
			Turb 437	0.0				
			DO 7.31	7.74				
	10270		Turb 0/9.22	0/10.0				

FIGURE 7-1

DOCUMENTATION OF FIELD CALIBRATION

SITE NAME: Martin State Airport **PROJECT NO.:** 112FC06183

Date of Calibration	Instrument Name and Model	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot Number)	Remarks/ Comments
				Pre-Calibration	Post-Calibration	Pre-Calibration	Post-Calibration		
5-1-14	Hach U-52	081458	MEP	pH	4.06		4.00		Cal OK
↓	↓	↓	↓	Cond	4.43		4.49		
				Turb	0.0		0.0		
↓	↓	↓	↓	DO	8.31		9.78		

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME: Martin State Airport

SITE NAME: MSA

PROJECT No.: 112IC06183

INSTRUMENT NAME/MODEL: Horiba U-52

MANUFACTURER:

SERIAL NUMBER: 018459

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
4-18-14	018458	WEP	pH	4.06		4.00	C365605	Cal OK
			Cond	4.68		4.49		
			Turb	28.4		0.0		
			DO	9.13		9.54		
4-21-14	018458	WEP	pH	3.92		4.00		
			Cond	4.19		4.48		
			Turb	0.0		0.0		
			DO	9.21		8.78		
4-22-14	018458	WEP	pH	3.99		4.00		
			Cond	4.56		4.49		
			Turb	0.0		0.0		
			DO	7.82		9.57		
4-23-14	018458	WEP	pH	4.04		4.00		
			Cond	4.73		4.49		
			Turb	0.0		0.0		
			DO	9.00		9.29		
4-24-14	018458	WEP	pH	4.06		4.00		
			Cond	4.13		4.49		
			Turb	10.9		0.0		
			DO	8.68		9.29		
4-28-14	018458	WEP	pH	3.95		4.00		
			Cond	4.51		4.48		
			Turb	0.0		0.0		
			DO	10.35		9.21		

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME: Martin State Airport

SITE NAME: Dump Rd

PROJECT No.: 112IC06183

INSTRUMENT NAME/MODEL: Horiba U-52

MANUFACTURER:

SERIAL NUMBER: 018458

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
4-10-14	018458	WEP	pH	4.00		4.00	C365605	Cal OK
			Cond	4.61		4.49		
			Turb	4.1		0.0		
			DO	8.40		9.13		
4-11-14	018458	WEP	pH	4.21		4.00		
			Cond	4.63		4.49		
			Turb	2.1		0.0		
			DO	9.44		9.36		
4-14-14	018458	WEP	pH	4.15		4.00		
			Cond	4.58		4.49		
			Turb	0.0		0.2		
			DO	9.90		9.18		
4-15-14	018458	WEP	pH	4.04		3.89		
			Cond	3.94		4.48		
			Turb	3.7		0.0		
			DO	9.80		8.94		
4-16-14	018458	WEP	pH	4.04		4.00		
			Cond	4.25		4.49		
			Turb	0.0		0.0		
			DO	9.71		9.19		
4-17-14	018458	WEP	pH	3.98		4.00		
			Cond	4.61		4.49		
			Turb	5.0		0.0		
			DO	9.41		9.72		

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112SC06183

Sample ID No.: MT-MW-GWS-032614
Sample Location: MT
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

Date: 3/26/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1055								
Method: peri pump	Clear	6.63	0.466	9.10	4.32	0.00	—	-81

PURGE DATA:

Date: 3/26/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material			SEE Low Flow purge data Sheet					
Type: 2" PVC								
Total Well Depth (TD): 17.55								
Static Water Level (WL): 5.43								
One Casing Volume(gal/L): —								
Start Purge (hrs): 0420								
End Purge (hrs): 1025								
Total Purge Time (min): 65								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
TPH Gro	HCl	2-40 mL vials	✓
TPH Dro	—	2-250 mL ambers	✓
1-4 dioxane	—	2-250 mL ambers	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Mets	HNO3	1-500 mL plastic (filtered	✓

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112G06183

Sample ID No.: MT-MW-025
Sample Location: MT
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 3/26/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1330								
Method: peristaltic pump	clear	6.37	0.521	11.20	8.80	0.00	—	-60

PURGE DATA:

Date: 3/26/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peristaltic pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC			SEE LOW FLOW PURGE SHEET					
Total Well Depth (TD): 17.55								
Static Water Level (WL): 9.69								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1250								
End Purge (hrs): 1350								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): ~2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	—	1-2 ~~number~~ 2-250 mL amber	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic (filtered)	✓
1-4 dioxane	—	~~1-2 amber~~ 2-250 mL amber	✓

OBSERVATIONS / NOTES:

TPH-DRO + 1,4 dioxane in one bottle

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MT-MW-03s-032714
Sample Location: MW-03s
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date:	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time:								UNP
Method: Peristaltic pump		6.40	0.315	15.20	>999	1.79	0.0	37

PURGE DATA:

Date: 3-27-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2" PVC			See low flow					
Total Well Depth (TD):								
Static Water Level (WL): Top of Casing			Purge Data Sheet					
One Casing Volume(gal/L):								
Start Purge (hrs): 0913								
End Purge (hrs): 1035								
Total Purge Time (min): 82								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	
GRO	HCl	2 - 40 ml VOA	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
1,4 Dioxane	—	2 - 250 ml Ambers	
DRO	—	2 - 250 ml Ambers	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD —

Duplicate ID No.: —

Signature(s): Walt P

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Mah Terminal MSA
Project No.: 112IC06182

Sample ID No.: MT-MW-4S-032714
Sample Location: MW-4S
Sampled By: S. Cameron
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 3/27/14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1025	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Peri Pump	Clear	3.92	0.109	11.58	2.9	2.28	0.1	359

PURGE DATA:

Date: 3/27/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump			See Low Flow					
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC			Purge Data Sheet					
Total Well Depth (TD): 24.53								
Static Water Level (WL): 3.72								
One Casing Volume(gal/L):								
Start Purge (hrs): 0940								
End Purge (hrs): 1100								
Total Purge Time (min): 80.								
Total Vol. Purged (gal/L): 25 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	—	2-250 mL ambers	✓
1,4-Dioxane	—	2-250 mL ambers	✓
Total Metals	HNO_3	1-500 mL plastic	✓
Dissolved Metals	HNO_3	1-500 mL plastic	✓

OBSERVATIONS / NOTES:

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MT MSA
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MT-MW-SS-QP2714
Sample Location: MWSS
Sampled By: S. Green
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3/27/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1300								
Method: Peri Pump	Clear	4.75	0.445	10.39	10.5	1.04	0.2	291

PURGE DATA:

Date: 3/27/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump		See Low Flow Purge Data Sheet						
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 24.43								
Static Water Level (WL): 5.54								
One Casing Volume(gal/L):								
Start Purge (hrs): 1225								
End Purge (hrs): 1330								
Total Purge Time (min): 65								
Total Vol. Purged (gal/L): 2 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	—	2-250 mL ambers	✓
1,4-Dioxane	—	2-250 mL ambers	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

Sample ID No.: MT-MW-06S-032714
Sample Location: MW-06S
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-27-14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1215	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Peristaltic pump	Clear	4.16	1.66	11.06	0.0	1.49	0.9	420

PURGE DATA:

Date: 3-27-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):		See Low flow						
Static Water Level (WL): 1.65								
One Casing Volume(gal/L):		Purge Data sheet						
Start Purge (hrs): 1114								
End Purge (hrs): 1210								
Total Purge Time (min): 56								
Total Vol. Purged (gal/L): 7.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
GRO	HCl	2 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
1,4 Dioxane	—	2 - 250 ml Amber	✓
DRO	—	2 - 250 ml Amber	✓

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112G06183

Sample ID No.: MT-MW-075
Sample Location: MT
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

[X] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

Date: 3/26/14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1530	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Peri Pump	Clear	6.81	0.608	11.45	17.0	0.00	-	-50

PURGE DATA:

Date: 3/26/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump								
Monitor Reading (ppm): -								
Well Casing Diameter & Material Type: 2" PVC			SEE FLOW THROUGH PURGE DATA SHEET					
Total Well Depth (TD): 34.25								
Static Water Level (WL): 8.97								
One Casing Volume(gal/L): -								
Start Purge (hrs): 1430								
End Purge (hrs): 1550								
Total Purge Time (min): 80								
Total Vol. Purged (gal/L): ~3 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1-4 dioxane, TPH-DRO	-	1-1L amber	✓
TPH GRO	HCl	2-40 mL ambers	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic (Filtered)	✓

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA Q4' 2014
Project No.: 112G06183

Sample ID No.: MT-MW-08S
Sample Location: MT
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

Date: 3/26/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1150								
Method: Peri pump	clear	6.57	0.327	11.55	4.75	0.00	—	-55

PURGE DATA:

Date: 3/26/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC			See last Flow Rate Sheet					
Total Well Depth (TD): 34.69								
Static Water Level (WL): 10.03								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1110								
End Purge (hrs): 1210								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): ~2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40mL vials	✓
TPH-GRO	HCl	2-40mL vials	✓
TPH-DRO	—	2-250mL ambers	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic (filtered)	✓
1-4 Dioxane	—	2-250 mL ambers	✓

OBSERVATIONS / NOTES:

Circle If Applicable:
MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MT MSA
Project No.: 112IC06183

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MT-MW-95-032714
Sample Location: MW95
Sampled By: S. Cameron
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3/27/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1430								
Method: Peri Pump	Clear	5.41	0.106	13.46	2.8	0.59	0.1	20

PURGE DATA:

Date: 3/27/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump		See Low Flow Purge Data Sheet						
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 49.21								
Static Water Level (WL): 6.46								
One Casing Volume(gal/L):								
Start Purge (hrs): 1350								
End Purge (hrs): 1500								
Total Purge Time (min): 70								
Total Vol. Purged (gal/L): 3gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3-40 mL vials	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPHDRO	—	2-250 mL amber	✓
1,4-Dioxane	—	2-250 mL amber	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Main Terminal MSA
Project No.: 142TC06183

Sample ID No.: MTMW-105-032714
Sample Location: MW105
Sampled By: S. Green
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 3/27/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1140								ORP
Method: Peri Pump	Clear	6.52	0.517	12.78	4.9	0.08	0.2	149

PURGE DATA:

Date: 3/27/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump		See Low Flow						
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC		Purge Data Sheet						
Total Well Depth (TD): 39.55								
Static Water Level (WL): 12.16								
One Casing Volume(gal/L):								
Start Purge (hrs): 1105								
End Purge (hrs): 1205								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 2gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40mL Vials	✓
TPH-GRO	HCl	2-40mL Vials	✓
TPH-DRO	—	2-250mL Ambers	✓
1,4-Dioxane	—	2-250mL Ambers	✓
Total Metals	HNO_3	1-500mL Plastic	✓
Dissolved Metals	HNO_3	1-500mL Plastic	✓

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112ECO6183

Sample ID No.: MT-MW-11S-032814
Sample Location: MW-11S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 3-28-14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1423	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Peristaltic pump	Clear	6.89	0.404	13.98	1.2	[illegible]	0.2	65

PURGE DATA:

Date: 3-28-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See Low Flow Purge Data Sheet					
Total Well Depth (TD):								
Static Water Level (WL): 2.70								
One Casing Volume(gal/L):								
Start Purge (hrs): 1247								
End Purge (hrs): 1418								
Total Purge Time (min): 91								
Total Vol. Purged (gal/L): 3.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
GRO	HCl	2 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
1,4 Dioxane	—	2 - 250 ml Ambers	✓
DRO	—	2 - 250 ml Ambers	✓

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):
Walt P

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-DMW-18-04/014
Sample Location: DMW-18
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-10-14	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Time: 1129								
Method: Bladder pump	Slightly	5.80	0.664	13.85	48.9	0.82	0.3	86

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-10-14								
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 9.10								
One Casing Volume(gal/L):								
Start Purge (hrs): 1038								
End Purge (hrs): 1124								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD — Duplicate ID No.:

Signature(s): Walter Pa

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA DMW-1A-041014
Sample Location: DMW-1A
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-10-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1245								
Method: Bladder pump	Slightly	5.53	0.899	13.86	33.0	0.76	0.4	187

PURGE DATA:

Date: 4-10-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 8.70								
One Casing Volume(gal/L):								
Start Purge (hrs): 1154								
End Purge (hrs): 1240								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): Walt B

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-Dmw-1s-050114
Sample Location: Dmw-1s
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5-1-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1048								
Method: Peristaltic pump	Clear	7.14	0.160	13.80	1.5	4.48	0.1	ORP 139

PURGE DATA:

Date: 5-1-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 5.65'								
One Casing Volume(gal/L):								
Start Purge (hrs): 0957								
End Purge (hrs): 1043								
Total Purge Time (min): 46								
Total Vol. Purged (gal/l): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-3-042114
Sample Location: MW-3
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-21-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1034								
Method: Bladder pump	Clear	6.55	0.216	12.41	0.0	7.06	0.1	122

PURGE DATA:

Date: 4-21-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 4"								
Total Well Depth (TD):								
Static Water Level (WL): 7.08								
One Casing Volume(gal/L):								
Start Purge (hrs): 0943								
End Purge (hrs): 1029								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	✓
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-4-041614
Sample Location: MW-4
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 4-16-14								
Time: 1520								
Method: Peristaltic pump	Cloudy	7.47	1.27	13.38	721	0.77	0.6	25-

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-16-14								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 5.12								
One Casing Volume(gal/L):								
Start Purge (hrs): 1427								
End Purge (hrs): 1575								
Total Purge Time (min): 48								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):
Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW5-040714
Sample Location: MW5
Sampled By: S. Cameron
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/7/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1435								
Method: Bladder Pump	Clear	6.73	1.69	14.47	2.84	0.00	0.05	-82

PURGE DATA:

Date: 4/7/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Bladder Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 4" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 20.19								
One Casing Volume(gal/L):								
Start Purge (hrs): 1400								
End Purge (hrs): 1510								
Total Purge Time (min): 70								
Total Vol. Purged (gal/L): 2.5 gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-5I-041814
Sample Location: MW-5I
Sampled By: SMP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/18/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1135								
Method: bladder pump	clear	4.05	0.989	14.56	12.4	0.0	0.5	

PURGE DATA:

Date: 4/18/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: bladder pump								
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 53.21								
Static Water Level (WL): 19.16								
One Casing Volume(gal/L): 5								
Start Purge (hrs): 1020								
End Purge (hrs): 1130								
Total Purge Time (min): 70								
Total Vol. Purged (gal/L): 5.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	3
Total Metals	HNO3	1-500 mL plastic	1
Dissolved Metals	HNO3	1-500 mL plastic	1
1,4-Dioxane	None	2-250 mL ambers	2
TPH-GRO	HCL	2-40 mL vials	—
TPH-DRO	None	2-250 mL ambers	—
Perchlorate	None	1-250 mL plastic	1
Hexavalent Chromium	None	1-250 mL plastic	—
Radium 224, 226, 228	HNO3	3-1 L plastics	—
Haloacetic Acids	None	2-250 mL ambers	—
Natural Attenuation Parameters	See Notes	See Notes	—

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW05-04184
Sample Location: MW05
Sampled By: SP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 4/18/14								
Time: 1530								
Method: bladder pump	clear	4.44	1.35	14.64	36.0	0.0	0.4	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/18/14								
Method: bladder pump								
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 25.84								
Static Water Level (WL): 19.20								
One Casing Volume(gal/L): 1								
Start Purge (hrs): 1410								
End Purge (hrs): 1525								
Total Purge Time (min): 75								
Total Vol. Purged (gal/L): 5.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	3
Total Metals	HNO3	1-500 mL plastic	1
Dissolved Metals	HNO3	1-500 mL plastic	1
1,4-Dioxane	None	2-250 mL ambers	2
TPH-GRO	HCL	2-40 mL vials	2
TPH-DRO	None	2-250 mL ambers	2
Perchlorate	None	1-250 mL plastic	—
Hexavalent Chromium	None	1-250 mL plastic	—
Radium 224, 226, 228	HNO3	3-1 L plastics	—
Haloacetic Acids	None	2-250 mL ambers	2
Natural Attenuation Parameters	See Notes	See Notes	—

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-6-041014
Sample Location: MW-6
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-10-14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 1530								
Method: Bladder pump	Clear	6.09	1.29	17.47	10.8	0.40	0.6	62

PURGE DATA:

Date: 4-10-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 13.17								
One Casing Volume(gal/L):								
Start Purge (hrs): 1439								
End Purge (hrs): 1525								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-Omw-7I-041614
Sample Location: Omw-7I
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-16-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0931								
Method: Bladder pump	Cloudy	3.65	1.47	11.43	68.8	0.73	0.7	261

PURGE DATA:

Date: 4-16-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 20.22								
One Casing Volume(gal/L):								
Start Purge (hrs): 0840								
End Purge (hrs): 0926								
Total Purge Time (min): 46								
Total Vol. Purged(gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):
Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-DMW75-040714
Sample Location: DMW75
Sampled By: S. Chavez
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Date: 4/7/14								
Time: 1335								
Method: Bladder Pump	Clear	5.57	1.16	15.15	4.52	0.00	0.06	93

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/7/14								
Method: Bladder Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 19.40								
One Casing Volume(gal/L):								
Start Purge (hrs): 1300								
End Purge (hrs): 1400								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 4 gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-DMW-70-041614
Sample Location: DMW-70
Sampled By: MD
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-16-14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 1049								
Method: Bladder pump	Clear	4.50	0.136	11.70	12.5	1.69	0.1	335

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-16-14								
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 20.25								
One Casing Volume(gal/L): (								
Start Purge (hrs): 0956								
End Purge (hrs): 1044								
Total Purge Time (min): 49								
Total Vol. Purged (gal/L): 3.2								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Walt Pa

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-Dmw-8I-041614
Sample Location: Dmw-8I
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-16-14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 1218								
Method: Bladder pump	Slightly	3.65	1.53	11.97	52.0	6.62	0.8	292

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-16-14								
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 14.50								
One Casing Volume(gal/L): (								
Start Purge (hrs): 1127								
End Purge (hrs): 1213								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):
Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-DMW-9I-042814
Sample Location: DMW-9I
Sampled By: MD
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-28-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0925								
Method: Bladder pump	Cloudy	6.93	1.21	12.47	> 999	0.52	0.7	43

PURGE DATA:

Date: 4-28-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 8.30								
One Casing Volume(gal/L):								
Start Purge (hrs): 0829								
End Purge (hrs): 0920								
Total Purge Time (min): 51								
Total Vol. Purged (gal/L): 4.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	✓

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-Arw-9s-042814
Sample Location: Arw-9s
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-28-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1045								
Method: Bladder pump	Clear	6.87	1.59	10.72	0.0	1.57	0.8	-78

PURGE DATA:

Date: 4-28-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Bladder Pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 8.22								
One Casing Volume(gal/L):								
Start Purge (hrs): 0954								
End Purge (hrs): 1040								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	✓
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):
Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-DMW-6D-042414
Sample Location: DMW-6D
Sampled By: VP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-24-14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 0845								
Method: Bladder pump	Slight	4.36	0.566	11.79	47.2	2.62	0.3	295

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-24-14								

Method: Bladder pump
Monitor Reading (ppm): 0.0
Well Casing Diameter & Material Type: 2" PVC
Total Well Depth (TD):
Static Water Level (WL): 17.12
One Casing Volume(gal/L):
Start Purge (hrs): 0754
End Purge (hrs): 0840
Total Purge Time (min): 46
Total Vol. Purged (gal/L): 3.0

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	✓
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-DMW-6B-042414
Sample Location: DMW-6B
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-24-14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1017	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	CAP
Method: Bladder pump	Slight	5.00	0.956	11.57	13.2	0.94	0.5	146

PURGE DATA:

Date: 4-24-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Bladder Pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 17.70								
One Casing Volume(gal/L):								
Start Purge (hrs): 0916								
End Purge (hrs): 1012								
Total Purge Time (min): 56								
Total Vol. Purged (gal/L): 3.5								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	✓
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Walt Pa

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-OMW-90-042414
Sample Location: OMW-90
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 4-24-14								
Time: 1455								ORP
Method: Bladder pump	Clear	4.80	0.756	13.12	0.0	0.65	0.2	147

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-24-14								
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 9.05								
One Casing Volume(gal/L):								
Start Purge (hrs): 1402								
End Purge (hrs): 1450								
Total Purge Time (min): 48								
Total Vol. Purged (gal/L): 3.2								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	✓
Natural Attenuation Parameters	See Notes	See Notes	✓

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):
Walt

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-DMW-2B-042214
Sample Location: DMW-2B
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-22-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1513								
Method: Bladder pump	Stable	6.26	0.041	14.73	105	3.34	0.0	154

PURGE DATA:

Date: 4-22-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 19.10								
One Casing Volume(gal/L):								
Start Purge (hrs): 1422								
End Purge (hrs): 1508								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-DMW-2S-042314
Sample Location: DMW-2S
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-23-14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1447	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Method: Bladder pump	Clear	6.44	1.83	17.54	1.4	0.31	0.9	-25

PURGE DATA:

Date: 4-23-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 19.88								
One Casing Volume(gal/L):								
Start Purge (hrs): 1335								
End Purge (hrs): 1442								
Total Purge Time (min): 67								
Total Vol. Purged (gal/L): 5.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	✓
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD — Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

Sample ID No.: MSA-DMW-2A-042414
Sample Location: DMW-2A
Sampled By: WP
C.O.C. No.:

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-24-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1142								ORP
Method: Bladder pump	Slightly	4.09	1.53	13.45	11.7	0.56	0.8	231

PURGE DATA:

Date: 4-24-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 20.66								
One Casing Volume(gal/L):								
Start Purge (hrs): 1051								
End Purge (hrs): 1137								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):
Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-DMW-3D-142214
Sample Location: DMW-3D
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-22-14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 0850	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Bladder pump	Slight	4.52	0.425	13.03	106	0.95	0.2	257

PURGE DATA:

Date: 4-22-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 14.50								
One Casing Volume(gal/L):								
Start Purge (hrs): 0757								
End Purge (hrs): 0845								
Total Purge Time (min): 48								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	✓
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Will R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

Sample ID No.: MSA-DMW-3I-042214
Sample Location: DMW-3I
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-22-14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1330	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Method: Peristaltic Pump	Slightly	5.38	1.29	14.62	83.0	0.60	0.6	100

PURGE DATA:

Date: 4-22-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic Pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 14.35								
One Casing Volume(gal/L):								
Start Purge (hrs): 0938								
End Purge (hrs): 1025								
Total Purge Time (min): 47								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	✓
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-DMW-~~23~~35-042214
Sample Location: DMW-~~23~~35
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-22-14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1200	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Method: Peristaltic pump	Clear	9.69	2.47	18.01	8.2	0.32	1.3	-292

PURGE DATA:

Date: 4-22-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 10.58								
One Casing Volume(gal/L):								
Start Purge (hrs): 1109								
End Purge (hrs): 1155								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 1.5								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	✓
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-Dmw-40-042314
Sample Location: Dmw-40
Sampled By: MS
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-23-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0845								
Method: Bladder pump	Cloudy	3.94	1.54	11.73	133	0.67	0.8	367

PURGE DATA:

Date: 4-23-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 19.40								
One Casing Volume(gal/L):								
Start Purge (hrs): 0754								
End Purge (hrs): 0840								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):
Walt B

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-DMW-4I-042314
Sample Location: DMW-4I
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-23-14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 0953								
Method: Bladder pump	Cloudy	4.04	1.75	12.05	3.5	0-40	0.9	222

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-23-14								
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 19.17								
One Casing Volume(gal/L):								
Start Purge (hrs): 0902								
End Purge (hrs): 0948								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-DMW-4/5-042314
Sample Location: DMW-4/5
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-23-14	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Time: 1135	Cloudy	5.77	1.93	10.59	140	0.46	6.9	88
Method: Bladder Pump								

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-23-14								
Method: Bladder Pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 19.45								
One Casing Volume(gal/L):								
Start Purge (hrs): 1044								
End Purge (hrs): 1130								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-DMW-10S-041014
Sample Location: DMW-10S
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-10-14	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Time: 0853								
Method: Bladder pump	Slightly	7.22	1.81	11.53	50.9	3.12	0.9	-87

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-10-14								
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 6.70								
One Casing Volume(gal/L):								
Start Purge (hrs): 0756								
End Purge (hrs): 0848								
Total Purge Time (min): 47								
Total Vol. Purged (gal/l): 2.5								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):
Walter Pa

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-DMW-10I-041014
Sample Location: DMW-10I
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-10-14	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Time: 1009								
Method: Bladder pump	Clear	7.44	0.121	13.41	10.1	0.72	0.1	-56

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-10-14								
Method: Bladder pumps								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 6.80								
One Casing Volume(gal/L):								
Start Purge (hrs): 0918								
End Purge (hrs): 1004								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):
Walt Pe

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-DMW-11I-04/14/14
Sample Location: DMW-11I
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-14-14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 1140								
Method: Bladder pump	Cloudy	5.00	0.031	12.77	97.2	0.72	0.0	282

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-14-14								
Method: Bladder pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 5.33								
One Casing Volume(gal/L):								
Start Purge (hrs): 1057								
End Purge (hrs): 1143								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112TC06193

Sample ID No.: MT-mw-12s-032814
Sample Location: mw-12s
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-28-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1154								
Method: Peristaltic pump	Clear	4.32	0.749	13.37	0.0	0.64	0.4	307

PURGE DATA:

Date: 3-28-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See Low Flow Purge Data Sheet					
Total Well Depth (TD):								
Static Water Level (WL): 2.79								
One Casing Volume(gal/L):								
Start Purge (hrs): 1023								
End Purge (hrs): 1154								
Total Purge Time (min): 91								
Total Vol. Purged (gal/L): 3.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
GRO	HCl	2 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
1,4 Dioxane	—	2 - 250 ml Amber	✓
DRO	—	2 - 250 ml Amber	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Walt R

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112G00483

Sample ID No.: MSA-MW-14I
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/9/14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%) ppt	
Time: 1025								ORP
Method: peri pump	clear	5.94	1.10	16.20	11.02	0.63	0.3	-22

PURGE DATA:

Date: 4/9/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge data sheet					
Total Well Depth (TD): 50.6								
Static Water Level (WL): 10.27								
One Casing Volume(gal/L): —								
Start Purge (hrs): 0940								
End Purge (hrs): 1050								
Total Purge Time (min): ~70								
Total Vol. Purged (gal/L): ~2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 ml vials	✓
Total Metals	HNO3	1-500 ml plastic	✓
Dissolved metals	HNO3	1-500 ml plastic (filtered)	✓
1,4 dioxane	—	2-250 ml ambers	✓
			✓

OBSERVATIONS / NOTES:

Ferrous iron >10, >1

Circle If Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112IC06183

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-14D
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 4/9/14								
Time: 1145								ORP
Method: peri pump	Clear	5.17	0.032	15.40	15.0	0.00	0.0	204

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/9/14								
Method: peri pump								
Monitor Reading (ppm): --								
Well Casing Diameter & Material								
Type: 2" PVC								
Total Well Depth (TD): 129.22			SEE low flow purge data sheet					
Static Water Level (WL): 6.61								
One Casing Volume(gal/L): ~								
Start Purge (hrs): 1100								
End Purge (hrs): 1200								
Total Purge Time (min): 50								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1-4 dioxane	# —	2-250 mL ambers	✓
Total metals	HNO_3	1-500 mL plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic (filtered)	✓
Hex chrom	— Buffer	1-250 mL plastic	✓

OBSERVATIONS / NOTES:

Ferrous iron cut: 0.6 and 1

Hex Chrom @ 1200

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-15I-033114
Sample Location: MW-15I
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-31-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1432								
Method: Peristaltic pump	Slightly	6.32	0.060	14.00	25.2	1.69	0.0	205

PURGE DATA:

Date: 3-31-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 5.40								
One Casing Volume(gal/L):								
Start Purge (hrs): 1341								
End Purge (hrs): 1427								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	●
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Walt Pu

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-150-033114
Sample Location: MW-150
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 3-31-14	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	orp
Time: 1547								
Method: Peristaltic pump	Clear	5.86	0.056	13.28	0.4	1.00	0.0	195

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 3-31-14								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 5.40								
One Casing Volume(gal/L):								
Start Purge (hrs): 1496								
End Purge (hrs): 1542								
Total Purge Time (min): 55								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD —

Duplicate ID No.: —

Signature(s):

Matt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW16S-040814
Sample Location: MSA-MW16S
Sampled By: S. Cameron
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/3/14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 0940	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Peri Pump	Clear	6.56	2.10	16.78	6.42	0.40	1.1	-32

PURGE DATA:

Date: 4/3/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump								
Monitor Reading (ppm): -								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 22.29								
Static Water Level (WL): 8.25								
One Casing Volume(gal/L):								
Start Purge (hrs): 0905								
End Purge (hrs): 1005								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 1.5								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	2-1 L plastics	✓
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW16I-040314
Sample Location: MW16I
Sampled By: S. Gamon
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/3/14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1045	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Peri Pump	Clear	5.27	0.094	12.21	39.0	0.00	0.0	149

PURGE DATA:

Date: 4/3/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 47.52								
Static Water Level (WL): 6.71								
One Casing Volume(gal/L):								
Start Purge (hrs): 1005								
End Purge (hrs): 1105								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 3.9 gl								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	✓
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW17D-040814
Sample Location: MW17D
Sampled By: S. Gaeon
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/8/14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1225	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Method: Peri Pump	Clear	5.14	0.059	17.68	9.74	0.00	0.00	125

PURGE DATA:

Date: 4/8/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump								
Monitor Reading (ppm): –								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 69.93								
Static Water Level (WL): 4.18								
One Casing Volume(gal/L):								
Start Purge (hrs): 1130								
End Purge (hrs): 1525								
Total Purge Time (min): 115								
Total Vol. Purged (gal/L): 25 gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials X3	✓
Total Metals	HNO3	1-500 mL plastic X1	✓
Dissolved Metals	HNO3	1-500 mL plastic X1	✓
1,4-Dioxane	None	2-250 mL ambers X2	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic X1	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD: Yes
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW17I-040914
Sample Location: MW17I
Sampled By: S. Cameron
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/8/14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1105	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Peri Pump	Clear	5.14	0.046	15.57	3.77	0.00	0.00	240

PURGE DATA:

Date: 4/8/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 46.34								
Static Water Level (WL): 4.91								
One Casing Volume(gal/L):								
Start Purge (hrs): 1025								
End Purge (hrs): 1125								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 1.5 gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW17S-040914
Sample Location: MW17S
Sampled By: S. Cameron
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/8/14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 0950								
Method: Peri Pump	Clear	7.02	0.417	13.12	7.83	0.00	0.01	-68

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/8/14								
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 19.74								
Static Water Level (WL): 5.76								
One Casing Volume(gal/L):								
Start Purge (hrs): 0910								
End Purge (hrs): 1025								
Total Purge Time (min): 75								
Total Vol. Purged (gal/L): 2.5 gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW185-040114
Sample Location: MW185
Sampled By: S Gnann
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/1/14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 1115								
Method: Peri Pump	Clear	6.52	2.95	11.34	17.9	0.00	1.5	-46

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/1/14								
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 25.58								
Static Water Level (WL): 6.80								
One Casing Volume(gal/L):								
Start Purge (hrs): 1000								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	✓

OBSERVATIONS / NOTES:

Natural Attenuation Comprises:
Ammonia
DOC
Dissolved Gasses
MEE
Alkalinity, TDS, & Anions

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW18I-040114
Sample Location: MW18I
Sampled By: S. Green
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/1/14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 1340								
Method: Peri Pump	Clear	5.59	1.87	11.62	15.1	0.00	0.9	-102

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/1/14								
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 50.79								
Static Water Level (WL): 6.91								
One Casing Volume(gal/L):								
Start Purge (hrs): 1210								
End Purge (hrs): 1450								
Total Purge Time (min): 160								
Total Vol. Purged (gal/L): 4gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	✓

OBSERVATIONS / NOTES:

Natural Attenuation Compounds:
Ammonia
DOC
Dissolved Gasses
MEE
Alkalinity, TDS, Anions

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-19D-042114
Sample Location: MW-19D
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-21-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1223								
Method: Peristaltic pump	Clear	4.51	0.663	16.00	5.2	0.64	0.3	-0.3

PURGE DATA:

Date: 4-21-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 5.20								
One Casing Volume(gal/L):								
Start Purge (hrs): 1132								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW20S-033114
Sample Location: MW20S
Sampled By: S. Cannon
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Date: 3/31/14								
Time: 1145								
Method: Peri Pump	Clear	6.08	1.65	15.13	6.74	0.00	0.8	-17

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 3/31/14								
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 22.62								
Static Water Level (WL): 8.98								
One Casing Volume(gal/L):								
Start Purge (hrs): 1110								
End Purge (hrs): 1210								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 3 gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW20I-033114
Sample Location: MW20I
Sampled By: S. Green
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 3/31/14								
Time: 1255								
Method: Peri Pump	Clear	6.26	1.14	13.10	5.89	0.00	0.6	-3

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 3/31/14								
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 47.78								
Static Water Level (WL): 9.01								
One Casing Volume(gal/L):								
Start Purge (hrs): 1210								
End Purge (hrs): 1325								
Total Purge Time (min): 75								
Total Vol. Purged (gal/L): 2.5 gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW20D-033114
Sample Location: MW20D
Sampled By: S. Cannon
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 3/31/14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 1405								
Method: Peri Pump	Clear	5.01	0.354	15.93	3.87	0.52	0.2	262

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 3/31/14								
Method: Peri Pump								
Monitor Reading (ppm): ~								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 73.06								
Static Water Level (WL): 10.03								
One Casing Volume(gal/L):								
Start Purge (hrs): 1330								
End Purge (hrs): 1430								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 2gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-21E-041414
Sample Location: MW-21E
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-14-14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1452	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: peristaltic pump	Clear	6.72	1.33	16.35	0.0	0.46	0.7	-47

PURGE DATA:

Date: 4-14-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 7.56								
One Casing Volume(gal/L):								
Start Purge (hrs): 1354								
End Purge (hrs): 1445								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-22D-042114
Sample Location: MW-22D
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-21-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0922								
Method: Peristaltic pump	Slightly	6.84	0.157	12.65	90.9	2.78	0.1	-10

PURGE DATA:

Date: 4-21-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 7.70								
One Casing Volume(gal/L):								
Start Purge (hrs): 0830								
End Purge (hrs): 0917								
Total Purge Time (min): 47								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA 6w 2014
Project No.: 112G06183

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-235
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/11/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1135								
Method: peri pump	clear	6.23	0.464	15.73	9.53	0.00	0.1	-6.7

PURGE DATA:

Date: 4/11/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peri pump								
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge data sheet					
Total Well Depth (TD): 26.8								
Static Water Level (WL): 6.46								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1050								
End Purge (hrs): 1150								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
TPH-6020	HCl	2-40 mL vials	✓
TPH-8270	—	2-250 mL ambers	✓
1-4 dioxane	—	2-250 mL ambers	✓
Total metals	HNO_3	1-500 mL plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic	✓

OBSERVATIONS / NOTES:

Dissolved Metals filtered in field

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112IC06183

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-23B
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/11/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1445								
Method: peri pump	Clear	8.60	0.120	18.28	11.3	0.00	0.0	60

PURGE DATA:

Date: 4/11/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge data sheet					
Total Well Depth (TD): 85.8								
Static Water Level (WL): ~~4.00~~ 7.08								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1400								
End Purge (hrs): 1500								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1-4 Dioxane	—	2-250 mL Ambers	✓
Total Metals	HNO_3	1-500 mL plastic	✓
Dissolved Metals	HNO_3	1-500 mL plastic	✓

OBSERVATIONS / NOTES:

Dissolved Metals filtered in field

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112IC06183

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-24S
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 4/11/14								
Time: 0845								
Method: peri pump	clear	3.65	2.37	14.59	4.24	0.00	0.8	ORP 2.91

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/11/14								
Method: peri pump								
Monitor Reading (ppm): –								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 24.95			See low flow purge data sheet					
Static Water Level (WL): 3.23								
One Casing Volume(gal/L): –								
Start Purge (hrs): 0805								
End Purge (hrs): 0900								
Total Purge Time (min): 55								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1-4 dioxane	–	2-250 mL ambers	✓
TPH-DRO	–	2-250 mL ambers	✓
TPH-GRO	HCl	2-40 mL vials	✓
Total Metals	HNO_3	1-500 mL plastic	✓
Dissolved Metals	HNO_3	1-500 mL plastic	✓

OBSERVATIONS / NOTES:

Dissolved metals filtered in the field

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112G01183

Sample ID No.: MSA-MW-24I
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

Date: 4/11/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0935								
Method: peri pump	Clear	4.09	0.172	16.30	19.7	0.00	0.0	314

PURGE DATA:

Date: 4/11/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge data sheet					
Total Well Depth (TD): 45.20'								
Static Water Level (WL): 4.11'								
One Casing Volume(gal/L): —								
Start Purge (hrs): 0910								
End Purge (hrs): 1010								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): ~2.								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1-4 dioxane	—	2-250 mL plastic bottles	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
Perchlorate	—	1-125 mL plastic	✓

OBSERVATIONS / NOTES:

Dissolved Metals and perchlorate filtered in field

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

Sample ID No.: MSA-MW-25s-041114
Sample Location: MW-25s
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-11-14	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Time: 1025								
Method: Peristaltic pump	Clear	7.01	0.169	11.44	0.0	1.15	0.1	119

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-11-14								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 4.61								
One Casing Volume(gal/L):								
Start Purge (hrs): 0934								
End Purge (hrs): 1020								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):
Walter Rz

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-29D-052714
Sample Location: MW-29D
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5-27-14								
Time: 1640								
Method: Mansoon Pump	Clean	4.19	0.019	15.97	0.0	5.10	0.0	172

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5-27-14								
Method: Mansoon Pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2" PVC								
Total Well Depth (TD):		See low flow purge						
Static Water Level (WL): 7.20								
One Casing Volume (gal/L):		Data Sheet						
Start Purge (hrs): 1549								
End Purge (hrs): 1635								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 3.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss. metals	HNO3	1 - 500 ml Poly	✓
1,4 Dioxane	—	2 - 250 ml Ambers	✓
Perchlorate	—	1 - 250 ml Poly	✓
Hex Chrom	—	1 - 250 ml Poly	✓
Radium 224, 226, 228	HNO3	3 - 1L Poly	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112EC06193

Sample ID No.: MSA-MW-30D-0527
Sample Location: MW-30D
Sampled By: MP
C.O.C. No.:

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

SAMPLING DATA:

Date: 5-27-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1123								orp
Method: Monsoon pump	Clean	5.76	0.128	19.70	20.0	2.24	0.0	225

PURGE DATA:

Date: 5-27-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Monsoon								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 3.31			Data Sheet					
One Casing Volume (gal.):								
Start Purge (hrs): 1032								
End Purge (hrs): 1118								
Total Purge Time (min): 46								
Total Vol. Purged (gal.): 4.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss. metals	HNO3	1 - 500 ml Poly	✓
1,4 Dioxane	—	2 - 250 ml Amber	✓
Perchlorate	—	1 - 250 ml Poly	✓
Hex Chrom	—	1 - 250 ml Poly	✓

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD — Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-30I-042814
Sample Location: MW-30I
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other orp
Date: 4-28-14								
Time: 1404								
Method: Peristaltic pump	Clear	5.86	0.151	15.96	0.0	1.03	0.1	78

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-28-14								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 4.33								
One Casing Volume(gal/L):								
Start Purge (hrs): 1313								
End Purge (hrs): 1359								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	4 ✓
Total Metals	HNO3	1-500 mL plastic	3 ✓
Dissolved Metals	HNO3	1-500 mL plastic	3 ✓
1,4-Dioxane	None	2-250 mL ambers	6 ✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

MS/MSD collected on well

Circle if Applicable:
(MS/MSD)
Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112FC06183

Sample ID No.: MSA-MW-31D-052714
Sample Location: MW-31D
Sampled By: WD
C.O.C. No.:

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

SAMPLING DATA:

Date: 5.27.14	Color (Visual)	pH (SU)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1503								
Method: Mersible pump	Clear	7.22	0.576	16.71	0.0	0.33	0.3	-51

PURGE DATA:

Date: 5-27-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Mersible Pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See low flow purge					
Static Water Level (WL): 2.80								
One Casing Volume (gal):			Data sheet					
Start Purge (hrs): 1412								
End Purge (hrs): 1458								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 3.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss. metals	HNO3	1 - 500 ml Poly	✓
1,4 Dioxane	—	2 - 250 ml Amber	✓
Perchlorate	—	1 - 250 ml Poly	✓
Wet Chem	—	1 - 250 ml Poly	✓

OBSERVATIONS / NOTES:

Circle If Applicable:
MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112IC00183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-325
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 4/10/14								
Time: 0900								
Method: peri pump	clear	6.04	0.311	15.38	21.2	0.00	0.1	-9

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/10/14								
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material								
Type: 2" PVC								
Total Well Depth (TD): 34.91		See low flow purge data sheet						
Static Water Level (WL): 4.52								
One Casing Volume(gal/L): —								
Start Purge (hrs): 0815								
End Purge (hrs): 0910								
Total Purge Time (min): 55								
Total Vol. Purged (gal/L): ~2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-Dioxane	None	2-250 mL ambers	✓
Total metals	HNO_3	1-500 mL plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	—	2-250 mL ambers	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112IC06183

Sample ID No.: MSA-MW-32I
Sample Location: MSA
Sampled By: JTM
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/10/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1010								
Method: peri pump	Clear	7.42	0.246	15.85	16.6	0.08	0.0	174

PURGE DATA:

Date: 4/10/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 64.93			See low flow purge data sheet					
Static Water Level (WL): 4.69								
One Casing Volume(gal/L): —								
Start Purge (hrs): 0925								
End Purge (hrs): 1020								
Total Purge Time (min): 55								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-Dioxane	None	2-250 mL ambers	✓
Total metals	HNO_3	1-500 mL plast.	✓
Dissolved Metals	HNO_3	1-500 mL plastic	✓

OBSERVATIONS / NOTES:

Circle if Applicable

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-33S-033114
Sample Location: MW-33S
Sampled By: WD
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 3-31-14	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Time: 1038								
Method: Peristaltic pump	Clear	7.81	0.149	11.95	0.0	7.87	0.1	184

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 3-31-14								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 5.95								
One Casing Volume(gal/L):								
Start Purge (hrs): 0947								
End Purge (hrs): 1033								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L) 2.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):
Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-33I-033114
Sample Location: MW-33I
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 3-31-14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 1156								
Method: Peristaltic pump	Clear	13.25	0.993	12.48	0.0	0.72	0.5	-88

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 3-31-14								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 6.05								
One Casing Volume(gal/L):								
Start Purge (hrs): 1058								
End Purge (hrs): 1145								
Total Purge Time (min): 47								
Total Vol. Purged (gal/L): 2.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Hex Chrom was Collected @ 1200

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Manlin State Airport
Project No.: 112IC06183

Sample ID No.: MSA-MW-34s-032014
Sample Location: MW-34s
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-27-14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1405	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	orp
Method: Peristaltic pump	clear	5.17	0.133	10.11	0.0	0.54	0.1	252

PURGE DATA:

Date: 3-27-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2" PVC			SEE	Low	flow			
Total Well Depth (TD):								
Static Water Level (WL): 4.45			Purge	Data	Sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 1313								
End Purge (hrs): 1400								
Total Purge Time (min): 47								
Total Vol. Purged (gal/L): 3.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2 - 40 ml VOA	✓
CVOC	HCl	2 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
1,4 Dioxane	—	2 - 250 ml Ambers	✓
PAH	—	2 - 250 ml Ambers	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Walt Pe

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112SC06183

Sample ID No.: MSA-MW-34I-032714
Sample Location: MW-34I
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 3-27-14 / Time: 1515 / Method: Peristaltic pump	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
	Clear	4.54	0.141	10.30	0.0	0.48	0.1	283

PURGE DATA:

Date: 3-27-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			SEE Low Flow Purge Data sheet					
Total Well Depth (TD):								
Static Water Level (WL): 4.45								
One Casing Volume(gal/L):								
Start Purge (hrs): 1424								
End Purge (hrs): 1510								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 3.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
1, 4 Dioxane	—	2 - 250 ml Amber	✓

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):
Walker

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112G06183

Sample ID No.: MSA-MW-355
Sample Location: MSA
Sampled By: TAM
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3/28/14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1410	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: peri pump	clear	7.98	0.166	17.13	9.71	0.00	0.1	-27

PURGE DATA:

Date: 3/28/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material								
Type: 2" PVC			See low flow purge data sheet					
Total Well Depth (TD): 34.12'								
Static Water Level (WL): 8.47'								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1325								
End Purge (hrs): 1430								
Total Purge Time (min): 65								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	—	2-250 mL Ambers	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1-4 dioxane	—	2-250 mL ambers	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-36S-041114
Sample Location: MW-36S
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-11-14	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Time: 0905								
Method: Peristaltic pump	Clear	3.79	0.075	11.41	0.0	0.82	0.0	330

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4-11-13								

Method: Peristaltic pump
Monitor Reading (ppm): 0.0
Well Casing Diameter & Material Type: 2" PVC
Total Well Depth (TD):
Static Water Level (WL): 5.80
One Casing Volume(gal/L):
Start Purge (hrs): 0813
End Purge (hrs): 0900
Total Purge Time (min): 47
Total Vol. Purged (gal/L): 1.7

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-mw-37s-041114
Sample Location: mw-37s
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-11-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1450								
Method: Peristaltic pump	Clear	5.94	0.309	13.44	0.0	0.43	0.1	147

PURGE DATA:

Date: 4-11-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 5.95								
One Casing Volume(gal/L):								
Start Purge (hrs): 1358								
End Purge (hrs): 1445								
Total Purge Time (min): 47								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD — Duplicate ID No.:

Signature(s):

Walter R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-38S-042114
Sample Location: MW-38S
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4-21-14 / Time: 1600 / Method: Peristaltic pump	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
	Cloudy	6.58	0.257	12.57	70.2	0.22	0.1	-94

PURGE DATA:

Date: 4-21-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 5.70								
One Casing Volume(gal/L):								
Start Purge (hrs): 1424								
End Purge (hrs): 1545								
Total Purge Time (min): 90								
Total Vol. Purged (gal/L): 3.5								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: MSA GW 2014
Project No.: 112IC06183

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-395-032814
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 3/28/14								
Time: 1230								
Method: Peri pump	Clear	~~200~~ 5.80	0.565	11.06	9.34	0.03	0.3	-20

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 3/28/14								
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC			SEE LOW FLOW PURGE DATA SHEET					
Total Well Depth (TD): 29.49								
Static Water Level (WL): 11.72								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1150								
End Purge (hrs): 1250								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vents	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-QLO	—	2-250 mL ambers	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic (filtered)	✓
1-4 dioxane	—	2-250 mL ambers	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Dump Road MSA
Project No.: 112T6D6183

Sample ID No.: MSA-MW-405-032814
Sample Location: MW-405
Sampled By: S. Garner
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 3/28/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1120								
Method: Peri Pump	Clear	6.36	2.09	12.56	9.7	0.12	1.0	38

PURGE DATA:

Date: 3/28/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump		See Low Flow Purge Data Sheet						
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 15.58								
One Casing Volume(gal/L):								
Start Purge (hrs): 1045								
End Purge (hrs): 1150								
Total Purge Time (min): 65								
Total Vol. Purged (gal/L): 2.5 L								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-Dioxane	None	2-250 mL ambers	✓
Total metals	HNO_3	1-500 mL plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic	✓
TPH-GRO	HCl	2-40mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓

OBSERVATIONS / NOTES:

Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Dump Road MSA
Project No.: 112S.0618.3

Sample ID No.: MSA-MW40I-032814
Sample Location: MW40I
Sampled By: S. Cavern
C.O.C. No.:
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

- [ ] Domestic Well Data
- [x] Monitoring Well Data
- [ ] Other Well Type:
- [ ] QA Sample Type:

SAMPLING DATA:

Date: 3/28/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1240								ORP
Method: Peri Pump	Clear	9.99	2.04	12.87	8.7	0.00	1.0	181

PURGE DATA:

Date: 3/28/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump		See Low Flow Purge Data Sheet						
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 15.94								
One Casing Volume(gal/L):								
Start Purge (hrs): 1155								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-Dioxane	None	2-250 mL ambers	✓
Total metals	HNO_3	1-500 mL plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW41S-040414
Sample Location: MW41S
Sampled By: S. Gmerek
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 4/4/14								
Time: 0940								
Method: Peri Pump	Clear	6.56	1.11	11.76	8.59	0.45	0.5	161

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/4/14								
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 34.85								
Static Water Level (WL): 6.40								
One Casing Volume(gal/L):								
Start Purge (hrs): 0830								
End Purge (hrs): 1000								
Total Purge Time (min): 90								
Total Vol. Purged (gal/L): 3 gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW41I-040414
Sample Location: MW41I
Sampled By: S. Connor
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/4/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1040								
Method: Peri Pump	Clear	6.99	1.17	12.04	6.32	0.89	0.5	-55

PURGE DATA:

Date: 4/4/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 54.00								
Static Water Level (WL): 6.40								
One Casing Volume(gal/L):								
Start Purge (hrs): 1005								
End Purge (hrs): 1115								
Total Purge Time (min): 70								
Total Vol. Purged (gal/L): 2 gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials X3	✓
Total Metals	HNO3	1-500 mL plastic X5	✓
Dissolved Metals	HNO3	1-500 mL plastic X5	✓
1,4-Dioxane	None	2-250 mL ambers X5	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD: Yes
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW425-040214
Sample Location: MW425
Sampled By: S. Crow
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/2/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1010								
Method: Peri Pump	Clear	6.63	0.668	9.95	8.77	0.00	0.3	-82

PURGE DATA:

Date: 4/2/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 11.73								
Static Water Level (WL): 5.26								
One Casing Volume(gal/L):								
Start Purge (hrs): 0920								
End Purge (hrs): 1020								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 2.94								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Odorous.

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW42I-040214
Sample Location: MW42I
Sampled By: S Cannon
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/2/14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 1110								
Method: Peri Pump	Clear	6.84	0.145	9.97	6.42	0.00	0.1	-4

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/2/14								
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 32.98								
Static Water Level (WL): 5.08								
One Casing Volume(gal/L):								
Start Purge (hrs): 1020								
End Purge (hrs): 1120								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 2gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112G06183

Sample ID No.: MSA-MW-435-032814
Sample Location: MSA
Sampled By: JMM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 3/28/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1115								
Method: peri pump	clear	6.32	0.736	8.58	7.76	0.00	0.4	52

PURGE DATA:

Date: 3/28/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC				SEE LOW FLOW PURGE DATA SHEET				
Total Well Depth (TD): 16.79								
Static Water Level (WL): 12.03								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1035								
End Purge (hrs): 1145								
Total Purge Time (min): 70								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 ml glass vials	✓
TPH-GRO	HCl	2-40 ml glass vials	✓
TPH-DRO	—	2-250 ml ambers	✓
1-4 dioxane	—	2-250 ml ambers	✓
Total metals	HNO3	1-500 ml plastic	✓
Dissolved metals	HNO3	1-500 ml plastic (filtered)	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112G06183

Sample ID No.: MSA-MW-445
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 3/28/14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 0950								
Method: peri pump	clear	6.96	2.21	6.96	3.91	0.00	1.1	-157

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 3/28/14								
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC			SEE LOW FLOW PURGE DATA SHEET					
Total Well Depth (TD): 14.78								
Static Water Level (WL): 1.51								
One Casing Volume(gal/L): —								
Start Purge (hrs): 0900								
End Purge (hrs): 1015								
Total Purge Time (min): 75								
Total Vol. Purged (gal/L): ~3								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	7-40 mL glass vials	✓
TPH-GRO	HCl	2-40 mL glass vials	✓
TPH-DRO	—	2-250 mL amber	✓
1-4 dioxane	—	2-250 mL amber	✓
Total metals	HNO_3	1-500 mL plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic (filtered)	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW45S-040414
Sample Location: MW45S
Sampled By: S. Emerson
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/4/14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1155	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Method: Peri Pump	Yellow	6.23	2.76	11.67	7.79	1.63	1.4	265

PURGE DATA:

Date: 4/4/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 24.70								
Static Water Level (WL): 6.12								
One Casing Volume(gal/L):								
Start Purge (hrs): 1115								
End Purge (hrs): 1230								
Total Purge Time (min): 75								
Total Vol. Purged (gal/L): 2gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	
Hexavalent Chromium	None	1-250 mL plastic	
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW46S-040214
Sample Location: MW46S
Sampled By: S. Green
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/2/14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1210	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Peri Pump	Clear	6.21	0.492	[illegible]	8.94	6.40	0.5	25

PURGE DATA:

Date: 4/2/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 27.95								
Static Water Level (WL): 9.04								
One Casing Volume(gal/L):								
Start Purge (hrs): 1135								
End Purge (hrs): 1245								
Total Purge Time (min): 70								
Total Vol. Purged (gal/L): 2.5 gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW46I-040214
Sample Location: MW46I
Sampled By: SBC
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/2/14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 1350								
Method: Peri Pump	Clear	5.73	0.722	11.40	23.3	0.00	0.5	109

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/2/14								
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 47.90								
Static Water Level (WL): 9.48								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1245								
End Purge (hrs): 1405								
Total Purge Time (min): 80								
Total Vol. Purged (gal/L): 4gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW46D-040414
Sample Location: MW46D
Sampled By: S Gmern
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/2/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1414								
Method: Perf Pump	Clear	6.05	0.074	12.14	4.32	0.00	0.0	52

PURGE DATA:

Date: 4/2/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Perf Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 62.95								
Static Water Level (WL): 10.02								
One Casing Volume(gal/L):								
Start Purge (hrs): 1405								
End Purge (hrs): 1500								
Total Purge Time (min): 55								
Total Vol. Purged (gal/L): 1.5 gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW475-040314
Sample Location: MW475
Sampled By: S. Green
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/3/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1205								
Method: Peri Pump	Clear	6.79	2.04	10.71	5.56	0.00	1.1	-58

PURGE DATA:

Date: 4/3/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 22.68								
Static Water Level (WL): 12.00								
One Casing Volume(gal/L):								
Start Purge (hrs): 1125								
End Purge (hrs): 1235								
Total Purge Time (min): 70								
Total Vol. Purged (gal/L): 2.9 gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW47I-040814
Sample Location: MW47I
Sampled By: S. Cameron
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/3/14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1410	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Peri Pump	Clear	5.99	1.79	11.81	39.1	0.00	0.8	75

PURGE DATA:

Date: 4/3/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 37.84								
Static Water Level (WL): 10.58								
One Casing Volume(gal/L):								
Start Purge (hrs): 1240								
End Purge (hrs): 1425								
Total Purge Time (min): 105								
Total Vol. Purged (gal/L): 3 gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW47D-040814
Sample Location: MW47D
Sampled By: S. Cameron
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/8/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1415								
Method: Peri Pump	Clear	5.00	0.069	17.17	3.72	0.03	0.03	162

PURGE DATA:

Date: 4/8/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri Pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 57.92								
Static Water Level (WL): 10.30								
One Casing Volume(gal/L):								
Start Purge (hrs): 1335								
End Purge (hrs): 1430								
Total Purge Time (min): 55								
Total Vol. Purged (gal/L): 1.5gal								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112ICD6183

[] Domestic Well Data
[✓] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-48I
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[✓] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 4/9/14								
Time: 1440								ORP
Method: part pump	clear	4.41	0.641	16.53	8.36	0.00	0.2	316

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/9/14								
Method: part pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material								
Type: 2" PVC				See low flow purge data sheet				
Total Well Depth (TD): 37.4								
Static Water Level (WL): 18.22								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1355								
End Purge (hrs): 1505								
Total Purge Time (min): 70								
Total Vol. Purged (gal/L): ~3								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1-4 dioxane	—	2-250 mL amber	✓
Total Metals	HNO_3	1-500 mL plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic	✓
Hex chrom	—	1-250 mL plastic	✓
Perchlorate	—	1-125 mL plastic	✓
Ammonia	H_2SO_4	1-250 mL plastic	✓
DOC	H_2SO_4	2-40 mL vials	✓
~~Methane~~ MEE, Dissolved Gasses	HCl	2-40 mL vials EACH	✓
Alkalinity, Anions, TDS	HCl	1-500 mL plastic	✓

OBSERVATIONS / NOTES:

Dissolved Metals + Perchlorate filtered in the field

Ferrous iron kit: 1 and 1.0

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-48D
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/9/14	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 1600								
Method: peri pump	clear	4.23	0.551	16.10	10.69	0.00	0.1	361

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/9/14								
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge data sheet					
Total Well Depth (TD): 53'								
Static Water Level (WL): 18.23								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1515								
End Purge (hrs): 1615								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1-4 dioxane	—	2-250 mL ambers	✓
Total metals	HNO_3	1-500 mL plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic	✓
Perchlorate	—	1-125 mL plastic	✓
Hex Chrom	—	1-250 mL plastic	✓
MEE, Dissolved gasses	HCl	2-40 mL vials EACH	✓
COC	H_2SO_4	2-40 mL vials	✓
Ammonia	H_2SO_4	1-250 mL plastic	✓
Alkalinity, Anions, TDS	—	1-500 mL plastic	✓

OBSERVATIONS / NOTES:

Ferrous iron kit: 0.2 and <1
Dissolved Metals and Perchlorate filtered in field

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA-GW 2014
Project No.: 112G06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-48S
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/10/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1130								
Method: peri pump	Clear	6.64	1.62	14.14	3.83	0.00	0.5	-54

PURGE DATA:

Date: 4/10/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 22.69								
Static Water Level (WL): 18.59								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1055								
End Purge (hrs): 1205								
Total Purge Time (min): 70								
Total Vol. Purged (gal/L): ~3								

See low flow purge data sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-Dioxane	None	2-250 mL ambers	✓
Total metals	HNO_3	1-500 mL plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	—	2-250 mL ambers	✓
Perchlorate	—	1-125 mL plastic	✓
Hex chrom	—	1-250 mL plastic	✓
MEE	HCl	2-40 mL vials	✓
Dissolved gases	HCl	2-40 mL vials	✓
Ammonia, COC	H_2SO_4	1-250 mL plastic / 2-40 mL vials	✓
Alkalinity, Anions, TDS	—	1-500 mL plastic	✓

OBSERVATIONS / NOTES:

Dissolved Metals and Perchlorate Filtered in field.
Ferrous iron test: >10, >1
Hex Chrom @ 1205

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112IC06183

Sample ID No.: MSA-MW-495
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/10/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1435								
Method: peri pump	clear	5.06	0.875	19.17	5.02	0.00	0.2	148

PURGE DATA:

Date: 4/10/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peri purp								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge data sheet					
Total Well Depth (TD): 33'								
Static Water Level (WL): 19.35'								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1405								
End Purge (hrs): 1455								
Total Purge Time (min): 50								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-Dioxane	None	2-250 mL ambers	✓
Total metals	HNO_3	1-500 mL plastic	✓
Dissolved Metals	HNO_3	1-500 mL plastic	✓
Perchlorate	—	~~1-250 mL~~ 1-125 mL plastic	✓
Hex Chrom	—	1-250 mL plastic	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	—	2-250 mL ambers	✓

OBSERVATIONS / NOTES:

Dissolved Metals + Perchlorate filtered in field

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2014
Project No.: 112G06183

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-49I
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/10/14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1540	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	~~(%)~~ ppt	ORP
Method: peri pump	clear	3.84	1.68	17.75	13.0	0.00	0.5 ppt	326

PURGE DATA:

Date: 4/10/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge data sheet					
Total Well Depth (TD): 47.95								
Static Water Level (WL): 18.49								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1505								
End Purge (hrs): 1600								
Total Purge Time (min): 55								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-Dioxane	None	2-250 mL ambers	✓
Total metals	HNO_3	1-500 mL plastic	✓
Dissolved Metals	HNO_3	1-500 mL plastic	✓
Perchlorate	—	1-125 mL plastic	✓
Hex Chrom	—	1-250 mL plastic	✓

OBSERVATIONS / NOTES:

Dissolved Metals + Perchlorate filtered in field

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-49D-041714
Sample Location: MW-49
Sampled By: SP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/17/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1540								
Method: Peristaltic pump	clear	4.15	1.55	15.71	4.60	0.0	0.5	

PURGE DATA:

Date: 4/17/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peristaltic								
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 63.01								
Static Water Level (WL): 18.72								
One Casing Volume(gal/L): 5								
Start Purge (hrs): 1440								
End Purge (hrs): 1535								
Total Purge Time (min): 55								
Total Vol. Purged (gal/L): 3.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	3
Total Metals	HNO3	1-500 mL plastic	1
Dissolved Metals	HNO3	1-500 mL plastic	1
1,4-Dioxane	None	2-250 mL ambers	2
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	1
Hexavalent Chromium	None	1-250 mL plastic	1
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112TQ01618 3

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-50S-041414
Sample Location: MW-50
Sampled By: SPP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/14/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1050								
Method: peristaltic pump	clear	4.58	0.799	17.05	6.99	0.0	0.2	131

PURGE DATA:

Date: 4/14/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peristaltic pump								
Monitor Reading (ppm): —			See low flow					
Well Casing Diameter & Material Type: 2" PVC			purge data sheet					
Total Well Depth (TD): 32.82								
Static Water Level (WL): 10.53								
One Casing Volume(gal/L): —								
Start Purge (hrs): 0935								
End Purge (hrs): 1035								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 4.75								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-Dioxane	None	2-250 mL ambers	✓
Total metals	HNO_3	1-500 mL plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic	✓
Hex Chrome	—	1-250mL plastic	✓
DRO	—	2-250mL glass amber	✓
GRO	HCl	2-40mL VOAs	✓
Perchlorate	—	1-125mL (filtered) plastic	✓

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Martin State Airport
Project No.: 112-IC06183

[] Domestic Well Data
[✓] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-50I-041414
Sample Location: MW-50
Sampled By: SPP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 4/14/14								
Time: 1537								ORP
Method: peristaltic pump	cloudy	4.47	0.793	19.54	27.0	0.0	0.2	111

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 4/14/14								
Method: peristaltic pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material			See low flow					
Type: 2" PVC								
Total Well Depth (TD): 47.92			purge data sheet					
Static Water Level (WL): 11.07								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1405								
End Purge (hrs): 1535								
Total Purge Time (min): 90								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-Dioxane	None	2-250 mL ambers	✓
Total metals	HNO_3	1-500 mL plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic	✓
Perchlorate	—	1-125 mL (filtered) plastic	✓
Hex Chrome	—	1-250 mL plastic	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-5D-041614
Sample Location:
Sampled By:
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/16/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 0940								
Method: Peristaltic Pump	Clear	8.19	0.269	12.19	4.16	3.64	0.1	

PURGE DATA:

Date: 4/16/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic Pump								

Monitor Reading (ppm):
Well Casing Diameter & Material Type: 2" PVC
Total Well Depth (TD): 62.89
Static Water Level (WL): 12.65
One Casing Volume(gal/L):
Start Purge (hrs): 0905
End Purge (hrs): 0935
Total Purge Time (min): 30
Total Vol. Purged (gal/L): 2.5

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-51D-041714
Sample Location: MW-51
Sampled By: SPP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/17/14	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time:	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	
Method: Peristaltic Pump	clear	8.58	0.826	13.88	11.95	0.0	0.2	

PURGE DATA:

Date: 4/17/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peristaltic pump								

Monitor Reading (ppm):
Well Casing Diameter & Material Type: 2" PVC
Total Well Depth (TD): 62.91
Static Water Level (WL): 7.62
One Casing Volume(gal/L): 5
Start Purge (hrs): 1005
End Purge (hrs): 1135
Total Purge Time (min): 90
Total Vol. Purged (gal/L): 45

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	9
Total Metals	HNO3	1-500 mL plastic	3
Dissolved Metals	HNO3	1-500 mL plastic	3
1,4-Dioxane	None	2-250 mL ambers	6
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	3
Hexavalent Chromium	None	1-250 mL plastic	3
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

collected MS/MSD

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MW-5-041614
Sample Location: MW-5
Sampled By: SPP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/16/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1446								
Method: peristaltic pump	cloudy	4.32	1.72	13.62	21.2	0.0	0.5	

PURGE DATA:

Date: 4/16/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peristaltic pump								
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 22.91								
Static Water Level (WL): 9.27								
One Casing Volume(gal/L): 5								
Start Purge (hrs): 1420								
End Purge (hrs): 1445								
Total Purge Time (min): 25								
Total Vol. Purged (gal/L): 25								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	✓
TPH-DRO	None	2-250 mL ambers	✓
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC06183

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-57-041614
Sample Location: MW-57
Sampled By: SP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 4/16/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1135								
Method: peristaltic pump	Cloudy	4.09	1.15	12.01	9.70	0.21	0.3	

PURGE DATA:

Date: 4/16/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peristaltic pump								
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 42.05								
Static Water Level (WL): 9.05								
One Casing Volume(gal/L): (								
Start Purge (hrs): 1059								
End Purge (hrs): 1135								
Total Purge Time (min): 36								
Total Vol. Purged (gal/L): 2.0								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
1,4-Dioxane	None	2-250 mL ambers	✓
TPH-GRO	HCL	2-40 mL vials	
TPH-DRO	None	2-250 mL ambers	
Perchlorate	None	1-250 mL plastic	✓
Hexavalent Chromium	None	1-250 mL plastic	✓
Radium 224, 226, 228	HNO3	3-1 L plastics	
Haloacetic Acids	None	2-250 mL ambers	
Natural Attenuation Parameters	See Notes	See Notes	

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014
PROJECT NUMBER: 112IC06183
WELL ID.: MF-MW-015-032014
DATE: 3/20/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0920	5.43	–	–	–	–	–	–	–	–	
0925	6.20	100	6.03	0.454	30.2	0.00	11.26	-38		
0930	6.99	100	6.18	0.454	18.6	0.00	10.88	-58		
0935	7.09	100	6.23	0.427	15.5	0.00	10.37	-61		
0940	7.59	100	6.34	0.452	16.0	0.00	9.72	-66		
0945	8.02	100	6.60	0.463	13.8	0.00	9.11	-79		
0950	8.11	100	6.59	0.466	13.6	0.00	9.07	-79		
0955	8.29	100	6.59	0.466	10.90	0.00	9.06	-80		
1000	8.56	100	6.61	0.467	7.84	0.00	9.11	-81		
1005	8.67	100	6.60	0.466	9.32	0.00	9.10	-81		
	Sample VOCs, TPH-GRO+DRO, 1-4 dioxane, Total + Dissolved Metals + Mercury									

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014
PROJECT NUMBER: 112FC06183
WELL ID.: MT-MW-025-032614
DATE: 3/26/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1250	9.69	100	6.—	—	—	—	—	—	—	
1255	9.95	100	6.45	0.495	17.7	0.00	11.64	-45		
1300	10.20	100	6.39	0.510	12.1	0.00	12.67	-63		
1305	10.56	100	6.38	0.510	11.50	0.00	12.56	-61		
1310	10.76	100	6.35	0.512	9.46	0.00	12.13	-59		
1315	11.11	100	6.36	0.516	8.32	0.00	11.64	-59		
1320	11.44	100	6.36	0.520	8.76	0.00	11.38	-60		
1325	11.74	100	6.37	0.522	8.93	0.00	11.23	-60		
1330	11.93	100	6.37	0.521	8.80	0.00	11.20	-60		
	Sample vocs 1-4 dioxane, TPH-Gro-Dro, Total + Dissolved Metals + Mercury									

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Mankin State Airport
PROJECT NUMBER: 112IC06183

WELL ID.: MT-MW-03s-032714
DATE: 3-27-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0913	Top of PVC	—	—	—	—	—	—	—	—	Initial water slightly cloudy
0915	1.90	200	5.92	0.086	15.9	3.12	12.34	96	0.0	
0920	2.53	100	5.99	0.065	37.0	1.88	12.55	85	0.0	
0925	4.10	100	6.02	0.063	36.5	1.95	13.16	81	0.0	
0930	5.80	100	6.02	0.061	37.1	1.94	13.45	80	0.0	
0940	9.60	100	6.00	0.060	53.4	2.83	13.62	77	0.0	
0950	13.00	100	6.00	0.062	274	2.56	13.85	73	0.0	Cloudy water
0955	14.90	100	6.01	0.065	485	2.06	13.89	71	0.0	
1000	17.10	100	6.08	0.080	875	2.40	14.08	72	0.0	
1005	17.72	100	6.12	0.098	998	2.72	14.13	56	0.0	
1010	19.30	100	6.24	0.0145	1000	2.67	14.25	43	0.0	
1015	19.90	100	6.40	0.234	990	2.80	14.42	30	0.0	
1020	20.40	100	6.50	0.326	954	2.79	14.49	27	0.0	
1025	21.70	100	6.52	0.414	1000	2.50	15.04	29	0.0	
1030	22.95	100	6.47	0.371	1000	1.93	15.16	30	0.0	
1035	24.00	100	6.40	0.315	1000	1.78	15.20	37	0.0	
				Well did not stabilize						
				Went dry 1st recharge						
				0.0% before Sampling						

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Main Terminal MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MT-MW-45-032714
DATE: 3/27/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0940	3.72	—	—	—	—	—	—	—	—	
0945	4.38	200	5.50	0.132	27.3	6.86	14.25	251	0.1	
0950	4.93	200	5.12	0.124	23.8	2.92	13.47	272	0.1	
0955	5.77	200	4.88	0.125	16.2	2.29	12.63	289	0.1	
1000	6.45	150	4.63	0.119	19.8	2.18	12.12	304	0.1	
1005	7.28	150	4.49	0.115	17.4	2.10	11.54	321	0.1	
1010	8.03	150	4.32	0.113	4.8	2.16	11.49	332	0.1	
1015	8.87	150	4.14	0.111	4.2	2.21	11.45	343	0.1	
1020	9.36	150	4.02	0.110	3.8	2.27	11.51	348	0.1	
1025	9.74	150	3.92	0.109	2.9	2.25	11.58	359	0.1	
Sampling	VOCs, TPH DRO+GRO, 1,4-Dioxane, total/dissolved metals									

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MT MSA
PROJECT NUMBER: 112ICOG183
WELL ID.: MT-MW-5S-032714
DATE: 3/27/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1225	5.54	—	—	—	—	—	—	—	—	
1230	6.58	200	5.52	0.443	28.6	1.65	9.83	208	0.2	
1235	7.13	200	5.16	0.444	24.2	1.53	9.86	234	0.2	
1240	7.72	200	4.93	0.442	14.2	1.22	9.85	265	0.2	
1245	8.42	200	4.86	0.442	14.4	1.18	9.97	275	0.2	
1250	9.21	200	4.77	0.443	14.6	1.15	10.07	285	0.2	
1255	9.86	200	4.76	0.443	10.2	1.09	10.16	287	0.2	
1300	10.42	200	4.75	0.443	10.5	1.04	10.39	292	0.2	
Sampling VOCs, Pest + Dissolved Metals, TPH-GRO + DRO, & 1,4-Dioxane.										

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06183

WELL ID.: MT-MW-06S-032714
DATE: 3-27-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1114	1.65	—	—	—	—	—	—	—	—	Initial reading clean water
1115	2.45	300	4.29	1.55	0.0	2.93	11.65	337	0.8	
1120	3.60	250	4.25	1.59	0.0	2.09	11.46	362	0.8	
1130	4.75	200	4.20	1.62	0.0	1.93	11.20	387	0.8	
1140	5.36	150	4.17	1.64	0.0	1.79	11.03	400	0.8	
1145	5.90	100	4.15	1.67	0.0	1.68	10.94	411	0.8	
1150	6.11	100	4.15	1.67	0.0	1.52	10.98	414	0.8	
1200	6.50	100	4.15	1.67	0.0	1.51	11.02	418	0.8	
1205	6.55	100	4.16	1.67	0.0	1.55	11.08	419	0.8	
1210	6.60	100	4.16	1.66	0.0	1.49	11.06	424	0.8	
			Well parameters stabilized							
			Sampling Begins							

PAGE 2 OF 2

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014
PROJECT NUMBER: 112-IC06183
WELL ID.: MT-MW-075-037614
DATE: 7/26/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1430	8.97	—		—	—	—	—	—		
1435	9.21	100	7.11	0.983	87.0	0.00	10.95	-101		
1440	9.21	100	7.32	0.972	71.2	0.00	11.10	-114		
1445	9.21	100	7.39	0.917	70.3	0.00	11.25	-119		
1450	9.21	100	7.47	0.888	70.4	0.00	11.33	-123		
1455	9.21	100	7.44	0.840	64.8	0.00	11.62	-122		
1500	9.21	100	7.46	0.801	58.7	0.00	11.75	-117		
1505	9.21	100	7.34	0.756	50.4	0.00	11.57	-106		
1510	9.21	100	7.20	0.734	42.5	0.00	11.65	-92		
1515	9.21	100	7.00	0.641	32.7	0.00	11.57	-70		
1520	9.21	100	6.85	0.612	27.0	0.00	11.54	-57		
1525	9.21	100	6.80	0.610	23.0	0.00	11.41	-55		
1530	9.21	100	6.81	0.608	17.0	0.00	11.45	-50		
	Sample VOCs, 1-4 dioxane + TPH Dmo, GRO, Total + Dissolved Metals									

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014 **WELL ID.:** MP-MW-085-032614
PROJECT NUMBER: 117-1C06183 **DATE:** 3/26/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1110	10.03	—	—	—	—	—	—	—	—	
1115	10.41	100	6.67	0.326	11.9	0.00	11.24	-55		
1120	11.03	100	6.58	0.323	6.40	0.00	11.05	-45		
1125	11.73	100	6.56	0.324	3.86	0.00	11.00	-45		
1130	12.31	100	6.56	0.328	3.34	0.00	11.15	-47		
1135	12.86	100	6.56	0.329	4.18	0.00	11.09	-49		
1140	13.45	100	6.58	0.330	4.35	0.00	11.52	-52		
1145	13.98	100	6.58	0.327	4.36	0.00	11.52	-53		
1150	14.35	100	6.57	0.327	4.35	0.00	11.55	-55		
		Sample VOCs, TPH-Gro+DRO, Total+Dissolved Metals + Mercury, 1-4 Dioxane								

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MT MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MT-MW-9S-082714
DATE: 3/27/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1350	6.46	—	—	—	—	—	—	—	—	
1355	7.41	200	5.52	0.125	14.6	2.53	12.17	225	0.1	
1400	8.64	200	5.52	0.118	10.4	1.24	13.12	181	0.1	
1405	9.88	200	5.52	0.111	4.7	0.53	13.60	138	0.1	
1410	10.64	200	5.53	0.104	7.2	0.48	13.71	134	0.1	
1415	11.32	200	5.54	0.108	4.3	0.34	13.84	129	0.1	
1420	12.07	200	5.58	0.107	4.1	0.38	13.62	127	0.1	
1425	12.96	200	5.60	0.106	3.7	0.47	13.54	124	0.1	
1430	13.81	200	5.61	0.106	2.8	0.59	13.46	120	0.1	
Sampling	Vocs, TPH-GRO+DRO, Total+Dissolved Metals, 2,7,1,4-Dioxane									

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Main Terminal MSA
PROJECT NUMBER: 112F06183

WELL ID.: MT-MW-10S-032714
DATE: 3/27/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1105	12.16	—	—	—	—	—	—	—	—	
1110	12.92	200	5.24	0.442	26.9	1.45	10.65	280	0.2	
1115	13.25	200	5.83	0.482	21.3	1.12	11.24	245	0.2	
1120	13.78	200	6.16	0.513	14.7	0.24	11.63	210	0.2	
1125	13.98	200	6.24	0.514	12.4	0.20	11.84	188	0.2	
1130	14.36	200	6.33	0.514	8.6	0.13	12.34	169	0.2	
1135	14.42	200	6.34	0516	6.2	0.11	12.58	152	0.2	
1140	14.74	200	6.36	0.517	4.9	0.08	12.78	145	0.2	
Sample	VOCs, 1,4-Dioxane	Total & Dissolved metals, TPH DRO & GRO								

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MT MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MT-MW-5S-032714
DATE: 3/27/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1225	5.54	—	—	—	—	—	—	—	—	
1230	6.58	200	5.52	0.443	28.6	1.65	9.93	208	0.2	
1235	7.13	200	5.16	0.44	24.2	1.53	9.86	234	0.2	
1240	7.72	200	4.93	0.442	14.2	1.22	9.85	263	0.2	
1245	8.42	200	4.86	0.442	14.4	1.18	9.97	275	0.2	
1250	9.21	200	4.77	0.443	14.6	1.15	10.07	285	0.2	
1255	9.86	200	4.76	0.443	10.2	1.09	10.16	287	0.2	
1300	10.42	200	4.75	0.443	10.5	1.04	10.39	292	0.2	
Sampling VOCs, Total + Dissolved Metals, TPH-GRO + DRO, & 1,4-Dioxane.										

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06183

WELL ID.: MT-MW-06s-032714
DATE: 3-27-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1114	1.65	—	—	—	—	—	—	—	—	Initial Readings Clear Water
1115	2.85	300	4.29	1.55	0.0	2.93	11.65	337	0.8	
1120	3.60	250	4.25	1.59	0.0	2.09	11.46	362	0.8	
1130	4.75	200	4.20	1.62	0.0	1.93	11.20	387	0.8	
1140	5.36	150	4.17	1.64	0.0	1.79	11.03	400	0.8	
1145	5.90	100	4.15	1.67	0.0	1.68	10.94	411	0.8	
1150	6.11	100	4.15	1.67	0.0	1.52	10.98	414	0.8	
1200	6.50	100	4.15	1.67	0.0	1.51	11.02	418	0.8	
1205	6.55	100	4.16	1.67	0.0	1.55	11.08	419	0.8	
1210	6.60	100	4.16	1.66	0.0	1.49	11.06	420	0.8	
			Well Parameters Stabilized							
			Sampling Begins							

PAGE 2 OF 2

SIGNATURE(S): Walt

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014
PROJECT NUMBER: 112IC06183

WELL ID.: MT-MW-075-037614
DATE: 3/26/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1430	8.97	—	—	—	—	—	—	—		
1435	9.21	100	7.11	0.983	87.0	0.00	10.95	-101		
1440	9.21	100	7.32	0.972	71.2	0.00	11.10	-114		
1445	9.21	100	7.39	0.917	70.3	0.00	11.25	-119		
1450	9.21	100	7.47	0.888	70.4	0.00	11.33	-123		
1455	9.21	100	7.44	0.840	64.8	0.00	11.62	-122		
1500	9.21	100	7.46	0.801	58.7	0.00	11.75	-117		
1505	9.21	100	7.34	0.756	50.4	0.00	11.57	-106		
1510	9.21	100	7.20	0.734	42.5	0.00	11.65	-92		
1515	9.21	100	7.00	0.641	32.7	0.00	11.57	-70		
1520	9.21	100	6.85	0.612	27.0	0.00	11.54	-57		
1525	9.21	100	6.80	0.610	23.0	0.00	11.41	-55		
1530	9.21	100	6.81	0.608	17.0	0.00	11.45	-50		
	Sample VOCs, 1-4 dioxane + TPH Dro, GRO, Total + Dissolved Metals									

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014 **WELL ID.:** MP-MW-085-032614
PROJECT NUMBER: 112IC06183 **DATE:** 3/26/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1110	10.03	—	—	—	—	—	—	—	—	
1115	10.47	100	6.67	0.326	11.9	0.00	11.24	-55		
1120	11.03	100	6.58	0.323	6.40	0.00	11.05	-45		
1125	11.73	100	6.56	0.324	3.86	0.00	11.00	-45		
1130	12.31	100	6.56	0.328	3.34	0.00	11.15	-47		
1135	12.86	100	6.56	0.329	4.18	0.00	11.09	-49		
1140	13.45	100	6.58	0.330	4.35	0.00	11.52	-52		
1145	13.98	100	6.58	0.327	4.36	0.00	11.52	-53		
1150	14.35	100	6.57	0.327	4.35	0.00	11.55	-55		
	Sample VOCs, TPH-Gro+DRO, Total+Dissolved Metals + Mercury, 1-4 Dioxane									

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MT MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MT-MW-9S-032714
DATE: 3/27/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1350	6.46	—	—	—	—	—	—	—	—	
1355	7.41	200	5.52	0.125	74.6	2.53	12.17	223	0.1	
1400	8.64	200	5.52	0.118	10.4	1.24	13.12	188	0.1	
1405	9.88	200	5.52	0.111	4.7	0.53	13.60	138	0.1	
1410	10.64	200	5.53	0.104	7.2	0.48	13.71	134	0.1	
1415	11.32	200	5.54	0.108	4.3	0.34	13.84	129	0.1	
1420	12.07	200	5.58	0.107	4.1	0.38	13.62	127	0.1	
1425	12.96	200	5.60	0.106	3.7	0.47	13.54	124	0.1	
1430	13.81	200	5.61	0.106	2.8	0.59	13.46	120	0.1	
Sampling	Vocs, TPH-GRO + DRO, Total + Dissolved Metals, 1,4-Dioxane.									

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Main Terminal MSA
PROJECT NUMBER: 112F06183
WELL ID.: MT-MW-10S-032714
DATE: 3/27/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1105	12.16	—	—	—	—	—	—	—	—	
1110	12.92	200	5.24	0.442	26.9	1.45	1065	280	0.2	
1115	13.25	200	5.83	0.482	21.3	1.12	11.24	245	0.2	
1120	13.78	200	6.16	0.513	14.7	0.24	11.63	210	0.2	
1125	13.98	200	6.24	0.514	12.4	0.20	11.84	188	0.2	
1130	14.36	200	6.33	0.514	8.6	0.13	12.34	169	0.2	
1135	14.42	200	6.34	0516	6.2	0.11	12.58	152	0.2	
1140	14.74	200	6.36	0.517	4.9	0.08	12.78	145	0.2	
Sampling VOCs, 1,4-Dioxane, Total & Dissolved metals, TPH DRO & GRO										

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-DMW-2B-042214
DATE: 4-22-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1422	19.10	—	—	—	—	—	—	—	—	Initial, no odor
1423	20.05	300	9.62	0.112	65.2	4.68	15.34	36	0.1	Slightly cloudy
1428	19.90	300	8.87	0.100	396	3.52	16.02	57	0.0	
1433	19.90	300	7.85	0.051	287	2.92	16.40	89	0.0	
1443	19.90	300	6.65	0.044	91.0	2.90	15.59	122	0.0	
1453	19.90	300	6.37	0.042	95.0	3.24	15.16	137	0.0	
1458	19.90	300	6.27	0.041	102	3.30	15.00	144	0.0	
1503	19.90	300	6.24	0.041	103	3.33	14.84	148	0.0	
1508	19.90	300	6.20	0.041	105	3.34	14.73	154	0.0	

Well parameters stabilize

Sampling begins

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW-3-042114
DATE: 4-21-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0943	7.08	—	—	—	—	—	—	—	—	Initial, no odor
0944	7.40	300	6.61	0.354	0.0	6.78	11.84	86	0.2	Clear water
0949	7.70	300	6.60	0.256	0.0	2.85	12.04	104	0.1	
0954	8.03	300	6.54	0.217	0.0	2.25	12.19	116	0.1	
1004	8.25	180	6.57	0.216	0.0	2.20	12.27	125	0.1	
1014	8.35	180	6.56	0.215	0.0	2.17	12.25	130	0.1	
1019	8.40	180	6.56	0.215	0.0	2.15	12.25	129	0.1	
1024	8.45	180	6.55	0.216	0.0	2.10	12.42	124	0.1	
1029	8.47	100	6.55	0.216	0.0	2.06	12.41	122	0.1	
			All parameters stabilize							
			Sampling			Beg 25				

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112EC06183
WELL ID.: MSA-DMW-3S-042214
DATE: 4-22-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1109	10.50	—	—	—	—	—	—	—	—	Initially pump calm
1110	11.02	300	9.80	2.66	41.5	0.70	19.55	-245	1.4	Slightly cloudy
1115	12.16	100	9.54	2.62	25.7	0.55	18.65	-257	1.4	↓
1120	13.24	100	9.83	2.48	16.5	0.43	18.87	-265	1.3	↓
1130	14.00	100	9.77	2.53	16.7	0.45	18.08	-281	1.3	↓
1140	15.42	100	9.73	2.47	8.5	0.36	18.69	-296	1.3	Clear water
1145	16.47	100	9.70	2.45	8.8	0.34	19.27	-287	1.3	↓
1150	16.50	100	9.65	2.46	8.2	0.33	17.95	-287	1.3	↓
1155	16.57	100	9.69	2.47	8.2	0.32	18.01	-292	1.3	↓
			Well parameters stabilize							
			Sampling Begins							

SIGNATURE(S): Nate R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 11CIC06183
WELL ID.: MSA-DMW-3I-042214
DATE: 4-22-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0938	14.35	—	—	—	—	—	—	—	—	Initial, no odor
0940	14.35	300	5.29	1.25	125	1.17	13.81	124	0.6	Cloudy Water
0945		300	5.32	1.30	126	1.19	13.51	113	0.6	
0950		300	5.33	1.31	148	0.62	13.57	109	0.6	
1000		300	5.38	1.30	86.6	0.57	13.82	102	0.6	
1010		300	5.37	1.29	75.8	0.55	14.15	102	0.6	
1015		300	5.37	1.29	82.2	0.61	14.22	101	0.6	
1020		300	5.40	1.30	82.9	0.60	14.52	100	0.6	
1025		300	5.38	1.29	83.0	0.60	14.62	100	0.6	
				WELL parameters Stabilized						
				Sampling Begins						

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112FC06183
WELL ID.: MSA DMW-3D 042214
DATE: 4-22 14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0757	14.50	–	–	–	–	–	–	–	–	Initial, no odor
0800		300	5.18	0.332	16.8	7.22	13.91	234	0.2	slightly cloudy
0805		300	4.92	0.376	14.6	4.94	13.78	244	0.2	
0810		300	4.54	0.407	12.3	3.44	13.47	268	0.2	
0820		300	4.48	0.425	15.9	1.09	13.20	277	0.2	
0830		300	4.48	0.427	22.4	1.12	13.15	277	0.2	
0835		300	4.48	0.426	105	0.97	13.13	267	0.2	
0840		300	4.49	0.426	104	0.96	13.12	262	0.2	
0845		300	4.50	0.425	106	0.95	13.13	257	0.2	

Well Parameters Stabilize

Sampling Begins

SIGNATURE(S): Will R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW-4-041614
DATE: 4-16-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1427	5.12	—	—	—	—	—	—	—	—	Initial, no odor
1430	5.35	300	6.78	1.11	330	1.58	16.56	37	0.6	Cloudy water
1435	5.40	300	7.23	1.16	273	1.16	14.99	33	0.6	
1440	5.45	300	7.31	1.18	269	1.01	14.51	31	0.6	
1450	5.50	300	7.42	1.22	259	0.85	13.90	27	0.6	
1500	5.50	300	7.45	1.24	244	0.80	13.58	32	0.6	
1505	5.50	300	7.46	1.26	226	0.79	13.47	30	0.6	
1510	5.50	300	7.46	1.27	226	0.78	13.36	28	0.6	
1515	5.50	300	7.47	1.27	226	0.77	13.38	25	0.6	
					Well parameters Stabilized →					
					Sampling Begins →					

SIGNATURE(S): Walter R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06188
WELL ID.: MSA-DMW-40-042314
DATE: 4-23-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0754	19.40	—	—	—	—	—	—	—	—	Initial water
0755	19.60	300	4.02	1.54	202	5.61	11.79	322	0.8	Cloudy water
0800	19.50	300	4.03	1.52	225	2.14	11.61	353	0.8	
0805	19.50	300	4.06	1.51	147	1.11	11.60	348	0.8	
0810	19.50	300	3.99	1.52	102	0.80	11.66	356	0.8	
0825	19.50	300	3.55	1.53	135	0.70	11.70	362	0.8	
0830	19.50	300	3.93	1.53	126	0.67	11.72	365	0.8	
0835	19.50	300	3.93	1.53	132	0.66	11.73	366	0.8	
0840	19.50	300	3.94	1.54	133	0.67	11.73	367	0.8	
			Well parameters Stabilized							
				Sampling Begins						

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Manton State Airport
PROJECT NUMBER: 112IC06163
WELL ID.: MSA PMW-B2/I-042314
DATE: 4-23-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0902	19.17	—	—	—	—	—	—	—	—	Initial, murky
0903	19.25	300	3.23	1.83	285	4.36	11.55	343	0.9	cloudy water
0908	19.25	300	4.01	1.78	199	0.97	11.87	250	0.9	
0913	19.25	300	4.06	1.77	226	0.62	11.94	237	0.9	
0923	19.25	300	4.08	1.77	285	0.49	11.98	229	0.9	
0933	19.25	300	4.08	1.77	295	0.45	12.03	225	0.9	
0938	19.25	300	4.09	1.76	306	0.42	12.05	224	0.9	
0943	19.25	300	4.09	1.75	304	0.41	12.04	223	0.9	
0948	19.25	300	4.06	1.75	305	0.40	12.05	222	0.9	
				Well parameters Stabilize						
				Sampling Begins						

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112FL06183
WELL ID.: MSA-DMW-4/5-042304
DATE: 4-23-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1044	19.45	—	—	—	—	—	—	—	—	Initial, no odor
1045	19.60	300	5.65	1.71	372	6.39	10.78	176	0.9	Cloudy water
1050	19.50	300	5.44	1.89	302	1.69	11.09	160	0.9	
1055	19.50	300	5.53	1.91	171	0.78	11.15	141	0.9	
1105	19.50	300	5.67	1.93	179	0.57	10.96	111	0.9	
1115	19.50	300	5.71	1.93	150	0.51	10.96	99	0.9	
1120	19.50	300	5.73	1.93	140	0.48	10.96	94	0.9	
1125	19.50	300	5.76	1.93	139	0.47	11.01	90	0.9	
1130	19.50	300	5.77	1.93	140	0.46	10.98	88	0.9	
			Well parameters stabilize							
			Sampling Begins							

SIGNATURE(S): Matt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112G06183
WELL ID.: DMW-5D
DATE: 4/18/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1020	19.19	—	—	—	—	—	—	—	—	
1025	19.19	120	3.76	0.996	27.7	4.12	13.07	290	0.3	
1030	19.19	220	3.62	0.998	29.2	2.09	13.12	289	0.3	
1035	19.19	280	3.94	0.994	30.4	0.49	13.25	265	0.3	
1040	19.19	180	3.98	0.995	25.4	0.33	13.79	261	0.3	
1045	19.19	140	4.10	0.995	18.2	0.30	13.86	255	0.3	
1050	19.19	200	4.10	0.994	15.5	0.27	13.88	254	0.3	
1055	19.19	180	4.10	0.995	11.6	0.12	14.01	254	0.3	
1100	19.19	120	4.10	0.994	12.9	0.04	14.03	254	0.3	
1105	19.19	160	4.10	0.994	14.7	0.16	14.13	253	0.3	
1110	19.19	165	4.09	0.993	13.7	0.02	14.30	254	0.3	
1115	19.19	165	4.06	0.994	12.5	0.02	14.39	255	0.3	
1120	19.19	170	4.07	0.991	12.2	0.0	14.31	256	0.3	
1125	19.19	155	4.06	0.991	11.8	0.0	14.42	256	0.3	
1130	19.19	155	4.05	0.989	12.4	0.0	14.56	256	0.3	5.0 gal purged

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112G06183
WELL ID.: DMW-5s
DATE: 4/18/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1410	20.14	—	—	—	—	—	—	—	—	
1415	20.13	210	5.05	1.03	60.6	0.97	14.76	144	0.3	
1420	20.16	230	4.70	1.06	34.7	0.89	14.71	186	0.3	
1425	20.06	150	4.57	1.10	21.3	0.73	14.70	213	0.3	
1430	19.96	130	4.51	1.11	17.5	0.72	14.69	232	0.3	
1435	19.96	150	4.46	1.12	15.4	0.65	14.77	241	0.3	
1440	19.95	145	4.43	1.13	12.3	0.57	14.25	247	0.3	
1445	19.96	145	4.40	1.12	12.5	0.50	14.76	251	0.3	
1450	19.95	150	4.39	1.12	15.2	0.45	14.78	253	0.3	
1455	19.96	150	4.37	1.12	20.9	0.39	14.85	254	0.3	
1500	19.96	155	4.38	1.12	28.9	0.34	14.89	253	0.3	
1505	19.97	150	4.39	1.13	21.9	0.29	14.85	254	0.3	
1510	19.99	150	4.39	1.13	28.3	0.27	14.80	254	0.3	
1515	20.00	170	4.41	1.34	29.1	0.0	14.75	254	0.4	
1520	20.00	160	4.43	1.34	36.2	0.0	14.74	253	0.4	
1525	20.01	155	4.44	1.35	36.0	0.0	14.64	253	0.4	
										5.0 gal purged

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW5-040714
DATE: 4/7/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1400	20.19	—	—	—	—	—	—	—	—	
1405	20.52	300	6.74	1.28	8.34	3.83	13.09	-22	0.04	
1410	26.69	300	6.72	1.68	6.72	0.00	14.25	-66	0.05	
1415	20.82	300	6.73	1.72	4.11	0.00	14.31	-71	0.05	
1420	25.96	300	6.73	1.70	3.87	0.00	14.36	-74	0.05	
1425	21.09	300	6.73	1.69	3.75	0.00	14.42	-77	0.05	
1430	21.38	300	6.73	1.69	3.13	0.00	14.42	-78	0.05	
1435	21.42	300	6.73	1.69	2.84	0.00	14.47	-82	0.05	
Sampling for VOCs, 1,4-Dioxane, TPH-GRO + DRO, + Total & Dissolved Metals										

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06193

WELL ID.: MSA-MW-6-041014
DATE: 4-10-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1439	13.17	—	—	—	—	—	—	—	—	Initial, murky
1440	13.22	300	5.74	1.30	18.2	2.99	16.84	107	0.7	Slightly Cloudy
1445	13.22	300	5.94	1.39	14.3	1.53	16.41	73	0.7	
1450	13.22	300	5.98	1.40	16.6	1.03	16.58	67	0.7	
1500	13.22	300	5.99	1.38	15.5	0.60	16.76	62	0.7	
1510	13.22	300	6.09	1.33	12.9	0.47	17.19	60	0.7	
1515	13.22	300	6.09	1.32	10.0	0.42	17.24	60	0.7	Clear water
1520	13.22	300	6.07	1.30	9.8	0.41	17.29	61	0.6	
1525	13.22	300	6.09	1.29	10.0	0.40	17.47	62	0.6	
	←		Well parameters				Stabilize	→		
	←		Sampling Begins					→		

SIGNATURE(S): Matt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112Ic06183
WELL ID.: MSA-Dmw-6I-042414
DATE: 4-24-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0916	17.70	—	—	—	—	—	—	—	—	Initial, Moderate
0917	17.70	300	5.17	0.915	42.0	5.96	10.68	294	0.4	Slightly cloudy
0922	17.70	300	5.91	0.914	105	5.63	10.38	60	0.5	
0927	17.70	300	6.33	1.01	332	4.78	10.34	24	0.5	
0932	17.70	300	5.78	1.08	116	2.62	10.23	54	0.5	
0947	17.70	300	5.13	0.962	35.0	1.71	10.64	110	0.5	
0952	17.70	300	5.06	0.963	17.9	1.03	11.41	130	0.5	
1002	17.70	300	5.04	0.960	13.0	0.96	11.47	138	0.5	
1007	17.70	300	5.02	0.958	13.0	0.95	11.50	142	0.5	
1012	17.70	300	5.00	0.956	13.2	0.94	11.57	146	0.5	
				Well parameters			Stabilize			
				Sampling Begins						

SIGNATURE(S): NM R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Manteno State Airport
PROJECT NUMBER: 112106183
WELL ID.: MSA-DMW-GD-0424-14
DATE: 4-24-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0754	17.62	—	—	—	—	—	—	—	—	Initial, no odor
0755	18.20	300	4.70	0.592	95.7	5.93	11.78	252	0.3	Slightly cloudy
0800	17.91	300	4.55	0.550	173.	3.27	11.69	271	0.3	
0805	17.91	300	4.44	0.542	134	3.13	11.64	287	0.3	
0810	17.91	300	4.37	0.540	63.1	3.02	11.69	307	0.3	
0815	17.91	300	4.33	0.554	55.0	2.83	11.70	313	0.3	
0820	17.91	300	4.33	0.562	47.9	2.74	11.70	305	0.3	
0825	17.91	300	4.35	0.564	46.0	2.69	11.76	299	0.3	
0830	17.91	300	4.36	0.566	47.2	2.62	11.79	295	0.3	
				Well Parameters Stabilized						
				Sampling Begins						

SIGNATURE(S): Matt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Manteo State Airport
PROJECT NUMBER: 112IC06193
WELL ID.: MSA-Dawn-7I-041614
DATE: 4-16-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0840	20.22	—	—	—	—	—	—	—	—	Initial, muddy
0841	20.30	300	3.53	1.45	138	3.41	10.97	272	0.7	Cloudy water
0846	20.30	300	3.58	1.46	209	1.73	11.04	269	0.7	
0851	20.30	300	3.60	1.46	166	1.18	11.14	268	0.7	
0901	20.30	300	3.62	1.46	79.1	0.93	11.22	267	0.7	
0911	20.30	300	3.64	1.46	66.9	0.79	11.29	264	0.7	
0916	20.30	300	3.64	1.46	67.0	0.75	11.29	263	0.7	
0921	20.30	300	3.65	1.47	68.0	0.74	11.43	262	0.7	
0926	20.30	300	3.65	1.47	68.8	0.73	11.43	261	0.7	
			Well parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 116TC06183
WELL ID.: MSA-DMW7S-040714
DATE: 4/7/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1300	19.40	—	—	—	—	—	—	—	—	
1305	19.58	300	5.65	1.79	50.3	0.00	15.15	71	0.05	
1310	19.58	300	5.63	1.80	23.2	0.00	15.11	73	0.05	
1315	19.58	300	5.62	1.80	12.0	0.00	15.16	74	0.06	
1320	19.58	300	5.62	1.82	8.74	0.00	15.16	76	0.06	
1325	19.58	300	5.62	1.84	7.24	0.00	15.16	79	0.06	
1330	19.58	300	5.59	1.85	6.88	0.00	15.15	81	0.06	
1335	19.58	300	5.57	1.86	4.52	0.00	15.15	83	0.06	
Sample VOCs, 1,4-Dioxane, TPH-GRO, ORO, & Diss Metals										

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-DMW-70-041614
DATE: 4-16-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0956	20.25	—	—	—	—	—	—	—	—	Initial, no odor
0959	20.40	300	4.75	0.182	9.9	6.65	9.78	251	0.1	Clean water
1004	20.40	300	4.71	0.147	10.6	4.03	10.27	282	0.1	
1009	20.40	300	4.68	0.142	28.2	2.67	10.94	297	0.1	
1019	20.40	300	4.53	0.138	23.8	1.98	11.33	325	0.1	
1029	20.40	300	4.51	0.136	13.2	1.74	11.51	332	0.1	
1034	20.40	300	4.50	0.136	12.8	1.69	11.68	333	0.1	
1039	20.40	300	4.51	0.136	12.0	1.71	11.69	334	0.1	
1044	20.40	300	4.50	0.136	12.5	1.69	11.70	335	0.1	

Well Parameters Stabilize

Sampling Begins

SIGNATURE(S): Walt A

PAGE 2 OF 2

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Dump Road MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW 16S-040314
DATE: 4/3/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0905	8.25	—	—	—	—	—	—	—	—	
0910	8.28	250	5.87	2.03	171	0.00	15.02	111	1.0	
0915	8.28	250	6.23	2.04	116	0.00	14.09	45	1.0	
0920	8.28	250	6.44	2.09	54.1	0.00	12.56	-14	1.1	
0925	8.28	250	6.46	2.09	24.2	0.00	12.23	-21	1.1	
0930	8.28	250	6.47	2.09	18.9	0.00	12.08	-27	1.1	
0935	8.28	250	6.49	2.09	9.84	0.00	11.97	-28	1.1	
0940	8.28	250	6.50	2.10	6.42	0.00	11.78	-32	1.1	
Sampling for VOCs, 1,4-Dix, Total + Diss Metals, TPH GRO + DRO, + Radium.										

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Dump Road MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW16I-040314
DATE: 4/3/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1005	6.71	—	—	—	—	—	—	—	-	
1010	7.08	300	6.85	0.163	54	0.00	12.29	-29	0.1	
1015	7.08	300	5.45	0.089	37.2	2.90	11.95	81	0.1	
1020	7.08	300	5.31	0.098	32.7	0.00	11.98	98	0.0	
1025	7.08	300	5.27	0.097	32.4	0.00	12.00	103	0.0	
1030	7.08	300	5.27	0.096	32.8	0.00	12.07	138	0.0	
1035	7.08	300	5.26	0.094	35.5	0.00	12.12	146	0.0	
1040	7.08	300	5.26	0.094	36.4	0.00	12.18	147	0.0	
1045	7.08	300	5.27	0.094	39.0	0.00	12.21	144	0.0	
Sampling VOCs, 1,4-DOX, Total & Diss metals, & Radium										

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW17D-040814
DATE: 4/8/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1130	4.18	—	—	—	—	—	—	—	—	
1135	6.26	300	5.24	0.060	34.0	0.74	15.72	132	0.00	
1140	6.53	200	5.23	0.061	38.7	0.61	16.78	134	0.00	
1145	6.72	200	5.22	0.061	47.2	0.48	17.13	131	0.00	
1150	7.65	200	5.23	0.060	31.3	0.00	16.14	129	0.00	
1155	8.70	200	5.25	0.060	29.2	0.00	15.83	127	0.00	
1200	9.58	200	5.26	0.060	23.6	0.00	15.98	128	0.00	
1205	10.02	200	5.28	0.060	18.7	0.00	16.13	128	0.00	
1210	11.13	200	5.28	0.060	16.8	0.00	16.21	127	0.00	
1215	11.67	200	5.29	0.060	15.2	0.00	16.37	127	0.00	
1220	12.04	200	2.28	0.060	14.0	0.00	17.14	126	0.00	
1225	12.38	200	5.24	0.059	9.74	0.00	17.68	125	0.00	
Sampling VOCs, 1,4-Dioxane, Total & Dissolved Metals & Hexavalent Chromium MS/MSD										

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW17I-040814
DATE: 4/8/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1025	4.91	—	—	—	—	—	—	—	—	
1030	5.47	300	5.35	0063	60.4	1.10	14.72	125	0.00	
1035	5.49	200	5.31	0.061	48.2	0.00	14.79	136	0.00	
1040	5.51	200	5.22	0.055	23.8	0.00	14.88	158	0.00	
1045	5.52	200	5.12	0.049	12.0	0.00	15.02	185	0.00	
1050	5.51	200	5.12	0.048	7.82	0.00	15.08	196	0.00	
0955	5.48	200	5.12	0.046	6.49	0.00	15.11	204	0.00	
1100	5.48	200	5.13	0.046	5.82	0.00	15.22	202	0.00	
1105	5.48	200	5.14	0.046	3.77	0.00	15.37	200	0.00	
Sampling	VOC 1,4-Dioxane TOC &	Diss metals, &	Perchlorate							

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW17S-040814
DATE: 4/8/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0910	5.76	~~200~~	—	—	—	—	—	—	—	
0915	6.36	300	6.08	0.297	106	0.49	14.87	43	0.01	
0920	6.98	200	6.06	0.368	66.3	0.00	13.45	-11	0.01	
0925	7.38	200	6.04	0.396	54.2	0.00	13.36	-31	0.01	
0930	7.62	200	6.02	0.314	17.5	0.00	13.23	-45	0.01	
0935	7.74	200	6.01	0.336	15.2	0.00	13.21	-49	0.01	
0940	7.88	200	6.01	0.351	14.0	0.00	13.18	-55	0.01	
0945	8.04	200	6.02	0.376	4.42	0.00	13.16	-60	0.01	
0950	8.71	200	6.02	0.417	2.83	0.00	13.12	-68	0.01	
Sampling	VOCs, 1,4-Dioxane, Total + Dissolved Metals, TPH-GRO+DRO.									

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA Groundwater
PROJECT NUMBER: 112TC06185
WELL ID.: MSA-MW18I-040114
DATE: 4/1/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1210	6.91	—	—	—	—	—	—	—	—	
1215	6.96	300	6.25	1.88	>1000	3.47	11.88	-9	1.0	
1220	6.94	300	6.13	1.93	>1000	0.00	11.87	21	1.0	
1225	6.94	300	6.09	1.93	>1000	0.00	11.81	28	1.0	
1230	6.94	300	6.05	1.92	>1000	0.00	11.72	39	1.0	
1235	6.94	300	5.98	1.89	>1000	0.00	11.95	46	1.0	
1240	6.94	300	5.91	1.87	>1000	0.00	11.37	53	1.0	
1245	6.94	300	5.81	1.85	>1000	0.00	11.34	72	0.9	
1250	6.94	300	5.78	1.83	>1000	0.00	11.32	78	0.9	
1255	6.94	300	5.72	1.82	>1000	0.00	11.30	85	0.9	
1300	6.94	300	5.68	1.83	764	0.00	11.30	88	0.9	
1305	6.94	300	5.66	1.83	99.2	0.00	11.30	94	0.9	
1310	6.94	300	5.67	1.84	84.6	0.00	11.30	94	0.9	
1315	6.94	300	5.67	1.85	73.9	0.00	11.31	94	0.9	
1320	6.94	300	5.64	1.87	64.2	0.00	11.38	94	0.9	
1325	6.94	300	5.64	1.88	42.8	0.00	11.42	95	0.9	
1330	6.94	300	5.63	1.89	32.0	0.00	11.54	95	0.9	
1335	6.94	300	5.61	1.88	20.7	0.00	11.58	97	0.9	
1340	6.94	300	5.59	1.87	15.1	0.00	11.62	102	0.9	
Samples	VOCs, 1,4-Dox, Total+Diss Metals, Nit+Alk+Phenols, +Duplicate									

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112EC06183
WELL ID.: MSA-MW-190-042114
DATE: 4-21-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1132	5.20	—	—	—	—	—	—	—	—	Initial, no odor
1133	5.20	300	5.50	0.633	125	4.17	17.87	185	0.3	Cloudy water
1138	5.20	300	4.93	0.654	98.4	1.76	17.35	206	0.3	↓
1143	5.20	300	4.77	0.667	81.2	1.12	16.63	206	0.3	↓
1153	5.20	300	4.63	0.668	9.5	0.81	15.93	224	0.3	Clean water
1203	5.20	300	4.58	0.671	3.8	0.66	15.77	236	0.3	↓
1208	5.20	300	4.54	0.663	5.1	0.66	16.11	240	0.3	↓
1213	5.20	300	4.52	0.662	5.2	0.65	16.17	242	0.3	↓
1218	5.20	300	4.51	0.663	5.2	0.64	16.20	243	0.3	↓
				Well Parameters Stabilize						
				Sampling Begins						

SIGNATURE(S): Walter

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW Sampling
PROJECT NUMBER: 114IC06183
WELL ID.: MSA-MW2OS-033114
DATE: 3/31/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1110	8.98	—	—	—	—	—	—	—	—	
1115	9.18	300	6.09	1.67	18.6	0.00	14.49	-16	0.8	
1120	9.18	300	6.08	1.68	16.9	0.00	14.38	-15	0.8	
1125	9.18	300	6.08	1.68	12.4	0.00	14.32	-15	0.8	
1130	9.18	300	6.08	1.68	12.5	0.00	14.18	-16	0.8	
1135	9.18	300	6.09	1.67	9.30	0.00	14.62	-17	0.8	
1140	9.18	300	6.08	1.66	8.52	0.00	15.06	-17	0.8	
1145	9.18	300	6.08	1.65	6.74	0.00	15.13	-17	0.8	
Sample	VOCs, 1,4-Dioxane, Total + Dissolved Metals, TPH GRO + DRO.									

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW Sampling
PROJECT NUMBER: 142I060183
WELL ID.: MSA-MW20I-033114
DATE: 3/31/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1210	9.01	—	—	—	—	—	—	—	—	
1215	9.05	300	6.61	1.06	85.3	0.00	12.51	-31	0.5	
1220	9.05	300	6.48	1.10	48.7	0.00	12.31	-21	0.5	
1225	9.05	300	6.29	1.15	23.1	0.00	12.20	-3	0.6	
1230	9.05	300	6.29	1.16	14.7	0.00	12.38	-3	0.6	
1235	9.05	300	6.29	1.16	12.9	0.00	12.44	-3	0.6	
1240	9.05	300	6.29	1.15	11.4	0.00	12.68	-3	0.6	
1245	9.05	300	6.27	1.14	9.31	0.00	12.94	-3	0.6	
1250	9.05	300	6.26	1.14	7.42	0.00	13.02	-3	0.6	
1255	9.05	300	6.26	1.14	5.84	0.00	13.10	-3	0.6	
Sampling	VOCs, 1,4-Dioxane	Total + Dissolved metals + Perchlorate								

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW30I-033114
DATE: 3/31/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1330	10.03	—	—	—	—	—	—	—	—	
1335	10.07	300	5.78	0.372	4.51	6.75	14.78	67	0.2	
1340	10.08	300	5.14	0.373	6.82	5.41	14.63	106	0.2	
1345	10.09	300	5.08	0.374	4.81	2.15	14.12	172	0.2	
1350	10.08	300	5.01	0.373	4.28	1.96	14.13	188	0.2	
1355	10.07	300	4.94	0.371	4.47	1.78	14.14	221	0.2	
1400	10.07	300	4.98	0.362	3.44	0.68	15.12	243	0.2	
1405	10.07	300	5.01	0.354	3.87	0.52	15.95	262	0.2	
Sampling VOCs, 1,4-Dioxane, Total + Dissolved Metals, & Perchlorate										

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112JCC6193
WELL ID.: MSA-MW-220-042114
DATE: 4-21-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0830	7.70	—	—	—	—	—	—	—	—	Initial pump action
0832	7.91	300	4.47	0.345	32.0	5.48	10.98	278	0.2	Slightly Cloudy
0837	7.83	300	5.89	0.240	31.5	2.77	11.12	32	0.1	
0842	7.83	300	6.66	0.191	25.6	2.46	11.28	-31	0.1	
0847	7.83	300	7.00	0.159	133	2.76	11.47	-27	0.1	
0902	7.83	300	6.97	0.156	136	3.56	11.51	-18	0.1	
0907	7.83	300	6.92	0.154	78.8	2.72	12.23	-15	0.1	
0912	7.83	300	6.66	0.155	80.0	2.80	12.49	-11	0.1	
0917	7.83	300	6.64	0.156	80.9	2.78	12.65	-10	0.1	
			Well parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): Matt Pa

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014
PROJECT NUMBER: 112J000183
WELL ID.: MSA-MW 235
DATE: 4/10/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1050	6.46	–	–	–	–	–	–	–	–	
1055	6.51	300	6.32	0.316	49.1	0.61	16.09	53	0.1	
1100	6.51	300	6.47	0.291	52.8	0.00	15.73	-12	0.1	
1105	6.51	300	6.46	0.313	59.3	0.00	15.70	-29	0.1	
1110	6.51	300	6.43	0.335	19.5	0.00	15.67	-45	0.1	
1115	6.51	300	6.30	0.369	13.4	0.00	15.63	-55	0.1	
1120	6.51	300	6.30	0.401	12.0	0.00	15.65	-61	0.1	
1125	6.51	300	6.30	0.445	11.07	0.00	15.64	-66	0.1	
1130	6.51	300	6.27	0.463	10.38	0.00	15.72	-66	0.1	
1135	6.51	300	6.23	0.464	9.53	0.00	15.73	-67	0.1	
	Sample	VOCs, 1-4 dioxane,		TPH-GRO + GRO,	Total and		Dissolved	Metals	@ 1135	

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA 6W 2014 **WELL ID.:** MSA-MW-23D
PROJECT NUMBER: 112406162 **DATE:** 4/11/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1400	7.03	—	—	—	—	—	—	—	—	
1405	7.06	300	5.93	0.134	48.1	0.00	18.92	29	0.0	
1410	7.06	300	5.79	0.142	31.1	0.00	18.49	21	0.0	
1415	7.06	300	5.77	0.139	24.8	0.00	18.46	24	0.0	
1420	7.06	300	5.75	0.135	19.3	0.00	18.45	28	0.0	
1425	7.06	300	5.71	0.131	18.6	0.00	18.34	35	0.0	
1430	7.06	300	5.67	0.127	17.0	0.00	18.30	43	0.0	
1435	7.06	300	5.65	0.125	14.3	0.00	18.31	52	0.0	
1440	7.06	300	5.61	0.122	12.9	0.00	18.37	56	0.0	
1445	7.06	300	5.60	0.120	11.3	0.00	18.28	60	0.0	
	Sample VOCs, 1-4 dioxane, Total + D. Boles, MNA's @ 1445									

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW-245
DATE: 4/11/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0805	3.23	–	–	–	–	–	–	–	–	
0810	3.64	300	3.36	2.64	49.4	0.29	14.26	373	0.9	
0815	3.65	200	3.45	2.46	63.4	0.00	14.16	340	0.8	
0820	3.75	300	3.73	2.41	29.1	0.00	14.22	294	0.8	
0825	3.79	300	3.62	2.40	22.7	0.00	14.21	293	0.8	
0830	3.79	300	3.60	2.39	18.8	0.00	14.26	285	0.8	
0835	3.79	300	3.61	2.37	11.9	0.00	14.35	278	0.8	
0840	3.79	300	3.64	2.37	10.18	0.00	14.53	275	0.8	
0845	3.79	300	3.65	2.37	9.24	0.00	14.59	271	0.8	
		Sample	VOCs, 1-4	dioxane,	TPH-EAO+	AHO,	Total +	Dissolved	Metals	

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014 **WELL ID.:** MSA-MW-24I
PROJECT NUMBER: 112360183 **DATE:** 4/11/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0910	4.11	—	—	—	—	—	—	—	—	
0915	4.12	300	3.97	1.270	63	0.00	15.82	272	0.3	
0920	4.12	300	4.10	0.318	86.0	0.00	15.66	262	0.1	
0925	4.12	300	4.06	0.170	58.2	0.00	15.81	259	0.0	
0930	4.12	300	4.03	0.139	35.1	0.00	15.94	269	0.0	
0935	4.12	300	4.03	0.128	33.3	0.00	16.10	282	0.0	
0940	4.12	300	4.04	0.123	27.8	0.00	16.19	295	0.0	
0945	4.12	300	4.06	0.122	24.7	0.00	16.19	303	0.0	
0950	4.12	300	4.07	0.123	21.9	0.00	16.27	311	0.0	
0955	4.12	300	4.07	0.122	19.7	0.00	16.30	314	0.0	
		Sample VOCs, 1,4-dioxane, Total + 0.45µm metals, perchlorate								

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW-25I-04114
DATE: 4-11-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1053	5.83	—	—	—	—	—	—	—	—	Initial, no odor
1055	6.05	300	6.79	0.205	40.1	2.08	12.56	78	0.1	Slightly Cloudy
1100	6.05	300	6.59	0.217	12.6	0.90	12.22	48	0.1	↓
1105	6.05	300	6.56	0.215	5.2	0.74	12.26	44	0.1	Clear water
1115	6.05	300	6.62	0.208	0.7	0.93	12.29	38	0.1	↓
1125	6.05	300	6.67	0.201	0.0	1.03	12.46	34	0.1	↓
1130	6.05	300	6.68	0.199	0.0	1.04	12.58	35	0.1	↓
1135	6.05	300	6.67	0.198	0.0	1.02	12.67	36	0.1	↓
1140	6.05	300	6.66	0.197	0.0	1.02	12.70	36	0.1	↓

Well parameters Stabilize

Sampling Begins

SIGNATURE(S): Walter Pr

PAGE 2 OF 2

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW-25I-041414
DATE: 4-14-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1359	7.50	—	—	—	—	—	—	—	—	Initial, no action
1400	7.50	300	6.77	1.26	0.0	2.54	17.50	-29	0.6	clear water
1405	7.50	300	6.71	1.31	0.0	1.57	16.75	-34	0.6	
1410	7.50	300	6.70	1.33	0.0	0.81	16.24	-39	0.6	
1420	7.50	300	6.67	1.33	0.0	0.59	16.16	-42	0.7	
1430	7.50	300	6.71	1.34	0.0	0.51	16.04	-46	0.7	
1435	7.50	300	6.73	1.33	0.0	0.49	16.34	-47	0.7	
1440	7.50	300	6.72	1.33	0.0	0.47	16.28	-47	0.7	
1445	7.50	300	6.72	1.33	0.0	0.46	16.35	-47	0.7	
				Well parameters Stabilize						
				Sampling Begins						

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112FC06183

WELL ID.: MSA-MW-25s-041114
DATE: 4-11-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0934	4.61	—	—	—	—	—	—	—	—	Initial MW odor
0935	5.50	300	6.45	0.160	0.0	2.81	11.31	167	0.1	Clear Water
0940	5.70	200	6.59	0.157	0.0	2.28	11.16	160	0.1	
0945	5.90	200	6.80	0.155	0.0	1.74	11.14	152	0.1	
0955	5.80	150	6.89	0.155	0.0	1.46	11.27	139	0.1	
1005	5.80	150	6.94	0.162	0.0	1.24	11.39	132	0.1	
1010	5.80	150	6.96	0.167	0.0	1.21	11.53	126	0.1	
1015	5.80	150	6.99	0.168	0.0	1.19	11.40	121	0.1	
1020	5.80	150	7.01	0.169	0.0	1.15	11.44	119	0.1	
			Well parameters stabilized							
			Sampling Begins							

SIGNATURE(S): Walter P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Dump Road MSA
PROJECT NUMBER: 112G06183
WELL ID.: MSA-MW26S-033114
DATE: 3/31/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0945	6.81	—	—	—	—	—	—	—	—	
0950	7.51	250	5.40	0.547	40.3	7.13	14.81	214	0.3	
0955	7.62	200	6.12	0.532	31.4	6.24	12.41	187	0.2	
1000	7.86	200	7.04	0.520	24.1	4.26	11.03	163	0.2	
1005	7.89	200	7.15	0.521	17.6	3.87	10.67	132	0.2	
1010	7.95	200	7.21	0.523	11.22	3.15	10.34	128	0.2	
1015	7.95	200	7.20	0.524	10.42	3.12	10.28	126	0.3	
1020	7.95	200	7.18	0.524	9.66	3.04	10.24	124	0.3	
1025	7.95	200	7.24	0.524	6.74	3.05	10.21	122	0.3	
Sampling	VOCs, 1,4-Dioxane, Total Metals, Dissolved Metals,			TPH GRO	TPH DRO					

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112Ico6183
WELL ID.: MSA-MW-27D-050114
DATE: 5-1-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1144	1.15	—	—	—	—	—	—	—	—	Initial, pre-collection
1145	1.15	300	5.28	0.028	0.0	6.92	16.48	203	0.0	Clear water
1150	1.15	300	5.67	0.026	0.0	6.25	15.33	205	0.0	
1155	1.15	300	5.62	0.026	0.0	6.21	14.75	210	0.0	
1205	1.15	300	5.39	0.025	0.0	4.71	14.04	225	0.0	
1215	1.15	300	5.27	0.024	0.0	3.73	13.86	233	0.0	
1220	1.15	300	5.24	0.024	0.0	3.57	13.76	236	0.0	
1225	1.15	300	5.22	0.023	0.0	3.45	13.71	241	0.0	
1230	1.15	300	5.20	0.023	0.0	3.40	13.67	246	0.0	
			Well Parameters Stab.							
			Sampling Begins							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW-29D-052714
DATE: 5-27-14

Time (Hrs)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP (mV)	Salinity (% o ppt)	Comments
1549	7.20	—	—	—	—	—	—	—	—	Initial, no odor
1550	7.28	300	5.68	0.024	0.0	5.47	18.46	63	0.0	Clear Water
1555	7.28	300	5.27	0.021	0.0	5.43	17.33	92	0.0	
~~1600~~ 1600	7.28	300	5.06	0.020	0.0	5.52	16.55	105	0.0	
~~1605~~ 1605	7.28	300	4.61	0.019	0.0	5.53	16.23	132	0.0	
~~1610~~ 1610	7.28	300	4.36	0.020	0.0	5.44	16.15	152	0.0	
~~1615~~ 1620	7.28	300	4.21	0.019	0.0	5.24	16.22	163	0.0	
~~1620~~ 1625	7.28	300	4.20	0.019	0.0	5.19	15.58	168	0.0	
~~1625~~ 1630	7.28	300	4.19	0.019	0.0	5.16	15.97	172	0.0	
~~1630~~ 1635										
			PID Parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): Will B

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin Stah Airport
PROJECT NUMBER: 112SC06193
WELL ID.: MSA-MW-30I-042814
DATE: 4-28-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1313	4.33	—	—	—	—	—	—	—	—	Initial, no odor
1314	4.45	300	7.21	0.175	0.0	1.82	19.60	78	0.1	clear water
1319	4.45	300	6.93	0.180	0.0	1.69	18.26	86	0.1	
1324	4.45	300	6.83	0.181	0.0	1.65	17.31	90	0.1	
1334	4.45	300	6.50	0.172	0.0	1.44	16.67	89	0.1	
1344	4.45	300	6.02	0.156	0.0	1.15	16.39	82	0.1	
1349	4.45	300	5.92	0.153	0.0	1.08	16.22	81	0.1	
1354	4.45	300	5.88	0.152	0.0	1.05	16.04	80	0.1	
1359	4.45	300	5.86	0.151	0.0	1.03	15.96	78	0.1	
				Well	Parameters	Stabilize				
					Sampling	Begins				

SIGNATURE(S): Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 116166193
WELL ID.: MSA-MW-30D-052714
DATE: 5-27-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP (mV)	Salinity % or ppt	Comments
1032	3.31	—	—	—	—	—	—	—	—	Initial reading
1033	3.45	300	6.08	0.157	3.8	3.45	19.26	191	0.1	clear water
1038	3.45	300	6.06	0.152	6.7	2.57	17.84	191	0.1	
1043	3.45	300	5.97	0.149	9.0	2.46	17.53	191	0.1	
1053	3.45	300	5.74	0.145	10.9	2.23	18.38	199	0.1	
1103	3.45	300	5.51	0.136	18.5	2.26	19.12	210	0.1	
1108	3.45	300	5.35	0.130	19.9	2.21	19.35	215	0.1	
1113	3.45	300	5.33	0.129	19.9	2.19	19.50	218	0.1	
1118	3.45	300	5.30	0.128	20.0	2.24	19.70	225	0.1	
				Well parameters stabilized						
				Sampling Begins						

SIGNATURE(S): Nate

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW-310-052714
DATE: 5-27-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1412	2.80	—	—	—	—	—	—	—	—	Initial, no odor
1413	3.25	300	5.55	0.382	22.3	1.74	26.86	-24	0.2	Slightly cloudy
1418	3.75	300	5.51	0.532	2.9	0.44	17.85	-93	0.3	Clear water
1423	3.75	300	5.10	0.544	0.0	0.37	17.52	-90	0.3	
1428	3.75	300	4.03	0.548	0.0	0.34	17.21	-60	0.3	
1433	3.75	300	3.23	0.562	1.4	0.30	16.55	-39	0.3	
1443	3.75	300	3.18	0.563	0.0	0.35	16.67	-42	0.3	
1448	3.75	300	3.20	0.564	0.0	0.34	16.74	-40	0.3	
1453	3.75	300	3.22	0.566	0.0	0.33	16.71	-51	0.3	
145										
				Well parameters Stabilized ⇒						
				Sampling Begins ⇒						

SIGNATURE(S): Matt A

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014
PROJECT NUMBER: 112JC06183
WELL ID.: MSA-MW-32I
DATE: 4/10/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0925	4.69	–	–	~~0.261~~ –	–	–	–	–	–	
0930	4.73	~~4~~ 300	6.11	0.261	83.1	1.04	16.01	12	0.0	
0935	4.79	~~4~~ 300	6.20	0.253	58.7	0.96	15.82	39	0.0	
0940	4.79	300	5.94	0.243	32.8	0.75	15.74	112	0.0	
0945	4.79	300	5.92	0.243	24.7	0.60	15.77	144	0.0	
0950	4.79	300	5.90	0.243	23.2	0.43	15.74	162	0.0	
0955	4.79	300	5.90	0.243	21.4	0.39	15.78	172	0.0	
1000	4.79	300	5.89	0.244	19.0	0.17	15.81	176	0.0	
1005	4.79	300	5.92	0.246	16.6	0.08	15.85	174	0.0	
1010		STABILIZED								
	Sample VOCs, 1-4 dioxane, Total + Dissolved Metals @ 1010									

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112 Cobl 83

WELL ID.: MSA-MW-33S 033114
DATE: 3-31-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
—	—	—	—	—	—	—	—	—	—	Initial pump down
0947	5.95	—	—	—	—	—	—	—	—	Clear Water
0948	6.63	300	7.91	0.154	0.2	11.00	13.21	151	0.1	
0948	6.63	300	7.84	0.152	1.6	8.64	12.65	163	0.1	
0953	7.25	300	7.80	0.151	0.0	8.14	12.61	171	0.1	
0958	6.93	200	7.88	0.149	0.0	7.37	11.85	175	0.1	
1003	6.82	200	7.86	0.149	0.0	7.72	11.79	180	0.1	
1008	6.82	200	7.84	0.149	0.0	7.72	11.79	180	0.1	
1018	6.82	200	7.83	0.150	0.0	7.71	11.83	182	0.1	
1023	6.82	200	7.82	0.150	0.0	7.80	11.85	184	0.1	
1028	6.82	200	7.81	0.149	0.0	7.87	11.95	184	0.1	
1033	6.82									
			Well parameters stabilize							
			Sampling Begins							

PAGE 2 OF 2

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin Stnk August
PROJECT NUMBER: 112Eco6183

WELL ID.: MSA-mw-33I-033104
DATE: 3.31.14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
—	—	—	—	—	—	—	—	—	—	Initial purge Clean Water
1058	6.05	—	—	—	—	—	—	—	—	
1100	6.12	3cc	12.42	0.776	0.7	1.82	12.18	43	0.4	
1105	6.12	2cc	13.11	0.946	0.0	1.14	12.25	-9	0.5	
1110	6.12	2cc	13.46	0.997	8.2	0.92	12.11	-43	0.5	
1120	6.12	2cc	13.77	1.01	0.2	0.78	12.24	-79	0.5	
1130	6.12	2cc	13.89	1.00	0.0	0.77	12.26	-97	0.5	
1135	6.12	2cc	13.78	0.995	0.0	0.72	12.39	-89	0.5	
1140	6.12	2cc	13.77	0.994	0.0	0.73	12.46	-89	0.5	
1145	6.12	2cc	13.75	0.993	0.0	0.72	12.48	-89	0.5	
			Field Parameters Stabilize							
			Sampling Begins							

PAGE 2 OF 2

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Red Martin State Airport
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW-34S-032714
DATE: 3-27-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1313	4.45	—	—	—	—	—	—	—	—	Initial, no odor
1315	4.64	200	5.35	0.168	0.0	2.01	9.48	249	0.1	Clear water
1320	4.64	200	5.37	0.163	0.0	1.31	9.35	247	0.1	
1325	4.64	200	5.35	0.143	0.0	1.01	9.43	248	0.1	
1330	4.64	200	5.29	0.135	0.0	0.72	9.61	252	0.1	
1335	4.64	200	5.20	0.135	0.0	0.70	9.82	253	0.1	
1345	4.64	200	5.20	0.134	0.0	0.56	9.58	251	0.1	
1350	4.64	200	5.18	0.133	0.0	0.55	10.10	251	0.1	
1355	4.64	200	5.17	0.133	0.0	0.54	10.11	252	0.1	
1400	4.64	200								
			WELL parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): Walt B

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112Fc06193

WELL ID.: MSA - MW-34I-032714
DATE: 3-27-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
										Initial, meter Clean Water
1424	4.45	—	—	—	—	—	—	—	—	
1425	4.74	300	4.62	0.128	0.0	3.38	9.76	245	0.1	
1430	4.74	300	4.52	0.124	0.0	2.10	10.00	248	0.1	
1435	4.74	300	4.51	0.133	0.0	1.14	10.09	251	0.1	
1445	4.74	300	4.54	0.139	0.0	0.73	10.24	248	0.1	
1455	4.74	300	4.54	0.139	0.0	0.70	10.32	247	0.1	
1500	4.74	300	4.56	0.140	0.0	0.50	10.26	245	0.1	
1505	4.74	300	4.57	0.141	0.0	0.49	10.27	243	0.1	
1510	4.74	300	4.58	0.141	0.0	0.49	10.30	243	0.1	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014
PROJECT NUMBER: 112IC06183

WELL ID.: MSA-MW-355-032814
DATE: 3/28/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1325	8.47	—	—	—	—	—	—	—	—	
1330	9.41	200	4.30	0.187	11.68	0.00	11.68	155	0.1	
1335	10.31	200	4.09	0.176	12.2	0.00	11.73	209	0.1	
1340	11.03	200	4.06	0.170	16.3	0.00	11.90	222	0.1	
1345	11.61	200	4.02	0.169	15.1	0.00	11.95	225	0.1	
1350	12.27	200	4.00	0.167	12.2	0.00	12.12	230	0.1	
1355	13.05	200	3.97	0.166	9.27	0.00	12.11	231	0.1	
1400	13.72	200	3.98	0.166	11.35	0.00	12.05	229	0.1	
1405	14.71	200	3.97	0.166	9.70	0.00	12.18	226	0.1	
1410	15.34	200	3.98	0.166	9.71	0.00	12.13	227	0.1	
	Sample VOCs, 1-4 dioxane, Total + Dissolved Metals, TPH-GRO + DRO									

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW-36S-041114
DATE: 4-11-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0813	5.80	—	—	—	—	—	—	—	—	Initial, no odor
0815	6.50	300	3.78	0.087	0.0	1.53	11.99	315	0.0	Clear water
0820	6.91	300	3.73	0.078	0.0	1.04	11.43	324	0.0	
0825	7.02	200	3.75	0.077	0.0	0.84	11.24	330	0.0	
0830	7.10	200	3.76	0.076	0.0	0.65	11.21	334	0.0	
0845	7.10	150	3.77	0.075	0.0	0.60	11.20	331	0.0	
0850	7.10	150	3.78	0.075	0.0	0.54	11.24	329	0.0	
0855	7.10	150	3.78	0.075	0.0	0.53	11.29	329	0.0	
0900	7.10	150	3.79	0.075	0.0	0.52	11.41	330	0.0	
			Well parameters stabilize →							
			Sampling Begins →							

SIGNATURE(S): Walter R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW-375-041114
DATE: 4-11-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1358	5.85	—	—	—	—	—	—	—	—	Initial, no odor
1400	6.00	300	6.13	0.292	18.9	1.12	14.80	121	0.1	Slightly cloudy
1405	6.00	300	6.04	0.305	14.0	0.68	13.21	125	0.1	↓
1410	6.00	300	6.06	0.306	0.0	0.54	13.01	129	0.1	clear water
1420	6.00	300	6.02	0.307	0.0	0.45	12.49	133	0.1	
1430	6.00	300	5.99	0.309	0.0	0.50	13.80	139	0.1	
1435	6.00	300	5.96	0.309	0.0	0.45	13.76	143	0.1	
1440	6.00	300	5.95	0.309	0.0	0.44	13.56	146	0.1	
1445	6.00	300	5.94	0.309	0.0	0.43	13.44	147	0.1	↓
				Well parameters stabilize						
				Sampling Begins						

SIGNATURE(S): Wak

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Manston State Airport
PROJECT NUMBER: 112EC06183
WELL ID.: MSA-MW-38S-042114
DATE: 4-21-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1424	5.70	–	–	–	–	–	–	–	–	Initial reading
1425	5.83	300	5.69	0.188	90.9	1.29	19.18	127	0.1	cloudy water
1430	5.83	300	5.26	0.185	87.3	0.61	17.59	162	0.1	
1435	5.83	300	5.13	0.185	95.1	0.43	15.95	163	0.1	
1445	5.83	300	5.78	0.205	111	0.30	14.86	77	0.1	
1455	5.83	300	6.14	0.227	112	0.26	14.42	16	0.1	
1505	5.83	300	6.35	0.240	104	0.24	14.04	-15	0.1	
1515	5.83	300	6.47	0.247	88.5	0.23	13.64	-33	0.1	
1525	5.83	300	6.53	0.252	81.6	0.22	13.25	-41	0.1	
1535	5.83	300	6.57	0.256	73.6	0.22	12.61	-46	0.1	
1540	5.83	300	6.58	0.257	69.9	0.21	12.52	-47	0.1	
1545	5.83	300	6.58	0.257	70.2	0.22	12.51	-49	0.1	
			Well parameters stabilized							
			Sampling Begins							

SIGNATURE(S): Walt B

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014
PROJECT NUMBER: 117IC06183
WELL ID.: MSA-MW-395-032814
DATE: 3/28/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1150	11.72	—	—	—	—	—	—	—	—	
1155	12.32	200	5.94	0.557	22.2	0.00	10.05	-28	0.3	
1200	13.25	200	5.83	0.568	79.1	0.00	10.52	-22	0.3	
1205	14.02	200	5.80	0.573	25.1	0.00	10.63	-21	0.3	
1210	14.55	200	5.80	0.573	11.2	0.00	10.77	-20	0.3	
1215	14.93	200	5.80	0.570	11.50	0.00	10.80	-20	0.3	
1220	15.38	200	5.80	0.567	9.20	0.00	10.98	-20	0.3	
1225	15.54	200	5.79	0.566	10.24	0.00	11.05	-20	0.3	
1230	15.83	200	5.80	0.565	9.34	0.00	11.06	-20	0.3	
	Sample VOCs, 14 dioxane, Total + Dissolved Metals, TPH-GRO + DRO									

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Dump Road MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW-405-032814
DATE: 3/28/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1045	15.58	—	—	—	—	—	—	—	—	
1050	15.84	150	6.07	1.99	22.8	1.46	14.26	93	0.1	
1055	15.96	150	6.26	2.02	17.4	0.65	13.82	65	1.0	
1100	16.23	150	6.29	2.04	14.3	0.42	13.41	51	1.0	
1105	16.67	150	6.32	2.07	12.8	0.26	13.03	47	1.0	
1110	16.92	150	6.34	2.08	10.4	0.21	12.94	41	1.0	
1115	17.41	150	6.35	2.09	9.4	0.17	12.63	39	1.0	
1120	17.93	150	6.36	2.09	9.7	0.12	12.32	38	1.1	
Sampling for VOCs, 1,4-Diox, Total + Diss Metals + TPH-DRO-GRO.										

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Dump Road MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW40I-032814
DATE: 3/28/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1155	15.44	—	—	—	—	—	—	—	—	
1200	16.31	150	5.36	1.98	17.8	0.86	11.49	166	1.0	
1205	17.42	150	5.21	1.99	17.1	0.43	11.52	171	1.0	
1210	18.27	150	5.07	2.01	11.4	0.17	11.57	174	1.0	
1215	18.94	150	4.96	2.02	10.6	0.09	11.63	176	1.0	
1220	19.63	150	4.84	2.02	11.0	0.05	11.95	141	1.0	
1225	20.42	150	4.91	2.02	8.6	0.00	12.16	184	1.0	
1230	21.06	150	4.95	2.03	7.4	0.00	12.33	186	1.0	
1235	21.87	150	4.97	2.04	6.5	0.00	12.62	184	1.0	
1240	22.66	150	4.99	2.04	8.7	0.00	12.87	181	1.0	
Sampling for VOCs, 1,4-Dioxane, Total Metals + Dissolved Metals.										

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 14TC06183
WELL ID.: MSA-MW415-040414
DATE: 4/4/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0830	6.40	—	—	—	—	—	—	—	—	
0835	6.81	250	6.66	1.15	27.5	1.77	11.95	205	0.6	
0840	6.79	200	7.14	1.13	22.9	0.94	11.71	148	0.1	
0845	6.79	200	7.89	1.09	21.4	0.76	11.70	102	0.4	
0850	6.79	200	8.99	1.03	15.3	0.59	11.60	69	0.5	
0855	6.79	200	8.43	1.03	12.8	0.86	11.69	76	0.5	
0900	6.79	200	8.06	1.04	13.2	1.04	11.67	84	0.5	
0905	6.79	200	7.54	1.04	16.4	1.16	11.65	97	0.5	
0910	6.79	200	7.12	1.04	14.8	1.28	11.63	113	0.5	
0915	6.79	200	7.03	1.04	12.1	0.84	11.64	124	0.5	
0920	6.79	200	6.83	1.03	11.4	0.55	11.66	137	0.5	
0925	6.79	200	6.72	1.07	11.5	0.51	11.68	142	0.5	
0930	6.79	200	6.63	1.09	11.6	0.47	11.71	156	0.5	
0935	6.79	200	6.59	1.10	9.74	0.46	11.74	158	0.5	
0940	6.79	200	6.56	1.11	8.59	0.45	11.76	161	0.5	
Sampling VOCs, 1,4-Dioxane, TPH GRO + DRO, + Total + Diss Metals										

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW41I-040414
DATE: 4/4/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1005	6.40	~	—	—	—	—	—	—	—	
1010	6.40	200	7.79	0.513	10.52	1551	11.50	71	0.2	
1015	6.40	200	7.82	0.462	8.71	9.64	11.67	-4	0.2	
1020	6.40	200	7.69	0.485	15.5	3.99	11.78	-43	0.2	
1025	6.40	200	7.14	0.959	18.0	2.05	11.81	-52	0.5	
1030	6.46	200	7.04	1.08	11.6	1.09	11.94	-53	0.5	
1035	6.46	200	7.02	1.16	9.41	1.01	11.98	-54	0.5	
1040	6.40	200	6.99	1.17	6.32	0.84	12.04	-55	0.5	
Sampling VOCs, 1,4-Dox & Total & Diss metals, MS/MSD collected										

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 112ICO6183

WELL ID.: MSA-MW425-040214
DATE: 4/2/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0920	5.16	—	—	—	—	—	—	—	—	
0925	5.48	200	6.43	0.609	31.7	0.00	15.08	-35	0.3	
0930	5.62	200	6.53	0.612	14.0	0.00	13.41	-45	0.3	
0935	5.73	200	6.42	0.616	13.1	0.00	12.12	-54	0.3	
0940	5.86	200	6.56	0.622	11.24	0.00	11.82	-69	0.3	
0945	5.92	200	6.57	0.641	9.32	0.00	11.13	-72	0.3	
0950	5.98	200	6.57	0.657	7.44	0.00	10.47	-74	0.3	
0955	6.03	200	6.58	0.663	8.13	0.00	10.12	-78	0.3	
1000	6.08	200	6.63	0.668	8.77	0.00	9.95	-82	0.3	
Sample	VOCs, 1,4-Dox, Total + Dissolved metals + TPH-GRO + DRO									

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW42I-040214
DATE: 4/2/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1020	5.08	—	—	—	—	—	—	—	—	
1025	6.29	300	7.17	0.253	22.4	0.00	10.22	-70	0.1	
1030	7.02	200	6.98	0.246	15.7	0.00	10.20	-36	0.1	
1035	7.82	200	6.94	0.242	14.3	0.00	10.18	-24	0.1	
1040	8.40	200	6.90	0.237	16.7	0.00	10.09	-12	0.1	
1045	8.84	200	6.88	0.237	15.8	0.00	10.01	-4	0.1	
1050	9.22	200	6.87	0.237	13.5	0.00	9.94	2	0.1	
1055	9.43	200	6.86	0.239	12.4	0.00	9.93	2	0.1	
1100	9.71	200	6.84	0.240	11.9	0.00	9.92	1	0.1	
1105	9.83	200	6.84	0.242	5.83	0.00	9.96	-2	0.1	
1110	9.90	200	6.84	0.243	6.42	0.00	9.97	-4	0.1	
Sampling	VOCs, 1,4-Diox. +	Total + Diss Metals								

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA bw 20/4
PROJECT NUMBER: 112406183

WELL ID.: MSA-MW-435-032814
DATE: 3/28/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1035	12.03	—	—	—	—	—	—	—	—	
1040	12.35	100	~~6.66~~ 6.76	0.751	7.49	0.00	8.78	-8	0.4	
1045	12.82	100	6.55	0.736	6.20	0.00	8.56	14	0.4	
1050	13.20	100	6.45	0.730	4.65	0.00	8.55	28	0.4	
1055	13.37	100	6.41	0.730	3.80	0.00	8.54	34	0.4	
1100	13.65	100	6.37	0.732	3.27	0.00	8.56	40	0.4	
1105	13.98	100	6.34	0.734	4.04	0.00	8.57	46	0.4	
1110	14.23	100	6.33	0.735	3.83	0.00	8.57	50	0.4	
1115	14.51	100	6.32	0.736	3.76	0.00	8.58	52	0.4	
	Sample VOCs, 1,4-dioxane, Total + Dissolved Metals, TPH-GRO+DRO									

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014
PROJECT NUMBER: 112FL06183

WELL ID.: MSA-MW-445
DATE: 3/28/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0900	1.51	—	—	—	—	—	—	—	—	
0905	1.55	100	5.96	7.29	5.01	0.00	9.10	-87	3.9	
0910	1.55	100	6.06	7.39	4.05	0.00	8.92	-93	4.0	
0915	1.55	100	6.20	7.10	2.41	0.00	8.57	-98	3.8	
0920	1.55	100	6.33	6.24	2.29	0.00	8.34	-98	3.3	
0925	1.55	100	6.44	5.14	4.10	0.00	8.10	-99	2.7	
0930	1.55	100	6.55	3.97	3.59	0.00	7.84	-105	2.0	
0935	1.55	100	6.62	3.26	2.87	0.00	7.71	-108	1.6	
0940	1.55	100	6.74	2.49	4.00	0.00	7.19	-121	1.2	
0945	1.55	100	6.76	2.27	3.96	0.00	7.03	-143	1.1	
0950	1.55	100	6.96	2.21	3.91	0.00	6.96	-157	1.1	
	Sample VOCs, 1-4 Dioxane, Total + Dissolved Metals, TPH-GRO + DRO									

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 116FC06183

WELL ID.: MSA-MW455-040414
DATE: 4/4/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1115	6.12	—	—	—	—	—	—	—	—	
1120	6.19	200	6.21	2.85	49.1	20.18	11.42	12.5	1.5	
1125	6.13	200	6.14	2.90	23.2	0.59	11.44	263	1.5	
1130	6.08	200	6.08	2.95	16.10	0.58	11.46	264	1.5	
1135	6.16	200	6.10	2.91	13.6	0.56	11.49	265	1.5	
1140	6.20	200	6.13	2.86	10.18	0.52	11.52	266	1.5	
1145	6.20	200	6.14	2.81	8.62	0.89	11.53	266	1.5	
1150	6.19	200	6.20	2.78	9.41	1.53	11.58	265	1.4	
1155	6.19	200	6.23	2.76	7.79	1.63	11.67	265	1.4	
Sample	VOCs, 1,4-DOX, +Total + Diss Metals									

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 112IC06188
WELL ID.: MSA-MW 4/6S-040214
DATE: 4/2/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1135	9.04	—	—	—	—	—	—	—	—	
1140	9.32	200	6.43	1.00	14.8	0.00	9.78	17	0.5	
1145	9.94	200	6.33	1.01	10.42	0.00	9.71	21	0.5	
1150	10.84	200	6.28	0.998	12.72	0.00	9.71	23	0.5	
1155	11.62	200	6.23	0.997	11.96	0.00	9.60	25	0.5	
1200	12.43	200	6.21	0.995	10.74	0.00	9.58	26	0.5	
1205	12.67	200	6.21	0.994	9.76	0.00	9.56	27	0.5	
1210	12.58	200	6.21	0.992	8.84	0.00	9.52	28	0.5	
Sample VOCs, 1,4-Dox, TPHGRO/DRO, Perchlorate & Hex Chrom										

SIGNATURE(S): AC

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 112ICO6183
WELL ID.: MSA-MW46I-040214
DATE: 4/2/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1245	9.48	—	—	—	—	—	—	—	—	
1250	9.57	300	5.86	0.789	26.9	4.53	9.78	28	0.4	
1255	9.58	300	5.74	0.836	29.9	0.00	9.72	60	0.4	
1300	9.60	300	5.71	1.07	32.3	0.00	9.72	91	0.5	
1305	9.61	300	5.74	1.07	28.7	0.00	9.83	96	0.5	
1310	9.63	300	5.76	1.06	35.4	0.00	9.90	99	0.5	
1315	9.64	300	5.76	0.994	38.7	0.00	9.96	101	0.5	
1320	9.65	300	5.76	0.989	42.5	0.00	10.05	103	0.5	
1325	9.67	300	5.72	0.913	41.6	0.00	10.23	104	0.5	
1330	9.69	300	5.69	0.873	40.7	0.00	10.44	106	0.5	
1335	9.71	300	5.74	0.802	39.7	0.00	10.63	107	0.5	
1340	9.73	300	5.66	0.742	38.6	0.00	10.86	109	0.5	
1345	9.77	300	5.71	0.736	36.4	0.00	11.13	109	0.5	
1350	9.80	300	5.73	0.722	33.3	0.00	11.40	109	0.5	
Sample	VOCs, 1,4-Dox, TOC	+ Diss metals	Perchlorate	+ Hex chrom						

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW46D-040214
DATE: 4/2/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1405	10.02	–	–	–	–	–	–	–	–	
1410	10.07	300	6.28	0.095	11.96	0.00	11.75	44	0.0	
1415	10.09	300	6.00	0.086	8.20	0.00	11.79	73	0.0	
1420	10.09	300	5.98	0.083	7.42	0.00	11.81	74	0.0	
1425	10.10	300	5.96	0.081	6.61	0.00	11.82	76	0.0	
1430	10.13	300	5.98	0.080	6.93	0.00	11.96	71	0.0	
1435	10.16	300	6.02	0.079	5.51	0.00	12.09	62	0.0	
1440	10.19	300	6.05	0.079	4.32	0.00	12.14	52	0.0	
Sampling	VOC, 1,4-Dox, Total & Dissolved Perchlorate, Cr VI Hex Chrom									

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 112IC0688
WELL ID.: MSA-MW47S-040314
DATE: 4/3/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1125	10.02	—	—	—	—	—	—	—	—	
1130	11.15	250	6.56	2.26	37.6	1.91	11.16	-38	1.1	
1135	11.31	250	6.10	2.27	35.7	0.00	11.14	-41	1.1	
1140	11.30	250	6.65	2.26	35.6	0.00	11.12	-45	1.1	
1145	11.28	250	6.69	2.25	33.5	0.00	11.08	-44	1.1	
1150	11.32	250	6.74	2.18	9.42	0.00	10.96	-53	1.1	
1155	11.38	250	6.76	2.10	2.03	0.00	10.87	-56	1.1	
1200	11.42	250	6.78	2.06	6.72	0.00	10.79	-57	1.1	
1205	11.45	250	6.79	2.04	5.56	0.00	10.71	-58	1.1	
Sampling VOCs, 1,4-Dioxane, TPH GRO + DRO, Total + Dissolved Metals, Perchlorate + Hex Chrom										

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Dump Road MSA
PROJECT NUMBER: 11AT C06183
WELL ID.: MSA-MW47I-040314
DATE: 4/3/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1240	10.58	~~250~~	—	—	—	—	—	—	—	
1245	10.84	250	6.24	1.69	10.79	0.99	12.32	43	0.8	
1250	10.72	250	5.98	1.69	9.89	0.00	12.05	74	0.8	
1255	10.72	250	5.97	1.68	8.62	0.00	11.96	84	0.8	
1300	10.72	250	5.96	1.67	10.4	0.00	11.89	94	0.8	
1305	10.72	250	5.95	1.68	5.48	0.00	11.78	98	0.8	
1310	10.72	250	5.97	1.68	6.36	0.00	11.72	97	0.8	
1315	10.72	250	5.97	1.68	8.63	0.00	11.78	98	0.8	
1320	10.72	250	5.97	1.68	>1000	0.00	11.81	99	0.8	
1325	10.72	250	5.97	1.68	9.54	0.00	11.82	101	0.8	
1330	10.72	250	5.98	1.69	8.42	0.00	11.79	101	0.8	
1335	10.72	250	5.98	1.69	7.54	0.00	11.74	101	0.8	
1340	10.72	250	5.98	1.80	12.8	0.00	11.78	96	0.8	
1345	10.72	250	5.98	1.71	86.4	0.00	11.84	91	0.8	
1350	10.72	250	5.98	1.73	72.7	0.00	11.96	83	0.8	
1355	10.72	250	5.98	1.74	64.1	0.00	11.89	81	0.8	
1400	10.72	250	5.98	1.76	58.3	0.00	11.84	80	0.8	
1405	10.72	250	5.99	1.77	47.2	0.00	11.83	76	0.8	
1410	10.72	250	5.99	1.79	35.1	0.00	11.81	75	0.8	
Sampling was 1, 4-Dioxane, Total + Dissolved Metals, Perchlorate, Hex Chrom										

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 112I036183
WELL ID.: MSA-MW47D-040814
DATE: 4/8/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1335	10.30	—	—	—	—	—	—	—	—	
1340	10.41	300	5.83	0.072	12.13	3.86	18.20	156	0.00	
1345	10.41	250	5.61	0.069	11.4	1.35	17.96	155	0.00	
1350	10.41	250	5.52	0.067	9.07	0.98	17.29	155	0.00	
1355	10.41	250	5.33	0.067	7.42	0.00	17.11	157	0.00	
1400	10.41	250	5.16	0.067	6.86	0.00	16.75	158	0.00	
1405	10.41	250	5.05	0.068	5.33	0.00	16.83	159	0.00	
1410	10.41	250	5.03	0.068	4.11	0.00	16.97	156	0.00	
1415	10.41	250	5.00	0.069	3.72	0.00	17.17	152	0.00	
Sampling	VOCs, 1,4-Dioxane,	Total+Dissolved metals,		perchlorate + Hex Chrom						

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014 **WELL ID.:** MSA MW-485-20

PROJECT NUMBER: 112G06183 **DATE:** 4/10/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1055	18.59	-	-	-	-	-		-	-	
1100	18.79	100	6.72	1.60	23.9	0.00	14.50	-26	0.5	
1105	18.94	100	6.71	1.62	17.41	0.00	14.46	-5	0.5	
1110	19.02	100	6.69	1.63	13.96	0.00	14.14	-24	0.5	
1115	19.03	100	6.68	1.62	4.20	0.00	14.11	-33	0.5	
1120	19.05	100	6.68	1.63	3.77	0.00	14.13	-44	0.5	
1125	19.05	100	6.69	1.62	3.92	0.00	14.11	-52	0.5	
1130	19.05	100	6.69	1.62	3.83	0.00	14.14	-54	0.5	
		Sample VOCs, 1-4 dioxane, TPH-Gro +BTEX, Total + Dissolved metals, Perchlorate, Hex Chrom, NAA								

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014
PROJECT NUMBER: 112EC06183
WELL ID.: MSA-MW-48I
DATE: 4/9/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1350	~~18.8~~ 18.22	—	—	—	—	—	—	—	—	
1350	18.26	200	4.49	0.630	11.3	2.33	17.01	313	0.2	
1400	18.30	200	4.43	0.648	10.47	0.33	16.90	312	0.2	
1405	18.30	200	4.40	0.648	11.28	0.00	16.56	316	0.2	
1410	18.30	200	4.36	0.646	11.98	0.00	16.87	321	0.2	
1415	18.30	200	4.31	0.644	11.77	0.00	16.76	325	0.2	
1420	18.30	200	4.29	0.643	11.12	0.00	16.35	328	0.2	
1425	18.30	200	4.30	0.639	10.35	0.00	16.55	327	0.2	
1430	18.30	200	4.29	0.640	8.94	0.00	16.56	325	0.2	
1435	18.30	200	4.32	0.640	9.36	0.00	16.62	321	0.2	
1440	18.30	200	4.41	0.641	8.36	0.00	16.53	316	0.2	
		Sample VOCs, 1-4 dioxane, Total + Dissolved Metals, Perchlorate, Hexchrom, NAA								
			Ferrous Iron Kit: 1 and 1.0							

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2014
PROJECT NUMBER: 112IC06183
WELL ID.: MSA-MW-48D
DATE: 4/8/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1515	18.23	—	—	—	—	—	—	—	—	
1520	18.28	200	4.52	0.541	19.4	1.01	17.50	313	0.1	
1525	18.28	200	4.26	0.554	17.6	0.00	17.06	346	0.1	
1530	18.28	200	4.22	0.562	16.7	0.00	16.61	354	0.1	
1535	18.28	200	4.16	0.560	13.7	0.00	16.53	360	0.1	
1540	18.28	200	4.13	0.560	13.0	0.00	16.42	363	0.1	
1545	18.28	200	4.46	0.557	11.6	0.00	16.38	347	0.1	
1550	18.28	200	4.40	0.558	12.92	0.00	16.18	350	0.1	
1555	18.28	200	4.30	0.555	11.76	0.00	16.02	356	0.1	
1600	18.28	200	4.23	0.551	10.69	0.00	16.10	361	0.1	
	Sample VOCs, 1-4 dioxane, Total + Dissolved Metals, Perchlorate, Hex Chrom, NAA parameters									

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA Low 2014
PROJECT NUMBER: 112ICD6183
WELL ID.: MSA-MW-495-041014
DATE: 4/10/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1405	19.35	–	–	–	–	–	–	–	–	
1410	19.35	200	5.07	0.825	12.0	0.91	20.24	183	0.2	
1415	19.35	200	5.05	0.848	17.9	0.42	19.87	197	0.2	
1420	19.35	200	5.04	0.863	11.8	0.29	19.43	198	0.2	
1425	19.35	200	5.06	0.864	6.64	0.27	19.32	198	0.2	
1430	19.35	200	5.07	0.871	5.23	0.00	19.18	196	0.2	
1435	19.35	200	5.06	0.875	5.02	0.00	19.17	198	0.2	
~~1440~~	STABILIZED									
~~1445~~	Sample VOCs, 1-4 dioxane, TPH-Gro-Dro, Total + Dissolved Metals, Hex Chrom, Perchlorate									

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA 6w 2014 **WELL ID.:** MSA-MW-49I
PROJECT NUMBER: 117IC06183 **DATE:** 4/30/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1505	18.49	-	-	-	-	-	-	-	-	
1510	18.73	200	4.20	1.50	14.0	0.57	21.50	322	0.5	
1515	18.73	200	4.06	1.59	9.65	0.00	20.40	324	0.5	
1520	18.73	200	4.04	1.63	12.0	0.00	19.34	320	0.5	
1525	18.73	200	3.88	1.64	13.3	0.00	19.08	328	0.5	
1530	18.73	200	3.83	1.65	14.2	0.00	19.12	329	0.5	
1535	18.73	200	3.92	1.68	15.4	0.00	18.06	322	0.5	
1540	18.73	200	3.84	1.68	12.0	0.00	1775	326	0.5	
	@ 1540: Sample VOCs, 1-4 dioxane, Total+D. 3 Solved Metals, Perchlorate, Hex Chrom									

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06183

WELL ID.: MW-49D
DATE: 4/17/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1440	18.26	—	—	—	—	—	—	—	—	
1445	18.27	130	6.58	0.584	6.95	2.77	17.99	72	0.1	
1450	18.27	115	6.29	0.640	6.89	1.23	17.31	74	0.2	
1455	18.29	125	5.78	0.819	6.33	0.95	16.93	95	0.2	
1500	18.30	130	5.06	1.05	7.49	0.78	16.88	132	0.3	
1505	18.31	115	4.75	1.17	5.18	0.83	16.70	165	0.4	
1510	18.32	115	4.44	1.49	5.43	0.0	16.47	238	0.5	
1515	18.32	115	4.31	1.52	4.73	0.0	16.17	299	0.5	
1520	18.33	130	4.15	1.54	4.30	0.0	15.96	314	0.5	
1525	18.34	120	4.13	1.54	4.29	0.0	15.74	330	0.5	
1530	18.35	140	4.09	1.55	4.34	0.0	15.56	332	0.5	
1535	18.36	140	4.15	1.55	4.60	0.0	15.71	334	0.5	3.0 gal purged
	stable									

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 112IC06183

WELL ID.: MW-50s
DATE: 4/14/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0935	10.67	—	—	—	—	—	—	—	—	
0940	10.68	120	5.42	0.243	11.70	1.75	16.43	223	0.2	
0946	10.67	140	5.41	0.235	10.09	0.57	16.84	201	0.2	
0952	10.69	130	5.40	0.227	10.26	0.39	17.30	195	0.2	
0959	10.70	170	5.40	0.233	9.50	0.24	17.23	190	0.2	
1005	10.71	150	5.17	0.241	11.5	0.04	17.06	145	0.2	
1010	10.71	135	4.80	0.220	12.82	0.0	16.87	135	0.2	
1015	10.71	135	4.56	0.291	10.45	0.0	16.32	137	0.2	
1020	10.72	115	4.66	0.299	8.43	0.0	16.37	130	0.2	
1025	10.72	130	4.62	0.811	11.01	0.0	16.56	131	0.2	
1030	10.73	130	4.61	0.802	8.17	0.0	16.93	130	0.2	
1035	10.74	135	4.59	0.799	6.99	0.0	12.08	131	0.2	purged 4.25gal
Stable										

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA
PROJECT NUMBER: 102C0683

WELL ID.: MW-50I
DATE: 4/14/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1405	11.07	~~155~~ 145	—	—	—	—	—	—	—	
1410	11.12	155	4.63	0.796	60.7	1.44	19.63	191	0.2	
1415	11.13	155	4.62	0.795	62.41	0.97	19.49	185	0.2	
1420	11.13	180	4.57	0.803	53.6	0.76	19.76	184	0.2	
1425	11.14	120	4.56	0.818	89.9	0.65	19.98	180	0.2	
1430	11.15	160	4.46	0.811	25.6	0.44	19.31	181	0.2	
1435	11.15	150	4.55	0.814	28.0	0.33	19.30	169	0.2	
1440	11.15	150	4.56	0.809	56.0	0.29	19.75	151	0.2	
1445	11.16	115	4.63	0.805	52.6	0.24	19.63	125	0.2	
1450	11.16	155	4.54	0.816	46.6	0.16	19.75	139	0.2	
1455	11.16	160	4.56	0.810	29.1	0.11	19.93	165	0.2	
1500	11.15	125	4.50	0.801	37.8	0.14	19.61	149	0.2	
1505	11.15	140	4.50	0.787	45.7	0.0	18.78	144	0.2	
1510	11.14	150	4.50	0.791	32.9	0.0	19.12	143	0.2	
1515	11.14	160	4.60	0.815	35.2	0.0	18.95	108	0.2	
1520	11.14	160	4.51	0.793	30.6	0.0	20.20	103	0.2	
1525	11.13	150	4.64	0.801	29.5	0.0	19.23	104	0.2	
1530	11.13	150	4.61	0.800	31.9	0.0	19.16	105	0.2	
1535	11.13	145	4.47	0.793	27.0	0.0	19.54	111	0.2	90 min; not stable purged 50 gal

SIGNATURE(S): _____

PAGE___OF___

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112JC06183

WELL ID.: MW-50D
DATE: 4/16/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0905	12.66	–	–	–	–	–	–	–	–	
0910	12.66	100	7.25	0.245	3.27	4.15	15.61	235	0.0	
0915	12.65	110	7.81	0.256	5.34	3.89	13.90	209	0.1	
0920	12.65	110	7.99	0.257	4.64	3.60	13.73	198	0.1	
0925	12.65	115	8.13	0.267	4.17	3.67	12.66	187	0.1	
0930	12.65	110	8.15	0.270	4.16	3.64	12.37	183	0.1	
0935	12.65	115	8.19	0.269	4.16	3.64	12.19	177	0.1	

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin St. East
PROJECT NUMBER: 112COG183

WELL ID.: MW-5D
DATE: 4/17/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1005	2.65	—	—	—	—	—	—	—	—	
1010	2.65	135	10.54	0.969	15.9	3.63	13.60	-150	0.3	
1015	2.66	130	10.61	1.01	14.5	2.37	13.60	-159	0.3	
1020	2.68	130	10.58	1.00	16.4	2.02	13.60	-164	0.3	
1025	2.69	130	10.52	1.00	14.8	1.90	13.62	-166	0.3	
1030	2.69	130	10.46	0.989	13.1	1.79	13.69	-169	0.3	
1035	2.70	130	10.22	0.949	15.8	1.29	13.79	-183	0.3	
1040	2.70	125	10.31	0.942	16.6	0.85	13.73	-188	0.2	
1045	2.71	120	10.03	0.873	12.2	0.81	13.76	-182	0.2	
1050	2.71	130	9.54	0.834	15.5	0.30	13.79	-195	0.2	
1055	2.72	120	9.08	0.823	13.5	0.09	13.82	-221	0.2	
1100	2.73	125	9.36	0.821	12.2	0.0	13.78	-197	0.2	
1105	2.74	125	8.67	0.852	12.7	0.0	13.93	-273	0.2	
1110	2.75	125	8.69	0.852	11.7	0.0	13.99	-265	0.3	
1115	2.76	115	8.79	0.851	12.3	0.0	14.01	-280	0.2	
1120	2.76	130	9.04	0.849	11.9	0.02	13.99	-251	0.2	
1125	2.79	115	9.26	0.848	11.4	0.0	14.00	-221	0.2	
1130	2.79	140	8.55	0.826	11.95	0.0	13.85	-253	0.2	
[redacted]	90 min / not stable									4.75 gal Purged collected MS/MSD

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112JC01483

WELL ID.: MW-5
DATE: 4/16/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1059	9.11	—	—	—	—	—	—	—	—	
1105	9.13	120	4.46	0.709	8.84	4.00	12.50	319	0.2	
1110	9.13	110	4.49	0.746	11.45	3.28	12.47	342	0.2	
1115	9.14	120	4.29	0.898	9.74	3.29	12.49	307	0.2	
1120	9.14	130	4.26	1.06	9.31	2.10	12.30	296	0.2	
1125	9.15	110	4.08	1.17	7.80	0.63	12.07	284	0.3	
1130	9.15	125	4.08	1.14	9.36	0.35	12.01	278	0.3	
1135	9.16	105	4.09	1.15	9.20	0.21	12.01	275	0.3	

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112EC06193

WELL ID.: MW-5I
DATE: 4/16/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1420	9.62	—	—	—	—	—	—	—	—	
1425	9.47	120	6.30	1.64	23.0	0.0	14.78	46	0.5	
1430	9.45	120	6.30	1.67	26.9	0.0	14.20	54	0.5	
1435	9.45	115	6.30	1.69	29.5	0.0	13.97	52	0.5	
1440	9.45	120	6.31	1.70	24.2	0.0	13.74	52	0.5	
1445	9.44	115	6.32	1.70	21.2	0.0	13.62	54	0.5	

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: ARA Design Char. | Sample ID No.: MSA-MW-525
Project No.: 112501.5482 | Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[x] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[x] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

Date: 5/20/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1100								ORP
Method: peri pump	cloudy	6.46	3.56	18.18	62.3	DEAD	1.2	-90

PURGE DATA:

Date: 5/20/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material		SEE LOW FLOW PURGE DATA SHEET						
Type: 2" PVC								
Total Well Depth (TD): 22.89'								
Static Water Level (WL): 12.61								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1005								
End Purge (hrs): 1210								
Total Purge Time (min): 125	125							
Total Vol. Purged (gal/L): ~3								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	—	2-1L ambers	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved metals	HNO3	1-500 mL plastic (filtered)	✓
Hex Chrom	—	1-250 mL plastic	✓
SVOCs + 1,4 dioxane	—	2-1L ambers	✓

OBSERVATIONS / NOTES:

Ferrous Iron kit: 0.6 and 4.0

Hex Chrom @ 1200

Circle If Applicable:
MS/MSD | Duplicate ID No.:

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA OrA Design. Char.
PROJECT NUMBER: 112IC05482

WELL ID.: MSA-MW-525
DATE: 5/20/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1005	12.61	-	—	—	—	—	—	—	—	
1010	12.79	100	4.29	0.005	OVR	7.76	24.08	228	0.0	
1015	12.75	100	4.28	0.005	OVR	7.73	24.14	232	0.0	
1020	12.79	100	4.29	0.005	OVR	7.78	24.28	237	0.0	
1025	13.09	100	4.31	2.48	OVR	3.69	24.51	242	1.1	
1030	13.25	100	6.53	4.28	OVR	0.00	20.87	-94	1.6	
1035	13.48	100	6.61	4.35	OVR	0.00	19.26	-118	1.6	
1040	13.61	100	6.59	4.20	663 AV	0.00	18.20	-119	1.6	
1045	13.96	100	6.55	4.02	85.6	0.00	17.66	-113	1.5	
1050	14.20	100	6.51	3.80	70.8	0.00	17.85	-102	1.4	
1055	14.42	100	6.47	3.60	74.7	0.00	18.06	-91	1.3	
1100	14.70	100	6.46	5.56	62.3	0.00	18.18	-90	1.2	
	1100: Sample	VOCs, SVOCs+1-4 dioxane, TPH-GRO+DRO, Total + Dissolved metals, Hex chrom								
			Hex chrom @							

SIGNATURE(S): [signature]

PAGE 1 OF 1

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page ___

Project Site Name:	DNA Design Char.	Sample ID No.:	MSA-MW-52I
Project No.:	112IC05482	Sample Location:	MSA
		Sampled By:	JAM
[] Domestic Well Data		C.O.C. No.:	
[] Monitoring Well Data		Type of Sample:	
[] Other Well Type:		[] Low Concentration	
[] QA Sample Type:		[] High Concentration	

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/20/14								
Time: 1255								
Method: peri pump	clear	5.02	1.12	20.01	14	0.00	0.3	78

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/20/14								
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material			SEE	LOW FLOW	PURGE	DATA	SHEET	
Type: 2" PVC								
Total Well Depth (TD): ~37.81								
Static Water Level (WL): 11.69								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1210								
End Purge (hrs): 1350								
Total Purge Time (min): 90								
Total Vol. Purged (gal/L): ~3								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	—	2-1L ambers	✓
SVOCs + 1-4 dioxane	—	2-1L ambers	✓
Total Metals	HNO_3	1-500 mL plastic	✓
Dissolved Metals	HNO_3	1-500 mL plastic	✓
Hex Chrom	—	1-250 mL plastic	✓

OBSERVATIONS / NOTES:

Ferrous iron lift: >10, >1.0

Hex Chrom @ 1345

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	[signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: DRA Design. Char.
PROJECT NUMBER: 112IC05482
WELL ID.: MSA-MW-52I
DATE: 5/20/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1200	11.69	—	—	—	—	—	—	—	—	
1205	11.71	200	5.15	1.19	78.2	0.00	21.27	74	0.3	
1220	11.71	200	5.10	1.18	53	0.00	21.06	78	0.3	
1225	11.71	200	5.07	1.16	32	0.00	20.61	78	0.3	
1230	11.71	200	5.03	1.15	42	0.00	20.37	78	0.3	
1235	11.71	200	5.04	1.15	35	0.00	20.37	78	0.3	
1240	11.71	200	5.01	1.13	34	0.00	20.19	78	0.3	
1245	11.71	200	5.00	1.13	14	0.00	19.99	78	0.3	
1250	11.71	200	5.01	1.12	13	0.00	19.99	78	0.3	
1255	11.71	200	5.02	1.12	14	0.00	20.01	78	0.3	
	1255: Sample VOCs, 1-4 Dioxane + SVOCs, Total + Dissolved Metals, TPH-Gro+Dro, Hexchrom									
			Hex Chrom @!							

SIGNATURE(S): [signature]

PAGE___OF___

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name:	DRA Design Chart	Sample ID No.:	MSA-MW-52D
Project No.:	112IC05482	Sample Location:	MSA
		Sampled By:	JAM
[] Domestic Well Data		C.O.C. No.:	
[✓] Monitoring Well Data		Type of Sample:	
[] Other Well Type:		[✓] Low Concentration	
[] QA Sample Type:		[] High Concentration	

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/20/14								ORP
Time: 1432								
Method: peri pump	clear	5.48	0.981	14.52	14.3	0.00	0.3	-95

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/20/14								
Method: peri pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material								
Type: 2" PVC		SEE LOW FLOW PURGE DATA SHEET						
Total Well Depth (TD): 52.67								
Static Water Level (WL): 11.49								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1345								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	—	2-1L ambers	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
Hex Chrom	—	1-250 mL plastic	✓
SVOCs + 1-4 Dioxane	—	2-1L ambers	✓

OBSERVATIONS / NOTES:

Ferrous iron kit: >10, >10
Hex chrom @: 1505

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: DRA Design. Char.
PROJECT NUMBER: 112IC05482

WELL ID.: MSA-MW-52D
DATE: 5/20/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1345	11.49	–	–	–	–	–	–	–	–	
1350	11.51	200	4.70	0.001	72.3	7.90	28.79	105	0.0	
1355	11.54	200	5.74	0.827	46.8	2.43	24.30	-36	0.2	
1400	11.56	200	5.65	0.894	27.8	1.75	21.89	-51	0.2	
1405	11.56	200	5.61	0.950	24.5	0.63	20.61	-72	0.3	
1410	11.56	200	5.57	0.968	23.3	0.46	20.13	-75	0.3	
1415	11.56	200	5.55	0.979	20.0	0.31	19.84	-79	0.3	
1420	11.56	200	5.50	0.980	18.4	0.19	19.76	-85	0.3	
1425	11.56	200	5.49	0.975	16.3	0.04	19.83	-94	0.3	
1430	11.56	200	5.48	0.981	14.3	0.00	19.52	-95	0.3	
	1430: Sample VOCs, SVOCs + 1-4 dioxane, TPH-Gro + Dro, Total + Dissolved Metals									
		Hex chrom @:								

SIGNATURE(S): [signature]

PAGE 1 OF 1

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name:	BRA Design Char.	Sample ID No.:	MSA-MW-535
Project No.:	112IC05482	Sample Location:	MSA
		Sampled By:	JAM
[] Domestic Well Data		C.O.C. No.:	
[✓] Monitoring Well Data		Type of Sample:	
[] Other Well Type:		[✓] Low Concentration	
[] QA Sample Type:		[] High Concentration	

SAMPLING DATA:

Date: 5/21/14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 10:45								ORP
Method: pcn pump	Clear	5.60	0.813	15.67	37.8	0.00	0.2	83

PURGE DATA:

Date: 5/21/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: pcn pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material								
Type: 2" PVC		SEE LOW FLOW PURGE DATA SHEET						
Total Well Depth (TD): 27.77								
Static Water Level (WL): 8.93								
One Casing Volume (gal/L): —								
Start Purge (hrs): 1000								
End Purge (hrs): 1145								
Total Purge Time (min): 105								
Total Vol. Purged (gal/L): ~4								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	—	2-12 ambers	✓
SVOCs 1-4 dioxane	—	2-12 ambers	✓
Total metals	HNO3	1-500 mL plastic	✓
Dissolved metals	HNO3	1-500 mL plastic	✓
Hex Chrom	—	1-250 mL plastic	✓

OBSERVATIONS / NOTES:

Ferrous iron kit: 1.0 and 1

Hex Chrom @ 1140

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	[signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: DAA Design Chem.
PROJECT NUMBER: 112IC054E2

WELL ID.: MSA-MW-S35
DATE: 5/21/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1000	8.93	–	–	–	–	–	–	–	–	
1005	9.72	150	5.78	0.858	642 AU	0.67	17.00	123	0.2	
1010	10.69	100	5.77	0.833	68	0.00	16.25	91	0.2	
1015	11.50	100	5.75	0.814	61.4	0.00	15.96	83	0.2	
1020	12.26	100	5.67	0.813	44.8	0.00	15.92	81	0.2	
1025	13.04	100	5.64	0.814	39.7	0.00	15.68	84	0.2	
1030	13.77	100	5.66	0.813	38.6	0.00	15.64	81	0.2	
1035	14.49	100	5.63	0.813	38.8	0.00	15.57	82	0.2	
1040	15.30	100	5.59	0.812	37.2	0.00	15.56	85	0.2	
1045	16.02	100	5.60	0.813	37.8	0.00	15.60	83	0.2	
	1045: Sample VOCs, 1-4 Hex + SVOCs, Total + 0.55 [illegible] metals, TPH-Gro + DRO									
		Hex Chrom @ 1								

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: DRA Design Char.
Project No.: 112IC05482

[] Domestic Well Data
[✓] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-53I
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[✓] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/21/14								ORP
Time: 1230								
Method: per pump	clear	5.16	0.455	17.22	35.8	0.00	0.3	110

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/21/14								
Method: per pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material								
Type: 2" PVC		SEE LOW	FLOW	PURGE	DATA	SHEET		
Total Well Depth (TD): 42.59								
Static Water Level (WL): 11.08								
One Casing Volume (gal/L): —								
Start Purge (hrs): 1140								
End Purge (hrs): 1510								
Total Purge Time (min): 210								
Total Vol. Purged (gal/L): ~6								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	—	2-1L ambers	✓
Total metals	HNO_3	1-500 mL plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic	✓
SOCs+1-4 dioxane	—	2-1L ambers	✓
Hex chrom	3 —	1-250 mL plastic	✓

OBSERVATIONS / NOTES:

Ferrous iron dect: >10, >1
Hex chrom @ 1500

Circle if Applicable:

MS/MSD YES

Duplicate ID No.:

Signature(s): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: DNA Design Chem
PROJECT NUMBER: 112IC05482
WELL ID.: MSA-MW-53I
DATE: 05/21/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1140	11.08	–	–	–	–	–	–	–	–	
1145	11.42	300	5.56	0.924	41.1	1.54	17.53	76	0.2	
1150	11.44	300	5.54	0.925	29.8	1.06	17.30	77	0.2	
1155	11.48	300	5.48	0.936	26.9	0.00	17.11	79	0.3	
1200	11.51	300	5.47	0.939	25.4	0.00	16.97	82	0.3	
1205	11.52	300	5.39	0.940	30.3	0.00	16.88	85	0.3	
1210	11.52	300	5.36	0.941	37.6	0.00	16.90	87	0.3	
1215	11.52	300	5.44	0.945	36.6	0.00	17.00	84	0.3	
1220	11.52	300	5.17	0.955	36.2	0.00	17.18	109	0.3	
1225	11.52	300	5.15	0.954	36.3	0.00	17.20	110	0.3	
1230	11.52	300	5.16	0.955	35.8	0.00	17.22	110	0.3	
		1230 Sample VOCs, SVOCs + 1-4 dioxane, Total + Dissolved metals, TPH-Gro + DRO								
			Hx Chrom @							

SIGNATURE(S): [signature]

PAGE 1 OF 1

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: BMA Design Chem
Project No.: 112IC05482

[] Domestic Well Data
[✓] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-545
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[✓] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/19/14								
Time: 1350								DRP
Method: peri pump	Cloudy	5.67	0.753	21.15	795 AU	0.00	0.2	-58

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/19/14								
Method: peri pump								
Monitor Reading (ppm): –								
Well Casing Diameter & Material			SEE	LOW	Flow	Purge	data	Sheet
Type: 2" PVC								
Total Well Depth (TD): 21.75								
Static Water Level (WL): 7.82								
One Casing Volume (gal/L): –								
Start Purge (hrs): 1300								
End Purge (hrs): 14								
Total Purge Time (min):								
Total Vol. Purged (gal/L): ~3								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	–	2-1L ambers	✓
SVOCs + 1-4 dioxane	–	2-1L ambers	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
Hex Chrom	–	1-250 mL plastic	✓

OBSERVATIONS / NOTES:

Ferrous iron test: >10, >1

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA DRA
PROJECT NUMBER: 112ED5482

WELL ID.: MSA-MW-545
DATE: 5/19/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1300	7.82	–	–	–	–	–	–	–	–	
1305	8.21	100	4.40	0.004	OVR	8.58	25.36	248	0.0	
1310	8.56	100	5.64	0.229	OVR	0.88	23.40	-20	0.2	
1315	8.98	100	5.59	0.745	OVR	0.25	22.68	-32	0.2	
1320	9.29	100	5.59	0.738	OVR	0.07	22.47	-36	0.2	
1325	9.71	100	5.63	0.736	OVR	0.00	22.36	-44	0.2	
1330	10.18	100	5.68	0.735	OVR	0.00	22.20	-50	0.2	
1335	10.65	100	5.69	0.751	OVR	0.00	21.04	-53	0.2	
1340	11.05	100	5.65	0.757	876AU	0.00	20.79	-53	0.2	
1345	11.46	100	5.67	0.753	770AU	0.00	20.55	-57	0.2	
1350	11.75	100	5.67	0.753	795AU	0.00	21.15	-58	0.2	

SAMPLE VOLS, 1-Y dioxy Svols, Total + Dissolved Metals, TPH-Gro + Dro, Hexchrom
Ferrous Iron Kit

SIGNATURE(S): [signature]

PAGE___OF___

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA DNA Design characterization
Project No.: 112ILD5482

[] Domestic Well Data
[✓] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-54I
Sample Location: MSA
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[✓] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/19/14								
Time: 1600								ORP
Method: pen pump	clear	5.47	0.618	18.05	23.2	0.00	0.2	-393

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/19/14								
Method: pen pump								
Monitor Reading (ppm): —								
Well Casing Diameter & Material		See low flow purge data sheet						
Type: 2" PVC								
Total Well Depth (TD): 45.03								
Static Water Level (WL): 7.16								
One Casing Volume (gal/L): —								
Start Purge (hrs): 1510								
End Purge (hrs): 1645								
Total Purge Time (min): 95								
Total Vol. Purged (gal/L): ~3								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	—	2-1L ambers	✓
SVOCs + 1-4 dioxane	—	2-1L ambers	✓
Total metals	HNO_3	1-500 mL ~~[illegible]~~ plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic	✓
Hex chrom	—	1-250 mL plastic	✓

OBSERVATIONS / NOTES:

Ferrous iron test: >10, >1

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: DRA Design Characterization
PROJECT NUMBER: 112I005482
WELL ID.: MSA-MW-54I
DATE: 5/19/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1510	7.16	—	—	—	—	—	—	—	—	
1515	7.62	200	5.75	0.530	70	5.11	23.58	-61	0.1	
1520	7.83	200	5.51	0.571	11	0.44	21.18	-101	0.1	
1525	7.93	200	5.36	0.573	37.9	0.00	20.27	-131	0.1	
1530	7.96	200	5.33	0.574	37.6	0.00	19.60	-145	0.1	
1535	7.96	200	5.31	0.579	32.3	0.00	19.12	-191	0.1	
1540	7.96	200	5.33	0.581	28.4	0.00	18.78	-362	0.1	
1545	7.96	200	5.36	0.591	24.1	0.00	18.61	-379	0.1	
1550	7.96	200	5.45	0.617	29.7	0.00	18.23	-389	0.2	
1555	7.96	200	5.46	0.618	24.0	0.00	18.10	-381	0.2	
1600	7.96	200	5.47	0.618	23.2	0.00	18.05	-393	0.2	

Sample VOCs, 1-4 dioxane + SVOCs, TPH Gro + Dro, Total + Dissolved Metals, Hex Chrom

SIGNATURE(S): [signature]

PAGE 1 OF 1

APPENDIX C—ANALYTICAL DATA TABLES

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-01A	MSA-DMW-01B	MSA-DMW-01S	MSA-DMW-02A	MSA-DMW-02B	MSA-DMW-02S
SAMPLE ID	MSA-DMW-1A-041014	MSA-DMW-1B-041014	MSA-DMW-1S-050114	MSA-DMW-2A-042414	MSA-DMW-2B-042214	MSA-DMW-2S-042314
SAMPLE DATE	20140410	20140410	20140501	20140424	20140422	20140423
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	38 U	13 U	0.23 U	29 U	0.23 U	2.6 U
1,1,1-TRICHLOROETHANE	37 U	12 U	0.22 U	28 U	0.22 U	2.4 U
1,1,2,2-TETRACHLOROETHANE	30 UJ	10 UJ	0.18 U	23 U	0.18 U	2 U
1,1,2-TRICHLOROTRIFLUOROETHANE	47 U	16 U	0.28 U	35 U	0.28 U	3.1 U
1,1-DICHLOROETHANE	25 U	8.3 U	0.15 U	19 U	0.15 U	1.7 U
1,1-DICHLOROETHENE	32 U	11 U	0.19 U	30 J	0.19 U	6.3 J
1,1-DICHLOROPROPENE	22 U	7.2 U	0.13 U	16 U	0.13 U	1.4 U
1,2,3-TRICHLOROBENZENE	28 U	9.4 U	0.17 UJ	21 U	0.17 U	1.9 U
1,2,3-TRICHLOROPROPANE	72 UJ	24 UJ	0.43 U	54 U	0.43 U	4.8 U
1,2,3-TRIMETHYLBENZENE	0.98 U	0.33 U	0.0059 U	0.74 U	0.0059 U	0.066 U
1,2,4-TRICHLOROBENZENE	25 U	8.3 U	0.15 UJ	270	0.15 U	1.7 U
1,2,4-TRIMETHYLBENZENE	20 U	6.7 U	0.12 U	15 U	0.12 UJ	1.3 U
1,2-DIBROMO-3-CHLOROPROPANE	110 U	37 U	0.67 UJ	84 U	0.67 U	7.4 U
1,2-DIBROMOETHANE	40 U	13 U	0.24 U	30 U	0.24 U	2.7 U
1,2-DICHLOROBENZENE	22 U	7.2 U	0.13 U	16 U	0.13 U	1.4 U
1,2-DICHLOROETHANE	37 U	12 U	0.22 UJ	74 J	0.22 U	6.5 J
1,2-DICHLOROPROPANE	30 U	10 U	0.18 U	23 U	0.18 U	2 U
1,3-DICHLOROBENZENE	23 U	7.8 U	0.14 U	18 U	0.14 U	1.6 U
1,3-DICHLOROPROPANE	27 UJ	8.9 UJ	0.16 U	20 U	0.16 U	1.8 U
1,4-DICHLOROBENZENE	22 U	7.2 U	0.13 U	16 U	0.13 U	1.4 U
2,2-DICHLOROPROPANE	22 U	7.2 U	0.13 U	16 U	0.13 U	1.4 U
2-BUTANONE	95 U	32 U	0.57 U	71 U	0.57 U	6.3 U
2-CHLOROETHYL VINYL ETHER	170 U	55 U	0.99 U	120 U	0.99 U	11 U
2-CHLOROTOLUENE	18 U	6.1 U	0.11 U	14 U	0.11 U	1.2 U
2-HEXANONE	68 U	23 U	0.41 UJ	51 U	0.41 U	4.6 U
4-CHLOROTOLUENE	30 U	10 U	0.18 U	23 U	0.18 U	2 U
4-ISOPROPYLTOLUENE	20 U	6.7 U	0.12 U	15 U	0.12 U	1.3 U
4-METHYL-2-PENTANONE	53 U	18 U	0.32 U	40 U	0.32 U	3.6 U
ACETONE	180 U	61 U	2.1 J	140 U	1.1 U	12 U
BENZENE	22 U	14 J	0.13 U	21 J	0.13 U	12
BROMOBENZENE	22 U	7.2 U	0.13 U	16 U	0.13 U	1.4 U
BROMOCHLOROMETHANE	48 U	16 U	0.29 U	36 U	0.29 U	3.2 U
BROMODICHLOROMETHANE	25 U	8.3 U	0.15 UJ	19 U	0.15 U	1.7 U
BROMOFORM	110 U	36 U	0.64 U	80 U	0.64 UJ	7.1 U
BROMOMETHANE	68 U	23 U	0.41 U	51 U	0.41 UJ	4.6 U
CARBON DISULFIDE	22 U	7.2 U	0.13 U	16 U	0.13 U	2 U
CARBON TETRACHLORIDE	22 U	7.2 U	0.13 UJ	16 U	0.13 U	1.4 U
CHLOROBENZENE	25 U	8.3 U	0.15 U	19 U	0.15 U	7.4 J
CHLORODIBROMOMETHANE	30 U	10 U	0.18 UJ	23 U	0.18 U	2 U
CHLOROETHANE	48 U	16 U	0.29 U	36 U	0.29 U	3.2 U
CHLOROFORM	27 U	8.9 U	0.16 U	40 J	0.16 U	2.8 J
CHLOROMETHANE	50 U	17 U	0.3 U	38 U	0.3 U	3.3 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-01A	MSA-DMW-01B	MSA-DMW-01S	MSA-DMW-02A	MSA-DMW-02B	MSA-DMW-02S
SAMPLE ID	MSA-DMW-1A-041014	MSA-DMW-1B-041014	MSA-DMW-1S-050114	MSA-DMW-2A-042414	MSA-DMW-2B-042214	MSA-DMW-2S-042314
SAMPLE DATE	20140410	20140410	20140501	20140424	20140422	20140423
CIS-1,2-DICHLOROETHENE	2900	1700	0.17 U	4000	5.2	670
CIS-1,3-DICHLOROPROPENE	23 U	7.8 U	0.14 U	18 U	0.14 U	1.6 U
DIBROMOMETHANE	47 U	16 U	0.28 U	35 U	0.28 UJ	3.1 U
DICHLORODIFLUOROMETHANE	52 U	17 U	0.31 U	39 U	0.31 U	3.4 U
DIISOPROPYL ETHER	250 U	83 U	1.5 U	190 U	1.5 U	17 U
ETHYL TERT-BUTYL ETHER	18 U	6.1 U	0.11 U	14 U	0.11 U	1.2 U
ETHYLBENZENE	28 U	9.4 U	0.17 U	21 U	0.17 U	1.9 U
HEXACHLOROBUTADIENE	50 U	17 U	0.3 UJ	38 U	0.3 UJ	3.3 U
ISOPROPYLBENZENE	22 U	7.2 U	0.13 U	16 U	0.13 U	1.4 U
M+P-XYLENES	40 U	13 U	0.24 U	30 U	0.24 U	2.7 U
METHYL TERT-BUTYL ETHER	28 U	9.4 U	0.17 U	21 U	0.17 U	1.9 U
METHYLENE CHLORIDE	150 J	18 U	0.33 U	41 U	0.33 U	3.7 U
NAPHTHALENE	40 U	13 U	0.24 UJ	30 UJ	0.24 U	2.7 UJ
N-BUTYLBENZENE	20 U	6.7 U	0.12 U	15 U	0.12 UJ	1.3 U
N-PROPYLBENZENE	23 U	7.8 U	0.14 U	18 U	0.14 U	1.6 U
O-XYLENE	23 U	7.8 U	0.14 U	18 U	0.14 U	1.6 U
SEC-BUTYLBENZENE	22 U	7.2 U	0.13 U	16 U	0.13 UJ	1.4 U
STYRENE	18 U	6.1 U	0.11 U	14 U	0.11 U	1.2 U
TERT-AMYL METHYL ETHER	11 U	3.7 U	0.067 U	8.4 U	0.067 U	0.74 U
TERT-BUTYLBENZENE	22 U	7.2 U	0.13 U	16 U	0.13 U	1.4 U
TERTIARY-BUTYL ALCOHOL	650 U	400 J	3.9 U	490 U	3.9 UJ	43 U
TETRACHLOROETHENE	48 U	16 U	0.29 U	36 U	0.29 U	3.2 U
TOLUENE	100 J	7.2 U	0.13 U	16 U	0.13 U	1.4 U
TOTAL XYLENES	23 U	7.8 U	0.14 U	18 U	0.14 U	1.6 U
TRANS-1,2-DICHLOROETHENE	32 U	12 J	0.19 U	24 U	0.39 J	3.5 J
TRANS-1,3-DICHLOROPROPENE	32 U	11 U	0.19 UJ	24 U	0.19 U	2.1 U
TRICHLOROETHENE	4800	970	0.17 U	10000	1.9	870
TRICHLOROFLUOROMETHANE	35 UJ	12 UJ	0.21 UJ	26 U	0.21 U	2.3 U
VINYL ACETATE	32 U	11 U	0.19 U	24 U	0.19 U	2.1 U
VINYL CHLORIDE	1000	1500	0.22 U	990	0.22 U	340
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-DMW-01A MSA-DMW-1A-041014 20140410	MSA-DMW-01B MSA-DMW-1B-041014 20140410	MSA-DMW-01S MSA-DMW-1S-050114 20140501	MSA-DMW-02A MSA-DMW-2A-042414 20140424	MSA-DMW-02B MSA-DMW-2B-042214 20140422	MSA-DMW-02S MSA-DMW-2S-042314 20140423
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	2.3 R	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	0.75 U
CHLOROACETIC ACID	NA	NA	NA	NA	NA	0.4 U
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	0.38 U
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	0.98 U
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	0.38 U
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	180	56	0.26 U	450	0.77 U	310
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-01A	MSA-DMW-01B	MSA-DMW-01S	MSA-DMW-02A	MSA-DMW-02B	MSA-DMW-02S
SAMPLE ID	MSA-DMW-1A-041014	MSA-DMW-1B-041014	MSA-DMW-1S-050114	MSA-DMW-2A-042414	MSA-DMW-2B-042214	MSA-DMW-2S-042314
SAMPLE DATE	20140410	20140410	20140501	20140424	20140422	20140423
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-01A	MSA-DMW-01B	MSA-DMW-01S	MSA-DMW-02A	MSA-DMW-02B	MSA-DMW-02S
SAMPLE ID	MSA-DMW-1A-041014	MSA-DMW-1B-041014	MSA-DMW-1S-050114	MSA-DMW-2A-042414	MSA-DMW-2B-042214	MSA-DMW-2S-042314
SAMPLE DATE	20140410	20140410	20140501	20140424	20140422	20140423
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.11 U	0.27 U	0.71 J	0.11 U	0.31 U	0.13 U
ARSENIC	3.9 J	26	0.38 U	4.8 J	1.2 J	3 J
BARIUM	13	18	20	12	22	17
BERYLLIUM	0.66 U	0.37 U	0.057 U	1.8	0.18 J	0.93 J
CADMIUM	1400	280	0.5 J	650	0.42 U	77
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	120	43	0.73 U	20	17	2.8
COBALT	56	28	0.12 U	490	4.5	75
COPPER	12	19	4 U	34	14	10
IRON	9300	36000	150	32000	1900	3900
LEAD	0.68 U	2.3	0.96 J	3.7	6.9	0.19 J
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	2300	3000	6.6	8000	40	2200
MERCURY	0.12 U	0.53	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	1.4 J
NICKEL	180	50	0.98 U	140	7.1	35
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	4 J	2.2 J	0.34 U	16	0.34 U	7.5
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	0.009 U	0.009 U	0.044 U	0.01 U	0.05 U	0.009 J
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	1.1 U	7.1 U	1.1 J	9.5	6.5	0.15 U
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	0.11 U	0.13 U	0.74 J	0.11 U	0.19 U	0.11 U
ARSENIC	3.8 J	8.5	0.39 U	4.5 J	0.36 U	2.4 J
BARIUM	13	16	22	11	11	19
BERYLLIUM	0.63 U	0.2 U	0.045 U	1.8	0.041 J	0.74 J
CADMIUM	1300	280	0.54 J	650	0.37 U	32
CHROMIUM	96	7.5	0.28 U	5.2	3.2	2.8
COBALT	56	29	0.072 U	490	1.5	85
COPPER	18	15	4.8	33	6.8	3.8 U
IRON	9900	28000	30 U	32000	370	4100 J
LEAD	0.77 U	0.84 U	0.4 U	3.8	1.5	0.14 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-01A	MSA-DMW-01B	MSA-DMW-01S	MSA-DMW-02A	MSA-DMW-02B	MSA-DMW-02S
SAMPLE ID	MSA-DMW-1A-041014	MSA-DMW-1B-041014	MSA-DMW-1S-050114	MSA-DMW-2A-042414	MSA-DMW-2B-042214	MSA-DMW-2S-042314
SAMPLE DATE	20140410	20140410	20140501	20140424	20140422	20140423
MANGANESE	2300	3300	2.6 J	8000	11	2400
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	1.4 J
NICKEL	180	53	1.6 J	140	3.5	39
SELENIUM	4.3 J	1.5 J	0.34 U	16	0.34 U	5.6
SILVER	0.0083 U	0.0083 U	0.023 U	0.0083 U	0.012 U	0.0083 U
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	0.83 U	0.7 U	0.87 J	7.9	1.1 J	0.15 U
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	0.076 J	NA	0.125 J	NA	NA	NA
PERCHLORATE	NA	NA	NA	0.11 J	NA	0.082 U
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	NA	NA	36 U	NA	NA	740
DIESEL-RANGE ORGANICS	NA	NA	240 U	NA	NA	2200
RADIONUCLIDES (PCI/L)						
RADIUM-228	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-03	MSA-DMW-03D	MSA-DMW-03I	MSA-DMW-03S	MSA-MW-04	MSA-DMW-04D
SAMPLE ID	MSA-MW-3-042114	MSA-DMW-3D-042214	MSA-DMW-3I-042214	MSA-DMW-3S-042214	MSA-MW-4-041614	MSA-DMW-4D-042314
SAMPLE DATE	20140421	20140422	20140422	20140422	20140416	20140423
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	0.33 U	0.23 U	46 U	9.2 U	0.23 U	15 U
1,1,1-TRICHLOROETHANE	0.31 U	0.22 U	44 U	8.8 U	0.22 U	15 U
1,1,2,2-TETRACHLOROETHANE	0.26 U	0.18 U	36 U	7.2 U	0.18 U	12 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.4 U	0.28 U	56 U	11 U	0.28 U	19 U
1,1-DICHLOROETHANE	0.21 U	0.15 U	30 U	6 U	0.15 U	10 U
1,1-DICHLOROETHENE	0.27 U	0.19 U	38 J	7.6 U	0.19 U	25 J
1,1-DICHLOROPROPENE	0.19 U	0.13 U	26 U	5.2 U	0.13 U	8.7 U
1,2,3-TRICHLOROBENZENE	0.24 U	0.17 U	34 U	6.8 U	0.17 U	11 U
1,2,3-TRICHLOROPROPANE	0.61 U	0.43 U	86 U	17 U	0.43 U	29 U
1,2,3-TRIMETHYLBENZENE	0.0084 U	0.0059 U	1.2 U	0.24 U	0.0059 U	0.39 U
1,2,4-TRICHLOROBENZENE	0.21 U	0.15 U	370	6 U	0.15 U	10 U
1,2,4-TRIMETHYLBENZENE	0.17 UJ	0.12 UJ	26 U	4.8 UJ	0.12 UJ	8 U
1,2-DIBROMO-3-CHLOROPROPANE	0.96 U	0.67 U	130 U	27 U	0.67 U	45 U
1,2-DIBROMOETHANE	0.34 U	0.24 U	48 U	9.6 U	0.24 U	16 U
1,2-DICHLOROBENZENE	0.19 U	0.13 U	26 U	5.2 U	0.13 U	8.7 U
1,2-DICHLOROETHANE	0.31 U	0.22 U	60 J	8.8 U	0.22 U	15 U
1,2-DICHLOROPROPANE	0.26 U	0.18 U	36 U	7.2 U	0.18 U	12 U
1,3-DICHLOROBENZENE	0.2 U	0.14 U	28 U	5.6 U	0.14 U	9.3 U
1,3-DICHLOROPROPANE	0.23 U	0.16 U	32 U	6.4 U	0.16 U	11 U
1,4-DICHLOROBENZENE	0.19 U	0.13 U	26 U	5.2 U	0.13 U	8.7 U
2,2-DICHLOROPROPANE	0.19 U	0.13 U	26 U	5.2 U	0.13 U	8.7 U
2-BUTANONE	0.82 U	0.57 U	110 U	23 U	0.57 U	38 U
2-CHLOROETHYL VINYL ETHER	1.4 U	0.99 U	200 U	40 U	0.99 U	66 U
2-CHLOROTOLUENE	0.16 U	0.11 U	22 U	4.4 U	0.11 U	7.3 U
2-HEXANONE	0.59 U	0.41 U	82 U	16 U	0.41 U	27 U
4-CHLOROTOLUENE	0.26 U	0.18 U	36 U	7.2 U	0.18 U	12 U
4-ISOPROPYLTOLUENE	0.17 U	0.12 U	24 U	4.8 U	0.12 U	8 U
4-METHYL-2-PENTANONE	0.46 U	0.32 U	64 U	13 U	0.32 U	21 U
ACETONE	1.6 U	1.1 U	220 U	44 U	1.1 U	73 U
BENZENE	0.19 U	0.13 U	26 U	5.2 U	0.19 J	8.7 U
BROMOBENZENE	0.19 U	0.13 U	26 U	5.2 U	0.13 U	8.7 U
BROMOCHLOROMETHANE	0.41 U	0.29 U	58 U	12 U	0.29 U	19 U
BROMODICHLOROMETHANE	0.21 U	0.15 U	30 U	6 U	0.15 U	10 U
BROMOFORM	0.92 UJ	0.64 UJ	130 U	26 UJ	0.64 UJ	43 U
BROMOMETHANE	0.59 UJ	0.41 UJ	82 U	16 UJ	0.41 UJ	27 U
CARBON DISULFIDE	0.19 U	0.13 U	26 U	5.2 U	0.13 U	8.7 U
CARBON TETRACHLORIDE	0.19 U	0.13 U	26 U	5.2 U	0.13 U	8.7 U
CHLOROBENZENE	0.21 U	0.15 U	30 U	6 U	0.15 U	10 U
CHLORODIBROMOMETHANE	0.26 U	0.18 U	36 U	7.2 U	0.18 U	12 U
CHLOROETHANE	0.41 U	0.29 U	58 U	12 U	0.29 U	19 U
CHLOROFORM	0.23 U	0.16 U	32 U	6.4 U	0.16 U	11 U
CHLOROMETHANE	0.43 U	0.3 U	60 U	12 U	0.3 U	20 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-03	MSA-DMW-03D	MSA-DMW-03I	MSA-DMW-03S	MSA-MW-04	MSA-DMW-04D
SAMPLE ID	MSA-MW-3-042114	MSA-DMW-3D-042214	MSA-DMW-3I-042214	MSA-DMW-3S-042214	MSA-MW-4-041614	MSA-DMW-4D-042314
SAMPLE DATE	20140421	20140422	20140422	20140422	20140416	20140423
CIS-1,2-DICHLOROETHENE	95	0.46 J	8200	920	0.17 U	630
CIS-1,3-DICHLOROPROPENE	0.2 U	0.14 U	28 U	5.6 U	0.14 U	9.3 U
DIBROMOMETHANE	0.4 UJ	0.28 UJ	56 U	11 UJ	0.28 UJ	19 U
DICHLORODIFLUOROMETHANE	0.44 U	0.31 U	62 U	12 U	0.31 U	21 U
DIISOPROPYL ETHER	2.1 U	1.5 U	300 U	60 U	1.5 U	100 U
ETHYL TERT-BUTYL ETHER	0.16 U	0.11 U	22 U	4.4 U	0.11 U	7.3 U
ETHYLBENZENE	0.24 U	0.17 U	34 U	6.8 U	0.17 U	11 U
HEXACHLOROBUTADIENE	0.43 UJ	0.3 UJ	60 U	12 UJ	0.3 UJ	20 U
ISOPROPYLBENZENE	0.19 U	0.13 U	26 U	5.2 U	0.13 U	8.7 U
M+P-XYLENES	0.34 U	0.24 U	48 U	9.6 U	0.24 U	16 U
METHYL TERT-BUTYL ETHER	0.24 U	0.17 U	34 U	6.8 U	0.17 U	11 U
METHYLENE CHLORIDE	1.1 J	0.33 U	66 U	13 U	0.33 U	22 U
NAPHTHALENE	0.34 U	0.24 U	48 UJ	9.6 U	0.24 U	16 UJ
N-BUTYLBENZENE	0.17 UJ	0.12 UJ	24 U	4.8 UJ	0.12 UJ	8 U
N-PROPYLBENZENE	0.2 U	0.14 U	28 U	5.6 U	0.14 U	9.3 U
O-XYLENE	0.2 U	0.14 U	28 U	5.6 U	0.14 U	9.3 U
SEC-BUTYLBENZENE	0.19 UJ	0.13 UJ	26 U	5.2 UJ	0.13 UJ	8.7 U
STYRENE	0.16 U	0.11 U	22 U	4.4 U	0.11 U	7.3 U
TERT-AMYL METHYL ETHER	0.096 U	0.067 U	13 U	2.7 U	0.067 U	4.5 U
TERT-BUTYLBENZENE	0.19 U	0.13 U	26 U	5.2 U	0.13 U	8.7 U
TERTIARY-BUTYL ALCOHOL	5.6 UJ	3.9 UJ	780 U	160 UJ	3.9 UJ	260 U
TETRACHLOROETHENE	0.41 U	0.29 U	58 U	12 U	0.29 U	19 U
TOLUENE	0.19 U	0.13 U	72 J	14 J	0.13 U	12 J
TOTAL XYLENES	0.2 U	0.14 U	28 U	5.6 U	0.14 U	9.3 U
TRANS-1,2-DICHLOROETHENE	0.27 U	0.19 U	38 U	260	0.19 U	14 J
TRANS-1,3-DICHLOROPROPENE	0.27 U	0.19 U	38 U	7.6 U	0.19 U	13 U
TRICHLOROETHENE	9.9	4.5	13000	15 J	0.17 U	5400
TRICHLOROFLUOROMETHANE	0.3 U	0.21 U	42 U	8.4 U	0.21 U	14 U
VINYL ACETATE	0.27 U	0.19 U	38 U	7.6 U	0.19 U	13 U
VINYL CHLORIDE	3.8	0.22 U	2800	2500	0.22 U	55 J
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-03 MSA-MW-3-042114 20140421	MSA-DMW-03D MSA-DMW-3D-042214 20140422	MSA-DMW-03I MSA-DMW-3I-042214 20140422	MSA-DMW-03S MSA-DMW-3S-042214 20140422	MSA-MW-04 MSA-MW-4-041614 20140416	MSA-DMW-04D MSA-DMW-4D-042314 20140423
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	0.75 U	NA	NA
CHLOROACETIC ACID	NA	NA	NA	0.4 U	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	0.38 U	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	0.98 U	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	0.38 U	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	9.2	0.26 U	420	440	0.26 U	48
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-03	MSA-DMW-03D	MSA-DMW-03I	MSA-DMW-03S	MSA-MW-04	MSA-DMW-04D
SAMPLE ID	MSA-MW-3-042114	MSA-DMW-3D-042214	MSA-DMW-3I-042214	MSA-DMW-3S-042214	MSA-MW-4-041614	MSA-DMW-4D-042314
SAMPLE DATE	20140421	20140422	20140422	20140422	20140416	20140423
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-03	MSA-DMW-03D	MSA-DMW-03I	MSA-DMW-03S	MSA-MW-04	MSA-DMW-04D
SAMPLE ID	MSA-MW-3-042114	MSA-DMW-3D-042214	MSA-DMW-3I-042214	MSA-DMW-3S-042214	MSA-MW-4-041614	MSA-DMW-4D-042314
SAMPLE DATE	20140421	20140422	20140422	20140422	20140416	20140423
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.21 U	0.15 U	0.23 U	0.27 U	2.1	0.6 U
ARSENIC	1.1 J	1.5 J	5.1	7.8	1.4 U	23
BARIUM	52	77	12	54	25	27 J
BERYLLIUM	0.078 J	0.97 J	0.14 J	0.031 U	0.11 U	5.2
CADMIUM	0.38 J	0.71 J	120	6.2	12	26
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	0.92 J	2.5	2.6	2.3	0.68 J	8.7
COBALT	2.1	94	210	0.61 J	0.81 J	160
COPPER	10	4.1 U	5.3	7.8	19	70
IRON	1100	870	47000	1200	740	2700
LEAD	0.7 U	1.3	0.53 U	1.5	1	2.9
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	92	600	5000	190	320	5600
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	4
MOLYBDENUM	1.7 J	0.81 U	0.81 U	3.1 J	2.2 J	0.92 J
NICKEL	4.1	89	73	1.2 J	41	120
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	0.34 U	1.3 J	7.4	0.34 U	0.42 J	70
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	0.0083 U	0.009 U	0.0083 U	0.02 U	0.14 J	0.06 J
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.8 U
VANADIUM	0.97 J	2.6 J	6.8	1.3 J	1.7 U	7.7
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	0.2 U	0.13 U	0.17 U	0.22 U	1.8 U	0.18 U
ARSENIC	1.1 J	1.2 J	5.3	9.4	1.4 U	16
BARIUM	61	74	11	58	25	18
BERYLLIUM	0.031 U	0.91 J	0.13 J	0.031 U	0.031 U	4.4
CADMIUM	0.24 J	0.34 U	110	0.94 J	11	24
CHROMIUM	0.66 J	1.2 J	2.3	1.2 J	0.44 J	1.8 J
COBALT	4.1	91	220	0.56 U	0.79 J	150
COPPER	2.5 U	1 U	5.1	1.4 U	15	70
IRON	1700	710	49000	200	250	450 J
LEAD	0.15 U	0.19 U	0.14 U	0.24 U	0.29 U	0.72 J

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-03	MSA-DMW-03D	MSA-DMW-03I	MSA-DMW-03S	MSA-MW-04	MSA-DMW-04D
SAMPLE ID	MSA-MW-3-042114	MSA-DMW-3D-042214	MSA-DMW-3I-042214	MSA-DMW-3S-042214	MSA-MW-4-041614	MSA-DMW-4D-042314
SAMPLE DATE	20140421	20140422	20140422	20140422	20140416	20140423
MANGANESE	210	600	5200	170	320	5400
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.3
MOLYBDENUM	1.3 J	0.81 U	0.81 U	4.6 J	2.2 J	0.81 U
NICKEL	5.4	89	76	1.3 J	42	110
SELENIUM	0.34 U	1.2 J	7.6	0.34 U	0.36 J	60
SILVER	0.0083 U	0.0083 U	0.0083 U	0.026 U	0.049 U	0.013 J
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	0.35 J	1.3 J	5.9	1.2 J	1.6 U	0.37 J
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	0.04 UR	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	4.8
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	92 J	NA	NA	680 J	40 U	NA
DIESEL-RANGE ORGANICS	250 U	NA	NA	890	230 U	NA
RADIONUCLIDES (PCI/L)						
RADIUM-228	0.857 J	4.29	9.15	NA	NA	NA
TOTAL RADIUM	0.914	3.45	3.34	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-04I	MSA-DMW-04S	MSA-MW-05	MSA-DMW-05I	MSA-DMW-05S	MSA-MW-06
SAMPLE ID	MSA-DMW-4I-042314	MSA-DMW-4S-042314	MSA-MW5-040714	MSA-DMW-5I-041814	MSA-DMW-5S-041814	MSA-MW-6-041014
SAMPLE DATE	20140423	20140423	20140407	20140418	20140418	20140410
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	15 U	3.3 U	19 U	0.77 U	23 U	0.23 U
1,1,1-TRICHLOROETHANE	96	3.1 U	18 U	0.73 U	22 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	12 U	2.6 U	15 U	0.6 U	18 U	0.18 UJ
1,1,2-TRICHLOROTRIFLUOROETHANE	19 U	4 U	23 U	0.93 U	28 U	0.28 U
1,1-DICHLOROETHANE	34 J	4.7 J	12 U	0.5 U	15 U	0.15 U
1,1-DICHLOROETHENE	220	16	16 U	0.63 U	19 U	0.19 U
1,1-DICHLOROPROPENE	8.7 U	1.9 U	11 U	0.43 U	13 U	0.13 U
1,2,3-TRICHLOROBENZENE	11 U	2.4 U	14 U	0.57 U	17 U	0.17 U
1,2,3-TRICHLOROPROPANE	29 U	6.1 U	36 U	1.4 U	43 U	0.43 UJ
1,2,3-TRIMETHYLBENZENE	0.39 U	0.084 U	0.49 U	0.02 U	0.59 U	0.0059 U
1,2,4-TRICHLOROBENZENE	10 U	2.1 U	12 U	0.5 U	15 U	0.15 U
1,2,4-TRIMETHYLBENZENE	8 U	1.7 U	10 U	0.4 UJ	12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	45 U	9.6 U	56 U	2.2 U	67 U	0.67 U
1,2-DIBROMOETHANE	16 U	3.4 U	20 U	0.8 U	24 U	0.24 U
1,2-DICHLOROBENZENE	8.7 U	1.9 U	11 U	0.43 U	13 U	0.13 U
1,2-DICHLOROETHANE	15 U	14	18 U	0.73 U	22 U	0.22 U
1,2-DICHLOROPROPANE	12 U	2.6 U	15 U	0.6 U	18 U	0.18 U
1,3-DICHLOROBENZENE	9.3 U	2 U	12 U	0.47 U	14 U	0.14 U
1,3-DICHLOROPROPANE	11 U	2.3 U	13 U	0.53 U	16 U	0.16 UJ
1,4-DICHLOROBENZENE	8.7 U	1.9 U	11 U	0.43 U	13 U	0.13 U
2,2-DICHLOROPROPANE	8.7 U	1.9 U	11 U	0.43 U	13 U	0.13 U
2-BUTANONE	38 U	8.1 U	47 U	1.9 U	57 U	0.57 U
2-CHLOROETHYL VINYL ETHER	66 U	14 U	82 U	3.3 U	99 U	0.99 U
2-CHLOROTOLUENE	7.3 U	1.6 U	9.2 U	0.37 U	11 U	0.11 U
2-HEXANONE	27 U	5.9 U	34 U	1.4 U	41 U	0.41 U
4-CHLOROTOLUENE	12 U	2.6 U	15 U	0.6 U	18 U	0.18 U
4-ISOPROPYLTOLUENE	8 U	1.7 U	10 U	0.4 U	12 U	0.12 U
4-METHYL-2-PENTANONE	21 U	4.6 U	27 U	1.1 U	32 U	0.32 U
ACETONE	73 U	16 U	92 U	3.7 U	110 U	3 U
BENZENE	8.7 U	1.9 U	11 U	0.43 U	13 U	0.13 U
BROMOBENZENE	8.7 U	1.9 U	11 U	0.43 U	13 U	0.13 U
BROMOCHLOROMETHANE	19 U	4.1 U	24 U	0.97 U	29 U	0.29 U
BROMODICHLOROMETHANE	10 U	2.1 U	12 U	0.5 U	15 U	0.15 U
BROMOFORM	43 U	9.1 U	53 U	2.1 UJ	64 U	0.64 U
BROMOMETHANE	27 U	5.9 U	34 UJ	1.4 UJ	41 U	0.41 U
CARBON DISULFIDE	8.9 U	1.9 U	11 U	0.43 U	13 U	0.13 U
CARBON TETRACHLORIDE	8.7 U	1.9 U	11 U	0.43 U	13 U	0.13 U
CHLOROBENZENE	10 U	2.1 U	12 U	0.72 J	15 U	0.15 U
CHLORODIBROMOMETHANE	12 U	2.6 U	15 U	0.6 U	18 U	0.18 U
CHLOROETHANE	19 U	4.1 U	24 U	0.97 U	29 U	0.29 U
CHLOROFORM	11 U	2.3 U	13 U	0.53 U	16 U	0.16 U
CHLOROMETHANE	20 U	4.3 U	25 U	1 U	30 U	0.3 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-04I	MSA-DMW-04S	MSA-MW-05	MSA-DMW-05I	MSA-DMW-05S	MSA-MW-06
SAMPLE ID	MSA-DMW-4I-042314	MSA-DMW-4S-042314	MSA-MW5-040714	MSA-DMW-5I-041814	MSA-DMW-5S-041814	MSA-MW-6-041014
SAMPLE DATE	20140423	20140423	20140407	20140418	20140418	20140410
CIS-1,2-DICHLOROETHENE	2200	110	4000	54	1200	0.35 J
CIS-1,3-DICHLOROPROPENE	9.3 U	2 U	12 U	0.47 U	14 U	0.14 U
DIBROMOMETHANE	19 U	4 U	23 UJ	0.93 UJ	28 U	0.28 U
DICHLORODIFLUOROMETHANE	21 U	4.4 U	26 U	1 U	31 U	0.31 U
DIISOPROPYL ETHER	100 U	21 U	120 U	5 U	150 U	1.5 U
ETHYL TERT-BUTYL ETHER	7.3 U	1.6 U	9.2 U	0.37 U	11 U	0.11 U
ETHYLBENZENE	11 U	2.4 U	14 U	0.57 U	17 U	0.17 U
HEXACHLOROBUTADIENE	20 U	4.3 U	25 U	1 UJ	30 U	0.3 U
ISOPROPYLBENZENE	8.7 U	1.9 U	11 U	0.43 U	13 U	0.13 U
M+P-XYLENES	16 U	3.4 U	20 U	0.8 U	24 U	0.24 U
METHYL TERT-BUTYL ETHER	11 U	2.4 U	14 U	0.57 U	17 U	0.17 U
METHYLENE CHLORIDE	22 U	4.7 U	27 U	2.2 J	33 U	0.33 U
NAPHTHALENE	16 UJ	3.4 UJ	20 U	0.8 U	24 UJ	0.24 U
N-BUTYLBENZENE	8 U	1.7 U	10 UJ	0.4 UJ	12 U	0.12 U
N-PROPYLBENZENE	9.3 U	2 U	12 U	0.47 U	14 U	0.14 U
O-XYLENE	9.3 U	2 U	12 U	0.47 U	14 U	0.14 U
SEC-BUTYLBENZENE	8.7 U	1.9 U	11 UJ	0.43 UJ	13 U	0.13 U
STYRENE	7.3 U	1.6 U	9.2 U	0.37 U	11 U	0.11 U
TERT-AMYL METHYL ETHER	4.5 U	0.96 U	5.6 U	0.22 U	6.7 U	0.067 U
TERT-BUTYLBENZENE	8.7 U	1.9 U	11 U	0.43 U	13 U	0.13 U
TERTIARY-BUTYL ALCOHOL	260 U	56 U	320 UJ	13 UJ	390 U	3.9 U
TETRACHLOROETHENE	19 U	4.1 U	24 U	0.97 U	29 U	0.29 U
TOLUENE	8.7 U	1.9 U	11 U	0.43 U	13 U	0.13 U
TOTAL XYLENES	9.3 U	2 U	12 U	0.47 U	14 U	0.14 U
TRANS-1,2-DICHLOROETHENE	28 J	2.7 U	72 J	2.2 J	19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	13 U	2.7 U	16 U	0.63 U	19 U	0.19 U
TRICHLOROETHENE	6200	1200	14 U	93	7000	0.17 U
TRICHLOROFLUOROMETHANE	14 U	3 U	17 UJ	0.7 U	21 U	0.21 UJ
VINYL ACETATE	13 U	2.7 U	16 U	0.63 U	19 U	0.19 U
VINYL CHLORIDE	750	20	800	8.4	35 J	0.22 U
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-DMW-04I MSA-DMW-4I-042314 20140423	MSA-DMW-04S MSA-DMW-4S-042314 20140423	MSA-MW-05 MSA-MW5-040714 20140407	MSA-DMW-05I MSA-DMW-5I-041814 20140418	MSA-DMW-05S MSA-DMW-5S-041814 20140418	MSA-MW-06 MSA-MW-6-041014 20140410
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	0.75 U	NA
CHLOROACETIC ACID	NA	NA	NA	NA	0.4 U	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	0.38 U	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	0.98 U	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	0.38 U	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	71	34	7.9	3.8	20	0.93 J
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-04I	MSA-DMW-04S	MSA-MW-05	MSA-DMW-05I	MSA-DMW-05S	MSA-MW-06
SAMPLE ID	MSA-DMW-4I-042314	MSA-DMW-4S-042314	MSA-MW5-040714	MSA-DMW-5I-041814	MSA-DMW-5S-041814	MSA-MW-6-041014
SAMPLE DATE	20140423	20140423	20140407	20140418	20140418	20140410
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-04I	MSA-DMW-04S	MSA-MW-05	MSA-DMW-05I	MSA-DMW-05S	MSA-MW-06
SAMPLE ID	MSA-DMW-4I-042314	MSA-DMW-4S-042314	MSA-MW5-040714	MSA-DMW-5I-041814	MSA-DMW-5S-041814	MSA-MW-6-041014
SAMPLE DATE	20140423	20140423	20140407	20140418	20140418	20140410
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.57 U	0.35 U	0.19 U	0.17 U	1.1 U	0.15 U
ARSENIC	11	5.2	2.3 J	7	16	2.9 U
BARIUM	29	20	18	16	21 U	9.6
BERYLLIUM	5.1	1.8	0.041 U	2.4	4	1.3 U
CADMIUM	33	61	0.026 U	5.1	6.9	1.9
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	29	9.1	0.3 J	10	90	0.91 J
COBALT	70	76	0.15 J	77	65	46
COPPER	170	20	0.25 U	150	650	3.5
IRON	52000	23000	29000 J	28000	23000	70000
LEAD	6.3	6.6	0.14 U	4	7.3 U	0.82 U
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	5200	5500	1500 J	1900	3600	8200
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	2.1 J	0.81 U	2.3 J	0.81 U	2.2 J	0.81 U
NICKEL	59	35	0.37 U	75	60	32
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	23	9.5	0.47 J	24	33	2.2 J
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	0.35 J	0.043 J	0.016 U	0.017 U	0.072 U	0.0083 U
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	4 U	0.4 U
VANADIUM	21	8.3	1.2 U	2.3 U	9.3	10
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	0.15 U	0.15 U	0.19 U	0.11 U	1.1 U	0.13 U
ARSENIC	7.4	4.5 J	2.3 J	7.6	15	2 U
BARIUM	12	13	19	16	25 U	10
BERYLLIUM	4.7	1.5	0.045 U	2.6	4.1	1.2 U
CADMIUM	14	20	0.026 U	5.3	3.8	1.8
CHROMIUM	4.8 J	1.4 J	0.3 J	6.5	20	0.69 J
COBALT	76	79	0.29 J	85	68	49
COPPER	60	5.5	0.63 U	52	42	2.3 U
IRON	54000 J	23000 J	29000 J	31000	22000	68000
LEAD	2.2	1.6	0.14 U	3.4	4.3 U	0.19 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-04I	MSA-DMW-04S	MSA-MW-05	MSA-DMW-05I	MSA-DMW-05S	MSA-MW-06
SAMPLE ID	MSA-DMW-4I-042314	MSA-DMW-4S-042314	MSA-MW5-040714	MSA-DMW-5I-041814	MSA-DMW-5S-041814	MSA-MW-6-041014
SAMPLE DATE	20140423	20140423	20140407	20140418	20140418	20140410
MANGANESE	5800	6000	1500 J	2100	3500	8200
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	2.3 J	0.81 U	0.81 U	0.81 U
NICKEL	58	35	1.8 J	84	64	37
SELENIUM	19	9.5	0.34 U	27	32	2.1 J
SILVER	0.018 J	0.0083 U	0.013 U	0.009 U	0.0083 U	0.0083 U
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	4 U	0.4 U
VANADIUM	13	0.95 J	1.1 U	2.4 U	8	1.7 U
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA
PERCHLORATE	0.96	NA	NA	0.082 U	NA	NA
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	NA	500	980 J	NA	3500 J	25 U
DIESEL-RANGE ORGANICS	NA	220 U	250 U	NA	270 U	240 U
RADIONUCLIDES (PCI/L)						
RADIUM-228	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-06D	MSA-DMW-06I	MSA-DMW-06S	MSA-DMW-07D	MSA-DMW-07I	MSA-DMW-07S
SAMPLE ID	MSA-DMW-6D-042414	MSA-DMW-6I-042414	MSA-DMW-6S-050114	MSA-DMW-7D-041614	MSA-DMW-7I-041614	MSA-DMW7S-040714
SAMPLE DATE	20140424	20140424	20140501	20140416	20140416	20140407
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	1.3 U	46 U
1,1,1-TRICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	4.5 J	100 J
1,1,2,2-TETRACHLOROETHANE	0.18 U	0.18 U	0.18 U	0.18 U	1 U	36 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	0.28 U	0.28 U	0.28 U	1.6 U	56 U
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.86 U	49 J
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	1.3 J	98 J
1,1-DICHLOROPROPENE	0.13 U	0.13 U	0.13 U	0.13 U	0.74 U	26 U
1,2,3-TRICHLOROBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.97 U	34 U
1,2,3-TRICHLOROPROPANE	0.43 U	0.43 U	0.43 U	0.43 U	2.5 U	86 U
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.0059 U	0.0059 UJ	0.0059 U	0.034 U	1.2 U
1,2,4-TRICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.86 U	30 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 UJ	0.12 U	0.69 UJ	24 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U	3.8 U	130 U
1,2-DIBROMOETHANE	0.24 U	0.24 U	0.24 U	0.24 U	1.4 U	48 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.74 U	26 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	2.5 J	44 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U	1 U	36 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.8 U	28 U
1,3-DICHLOROPROPANE	0.16 U	0.16 U	0.16 U	0.16 U	0.91 U	32 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.74 U	26 U
2,2-DICHLOROPROPANE	0.13 U	0.13 U	0.13 U	0.13 UJ	0.74 U	26 U
2-BUTANONE	0.57 U	0.57 U	0.57 U	0.57 U	3.3 U	110 U
2-CHLOROETHYL VINYL ETHER	0.99 UR	0.99 U	0.99 U	0.99 U	5.7 U	200 U
2-CHLOROTOLUENE	0.11 U	0.11 U	0.11 U	0.11 U	0.63 U	22 U
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U	2.3 U	82 U
4-CHLOROTOLUENE	0.18 U	0.18 U	0.18 U	0.18 U	1 U	36 U
4-ISOPROPYLTOLUENE	0.12 U	0.12 U	0.12 UJ	0.12 U	0.69 U	24 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U	1.8 U	64 U
ACETONE	1.7 U	2.3 U	11	1.1 U	6.3 U	220 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.76 J	26 U
BROMOBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.74 U	26 U
BROMOCHLOROMETHANE	0.29 U	0.29 U	0.29 U	0.29 U	1.7 U	58 U
BROMODICHLOROMETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.86 U	30 U
BROMOFORM	0.64 U	0.64 U	0.64 U	0.64 U	3.7 UJ	130 U
BROMOMETHANE	0.41 U	0.41 U	0.41 U	0.41 UJ	2.3 UJ	82 UJ
CARBON DISULFIDE	0.13 U	0.21 U	0.25 U	0.13 U	0.74 U	26 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.13 U	0.74 U	26 U
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	5.1 J	30 U
CHLORODIBROMOMETHANE	0.18 U	0.18 U	0.18 U	0.18 U	1 U	36 U
CHLOROETHANE	0.29 U	0.29 U	0.29 U	0.29 U	1.7 U	58 U
CHLOROFORM	0.16 U	0.16 U	0.16 U	0.16 U	0.91 U	32 U
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	1.7 U	60 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-06D	MSA-DMW-06I	MSA-DMW-06S	MSA-DMW-07D	MSA-DMW-07I	MSA-DMW-07S
SAMPLE ID	MSA-DMW-6D-042414	MSA-DMW-6I-042414	MSA-DMW-6S-050114	MSA-DMW-7D-041614	MSA-DMW-7I-041614	MSA-DMW7S-040714
SAMPLE DATE	20140424	20140424	20140501	20140416	20140416	20140407
CIS-1,2-DICHLOROETHENE	0.17 U	0.17 U	2.9	0.17 U	360	14000
CIS-1,3-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U	0.8 U	28 U
DIBROMOMETHANE	0.28 U	0.28 U	0.28 UJ	0.28 U	1.6 UJ	56 UJ
DICHLORODIFLUOROMETHANE	0.31 U	0.31 U	0.31 U	0.31 U	1.8 U	62 U
DIISOPROPYL ETHER	1.5 U	1.5 U	1.5 U	1.5 U	8.6 U	300 U
ETHYL TERT-BUTYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U	0.63 U	22 U
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.97 U	34 U
HEXACHLOROBUTADIENE	0.3 U	0.3 U	0.3 U	0.3 U	1.7 UJ	60 U
ISOPROPYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.74 U	26 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	1.4 U	48 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U	0.97 U	34 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	1.9 U	66 U
NAPHTHALENE	0.24 UJ	0.24 UJ	0.24 U	0.24 U	1.4 U	48 U
N-BUTYLBENZENE	0.12 U	0.12 U	0.12 UJ	0.12 U	0.69 UJ	24 UJ
N-PROPYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.8 U	28 U
O-XYLENE	0.14 U	0.14 U	0.14 U	0.14 U	0.8 U	28 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 UJ	0.13 U	0.74 UJ	26 UJ
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U	0.63 U	22 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.067 U	0.38 U	13 U
TERT-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.74 U	26 U
TERTIARY-BUTYL ALCOHOL	3.9 U	3.9 U	3.9 U	3.9 U	22 UJ	780 UJ
TETRACHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U	1.7 U	58 U
TOLUENE	0.13 U	0.13 U	0.13 U	0.13 U	0.74 U	30 J
TOTAL XYLENES	0.14 U	0.14 U	0.14 U	0.14 U	0.8 U	28 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	9	100 J
TRANS-1,3-DICHLOROPROPENE	0.19 U	0.19 U	0.19 U	0.19 U	1.1 U	38 U
TRICHLOROETHENE	0.17 U	0.17 U	0.58 J	0.17 U	270	3600
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 U	0.21 U	1.2 U	42 UJ
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U	1.1 U	38 U
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.22 U	87	2100
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-DMW-06D MSA-DMW-6D-042414 20140424	MSA-DMW-06I MSA-DMW-6I-042414 20140424	MSA-DMW-06S MSA-DMW-6S-050114 20140501	MSA-DMW-07D MSA-DMW-7D-041614 20140416	MSA-DMW-07I MSA-DMW-7I-041614 20140416	MSA-DMW-07S MSA-DMW7S-040714 20140407
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	2.7 R	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.28 U	0.25 U	0.55 J	0.23 U	12	96
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-06D	MSA-DMW-06I	MSA-DMW-06S	MSA-DMW-07D	MSA-DMW-07I	MSA-DMW-07S
SAMPLE ID	MSA-DMW-6D-042414	MSA-DMW-6I-042414	MSA-DMW-6S-050114	MSA-DMW-7D-041614	MSA-DMW-7I-041614	MSA-DMW7S-040714
SAMPLE DATE	20140424	20140424	20140501	20140416	20140416	20140407
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-06D	MSA-DMW-06I	MSA-DMW-06S	MSA-DMW-07D	MSA-DMW-07I	MSA-DMW-07S
SAMPLE ID	MSA-DMW-6D-042414	MSA-DMW-6I-042414	MSA-DMW-6S-050114	MSA-DMW-7D-041614	MSA-DMW-7I-041614	MSA-DMW7S-040714
SAMPLE DATE	20140424	20140424	20140501	20140416	20140416	20140407
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.2 U	0.13 U	0.25 U	0.3 U	1.6 U	0.31 U
ARSENIC	0.9 U	1.5 J	7	1 U	9.1	2.9 J
BARIUM	56	14	43	41	26	12
BERYLLIUM	0.71 J	4	0.051 U	0.69 J	5	0.42 J
CADMIUM	0.77 J	5.9	0.026 U	1.1	22	0.48 J
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	2	43	1 J	24	14	0.37 J
COBALT	34	61	5.2	11	94	17 J
COPPER	22	78	2 U	30	370	2.9 U
IRON	2000	28000	150000	5500	29000	24000 J
LEAD	2.8	2.3	0.58 U	29	15	0.44 U
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	990	4200	1400	37	3100	8100 J
MERCURY	1.6	0.4	0.12 U	0.25	0.12 U	0.12 U
MOLYBDENUM	0.81 U	2 J	0.81 U	0.81 U	2.9 J	0.81 U
NICKEL	38	58	38	21	80	17 J
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	3.4 J	4 J	0.77 J	0.34 U	22	3.6 J
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	0.018 U	0.0083 U	0.0083 U	0.042 U	0.2 J	0.019 U
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	1.6 J	0.15 U	1.2 J	0.96 U	15	0.91 U
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	0.11 U	0.11 U	0.23 U	0.29 U	0.31 U	0.18 U
ARSENIC	0.62 U	1.3 J	6.2	0.4 U	8.6	2.8 J
BARIUM	53	11	38	40	14	12
BERYLLIUM	0.65 J	3.5	0.035 U	0.55 J	4.8	0.42 J
CADMIUM	0.73 J	4.3	0.026 U	1	18	0.49 J
CHROMIUM	0.53 J	15	0.4 U	1.5 J	6.1	0.35 J
COBALT	34	53	5	10	100	17 J
COPPER	27	31	0.39 U	27	38	2.7 U
IRON	1600	24000	140000	130	31000	25000 J
LEAD	2.3	1.5	0.14 U	6.5	9.7	0.19 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-06D	MSA-DMW-06I	MSA-DMW-06S	MSA-DMW-07D	MSA-DMW-07I	MSA-DMW-07S
SAMPLE ID	MSA-DMW-6D-042414	MSA-DMW-6I-042414	MSA-DMW-6S-050114	MSA-DMW-7D-041614	MSA-DMW-7I-041614	MSA-DMW7S-040714
SAMPLE DATE	20140424	20140424	20140501	20140416	20140416	20140407
MANGANESE	1000	3700	1300	35	3400	8400 J
MERCURY	0.4	0.14 J	0.12 U	0.17 J	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
NICKEL	39	50	2.6 J	19	84	18 J
SELENIUM	3.2 J	3.3 J	0.75 J	0.34 U	22	3.6 J
SILVER	0.012 U	0.0083 U	0.0083 U	0.019 U	0.0083 U	0.012 U
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	0.15 U	0.23 J	0.45 J	0.81 U	14	0.93 U
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	0.04 UJ	NA	NA	NA
PERCHLORATE	0.12 J	NA	NA	NA	0.082 U	NA
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	NA	NA	35 U	NA	NA	5400 J
DIESEL-RANGE ORGANICS	NA	NA	1400	NA	NA	550
RADIONUCLIDES (PCI/L)						
RADIUM-228	7.56	9.91	0.712 J	NA	NA	NA
TOTAL RADIUM	2.25	2.04	0.41 J	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-08I	MSA-DMW-09D	MSA-DMW-09I	MSA-DMW-09S	MSA-DMW-10I	MSA-DMW-10S
SAMPLE ID	MSA-DMW-8I-041614	MSA-DMW-9D-042414	MSA-DMW-9I-042814	MSA-DMW-9S-042814	MSA-DMW-10I-041014	MSA-DMW-10S-041014
SAMPLE DATE	20140416	20140424	20140428	20140428	20140410	20140410
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	1.9 U	29 U	23 U	120 U	0.23 U	0.23 U
1,1,1-TRICHLOROETHANE	1.8 U	28 U	22 U	110 U	0.22 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	1.5 U	23 U	18 U	90 U	0.18 UJ	0.18 UJ
1,1,2-TRICHLOROTRIFLUOROETHANE	2.3 U	35 U	28 U	140 U	0.28 U	0.28 U
1,1-DICHLOROETHANE	1.2 U	19 U	15 U	75 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	2 J	24 U	19 U	95 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	1.1 U	16 U	13 U	65 U	0.13 U	0.13 U
1,2,3-TRICHLOROBENZENE	1.4 U	21 U	17 UJ	85 UJ	0.17 U	0.17 U
1,2,3-TRICHLOROPROPANE	3.6 U	54 U	43 U	220 U	0.43 UJ	0.43 UJ
1,2,3-TRIMETHYLBENZENE	0.049 U	0.74 U	0.59 U	52 J	0.0059 U	0.0059 U
1,2,4-TRICHLOROBENZENE	1.2 U	19 U	15 UJ	75 UJ	0.15 U	0.15 U
1,2,4-TRIMETHYLBENZENE	1 UJ	15 U	12 U	100 J	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	5.6 U	84 U	67 UJ	340 UJ	0.67 U	0.67 U
1,2-DIBROMOETHANE	2 U	30 U	24 UJ	120 UJ	0.24 U	0.24 U
1,2-DICHLOROBENZENE	1.1 U	16 U	13 U	65 U	0.13 U	1.8
1,2-DICHLOROETHANE	5.3 J	28 U	22 UJ	110 UJ	0.22 U	0.47 J
1,2-DICHLOROPROPANE	1.5 U	23 U	18 U	90 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	1.2 U	18 U	14 U	70 U	0.14 U	0.14 U
1,3-DICHLOROPROPANE	1.3 U	20 U	16 U	80 U	0.16 UJ	0.59 J
1,4-DICHLOROBENZENE	1.1 U	16 U	13 U	65 U	0.13 U	0.39 J
2,2-DICHLOROPROPANE	1.1 U	16 U	13 U	65 U	0.13 U	0.13 U
2-BUTANONE	4.7 U	71 U	57 U	290 U	0.57 U	0.57 U
2-CHLOROETHYL VINYL ETHER	8.2 U	120 U	99 U	500 U	0.99 U	0.99 U
2-CHLOROTOLUENE	0.92 U	14 U	11 U	55 U	0.11 U	0.11 U
2-HEXANONE	3.4 U	51 U	41 UJ	210 UJ	0.41 U	0.41 U
4-CHLOROTOLUENE	1.5 U	23 U	18 U	90 U	0.18 U	0.18 U
4-ISOPROPYLTOLUENE	1 U	15 U	12 U	60 U	0.12 U	0.12 U
4-METHYL-2-PENTANONE	2.7 U	40 U	32 U	160 U	0.32 U	0.32 U
ACETONE	9.2 U	140 U	110 U	600 U	1.5 U	3.6 U
BENZENE	2.7 J	16 U	25 J	310 J	0.13 U	2
BROMOBENZENE	1.1 U	16 U	13 U	65 U	0.13 U	0.13 U
BROMOCHLOROMETHANE	2.4 U	36 U	29 U	150 U	0.29 U	0.29 U
BROMODICHLOROMETHANE	1.2 U	19 U	15 UJ	75 UJ	0.15 U	0.15 U
BROMOFORM	5.3 UJ	80 U	64 U	320 U	0.64 U	0.64 U
BROMOMETHANE	3.4 UJ	51 U	41 U	210 U	0.41 U	0.41 U
CARBON DISULFIDE	1.1 U	16 U	13 U	65 U	0.13 U	0.13 U
CARBON TETRACHLORIDE	1.1 U	16 U	18 J	65 UJ	0.69 J	0.13 U
CHLOROBENZENE	1.2 U	19 U	15 U	190 J	0.15 U	0.15 U
CHLORODIBROMOMETHANE	1.5 U	23 U	18 U	90 U	0.18 U	0.18 U
CHLOROETHANE	2.4 U	36 U	29 U	150 U	0.29 U	0.29 U
CHLOROFORM	2.3 J	140	16 U	80 U	0.69 J	0.16 U
CHLOROMETHANE	2.5 U	38 U	30 U	150 U	0.3 U	0.3 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-DMW-08I MSA-DMW-8I-041614 20140416	MSA-DMW-09D MSA-DMW-9D-042414 20140424	MSA-DMW-09I MSA-DMW-9I-042814 20140428	MSA-DMW-09S MSA-DMW-9S-042814 20140428	MSA-DMW-10I MSA-DMW-10I-041014 20140410	MSA-DMW-10S MSA-DMW-10S-041014 20140410
CIS-1,2-DICHLOROETHENE	440	360	2500	9400	5.5	0.17 U
CIS-1,3-DICHLOROPROPENE	1.2 U	18 U	14 U	70 U	0.14 U	0.14 U
DIBROMOMETHANE	2.3 UJ	35 U	28 U	140 U	0.28 U	0.28 U
DICHLORODIFLUOROMETHANE	2.6 U	39 U	31 U	160 U	0.31 U	0.49 J
DIISOPROPYL ETHER	12 U	190 U	150 U	750 U	1.5 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.92 U	14 U	11 U	55 U	0.11 U	0.11 U
ETHYLBENZENE	1.4 U	21 U	17 U	1100	0.17 U	0.17 U
HEXACHLOROBUTADIENE	2.5 UJ	38 U	30 UJ	150 UJ	0.3 U	0.3 U
ISOPROPYLBENZENE	1.1 U	16 U	13 U	65 U	0.13 U	0.13 U
M+P-XYLENES	2 U	30 U	24 U	13000	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	1.4 U	21 U	17 U	85 U	0.17 U	0.17 U
METHYLENE CHLORIDE	6.3 U	41 U	51 J	300 J	0.33 U	0.33 U
NAPHTHALENE	2 U	30 UJ	24 UJ	120 UJ	0.24 U	0.24 U
N-BUTYLBENZENE	1 UJ	15 U	12 U	60 U	0.12 U	0.12 U
N-PROPYLBENZENE	1.2 U	18 U	14 U	70 U	0.14 U	0.14 U
O-XYLENE	1.2 U	18 U	14 U	900	0.14 U	0.14 U
SEC-BUTYLBENZENE	1.1 UJ	16 U	13 U	65 U	0.13 U	1
STYRENE	0.92 U	14 U	11 U	55 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	0.56 U	8.4 U	6.7 U	34 U	0.067 U	0.067 U
TERT-BUTYLBENZENE	1.1 U	16 U	13 U	65 U	0.13 U	0.74 J
TERTIARY-BUTYL ALCOHOL	32 UJ	490 U	390 U	2000 U	3.9 U	3.9 U
TETRACHLOROETHENE	2.4 U	36 U	29 U	150 U	0.29 U	0.29 U
TOLUENE	1.1 U	16 U	13 U	3000	0.13 U	0.13 U
TOTAL XYLENES	1.2 U	18 U	14 U	14000	0.14 U	0.14 U
TRANS-1,2-DICHLOROETHENE	2.2 J	24 U	19 U	95 U	0.19 U	1.1
TRANS-1,3-DICHLOROPROPENE	1.6 U	24 U	19 UJ	95 UJ	0.19 U	0.19 U
TRICHLOROETHENE	640	2500	800	130 J	12	0.25 J
TRICHLOROFLUOROMETHANE	1.7 U	26 U	21 UJ	110 UJ	0.21 UJ	0.21 UJ
VINYL ACETATE	1.6 U	24 U	19 U	95 U	0.19 U	0.19 U
VINYL CHLORIDE	220	35 J	740	8800	0.42 J	21
VOLATILE GASES (UG/L)						
ETHANE	NA	0.19 U	8.1	46	NA	NA
ETHENE	NA	7.6	66	2000	NA	NA
METHANE	NA	220	660	850	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	2.3 NJ
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	1.9 NJ

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-DMW-08I MSA-DMW-8I-041614 20140416	MSA-DMW-09D MSA-DMW-9D-042414 20140424	MSA-DMW-09I MSA-DMW-9I-042814 20140428	MSA-DMW-09S MSA-DMW-9S-042814 20140428	MSA-DMW-10I MSA-DMW-10I-041014 20140410	MSA-DMW-10S MSA-DMW-10S-041014 20140410
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	3 NJ
CHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	2.2 NJ
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	2.8 NJ
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	1 NJ
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	1.1 NJ
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	1.3 NJ
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	1.5 NJ
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	2.6 NJ
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	55	48	220	30	0.99	11
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-08I	MSA-DMW-09D	MSA-DMW-09I	MSA-DMW-09S	MSA-DMW-10I	MSA-DMW-10S
SAMPLE ID	MSA-DMW-8I-041614	MSA-DMW-9D-042414	MSA-DMW-9I-042814	MSA-DMW-9S-042814	MSA-DMW-10I-041014	MSA-DMW-10S-041014
SAMPLE DATE	20140416	20140424	20140428	20140428	20140410	20140410
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-08I	MSA-DMW-09D	MSA-DMW-09I	MSA-DMW-09S	MSA-DMW-10I	MSA-DMW-10S
SAMPLE ID	MSA-DMW-8I-041614	MSA-DMW-9D-042414	MSA-DMW-9I-042814	MSA-DMW-9S-042814	MSA-DMW-10I-041014	MSA-DMW-10S-041014
SAMPLE DATE	20140416	20140424	20140428	20140428	20140410	20140410
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.39 U	0.11 U	1.5 J	0.11 UJ	0.53 U	0.23 U
ARSENIC	17	3.5 J	13	1.9 J	4.1 J	18
BARIUM	16	41	68	91	18	22
BERYLLIUM	8.5	0.52 J	1.9	0.16 U	0.17 U	0.2 U
CADMIUM	130	0.25 U	3	0.026 U	0.12 J	0.026 U
CALCIUM	NA	8800	58000	82000	NA	NA
CHROMIUM	40	1.1 J	30	2.7	3.5	2.8
COBALT	180	300	280	0.028 U	1.2	3.2
COPPER	110	8.7	47	1.2 U	3.9	1.1 U
IRON	11000	13000	8900	29000	1300	46000
LEAD	6.9	1.8	23	0.14 U	1.8	0.37 U
MAGNESIUM	NA	6500	29000	59000	NA	NA
MANGANESE	6200	2200	4200	3400	23	1300
MERCURY	0.12 U	0.12 U	0.96	0.12 U	0.14 J	0.12 U
MOLYBDENUM	1.7 J	0.81 U	2.9 J	0.81 UJ	1.4 J	0.81 U
NICKEL	130	41	80	0.65 U	2.4	0.87 J
POTASSIUM	NA	910 J	12000	11000	NA	NA
SELENIUM	43	0.67 J	7.8	1.3 J	0.41 J	0.57 J
SILICON DIOXIDE	NA	9100	45000	5500	NA	NA
SILVER	0.046 U	0.009 U	0.2 U	0.0083 U	0.076 U	0.0083 U
SODIUM	NA	32000	91000	160000	NA	NA
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	7.9 U	1.8 J	46	11	11	2.2 U
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	0.16 U	0.11 U	0.18 U	0.11 UJ	0.44 U	0.18 U
ARSENIC	16	3.6 J	3.6 J	1.7 J	4.3 J	18
BARIUM	11	42	36	90	16	21
BERYLLIUM	8.3	0.63 J	1.2	0.15 U	0.075 U	0.092 U
CADMIUM	98	0.18 U	0.96 J	0.026 U	0.026 U	0.026 U
CHROMIUM	4.1 J	0.55 J	2.7	1.3 J	1.8 J	0.97 J
COBALT	180 J	310	270	0.021 U	1.1	3.3
COPPER	42 J	1.7 U	7	0.42 U	1.7 U	0.46 U
IRON	10000 J	13000	2400	27000	1000	48000
LEAD	6.6 J	1.4	2.1	0.14 U	0.39 U	0.14 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-08I	MSA-DMW-09D	MSA-DMW-09I	MSA-DMW-09S	MSA-DMW-10I	MSA-DMW-10S
SAMPLE ID	MSA-DMW-8I-041614	MSA-DMW-9D-042414	MSA-DMW-9I-042814	MSA-DMW-9S-042814	MSA-DMW-10I-041014	MSA-DMW-10S-041014
SAMPLE DATE	20140416	20140424	20140428	20140428	20140410	20140410
MANGANESE	6400 J	2300	4800	3300	22	1300
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 UJ	0.81 UJ	1.4 J	0.81 U
NICKEL	130 J	43	70	0.21 U	2.5	2.6
SELENIUM	42	0.74 J	5	0.97 J	0.41 J	0.47 J
SILVER	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.018 U	0.0083 U
THALLIUM	2 UJ	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	4.5 U	1 J	3.5 J	11	10	0.92 U
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	7.6	160	420	NA	NA
AMMONIA-N	NA	0.092 U	4.8	2.1	NA	NA
CALCIUM HARDNESS AS CACO3	NA	22	140	210	NA	NA
CHLORIDE	NA	51	130	180	NA	NA
DISSOLVED ORGANIC CARBON	NA	2.3	7.8	22	NA	NA
HARDNESS AS CACO3	NA	49	270	450	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	27	120	240	NA	NA
NITRATE-N	NA	0.023 U	0.023 U	0.023 U	NA	NA
NITRITE-N	NA	0.012 U	0.012 U	0.012 U	NA	NA
ORTHOPHOSPHATE-P	NA	0.044 UJ	0.044 U	0.75	NA	NA
SULFATE	NA	65 J	260	180	NA	NA
TOTAL DISSOLVED SOLIDS	NA	180	710	900	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	0.04 UR	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	NA	NA	NA	25000	NA	96 J
DIESEL-RANGE ORGANICS	NA	NA	NA	2900	NA	1300
RADIONUCLIDES (PCI/L)						
RADIUM-228	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-11I	MSA-DMW-11S	MSA-MW-14D	MSA-MW-14I	MSA-MW-15D	MSA-MW-15I
SAMPLE ID	MSA-DMW-11I-041414	MSA-DMW-11S-041414	MSA-MW-14D-040914	MSA-MW-14I-040914	MSA-MW15D-033114	MSA-MW15I-033114
SAMPLE DATE	20140414	20140414	20140409	20140409	20140331	20140331
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	1.3 U	96 U	0.23 U	9.2 U	0.23 U	1.3 U
1,1,1-TRICHLOROETHANE	1.3 U	92 U	0.22 U	8.8 U	0.22 U	1.3 U
1,1,2,2-TETRACHLOROETHANE	1 U	75 U	0.18 UJ	7.2 UJ	0.18 U	1 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.6 U	120 U	0.28 U	11 U	0.28 U	1.6 U
1,1-DICHLOROETHANE	0.86 U	63 U	0.15 U	6 U	0.15 U	0.86 U
1,1-DICHLOROETHENE	1.8 J	120 J	0.19 U	7.6 U	0.19 U	1.1 U
1,1-DICHLOROPROPENE	0.74 U	54 U	0.13 U	5.2 U	0.13 U	0.74 U
1,2,3-TRICHLOROBENZENE	0.97 U	71 U	0.17 U	6.8 U	0.17 U	0.97 U
1,2,3-TRICHLOROPROPANE	2.5 U	180 U	0.43 UJ	17 UJ	0.43 U	2.5 U
1,2,3-TRIMETHYLBENZENE	0.034 U	2.5 U	0.0059 U	0.24 U	0.0059 U	0.034 U
1,2,4-TRICHLOROBENZENE	0.86 U	63 U	0.15 U	6 U	0.15 U	0.86 U
1,2,4-TRIMETHYLBENZENE	0.69 U	50 U	0.12 U	4.8 U	0.12 U	0.69 U
1,2-DIBROMO-3-CHLOROPROPANE	3.8 U	280 U	0.67 U	27 U	0.67 UJ	3.8 UJ
1,2-DIBROMOETHANE	1.4 U	100 U	0.24 U	9.6 U	0.24 U	1.4 U
1,2-DICHLOROBENZENE	0.74 U	54 U	0.13 U	5.2 U	0.13 U	0.74 U
1,2-DICHLOROETHANE	1.3 U	92 U	0.22 U	8.8 U	0.22 U	1.3 U
1,2-DICHLOROPROPANE	1 U	75 U	0.18 U	7.2 U	0.18 U	1 U
1,3-DICHLOROBENZENE	0.8 U	58 U	0.14 U	5.6 U	0.14 U	0.8 U
1,3-DICHLOROPROPANE	0.91 U	67 U	0.16 UJ	6.4 UJ	0.16 U	0.91 U
1,4-DICHLOROBENZENE	0.74 U	54 U	0.13 U	5.2 U	0.13 U	0.74 U
2,2-DICHLOROPROPANE	0.74 UJ	54 UJ	0.13 U	5.2 U	0.13 U	0.74 U
2-BUTANONE	3.3 U	240 U	0.57 U	23 U	0.57 U	3.3 U
2-CHLOROETHYL VINYL ETHER	5.7 UR	410 U	0.99 U	40 U	0.99 U	5.7 U
2-CHLOROTOLUENE	0.63 U	46 U	0.11 U	4.4 U	0.11 U	0.63 U
2-HEXANONE	2.3 U	170 U	0.41 U	16 U	0.41 U	2.3 U
4-CHLOROTOLUENE	1 U	75 U	0.18 U	7.2 U	0.18 U	1 U
4-ISOPROPYLTOLUENE	0.69 U	50 U	0.12 U	4.8 U	0.12 U	0.69 U
4-METHYL-2-PENTANONE	1.8 U	130 U	0.32 U	13 U	0.32 U	1.8 U
ACETONE	6.3 U	460 U	1.2 J	44 U	1.1 U	6.3 U
BENZENE	0.74 U	54 U	0.13 U	12 J	0.13 U	0.74 U
BROMOBENZENE	0.74 U	54 U	0.13 U	5.2 U	0.13 U	0.74 U
BROMOCHLOROMETHANE	1.7 U	120 U	0.29 U	12 U	0.29 U	1.7 U
BROMODICHLOROMETHANE	0.86 U	63 U	0.15 U	6 U	0.15 U	0.86 U
BROMOFORM	3.7 U	270 U	0.64 U	26 U	0.64 UJ	3.7 UJ
BROMOMETHANE	2.3 UJ	170 UJ	0.41 U	16 U	0.41 UJ	2.3 UJ
CARBON DISULFIDE	0.74 U	54 U	0.13 U	5.2 U	0.13 UJ	0.74 UJ
CARBON TETRACHLORIDE	0.74 U	54 U	0.13 U	5.2 U	0.13 U	0.74 U
CHLOROBENZENE	0.86 U	63 U	0.15 U	190	0.15 U	0.86 U
CHLORODIBROMOMETHANE	1 U	75 U	0.18 U	7.2 U	0.18 U	1 U
CHLOROETHANE	1.7 U	120 U	0.29 U	12 U	0.29 U	1.7 U
CHLOROFORM	2.7 J	67 U	0.16 U	6.4 U	0.16 U	0.91 U
CHLOROMETHANE	1.7 U	130 U	0.3 U	12 U	0.3 UJ	1.7 UJ

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-11I	MSA-DMW-11S	MSA-MW-14D	MSA-MW-14I	MSA-MW-15D	MSA-MW-15I
SAMPLE ID	MSA-DMW-11I-041414	MSA-DMW-11S-041414	MSA-MW-14D-040914	MSA-MW-14I-040914	MSA-MW15D-033114	MSA-MW15I-033114
SAMPLE DATE	20140414	20140414	20140409	20140409	20140331	20140331
CIS-1,2-DICHLOROETHENE	190 J	11000	0.17 U	1200	0.17 U	110
CIS-1,3-DICHLOROPROPENE	0.8 U	58 U	0.14 U	5.6 U	0.14 U	0.8 U
DIBROMOMETHANE	1.6 U	120 U	0.28 U	11 U	0.28 U	1.6 U
DICHLORODIFLUOROMETHANE	1.8 U	130 U	0.31 U	12 U	0.31 U	1.8 U
DIISOPROPYL ETHER	8.6 U	630 U	1.5 U	60 U	1.5 U	8.6 U
ETHYL TERT-BUTYL ETHER	0.63 U	46 U	0.11 U	4.4 U	0.11 U	0.63 U
ETHYLBENZENE	0.97 U	71 U	0.17 U	6.8 U	0.17 U	0.97 U
HEXACHLOROBUTADIENE	1.7 U	130 U	0.3 U	12 U	0.3 U	1.7 U
ISOPROPYLBENZENE	0.74 U	54 U	0.13 U	5.2 U	0.13 U	0.74 U
M+P-XYLENES	1.4 U	100 U	0.24 U	9.6 U	0.24 U	1.4 U
METHYL TERT-BUTYL ETHER	0.97 U	71 U	0.17 U	6.8 U	0.17 U	0.97 U
METHYLENE CHLORIDE	1.9 U	140 U	0.33 U	13 U	0.33 U	1.9 U
NAPHTHALENE	1.4 U	100 U	0.24 U	9.6 U	0.24 U	1.4 U
N-BUTYLBENZENE	0.69 U	50 U	0.12 U	4.8 U	0.12 U	0.69 U
N-PROPYLBENZENE	0.8 U	58 U	0.14 U	5.6 U	0.14 U	0.8 U
O-XYLENE	0.8 U	58 U	0.14 U	5.6 U	0.14 U	0.8 U
SEC-BUTYLBENZENE	0.74 U	54 U	0.13 U	5.2 U	0.13 U	0.74 U
STYRENE	0.63 U	46 U	0.11 U	4.4 U	0.11 U	0.63 U
TERT-AMYL METHYL ETHER	0.38 U	28 U	0.067 U	2.7 U	0.067 U	0.38 U
TERT-BUTYLBENZENE	0.74 U	54 U	0.13 U	5.2 U	0.13 U	0.74 U
TERTIARY-BUTYL ALCOHOL	22 U	1600 U	3.9 U	280 J	3.9 UJ	22 UJ
TETRACHLOROETHENE	1.7 U	120 U	0.29 U	12 U	0.29 U	1.7 U
TOLUENE	0.74 U	100 J	0.13 U	6 J	0.13 U	0.74 U
TOTAL XYLENES	0.8 U	58 U	0.14 U	5.6 U	0.14 U	0.8 U
TRANS-1,2-DICHLOROETHENE	1.1 U	79 U	0.19 U	11 J	0.19 U	1.8 J
TRANS-1,3-DICHLOROPROPENE	1.1 U	79 U	0.19 U	7.6 U	0.19 U	1.1 U
TRICHLOROETHENE	110 J	3100	0.17 U	10 J	0.17 U	340
TRICHLOROFLUOROMETHANE	1.2 U	88 U	0.21 UJ	8.4 UJ	0.21 U	1.2 U
VINYL ACETATE	1.1 U	79 U	0.19 U	7.6 U	0.19 U	1.1 U
VINYL CHLORIDE	24	4900	0.22 U	1200	0.22 U	8.8
VOLATILE GASES (UG/L)						
ETHANE	NA	260 J	NA	NA	NA	NA
ETHENE	NA	250 J	NA	NA	NA	NA
METHANE	NA	1000	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-DMW-11I MSA-DMW-11I-041414 20140414	MSA-DMW-11S MSA-DMW-11S-041414 20140414	MSA-MW-14D MSA-MW-14D-040914 20140409	MSA-MW-14I MSA-MW-14I-040914 20140409	MSA-MW-15D MSA-MW15D-033114 20140331	MSA-MW-15I MSA-MW15I-033114 20140331
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	NA	NA	NA	NA	1 U	5.7 U
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.26 U	3.8	0.23 UJ	57 J	0.25 U	0.25 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-11I	MSA-DMW-11S	MSA-MW-14D	MSA-MW-14I	MSA-MW-15D	MSA-MW-15I
SAMPLE ID	MSA-DMW-11I-041414	MSA-DMW-11S-041414	MSA-MW-14D-040914	MSA-MW-14I-040914	MSA-MW15D-033114	MSA-MW15I-033114
SAMPLE DATE	20140414	20140414	20140409	20140409	20140331	20140331
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-11I	MSA-DMW-11S	MSA-MW-14D	MSA-MW-14I	MSA-MW-15D	MSA-MW-15I
SAMPLE ID	MSA-DMW-11I-041414	MSA-DMW-11S-041414	MSA-MW-14D-040914	MSA-MW-14I-040914	MSA-MW15D-033114	MSA-MW15I-033114
SAMPLE DATE	20140414	20140414	20140409	20140409	20140331	20140331
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.28 U	0.73 U	0.11 U	0.12 U	0.11 U	0.11 U
ARSENIC	2 J	4.5 J	1.2 U	26	0.11 U	1.2 J
BARIUM	13	47	7.9	18	5.6	8
BERYLLIUM	0.41 U	0.5 U	0.4 J	0.15 U	0.031 U	0.1 J
CADMIUM	0.031 J	0.18 J	0.11 J	0.098 J	0.026 U	0.026 U
CALCIUM	NA	100000	NA	NA	NA	NA
CHROMIUM	6.8	1.3 J	2.9	1.8 J	1.1 J	2.5
COBALT	1.1	8.4	7.8 J	14 J	10	15
COPPER	10	1 U	5.7	1.1 U	4.8	5
IRON	1100	27000	3300 J	75000 J	510	1600
LEAD	3.3	0.72 U	0.54 U	0.42 U	0.14 U	0.66 J
MAGNESIUM	NA	25000	NA	NA	NA	NA
MANGANESE	30	610	37 J	2000 J	40	67
MERCURY	2.1	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 UJ	1 U	0.81 U	0.81 U
NICKEL	2.2	2.9	32 J	12 J	15	20
POTASSIUM	NA	5100	NA	NA	NA	NA
SELENIUM	0.34 U	1.1 J	0.34 U	0.91 J	0.34 U	0.34 U
SILICON DIOXIDE	NA	3000	NA	NA	NA	NA
SILVER	0.026 U	0.041 U	0.02 U	0.0083 U	0.0083 U	0.0083 U
SODIUM	NA	8100	NA	NA	NA	NA
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	13	1.4 U	2.1 U	2.2 U	0.37 J	1.7 J
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	0.14 U	0.36 U	0.11 U	0.11 U	0.11 U	0.11 U
ARSENIC	0.82 U	4.2 J	0.71 U	26	0.063 U	0.53 U
BARIUM	3.8 U	48	7 U	17	5.1	4.8 U
BERYLLIUM	0.2 U	0.21 U	0.26 U	0.14 U	0.031 U	0.031 U
CADMIUM	0.026 U	0.026 U	0.061 J	0.026 UJ	0.026 U	0.026 U
CHROMIUM	0.69 J	0.95 J	0.5 J	0.93 J	0.32 J	0.78 J
COBALT	1	7.4	7.3 J	14 J	11	12
COPPER	9.3	0.53 U	2.9 U	0.7 U	4.4	2.8
IRON	130	29000	490 J	76000 J	160	540
LEAD	0.92 J	0.21 U	0.14 U	0.43 U	0.14 U	0.14 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-11I	MSA-DMW-11S	MSA-MW-14D	MSA-MW-14I	MSA-MW-15D	MSA-MW-15I
SAMPLE ID	MSA-DMW-11I-041414	MSA-DMW-11S-041414	MSA-MW-14D-040914	MSA-MW-14I-040914	MSA-MW15D-033114	MSA-MW15I-033114
SAMPLE DATE	20140414	20140414	20140409	20140409	20140331	20140331
MANGANESE	26	630	35 J	2000 J	40	52
MERCURY	0.22	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 UJ	0.89 U	0.81 U	0.81 U
NICKEL	1.6 J	2.5	31 J	11 J	17	17
SELENIUM	0.34 U	0.67 J	0.34 U	0.71 J	0.34 U	0.34 U
SILVER	0.013 U	0.019 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	1.9 U	0.77 U	0.96 U	1.4 U	0.15 U	0.15 U
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	260	NA	NA	NA	NA
AMMONIA-N	NA	0.68	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	260	NA	NA	NA	NA
CHLORIDE	NA	34	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	13	NA	NA	NA	NA
HARDNESS AS CACO3	NA	360	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	100	NA	NA	NA	NA
NITRATE-N	NA	0.023 U	NA	NA	NA	NA
NITRITE-N	NA	0.012 U	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	0.42 J	NA	NA	NA	NA
SULFATE	NA	130	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	510	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	0.028 J	NA	0.097	NA
PERCHLORATE	NA	NA	NA	NA	0.7	0.27 J
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	NA	5100 J	NA	NA	NA	NA
DIESEL-RANGE ORGANICS	NA	1100	NA	NA	NA	NA
RADIONUCLIDES (PCI/L)						
RADIUM-228	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-16I	MSA-MW-16S	MSA-MW-17D	MSA-MW-17I	MSA-MW-17S	MSA-MW-18I
SAMPLE ID	MSA-MW16I-040314	MSA-MW16S-040314	MSA-MW17D-040814	MSA-MW17I-040814	MSA-MW17S-040814	MSA-MW18I-040114
SAMPLE DATE	20140403	20140403	20140408	20140408	20140408	20140401
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	3.3 U	0.66 U	0.23 U	2.6 U	0.23 U	58 U
1,1,1-TRICHLOROETHANE	3.1 U	0.63 U	0.22 U	2.4 U	0.22 U	55 U
1,1,2,2-TETRACHLOROETHANE	2.6 U	0.51 U	0.18 U	2 U	0.18 U	45 U
1,1,2-TRICHLOROTRIFLUOROETHANE	4 U	0.8 U	0.28 U	3.1 U	0.28 U	70 U
1,1-DICHLOROETHANE	2.1 U	0.43 U	0.15 U	1.7 U	0.15 U	38 U
1,1-DICHLOROETHENE	3.4 J	0.81 J	0.19 U	2.1 U	0.19 U	48 U
1,1-DICHLOROPROPENE	1.9 U	0.37 U	0.13 U	1.4 U	0.13 U	33 U
1,2,3-TRICHLOROBENZENE	2.4 U	0.49 U	0.17 U	1.9 U	0.17 U	43 U
1,2,3-TRICHLOROPROPANE	6.1 U	1.2 U	0.43 U	4.8 U	0.43 U	110 U
1,2,3-TRIMETHYLBENZENE	0.084 U	0.017 U	0.0059 U	0.066 U	0.0059 U	1.5 U
1,2,4-TRICHLOROBENZENE	2.1 U	1.8 J	0.15 U	1.7 U	0.15 U	55 J
1,2,4-TRIMETHYLBENZENE	1.7 U	0.34 U	0.12 U	1.3 U	0.12 U	30 U
1,2-DIBROMO-3-CHLOROPROPANE	9.6 UJ	1.9 UJ	0.67 U	7.4 U	0.67 U	170 U
1,2-DIBROMOETHANE	3.4 U	0.69 U	0.24 U	2.7 U	0.24 U	60 U
1,2-DICHLOROBENZENE	1.9 U	3	0.13 U	1.4 U	0.13 U	33 U
1,2-DICHLOROETHANE	3.1 J	0.63 U	0.22 U	2.4 U	0.22 U	55 U
1,2-DICHLOROPROPANE	2.6 U	0.51 U	0.18 U	2 U	0.18 U	45 U
1,3-DICHLOROBENZENE	2 U	1.2 J	0.14 U	1.6 U	0.14 U	35 U
1,3-DICHLOROPROPANE	2.3 U	0.46 U	0.16 U	1.8 U	0.16 U	40 U
1,4-DICHLOROBENZENE	1.9 U	1.4 J	0.13 U	1.4 U	0.13 U	33 U
2,2-DICHLOROPROPANE	1.9 U	0.37 U	0.13 U	1.4 U	0.13 U	33 U
2-BUTANONE	8.1 U	1.6 U	0.57 U	6.3 U	0.57 U	140 U
2-CHLOROETHYL VINYL ETHER	14 U	2.8 U	0.99 UR	11 U	0.99 U	250 U
2-CHLOROTOLUENE	1.6 U	0.31 U	0.11 U	1.2 U	0.11 U	28 U
2-HEXANONE	5.9 U	1.2 U	0.41 U	4.6 U	0.41 U	100 U
4-CHLOROTOLUENE	2.6 U	0.51 U	0.18 U	2 U	0.18 U	45 U
4-ISOPROPYLTOLUENE	1.7 U	0.34 U	0.12 U	1.3 U	0.12 U	30 U
4-METHYL-2-PENTANONE	4.6 U	0.92 U	0.32 U	3.6 U	0.32 U	80 U
ACETONE	16 U	3.1 U	1.1 U	12 U	1.1 U	280 U
BENZENE	1.9 U	7.5	0.13 U	1.4 U	0.2 J	33 U
BROMOBENZENE	1.9 U	0.37 U	0.13 U	1.4 U	0.13 U	33 U
BROMOCHLOROMETHANE	4.1 U	0.83 U	0.29 U	3.2 U	0.29 U	73 U
BROMODICHLOROMETHANE	2.1 U	0.43 U	0.15 U	1.7 U	0.15 U	38 U
BROMOFORM	9.1 U	1.8 U	0.64 U	7.1 U	0.64 U	160 U
BROMOMETHANE	5.9 U	1.2 U	0.41 UJ	4.6 UJ	0.41 UJ	100 U
CARBON DISULFIDE	8.3 U	0.37 U	0.13 U	1.4 U	0.13 U	33 U
CARBON TETRACHLORIDE	1.9 U	0.37 U	0.13 U	1.4 U	0.13 U	33 U
CHLOROBENZENE	2.1 U	0.73 J	0.15 U	1.7 U	0.15 U	44 J
CHLORODIBROMOMETHANE	2.6 U	0.51 U	0.18 U	2 U	0.18 U	45 U
CHLOROETHANE	4.1 U	0.83 U	0.29 U	3.2 U	0.29 U	73 U
CHLOROFORM	2.3 U	0.46 U	0.16 U	1.8 U	0.16 U	40 U
CHLOROMETHANE	4.3 U	0.86 U	0.3 U	3.3 U	0.3 U	75 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-16I	MSA-MW-16S	MSA-MW-17D	MSA-MW-17I	MSA-MW-17S	MSA-MW-18I
SAMPLE ID	MSA-MW16I-040314	MSA-MW16S-040314	MSA-MW17D-040814	MSA-MW17I-040814	MSA-MW17S-040814	MSA-MW18I-040114
SAMPLE DATE	20140403	20140403	20140408	20140408	20140408	20140401
CIS-1,2-DICHLOROETHENE	180	79	0.17 U	84	0.87 J	1300
CIS-1,3-DICHLOROPROPENE	2 U	0.4 U	0.14 U	1.6 U	0.14 U	35 U
DIBROMOMETHANE	4 U	0.8 U	0.28 UJ	3.1 UJ	0.28 UJ	70 U
DICHLORODIFLUOROMETHANE	4.4 U	0.89 U	0.31 U	3.4 U	0.31 U	78 U
DIISOPROPYL ETHER	21 U	4.3 U	1.5 U	17 U	1.5 U	380 U
ETHYL TERT-BUTYL ETHER	1.6 UJ	0.31 UJ	0.11 U	1.2 U	0.11 U	28 U
ETHYLBENZENE	2.4 U	0.49 U	0.17 U	1.9 U	0.17 U	43 U
HEXACHLOROBUTADIENE	4.3 U	0.86 U	0.3 U	3.3 U	0.3 U	75 U
ISOPROPYLBENZENE	1.9 U	0.37 U	0.13 U	1.4 U	0.13 U	33 U
M+P-XYLENES	3.4 U	0.69 U	0.24 U	2.7 U	0.24 U	60 U
METHYL TERT-BUTYL ETHER	2.4 U	0.49 U	0.17 U	1.9 U	0.17 U	43 U
METHYLENE CHLORIDE	9.4 U	1.3 U	0.33 U	3.7 U	0.33 U	83 U
NAPHTHALENE	3.4 UJ	0.69 UJ	0.24 U	2.7 U	0.24 U	60 U
N-BUTYLBENZENE	1.7 U	0.34 U	0.12 UJ	1.3 UJ	0.12 UJ	30 U
N-PROPYLBENZENE	2 U	0.4 U	0.14 U	1.6 U	0.14 U	35 U
O-XYLENE	2 U	0.4 U	0.14 U	1.6 U	0.14 U	35 U
SEC-BUTYLBENZENE	1.9 U	0.37 U	0.13 UJ	1.4 UJ	0.13 UJ	33 U
STYRENE	1.6 U	0.31 U	0.11 U	1.2 U	0.11 U	28 U
TERT-AMYL METHYL ETHER	0.96 U	0.19 U	0.067 U	0.74 U	0.067 U	17 U
TERT-BUTYLBENZENE	1.9 U	0.37 U	0.13 U	1.4 U	0.13 U	33 U
TERTIARY-BUTYL ALCOHOL	56 UJ	11 UJ	3.9 UJ	43 UJ	3.9 UJ	980 U
TETRACHLOROETHENE	4.1 U	0.83 U	0.29 U	3.2 U	0.29 U	73 U
TOLUENE	1.9 U	0.37 U	0.13 U	1.4 U	0.13 U	33 U
TOTAL XYLENES	2 U	0.4 U	0.14 U	1.6 U	0.14 U	35 U
TRANS-1,2-DICHLOROETHENE	3.3 J	0.54 U	0.19 U	2.1 U	0.19 U	48 U
TRANS-1,3-DICHLOROPROPENE	2.7 U	0.54 U	0.19 U	2.1 U	0.19 U	48 U
TRICHLOROETHENE	960	0.49 U	0.45 J	750	0.17 U	9200
TRICHLOROFLUOROMETHANE	3 U	0.6 U	0.21 UJ	2.3 UJ	0.21 UJ	53 U
VINYL ACETATE	2.7 U	0.54 U	0.19 U	2.1 U	0.19 U	48 U
VINYL CHLORIDE	16	170	0.22 U	6.9 J	7.3	670
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	7
ETHENE	NA	NA	NA	NA	NA	60
METHANE	NA	NA	NA	NA	NA	560
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-16I MSA-MW16I-040314 20140403	MSA-MW-16S MSA-MW16S-040314 20140403	MSA-MW-17D MSA-MW17D-040814 20140408	MSA-MW-17I MSA-MW17I-040814 20140408	MSA-MW-17S MSA-MW17S-040814 20140408	MSA-MW-18I MSA-MW18I-040114 20140401
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.43 J	240	0.28 UJ	0.25 UJ	0.58 J	190
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-16I	MSA-MW-16S	MSA-MW-17D	MSA-MW-17I	MSA-MW-17S	MSA-MW-18I
SAMPLE ID	MSA-MW16I-040314	MSA-MW16S-040314	MSA-MW17D-040814	MSA-MW17I-040814	MSA-MW17S-040814	MSA-MW18I-040114
SAMPLE DATE	20140403	20140403	20140408	20140408	20140408	20140401
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-16I	MSA-MW-16S	MSA-MW-17D	MSA-MW-17I	MSA-MW-17S	MSA-MW-18I
SAMPLE ID	MSA-MW16I-040314	MSA-MW16S-040314	MSA-MW17D-040814	MSA-MW17I-040814	MSA-MW17S-040814	MSA-MW18I-040114
SAMPLE DATE	20140403	20140403	20140408	20140408	20140408	20140401
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.34 U	0.24 U	0.37 U	0.29 U	0.2 U	0.34 U
ARSENIC	33	2.9 J	3.3 J	4.8 J	6.5	3.8 J
BARIUM	18	52	14	9.2	53	69
BERYLLIUM	0.72 U	0.95 J	0.22 U	0.24 U	0.14 U	0.14 U
CADMIUM	0.22 U	0.026 U	0.026 U	0.026 U	0.026 U	2.5 J
CALCIUM	NA	NA	NA	NA	NA	170000
CHROMIUM	1.4 J	4	1.3 J	0.4 J	0.8 J	1.5 J
COBALT	30	120	8.4 J	12 J	0.35 J	49
COPPER	2.5 U	0.24 U	0.97 U	1.3 U	1 U	1.6 U
IRON	6500	27000	6000 J	1500 J	23000 J	97000
LEAD	2.6	0.14 U	0.49 U	0.36 U	0.3 U	0.41 U
MAGNESIUM	NA	NA	NA	NA	NA	130000
MANGANESE	54	8200	46 J	26 J	650 J	2500
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 UJ
MOLYBDENUM	0.81 U	0.81 U	0.81 U	0.81 U	1.1 U	0.97 J
NICKEL	44	100	10 J	21 J	12 J	38
POTASSIUM	NA	NA	NA	NA	NA	29000
SELENIUM	0.37 J	0.91 J	0.34 U	0.49 J	0.36 J	0.82 J
SILICON DIOXIDE	NA	NA	NA	NA	NA	28000
SILVER	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.016 U	0.0083 U
SODIUM	NA	NA	NA	NA	NA	330000
THALLIUM	0.4 U	0.65 J	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	1.9 J	2.9 J	2.5 J	1.8 U	1.7 U	1.9 J
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	0.22 U	0.21 U	0.58 U	0.27 U	0.16 U	0.27 U
ARSENIC	23	2.1 U	3.1 J	3.6 J	6.7	3.7 J
BARIUM	2.6 U	51	12	7.8	56	65
BERYLLIUM	0.29 U	0.55 U	0.25 U	0.2 U	0.11 U	0.11 U
CADMIUM	0.057 U	0.026 U	0.026 U	0.026 U	0.026 U	3.2 J
CHROMIUM	0.22 U	3.1	0.23 J	0.15 J	0.57 J	1.1 J
COBALT	19	120	8 J	11 J	0.34 J	57
COPPER	0.37 U	0.24 U	1.1 U	1 U	0.56 U	0.97 U
IRON	2500	26000	4900 J	950 J	24000 J	99000
LEAD	0.14 U	0.14 U	0.27 U	0.15 U	0.14 U	0.14 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-16I	MSA-MW-16S	MSA-MW-17D	MSA-MW-17I	MSA-MW-17S	MSA-MW-18I
SAMPLE ID	MSA-MW16I-040314	MSA-MW16S-040314	MSA-MW17D-040814	MSA-MW17I-040814	MSA-MW17S-040814	MSA-MW18I-040114
SAMPLE DATE	20140403	20140403	20140408	20140408	20140408	20140401
MANGANESE	31	8100	44 J	24 J	700 J	2700
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 UJ
MOLYBDENUM	0.81 U	0.81 U	0.81 U	0.81 U	1.1 U	0.81 U
NICKEL	26	96	12 J	22 J	16 J	43
SELENIUM	0.34 U	0.37 J	0.43 J	0.52 J	0.37 J	0.7 J
SILVER	0.0083 U	0.0083 U	0.009 U	0.0083 U	0.009 U	0.087 U
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	0.15 U	1.3 J	0.86 U	1.2 U	1.4 U	1.4 J
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	34
AMMONIA-N	NA	NA	NA	NA	NA	2.4
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	430
CHLORIDE	NA	NA	NA	NA	NA	270
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	8.9
HARDNESS AS CACO3	NA	NA	NA	NA	NA	900
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	470
NITRATE-N	NA	NA	NA	NA	NA	0.12 UR
NITRITE-N	NA	NA	NA	NA	NA	0.012 UJ
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	0.22 UR
SULFATE	NA	NA	NA	NA	NA	520
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	1300
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	0.04 UJ	NA	NA	NA
PERCHLORATE	NA	NA	NA	0.16 J	NA	0.082 U
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	NA	100	NA	NA	34 J	NA
DIESEL-RANGE ORGANICS	NA	240 U	NA	NA	250 U	NA
RADIONUCLIDES (PCI/L)						
RADIUM-228	1.01	1.13	NA	NA	NA	NA
TOTAL RADIUM	0.571	0.394 J	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-18S	MSA-MW-19D	MSA-MW-20D	MSA-MW-20I	MSA-MW-20S	MSA-MW-21D
SAMPLE ID	MSA-MW18S-040114	MSA-MW-19D-042114	MSA-MW20D-033114	MSA-MW20I-033114	MSA-MW20S-033114	MSA-MW-21D-041414
SAMPLE DATE	20140401	20140421	20140331	20140331	20140331	20140414
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	5.8 U	0.23 U	0.23 U	3.8 U	5.8 U	0.23 U
1,1,1-TRICHLOROETHANE	5.5 U	0.22 U	0.22 U	3.7 U	5.5 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	4.5 U	0.18 U	0.18 U	3 U	4.5 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	7 U	0.28 U	0.28 U	4.7 U	7 U	0.28 U
1,1-DICHLOROETHANE	3.8 U	0.15 U	0.15 U	2.5 U	3.8 U	0.15 U
1,1-DICHLOROETHENE	4.8 U	0.19 U	0.19 U	8.6 J	16 J	0.19 U
1,1-DICHLOROPROPENE	3.3 U	0.13 U	0.13 U	2.2 U	3.3 U	0.13 U
1,2,3-TRICHLOROBENZENE	4.3 U	0.17 U	0.17 U	2.8 U	4.3 U	0.17 U
1,2,3-TRICHLOROPROPANE	11 U	0.43 U	0.43 U	7.2 U	11 U	0.43 U
1,2,3-TRIMETHYLBENZENE	0.15 U	0.0059 U	0.0059 U	0.098 U	0.15 U	0.0059 U
1,2,4-TRICHLOROBENZENE	8.1 J	0.15 U	0.15 U	2.5 U	3.8 U	0.15 U
1,2,4-TRIMETHYLBENZENE	3 U	0.12 UJ	0.12 U	2 U	3 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	17 UJ	0.67 U	0.67 UJ	11 UJ	17 UJ	0.67 U
1,2-DIBROMOETHANE	6 U	0.24 U	0.24 U	4 U	6 U	0.24 U
1,2-DICHLOROBENZENE	3.3 U	0.13 U	0.13 U	2.2 U	3.3 U	0.13 U
1,2-DICHLOROETHANE	7 J	0.22 U	0.67 J	3.7 U	5.5 U	0.22 U
1,2-DICHLOROPROPANE	4.5 U	0.18 U	0.18 U	3 U	4.5 U	0.18 U
1,3-DICHLOROBENZENE	3.5 U	0.14 U	0.14 U	2.3 U	3.5 U	0.14 U
1,3-DICHLOROPROPANE	4 U	0.16 U	0.16 U	2.7 U	4 U	0.16 U
1,4-DICHLOROBENZENE	3.3 U	0.13 U	0.13 U	2.2 U	3.3 U	0.13 U
2,2-DICHLOROPROPANE	3.3 U	0.13 U	0.13 U	2.2 U	3.3 U	0.13 UJ
2-BUTANONE	14 U	0.57 U	0.57 U	9.5 U	14 U	0.57 U
2-CHLOROETHYL VINYL ETHER	25 U	0.99 U	0.99 U	17 U	25 U	0.99 U
2-CHLOROTOLUENE	2.8 U	0.11 U	0.11 U	1.8 U	2.8 U	0.11 U
2-HEXANONE	10 U	0.41 U	0.41 U	6.8 U	10 U	0.41 U
4-CHLOROTOLUENE	4.5 U	0.18 U	0.18 U	3 U	4.5 U	0.18 U
4-ISOPROPYLTOLUENE	3 U	0.12 U	0.12 U	2 U	3 U	0.12 U
4-METHYL-2-PENTANONE	8 U	0.32 U	0.32 U	5.3 U	8 U	0.32 U
ACETONE	28 U	1.1 U	1.1 U	18 U	28 U	3.2 U
BENZENE	3.3 U	0.13 U	0.13 U	4 J	20 J	0.13 U
BROMOBENZENE	3.3 U	0.13 U	0.13 U	2.2 U	3.3 U	0.13 U
BROMOCHLOROMETHANE	7.3 U	0.29 U	0.29 U	4.8 U	7.3 U	0.29 U
BROMODICHLOROMETHANE	3.8 U	0.15 U	0.15 U	2.5 U	3.8 U	0.15 U
BROMOFORM	16 UJ	0.64 UJ	0.64 UJ	11 UJ	16 UJ	0.64 U
BROMOMETHANE	10 UJ	0.41 UJ	0.41 UJ	6.8 UJ	10 UJ	0.41 UJ
CARBON DISULFIDE	3.3 UJ	0.13 U	0.13 UJ	2.2 UJ	3.3 UJ	0.13 U
CARBON TETRACHLORIDE	3.3 U	0.13 U	0.13 U	2.2 U	3.3 U	0.13 U
CHLOROBENZENE	3.8 U	0.15 U	0.15 U	23	370	0.15 U
CHLORODIBROMOMETHANE	4.5 U	0.18 U	0.18 U	3 U	4.5 U	0.18 U
CHLOROETHANE	7.3 U	0.29 U	0.29 U	4.8 U	7.3 U	0.29 U
CHLOROFORM	4 U	0.16 U	0.18 J	2.7 U	4 U	0.59 J
CHLOROMETHANE	7.5 UJ	0.3 U	0.3 UJ	5 UJ	7.5 UJ	0.3 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-18S	MSA-MW-19D	MSA-MW-20D	MSA-MW-20I	MSA-MW-20S	MSA-MW-21D
SAMPLE ID	MSA-MW18S-040114	MSA-MW-19D-042114	MSA-MW20D-033114	MSA-MW20I-033114	MSA-MW20S-033114	MSA-MW-21D-041414
SAMPLE DATE	20140401	20140421	20140331	20140331	20140331	20140414
CIS-1,2-DICHLOROETHENE	210	0.23 J	2.1	830	1300	0.17 U
CIS-1,3-DICHLOROPROPENE	3.5 U	0.14 U	0.14 U	2.3 U	3.5 U	0.14 U
DIBROMOMETHANE	7 U	0.28 UJ	0.28 U	4.7 U	7 U	0.28 U
DICHLORODIFLUOROMETHANE	7.8 U	0.31 U	0.31 U	5.2 U	7.8 U	0.31 U
DIISOPROPYL ETHER	38 U	1.5 U	1.5 U	25 U	38 U	1.5 U
ETHYL TERT-BUTYL ETHER	2.8 U	0.11 U	0.11 U	1.8 U	2.8 U	0.11 U
ETHYLBENZENE	4.3 U	0.17 U	0.17 U	2.8 U	7.8 J	0.17 U
HEXACHLOROBUTADIENE	7.5 U	0.3 UJ	0.3 U	5 U	7.5 U	0.3 U
ISOPROPYLBENZENE	3.3 U	0.13 U	0.13 U	2.2 U	3.3 U	0.13 U
M+P-XYLENES	6 U	0.24 U	0.24 U	4 U	6 U	0.24 U
METHYL TERT-BUTYL ETHER	4.3 U	0.17 U	0.17 U	2.8 U	4.3 U	0.17 U
METHYLENE CHLORIDE	8.3 U	0.33 U	0.33 U	5.5 U	8.3 U	0.33 U
NAPHTHALENE	6 U	0.24 U	0.24 U	4 U	6 U	0.24 U
N-BUTYLBENZENE	3 U	0.12 UJ	0.12 U	2 U	3 U	0.12 U
N-PROPYLBENZENE	3.5 U	0.14 U	0.14 U	2.3 U	3.5 U	0.14 U
O-XYLENE	3.5 U	0.14 U	0.14 U	2.3 U	6.4 J	0.14 U
SEC-BUTYLBENZENE	3.3 U	0.13 UJ	0.13 U	2.2 U	3.3 U	0.13 U
STYRENE	2.8 U	0.11 U	0.11 U	1.8 U	2.8 U	0.11 U
TERT-AMYL METHYL ETHER	1.7 U	0.067 U	0.067 U	1.1 U	1.7 U	0.067 U
TERT-BUTYLBENZENE	3.3 U	0.13 U	0.13 U	2.2 U	3.3 U	0.13 U
TERTIARY-BUTYL ALCOHOL	98 UJ	3.9 UJ	3.9 UJ	65 UJ	98 UJ	3.9 U
TETRACHLOROETHENE	7.3 U	0.29 U	0.29 U	4.8 U	7.3 U	0.29 U
TOLUENE	3.3 U	0.13 U	0.13 U	2.2 U	9.2 J	0.13 U
TOTAL XYLENES	3.5 U	0.14 U	0.14 U	2.3 U	6.4 J	0.14 U
TRANS-1,2-DICHLOROETHENE	4.8 U	0.19 U	0.19 U	3.5 J	25	0.19 U
TRANS-1,3-DICHLOROPROPENE	4.8 U	0.19 U	0.19 U	3.2 U	4.8 U	0.19 U
TRICHLOROETHENE	1500	13	19	94	300	0.17 U
TRICHLOROFLUOROMETHANE	5.3 U	0.21 U	0.21 U	3.5 U	5.3 U	0.21 U
VINYL ACETATE	4.8 U	0.19 U	0.19 U	3.2 U	4.8 U	0.19 U
VINYL CHLORIDE	110	0.22 U	0.22 U	790	890	0.22 U
VOLATILE GASES (UG/L)						
ETHANE	1.2	NA	NA	NA	NA	NA
ETHENE	6.4	NA	NA	NA	NA	NA
METHANE	190	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-18S MSA-MW18S-040114 20140401	MSA-MW-19D MSA-MW-19D-042114 20140421	MSA-MW-20D MSA-MW20D-033114 20140331	MSA-MW-20I MSA-MW20I-033114 20140331	MSA-MW-20S MSA-MW20S-033114 20140331	MSA-MW-21D MSA-MW-21D-041414 20140414
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	NA	NA	1 U	17 U	25 U	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	0.78 NJ
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	33	1.6	2.7	8	170	0.26 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-18S	MSA-MW-19D	MSA-MW-20D	MSA-MW-20I	MSA-MW-20S	MSA-MW-21D
SAMPLE ID	MSA-MW18S-040114	MSA-MW-19D-042114	MSA-MW20D-033114	MSA-MW20I-033114	MSA-MW20S-033114	MSA-MW-21D-041414
SAMPLE DATE	20140401	20140421	20140331	20140331	20140331	20140414
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-18S	MSA-MW-19D	MSA-MW-20D	MSA-MW-20I	MSA-MW-20S	MSA-MW-21D
SAMPLE ID	MSA-MW18S-040114	MSA-MW-19D-042114	MSA-MW20D-033114	MSA-MW20I-033114	MSA-MW20S-033114	MSA-MW-21D-041414
SAMPLE DATE	20140401	20140421	20140331	20140331	20140331	20140414
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.55 U	0.11 U	0.11 U	0.11 U	0.22 UJ	0.7 J
ARSENIC	7.9	2.5 J	1.2 J	4.8 J	20	0.74 J
BARIUM	41	54	120	15	14 J	61
BERYLLIUM	2.2	2	1	0.031 U	0.99 J	0.054 U
CADMIUM	110	1.3	2.6	0.026 U	0.026 U	0.026 U
CALCIUM	57000	NA	NA	NA	NA	NA
CHROMIUM	1.6 J	7.4	2	0.23 J	2.5 J	0.76 J
COBALT	310	230	130	15	4.6	0.36 J
COPPER	29	0.93 U	6.9	0.24 U	0.24 U	6.5
IRON	26000	550	250	37000	130000	76 J
LEAD	0.7 U	0.23 U	0.14 U	0.14 U	0.34 J	0.21 J
MAGNESIUM	44000	NA	NA	NA	NA	NA
MANGANESE	4100	3000	1600	1400	4300	2.4 U
MERCURY	0.12 UJ	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
NICKEL	170	110	54	2.8 J	1.8 J	2
POTASSIUM	8200	NA	NA	NA	NA	NA
SELENIUM	17	3.1 J	2.3 J	0.34 U	15	0.34 U
SILICON DIOXIDE	11000	NA	NA	NA	NA	NA
SILVER	0.027 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.009 J
SODIUM	150000	NA	NA	NA	NA	NA
THALLIUM	2 U	0.4 U	0.4 U	0.4 U	0.8 UJ	0.4 U
VANADIUM	1.1 U	4.7 J	0.18 J	0.58 J	13	1.2 J
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	0.55 U	0.11 U	0.11 U	0.11 U	0.22 U	0.72 J
ARSENIC	8.6	2.3 J	0.96 U	4.5 J	18	0.77 J
BARIUM	42	54	120	14	14	64
BERYLLIUM	2.4	2.1	0.94 J	0.031 U	0.82 J	0.034 U
CADMIUM	110	1	2.5	0.026 U	0.026 U	0.026 U
CHROMIUM	1.5 J	7.2	0.41 J	0.13 U	2.1 J	0.57 J
COBALT	310	240	120	14	4.6	0.36 J
COPPER	32	1.3 U	7.9	0.24 U	0.24 U	7.5
IRON	24000	540	12 U	37000	130000	12 U
LEAD	0.7 U	0.15 U	0.14 U	0.14 U	0.28 U	0.14 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-18S	MSA-MW-19D	MSA-MW-20D	MSA-MW-20I	MSA-MW-20S	MSA-MW-21D
SAMPLE ID	MSA-MW18S-040114	MSA-MW-19D-042114	MSA-MW20D-033114	MSA-MW20I-033114	MSA-MW20S-033114	MSA-MW-21D-041414
SAMPLE DATE	20140401	20140421	20140331	20140331	20140331	20140414
MANGANESE	4500	3100	1500	1400	4200	3.2 U
MERCURY	0.12 UJ	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
NICKEL	180	110	56	2.1 J	1.6 J	3.2
SELENIUM	19	2.8 J	2 J	0.34 U	13	0.34 U
SILVER	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U
THALLIUM	2.3 J	0.4 U	0.4 U	0.4 U	0.8 U	0.4 U
VANADIUM	0.8 U	4.5 J	0.15 U	0.32 J	8.7	1.1 J
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	190	NA	NA	NA	NA	NA
AMMONIA-N	9	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	160	NA	NA	NA	NA	NA
CHLORIDE	400	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	25	NA	NA	NA	NA	NA
HARDNESS AS CACO3	370	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	210	NA	NA	NA	NA	NA
NITRATE-N	0.12 UR	NA	NA	NA	NA	NA
NITRITE-N	0.012 UJ	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	0.22 UR	NA	NA	NA	NA	NA
SULFATE	1100	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	2200	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	0.082 U	0.082 U	NA	NA
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	690	NA	NA	NA	1600	NA
DIESEL-RANGE ORGANICS	210 U	NA	NA	NA	2900	NA
RADIONUCLIDES (PCI/L)						
RADIUM-228	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-21I	MSA-MW-22D	MSA-MW-23D	MSA-MW-23S	MSA-MW-24I	MSA-MW-24S
SAMPLE ID	MSA-MW-21I-041414	MSA-MW-22D-042114	MSA-MW-23D-041114	MSA-MW-23S-041114	MSA-MW-24I-041114	MSA-MW-24S-041114
SAMPLE DATE	20140414	20140421	20140411	20140411	20140411	20140411
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	3.3 U	0.23 U	0.23 U	0.23 U	0.77 U	0.23 U
1,1,1-TRICHLOROETHANE	3.1 U	0.22 U	0.22 U	0.22 U	0.73 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	2.6 U	0.18 U	0.18 U	0.18 UJ	0.6 UJ	0.18 UJ
1,1,2-TRICHLOROTRIFLUOROETHANE	4 U	0.28 U	0.28 U	0.28 U	0.93 U	0.28 U
1,1-DICHLOROETHANE	2.1 U	0.15 U	0.15 U	0.15 U	0.5 U	0.15 U
1,1-DICHLOROETHENE	5.4 J	0.19 U	0.19 U	0.19 U	0.63 U	0.19 U
1,1-DICHLOROPROPENE	1.9 U	0.13 U	0.13 U	0.13 U	0.43 U	0.13 U
1,2,3-TRICHLOROBENZENE	2.4 U	0.17 U	0.17 U	0.17 U	0.57 U	0.17 U
1,2,3-TRICHLOROPROPANE	6.1 U	0.43 U	0.43 U	0.43 UJ	1.4 UJ	0.43 UJ
1,2,3-TRIMETHYLBENZENE	0.084 U	0.0059 U	0.0059 U	0.0059 U	0.02 U	0.0059 U
1,2,4-TRICHLOROBENZENE	2.1 U	0.15 U	0.15 U	0.15 U	0.5 U	0.15 U
1,2,4-TRIMETHYLBENZENE	1.7 U	0.12 UJ	0.12 U	0.12 U	0.4 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	9.6 U	0.67 U	0.67 U	0.67 U	2.2 U	0.67 U
1,2-DIBROMOETHANE	3.4 U	0.24 U	0.24 U	0.24 U	0.8 U	0.24 U
1,2-DICHLOROBENZENE	1.9 U	0.13 U	0.13 U	0.13 U	0.43 U	0.13 U
1,2-DICHLOROETHANE	3.1 U	0.22 U	0.22 U	0.22 U	0.73 U	0.22 U
1,2-DICHLOROPROPANE	2.6 U	0.18 U	0.18 U	0.18 U	0.6 U	0.18 U
1,3-DICHLOROBENZENE	2 U	0.14 U	0.14 U	0.15 J	0.47 U	0.14 U
1,3-DICHLOROPROPANE	2.3 U	0.16 U	0.16 U	0.16 UJ	0.53 UJ	0.16 UJ
1,4-DICHLOROBENZENE	1.9 U	0.13 U	0.13 U	0.13 U	0.43 U	0.13 U
2,2-DICHLOROPROPANE	1.9 UJ	0.13 U	0.13 UJ	0.13 U	0.43 U	0.13 U
2-BUTANONE	8.1 U	0.57 U	0.57 U	0.57 U	1.9 U	0.57 U
2-CHLOROETHYL VINYL ETHER	14 U	0.99 U	0.99 U	0.99 U	3.3 U	0.99 U
2-CHLOROTOLUENE	1.6 U	0.11 U	0.11 U	0.11 U	0.37 U	0.11 U
2-HEXANONE	5.9 U	0.41 U	0.41 U	0.41 U	1.4 U	0.41 U
4-CHLOROTOLUENE	2.6 U	0.18 U	0.18 U	0.18 U	0.6 U	0.18 U
4-ISOPROPYLTOLUENE	1.7 U	0.12 U	0.12 U	0.12 U	0.4 U	0.12 U
4-METHYL-2-PENTANONE	4.6 U	0.32 U	0.32 U	0.32 U	1.1 U	0.32 U
ACETONE	16 U	1.1 U	1.5 U	2.4 U	3.7 U	1.5 U
BENZENE	1.9 U	0.13 U	0.13 U	2	0.43 U	0.15 J
BROMOBENZENE	1.9 U	0.13 U	0.13 U	0.13 U	0.43 U	0.13 U
BROMOCHLOROMETHANE	4.1 U	0.29 U	0.29 U	0.29 U	0.97 U	0.29 U
BROMODICHLOROMETHANE	2.1 U	0.15 U	0.15 U	0.15 U	0.5 U	0.15 U
BROMOFORM	9.1 U	0.64 UJ	0.64 U	0.64 U	2.1 U	0.64 U
BROMOMETHANE	5.9 UJ	0.41 UJ	0.41 U	0.41 U	1.4 U	0.41 U
CARBON DISULFIDE	1.9 U	0.13 U	0.13 U	0.13 U	0.43 U	0.13 U
CARBON TETRACHLORIDE	1.9 U	0.13 U	4.8	0.13 U	12	0.13 U
CHLOROBENZENE	2.1 U	0.15 U	0.15 U	0.21 J	0.5 U	0.15 U
CHLORODIBROMOMETHANE	2.6 U	0.18 U	0.18 U	0.18 U	0.6 U	0.18 U
CHLOROETHANE	4.1 U	0.29 U	0.29 U	0.29 U	0.97 U	0.29 U
CHLOROFORM	2.3 U	0.16 U	3.2	0.16 U	1.5 J	0.16 U
CHLOROMETHANE	4.3 U	0.3 U	0.3 U	0.3 U	1 U	0.3 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-21I	MSA-MW-22D	MSA-MW-23D	MSA-MW-23S	MSA-MW-24I	MSA-MW-24S
SAMPLE ID	MSA-MW-21I-041414	MSA-MW-22D-042114	MSA-MW-23D-041114	MSA-MW-23S-041114	MSA-MW-24I-041114	MSA-MW-24S-041114
SAMPLE DATE	20140414	20140421	20140411	20140411	20140411	20140411
CIS-1,2-DICHLOROETHENE	440	0.17 U	0.17 U	2	0.57 U	0.17 U
CIS-1,3-DICHLOROPROPENE	2 U	0.14 U	0.14 U	0.14 U	0.47 U	0.14 U
DIBROMOMETHANE	4 U	0.28 UJ	0.28 U	0.28 U	0.93 U	0.28 U
DICHLORODIFLUOROMETHANE	4.4 U	0.31 U	0.31 U	0.31 U	1 U	0.31 U
DIISOPROPYL ETHER	21 U	1.5 U	1.5 U	1.5 U	5 U	1.5 U
ETHYL TERT-BUTYL ETHER	1.6 U	0.11 U	0.11 U	0.11 U	0.37 U	0.11 U
ETHYLBENZENE	2.4 U	0.17 U	0.17 U	0.17 U	0.57 U	0.17 U
HEXACHLOROBUTADIENE	4.3 U	0.3 UJ	0.3 U	0.3 U	1 U	0.3 U
ISOPROPYLBENZENE	1.9 U	0.13 U	0.13 U	0.13 U	0.43 U	0.13 U
M+P-XYLENES	3.4 U	0.24 U	0.24 U	0.24 U	0.8 U	0.24 U
METHYL TERT-BUTYL ETHER	2.4 U	0.17 U	0.17 U	0.17 U	0.57 U	0.17 U
METHYLENE CHLORIDE	4.7 U	0.33 U	0.33 U	0.33 U	1.1 U	0.33 U
NAPHTHALENE	3.4 U	0.24 U	0.24 U	0.24 U	0.8 U	0.24 U
N-BUTYLBENZENE	1.7 U	0.12 UJ	0.12 U	0.12 U	0.4 U	0.12 U
N-PROPYLBENZENE	2 U	0.14 U	0.14 U	0.14 U	0.47 U	0.14 U
O-XYLENE	2 U	0.14 U	0.14 U	0.14 U	0.47 U	0.14 U
SEC-BUTYLBENZENE	1.9 U	0.13 UJ	0.13 U	0.13 U	0.43 U	0.13 U
STYRENE	1.6 U	0.11 U	0.11 U	0.11 U	0.37 U	0.11 U
TERT-AMYL METHYL ETHER	0.96 U	0.067 U	0.067 U	0.067 U	0.22 U	0.067 U
TERT-BUTYLBENZENE	1.9 U	0.13 U	0.13 U	0.13 U	0.43 U	0.13 U
TERTIARY-BUTYL ALCOHOL	56 U	3.9 UJ	3.9 U	3.9 U	13 U	3.9 U
TETRACHLOROETHENE	4.1 U	0.29 U	0.29 U	0.29 U	0.97 U	0.29 U
TOLUENE	1.9 U	0.13 U	0.13 U	0.13 U	0.43 U	0.13 U
TOTAL XYLENES	2 U	0.14 U	0.14 U	0.14 U	0.47 U	0.14 U
TRANS-1,2-DICHLOROETHENE	4.7 J	0.19 U	0.19 U	0.19 U	0.63 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	2.7 U	0.19 U	0.19 U	0.19 U	0.63 U	0.19 U
TRICHLOROETHENE	150	0.17 U	1.1	0.32 J	110	0.17 U
TRICHLOROFLUOROMETHANE	3 U	0.21 U	0.21 U	0.21 UJ	0.7 UJ	0.21 UJ
VINYL ACETATE	2.7 U	0.19 U	0.19 U	0.19 U	0.63 U	0.19 U
VINYL CHLORIDE	200	0.22 U	0.22 U	5.8	0.73 U	0.22 U
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-21I MSA-MW-21I-041414 20140414	MSA-MW-22D MSA-MW-22D-042114 20140421	MSA-MW-23D MSA-MW-23D-041114 20140411	MSA-MW-23S MSA-MW-23S-041114 20140411	MSA-MW-24I MSA-MW-24I-041114 20140411	MSA-MW-24S MSA-MW-24S-041114 20140411
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	0.9 NJ	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	3.2	0.26 U	0.25 U	3.4	0.23 U	1.2
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-21I	MSA-MW-22D	MSA-MW-23D	MSA-MW-23S	MSA-MW-24I	MSA-MW-24S
SAMPLE ID	MSA-MW-21I-041414	MSA-MW-22D-042114	MSA-MW-23D-041114	MSA-MW-23S-041114	MSA-MW-24I-041114	MSA-MW-24S-041114
SAMPLE DATE	20140414	20140421	20140411	20140411	20140411	20140411
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-21I	MSA-MW-22D	MSA-MW-23D	MSA-MW-23S	MSA-MW-24I	MSA-MW-24S
SAMPLE ID	MSA-MW-21I-041414	MSA-MW-22D-042114	MSA-MW-23D-041114	MSA-MW-23S-041114	MSA-MW-24I-041114	MSA-MW-24S-041114
SAMPLE DATE	20140414	20140421	20140411	20140411	20140411	20140411
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.11 U	1.1 U	0.55 U	0.54 U	0.22 U	0.63 U
ARSENIC	15	7	1.7 J	6	1 J	29
BARIUM	19	60	35	96	14	15
BERYLLIUM	0.099 U	0.3 J	0.47 J	0.056 U	0.79 J	6.9
CADMIUM	0.026 U	0.93 J	0.78 J	1.8	0.15 J	5
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	0.35 J	17	2.5	2.3	3.8	14 J
COBALT	7.1	8.9	16	8	14	410
COPPER	0.24 U	22	18	2.9 U	13	290
IRON	22000	4500	5300	15000	2800	160000
LEAD	0.71 J	14	2	0.9 U	0.92 U	1.1 U
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	570	51	210	850	280	4600
MERCURY	0.12 U	0.12 U	0.26	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.98 J	1.9 J	0.81 U	1.5 J	0.81 U	0.81 U
NICKEL	1.8 J	9.8	16	6.7	5.5	550
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	0.43 J	1 J	0.77 J	0.34 U	1.3 J	84
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	0.0083 U	0.19 J	0.053 U	0.031 U	0.021 U	0.029 U
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	0.4 U	0.64 J	0.4 U	0.4 U	0.4 U	2 U
VANADIUM	0.59 J	19	2.2 U	1.9 U	2.5 U	130
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	0.11 U	0.61 U	0.41 U	0.38 U	0.11 U	0.11 U
ARSENIC	15	4.9 J	1.6 U	6.1	0.8 U	29
BARIUM	19	42	31	99	12	15
BERYLLIUM	0.039 U	0.075 J	0.33 J	0.031 U	0.78 J	6.6
CADMIUM	0.026 U	0.2 J	0.68 J	0.7 J	0.15 J	5.2
CHROMIUM	0.27 J	4.1	0.86 U	1.8 J	1.1 U	13 J
COBALT	6.5	6.6	15	8.1	14	410
COPPER	0.24 U	6.9	6.3	1.9 U	8.7	290
IRON	21000	1800	5000	16000	1100	160000
LEAD	0.14 U	2.7	0.28 U	0.28 U	0.32 U	0.7 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-21I	MSA-MW-22D	MSA-MW-23D	MSA-MW-23S	MSA-MW-24I	MSA-MW-24S
SAMPLE ID	MSA-MW-21I-041414	MSA-MW-22D-042114	MSA-MW-23D-041114	MSA-MW-23S-041114	MSA-MW-24I-041114	MSA-MW-24S-041114
SAMPLE DATE	20140414	20140421	20140411	20140411	20140411	20140411
MANGANESE	560	44	200	880	270	4700
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.88 J	1.4 J	0.81 U	1.5 J	0.81 U	0.81 U
NICKEL	1.7 J	6.4	15	7.4	6.1	560
SELENIUM	0.34 U	0.34 J	0.42 J	0.34 U	0.96 J	86
SILVER	0.0083 U	0.035 U	0.0083 U	0.0083 U	0.0083 U	0.012 U
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2 U
VANADIUM	0.49 J	5.4	1 U	1.4 U	1 U	120
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA
PERCHLORATE	0.082 U	NA	NA	NA	0.12 J	NA
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	NA	NA	NA	39 J	NA	26 J
DIESEL-RANGE ORGANICS	NA	NA	NA	240 U	NA	240 U
RADIONUCLIDES (PCI/L)						
RADIUM-228	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-25I	MSA-MW-25S	MSA-MW-26S	MSA-MW-27D	MSA-MW-29D	MSA-MW-30D
SAMPLE ID	MSA-MW-25I-041114	MSA-MW-25S-041114	MSA-MW26S-033114	MSA-MW-27D-050114	MSA-MW-29D-052714	MSA-MW-30D-052714
SAMPLE DATE	20140411	20140411	20140331	20140501	20140527	20140527
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1,1-TRICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	0.18 UJ	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2,3-TRICHLOROBENZENE	0.17 U	0.17 U	0.17 U	0.17 UJ	0.17 U	0.17 U
1,2,3-TRICHLOROPROPANE	0.43 UJ	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U
1,2,4-TRICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 UJ	0.15 U	0.15 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 UJ	0.67 UJ	0.67 U	0.67 U
1,2-DIBROMOETHANE	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 UJ	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,3-DICHLOROPROPANE	0.16 UJ	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,2-DICHLOROPROPANE	0.13 U	0.13 UJ	0.13 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-CHLOROETHYL VINYL ETHER	0.99 UR	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
2-CHLOROTOLUENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 UJ	0.41 U	0.41 U
4-CHLOROTOLUENE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-ISOPROPYLTOLUENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
ACETONE	2.2 U	2.3 U	1.1 U	3.3 J	1.1 U	1.1 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOCHLOROMETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
BROMODICHLOROMETHANE	0.15 U	0.15 U	0.15 U	0.15 UJ	0.15 U	0.15 U
BROMOFORM	0.64 U	0.64 U	0.64 UJ	0.64 U	0.64 U	0.64 U
BROMOMETHANE	0.41 U	0.41 U	0.41 UJ	0.41 U	0.41 U	0.41 U
CARBON DISULFIDE	0.13 U	0.13 U	0.13 UJ	0.13 U	0.81 J	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.13 UJ	0.13 U	0.13 U
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
CHLORODIBROMOMETHANE	0.18 U	0.18 U	0.18 U	0.18 UJ	0.18 U	0.18 U
CHLOROETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
CHLOROFORM	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
CHLOROMETHANE	0.3 U	0.3 U	0.3 UJ	0.3 U	0.3 U	0.3 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-25I	MSA-MW-25S	MSA-MW-26S	MSA-MW-27D	MSA-MW-29D	MSA-MW-30D
SAMPLE ID	MSA-MW-25I-041114	MSA-MW-25S-041114	MSA-MW26S-033114	MSA-MW-27D-050114	MSA-MW-29D-052714	MSA-MW-30D-052714
SAMPLE DATE	20140411	20140411	20140331	20140501	20140527	20140527
CIS-1,2-DICHLOROETHENE	0.17 U	20	18	0.17 U	0.17 U	0.17 U
CIS-1,3-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
DIBROMOMETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
DICHLORODIFLUOROMETHANE	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
DIISOPROPYL ETHER	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
HEXACHLOROBUTADIENE	0.3 U	0.3 U	0.3 U	0.3 UJ	0.3 U	0.3 U
ISOPROPYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	0.24 U	0.24 U	0.24 UJ	0.24 U	0.24 U
N-BUTYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
N-PROPYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
O-XYLENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
TERT-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
TERTIARY-BUTYL ALCOHOL	3.9 U	3.9 U	3.9 UJ	3.9 U	3.9 U	3.9 U
TETRACHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
TOLUENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
TOTAL XYLENES	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
TRANS-1,2-DICHLOROETHENE	0.19 U	1.1	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.19 U	0.19 U	0.19 U	0.19 UJ	0.19 U	0.19 U
TRICHLOROETHENE	0.17 U	0.29 J	0.29 J	0.17 U	0.17 U	0.17 U
TRICHLOROFLUOROMETHANE	0.21 UJ	0.21 U	0.21 U	0.21 UJ	0.21 U	0.21 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.22 U	1.5	5.6	0.22 U	0.22 U	0.22 U
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-25I MSA-MW-25I-041114 20140411	MSA-MW-25S MSA-MW-25S-041114 20140411	MSA-MW-26S MSA-MW26S-033114 20140331	MSA-MW-27D MSA-MW-27D-050114 20140501	MSA-MW-29D MSA-MW-29D-052714 20140527	MSA-MW-30D MSA-MW-30D-052714 20140527
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	NA	NA	1 U	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	3.8 R	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.25 U	0.26 U	0.25 U	0.24 U	0.24 U	0.24 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-25I	MSA-MW-25S	MSA-MW-26S	MSA-MW-27D	MSA-MW-29D	MSA-MW-30D
SAMPLE ID	MSA-MW-25I-041114	MSA-MW-25S-041114	MSA-MW26S-033114	MSA-MW-27D-050114	MSA-MW-29D-052714	MSA-MW-30D-052714
SAMPLE DATE	20140411	20140411	20140331	20140501	20140527	20140527
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-25I	MSA-MW-25S	MSA-MW-26S	MSA-MW-27D	MSA-MW-29D	MSA-MW-30D
SAMPLE ID	MSA-MW-25I-041114	MSA-MW-25S-041114	MSA-MW26S-033114	MSA-MW-27D-050114	MSA-MW-29D-052714	MSA-MW-30D-052714
SAMPLE DATE	20140411	20140411	20140331	20140501	20140527	20140527
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.84 U	0.56 U	0.56 U	0.11 U	0.8 J	0.96 J
ARSENIC	7.7	2.6 J	0.59 U	0.16 U	0.13 J	0.94 J
BARIUM	26	45	61	15	4.4 U	48
BERYLLIUM	0.086 U	0.039 U	0.031 U	0.2 U	0.067 J	0.21 J
CADMIUM	0.13 J	0.095 J	1	0.045 U	0.048 J	0.89 J
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	1.3 U	1.5 U	0.43 J	0.13 U	0.32 J	16
COBALT	2.9	0.8 J	0.51 J	3.6	1.1	40
COPPER	4 U	6.5	5.4	3.1 U	2.1 U	11 U
IRON	1700	370	890	90 U	30 U	1700
LEAD	0.41 U	0.54 U	0.15 J	0.14 U	0.16 U	8
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	38	18	120	120	8	720
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.2
MOLYBDENUM	1.6 J	1.2 J	2.8 J	0.81 U	0.81 U	0.89 J
NICKEL	5.2	7.8	2.6 J	7.8	2.2	5.5
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	0.34 U	0.34 J	0.34 U	0.34 U	0.34 U	0.58 J
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	0.02 U	0.046 U	0.028 U	0.0083 U	0.012 J	0.59 J
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	0.4 U	0.4 U	0.66 J	0.4 U	0.4 U	0.4 U
VANADIUM	2.2 U	2.6 U	0.81 J	0.15 U	0.15 U	4.8 J
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	0.74 U	0.6 U	0.48 U	0.11 U	0.88 J	0.61 J
ARSENIC	8	2.4 J	0.55 U	0.12 U	0.11 J	0.39 J
BARIUM	25	45	55	13	4.4 U	24
BERYLLIUM	0.15 U	0.031 U	0.031 U	0.16 U	0.047 J	0.12 J
CADMIUM	0.14 J	0.092 J	0.61 J	0.034 U	0.04 J	0.47 J
CHROMIUM	0.9 U	0.92 U	0.2 J	0.13 U	0.24 J	3
COBALT	3.1	0.71 J	0.029 J	3.1	1.1	3
COPPER	4.1 U	7.4	4.8	3.7 U	3.9 U	7.3 U
IRON	1400	95 U	12 U	15 U	12 U	110
LEAD	0.53 U	0.14 U	0.14 U	0.14 U	0.14 U	0.59 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-25I	MSA-MW-25S	MSA-MW-26S	MSA-MW-27D	MSA-MW-29D	MSA-MW-30D
SAMPLE ID	MSA-MW-25I-041114	MSA-MW-25S-041114	MSA-MW26S-033114	MSA-MW-27D-050114	MSA-MW-29D-052714	MSA-MW-30D-052714
SAMPLE DATE	20140411	20140411	20140331	20140501	20140527	20140527
MANGANESE	37	18	12	94	8.4	39
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	1.6 J	1.2 J	2.9 J	0.81 U	0.81 U	0.81 U
NICKEL	7.2	7.6	4.3	7.3	3.2	4.7
SELENIUM	0.43 J	0.34 U	0.35 J	0.34 U	0.34 U	0.34 U
SILVER	0.019 U	0.017 U	0.0083 U	0.0083 U	0.009 J	0.076 J
THALLIUM	0.4 U	0.4 U	0.94 J	0.4 U	0.4 U	0.4 U
VANADIUM	1.8 U	1.7 U	0.23 J	0.15 U	0.15 U	0.85 J
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	0.04 UJ	0.097	0.753 J
PERCHLORATE	NA	NA	NA	0.085 J	0.083 J	0.082 U
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	NA	42 J	34 J	NA	NA	NA
DIESEL-RANGE ORGANICS	NA	240 U	230 U	NA	NA	NA
RADIONUCLIDES (PCI/L)						
RADIUM-228	NA	NA	NA	0.217 U	0.531 U	NA
TOTAL RADIUM	NA	NA	NA	0.0394 U	0.164 U	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-30I	MSA-MW-31D	MSA-MW-32I	MSA-MW-32S	MSA-MW-33I	MSA-MW-33S
SAMPLE ID	MSA-MW-30I-042814	MSA-MW-31D-052714	MSA-MW-32I-041014	MSA-MW-32S-041014	MSA-MW33I-033114	MSA-MW33S-033114
SAMPLE DATE	20140428	20140527	20140410	20140410	20140331	20140331
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	5.8 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1,1-TRICHLOROETHANE	5.5 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	4.5 U	0.18 U	0.18 UJ	0.18 UJ	0.18 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	7 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1-DICHLOROETHANE	3.8 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	4.8 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	3.3 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2,3-TRICHLOROBENZENE	4.3 UJ	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
1,2,3-TRICHLOROPROPANE	11 U	0.43 U	0.43 UJ	0.43 UJ	0.43 U	0.43 U
1,2,3-TRIMETHYLBENZENE	0.15 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U
1,2,4-TRICHLOROBENZENE	3.8 UJ	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2,4-TRIMETHYLBENZENE	3 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	17 UJ	0.67 U	0.67 U	0.67 U	0.67 UJ	0.67 UJ
1,2-DIBROMOETHANE	6 UJ	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,2-DICHLOROBENZENE	3.3 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	5.5 UJ	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	4.5 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	3.5 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,3-DICHLOROPROPANE	4 U	0.16 U	0.16 UJ	0.16 UJ	0.16 U	0.16 U
1,4-DICHLOROBENZENE	3.3 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,2-DICHLOROPROPANE	3.3 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	14 U	2.2 J	0.57 U	0.57 U	0.57 U	0.57 U
2-CHLOROETHYL VINYL ETHER	25 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
2-CHLOROTOLUENE	2.8 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
2-HEXANONE	10 UJ	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
4-CHLOROTOLUENE	4.5 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-ISOPROPYLTOLUENE	3 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
4-METHYL-2-PENTANONE	8 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
ACETONE	31 U	7.2 J	1.8 U	2.6 U	8.6 J	1.1 U
BENZENE	3.3 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	3.3 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOCHLOROMETHANE	7.3 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
BROMODICHLOROMETHANE	3.8 UJ	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
BROMOFORM	16 U	0.64 U	0.64 U	0.64 U	0.64 UJ	0.64 UJ
BROMOMETHANE	10 U	0.41 U	0.41 U	0.41 U	0.41 UJ	0.41 UJ
CARBON DISULFIDE	3.3 U	0.22 J	0.13 U	0.13 U	0.13 UJ	0.13 UJ
CARBON TETRACHLORIDE	3.3 UJ	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROBENZENE	3.8 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
CHLORODIBROMOMETHANE	4.5 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
CHLOROETHANE	7.3 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
CHLOROFORM	4 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
CHLOROMETHANE	7.5 U	0.3 U	0.3 U	0.3 U	0.3 UJ	0.3 UJ

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-30I	MSA-MW-31D	MSA-MW-32I	MSA-MW-32S	MSA-MW-33I	MSA-MW-33S
SAMPLE ID	MSA-MW-30I-042814	MSA-MW-31D-052714	MSA-MW-32I-041014	MSA-MW-32S-041014	MSA-MW33I-033114	MSA-MW33S-033114
SAMPLE DATE	20140428	20140527	20140410	20140410	20140331	20140331
CIS-1,2-DICHLOROETHENE	4.3 U	0.17 U	0.17 U	0.17 U	0.17 U	0.2 J
CIS-1,3-DICHLOROPROPENE	3.5 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
DIBROMOMETHANE	7 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
DICHLORODIFLUOROMETHANE	7.8 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
DIISOPROPYL ETHER	38 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
ETHYL TERT-BUTYL ETHER	2.8 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
ETHYLBENZENE	4.3 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
HEXACHLOROBUTADIENE	7.5 UJ	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
ISOPROPYLBENZENE	3.3 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
M+P-XYLENES	6 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	4.3 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
METHYLENE CHLORIDE	17 J	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	6 UJ	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
N-BUTYLBENZENE	3 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
N-PROPYLBENZENE	3.5 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
O-XYLENE	3.5 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
SEC-BUTYLBENZENE	3.3 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	2.8 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	1.7 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
TERT-BUTYLBENZENE	3.3 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
TERTIARY-BUTYL ALCOHOL	98 UJ	3.9 U	3.9 U	3.9 U	3.9 UJ	3.9 UJ
TETRACHLOROETHENE	7.3 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
TOLUENE	3.3 U	0.13 U	0.52 J	1.1	0.13 U	0.13 U
TOTAL XYLENES	3.5 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
TRANS-1,2-DICHLOROETHENE	4.8 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	4.8 UJ	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRICHLOROETHENE	900	0.17 U	0.17 U	0.17 U	0.17 U	0.48 J
TRICHLOROFLUOROMETHANE	5.3 UJ	0.21 U	0.21 UJ	0.21 UJ	0.21 U	0.21 U
VINYL ACETATE	4.8 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	5.5 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	1.8 NJ	NA	NA	NA	NA
CARBONYL SULFIDE	NA	9.1 NJ	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	7.6 NJ	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-30I MSA-MW-30I-042814 20140428	MSA-MW-31D MSA-MW-31D-052714 20140527	MSA-MW-32I MSA-MW-32I-041014 20140410	MSA-MW-32S MSA-MW-32S-041014 20140410	MSA-MW-33I MSA-MW33I-033114 20140331	MSA-MW-33S MSA-MW33S-033114 20140331
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	NA	NA	NA	NA	1 U	1 U
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.47 J	0.26 U	0.26 U	0.26 U	0.25 U	0.24 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-30I	MSA-MW-31D	MSA-MW-32I	MSA-MW-32S	MSA-MW-33I	MSA-MW-33S
SAMPLE ID	MSA-MW-30I-042814	MSA-MW-31D-052714	MSA-MW-32I-041014	MSA-MW-32S-041014	MSA-MW33I-033114	MSA-MW33S-033114
SAMPLE DATE	20140428	20140527	20140410	20140410	20140331	20140331
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-30I	MSA-MW-31D	MSA-MW-32I	MSA-MW-32S	MSA-MW-33I	MSA-MW-33S
SAMPLE ID	MSA-MW-30I-042814	MSA-MW-31D-052714	MSA-MW-32I-041014	MSA-MW-32S-041014	MSA-MW33I-033114	MSA-MW33S-033114
SAMPLE DATE	20140428	20140527	20140410	20140410	20140331	20140331
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.13 U	0.49 J	1 U	0.54 U	0.33 U	0.48 U
ARSENIC	0.9 J	1.1 J	1.7 U	4.6 J	1.7 J	0.95 U
BARIUM	31	74	30	43	70	24
BERYLLIUM	0.46 U	0.22 J	0.81 U	0.32 J	0.031 U	0.031 U
CADMIUM	0.16 U	0.8 J	1.4	0.38 J	0.026 U	0.026 U
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	0.86 J	3.2	2.7	3.2	0.22 J	0.93 J
COBALT	33	7.8	13	34	3.1	0.053 U
COPPER	2.7 U	3.1 U	5.2	5.5	4.4	8.2
IRON	2000	6700	2500	7400	770	540
LEAD	0.22 U	1.6 U	2.3	1.7	0.14 U	1
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	82	1700	680	1400	9.2	2.4 U
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.14 J
MOLYBDENUM	0.81 UJ	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
NICKEL	41	9.8	17	18	5.6	1.3 J
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	0.34 U	0.44 J	0.74 J	0.53 J	0.34 U	0.34 U
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	0.0083 U	0.064 J	0.068 U	0.11 J	0.0083 U	0.1 U
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	0.82 U	0.4 U	0.4 J	0.4 U	0.4 U	0.4 U
VANADIUM	0.99 J	0.94 J	3.1 U	4.7 U	2.1 J	2.6 J
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	0.13 U	0.4 J	0.35 U	0.27 U	0.28 U	0.46 U
ARSENIC	0.82 J	0.97 J	0.86 U	4.4 J	1.5 J	0.77 U
BARIUM	32	75	28	41	67	22
BERYLLIUM	0.7 U	0.15 J	0.27 U	0.21 U	0.031 U	0.031 U
CADMIUM	0.073 U	0.026 U	0.93 J	0.13 J	0.026 U	0.026 U
CHROMIUM	0.65 J	2.9	1.1 J	1.5 J	0.13 U	0.54 J
COBALT	38	2.4	12	34	0.61 J	0.02 U
COPPER	1 U	0.97 U	3.3	1.7 U	5.1	6.8
IRON	2500	5900	450	5200	12 U	61 U
LEAD	0.14 U	0.15 U	0.26 U	0.19 U	0.14 U	0.14 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-30I	MSA-MW-31D	MSA-MW-32I	MSA-MW-32S	MSA-MW-33I	MSA-MW-33S
SAMPLE ID	MSA-MW-30I-042814	MSA-MW-31D-052714	MSA-MW-32I-041014	MSA-MW-32S-041014	MSA-MW33I-033114	MSA-MW33S-033114
SAMPLE DATE	20140428	20140527	20140410	20140410	20140331	20140331
MANGANESE	91	1800	690	1500	1.9 U	1.9 U
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 UJ	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
NICKEL	45	3.6	16	18	4.7	1.9 J
SELENIUM	0.42 J	0.37 J	0.34 U	0.39 J	0.34 U	0.34 U
SILVER	0.0083 U	0.013 J	0.0083 U	0.017 U	0.0083 U	0.0083 U
THALLIUM	1.3 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	0.57 J	0.63 J	1.2 U	2 U	1.9 J	2 J
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	0.081	NA	NA	0.25 J-	NA
PERCHLORATE	NA	0.082 U	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	NA	NA	NA	25 U	NA	30 J
DIESEL-RANGE ORGANICS	NA	NA	NA	240 U	NA	210 U
RADIONUCLIDES (PCI/L)						
RADIUM-228	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-34I	MSA-MW-34S	MSA-MW-35S	MSA-MW-36S	MSA-MW-37S	MSA-MW-38S
SAMPLE ID	MSA-MW-34I-032714	MSA-MW-34S-032714	MSA-MW35S-032814	MSA-MW-36S-041114	MSA-MW-37S-041114	MSA-MW-38S-042114
SAMPLE DATE	20140327	20140327	20140328	20140411	20140411	20140421
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1,1-TRICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.42 J	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2,3-TRICHLOROBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
1,2,3-TRICHLOROPROPANE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U
1,2,4-TRICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
1,2-DIBROMOETHANE	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	2.2	0.27 J	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,3-DICHLOROPROPANE	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,2-DICHLOROPROPANE	0.13 U	0.13 U	0.13 U	0.13 UJ	0.13 UJ	0.13 U
2-BUTANONE	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-CHLOROETHYL VINYL ETHER	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
2-CHLOROTOLUENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
4-CHLOROTOLUENE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-ISOPROPYLTOLUENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
ACETONE	1.1 U	1.1 U	1.1 U	1.2 U	1.7 U	1.1 U
BENZENE	1.8	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOCHLOROMETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
BROMODICHLOROMETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
BROMOFORM	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 UJ
BROMOMETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 UJ
CARBON DISULFIDE	0.13 U	0.13 U	0.33 J	0.13 U	0.13 U	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROBENZENE	0.26 J	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
CHLORODIBROMOMETHANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
CHLOROETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
CHLOROFORM	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-34I	MSA-MW-34S	MSA-MW-35S	MSA-MW-36S	MSA-MW-37S	MSA-MW-38S
SAMPLE ID	MSA-MW-34I-032714	MSA-MW-34S-032714	MSA-MW35S-032814	MSA-MW-36S-041114	MSA-MW-37S-041114	MSA-MW-38S-042114
SAMPLE DATE	20140327	20140327	20140328	20140411	20140411	20140421
CIS-1,2-DICHLOROETHENE	7.6	2.2	9.5	0.17 U	0.17 U	0.17 U
CIS-1,3-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
DIBROMOMETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 UJ
DICHLORODIFLUOROMETHANE	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
DIISOPROPYL ETHER	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
HEXACHLOROBUTADIENE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 UJ
ISOPROPYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
M+P-XYLENES	14	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
N-BUTYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 UJ
N-PROPYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
O-XYLENE	3.6	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 UJ
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
TERT-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
TERTIARY-BUTYL ALCOHOL	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 UJ
TETRACHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
TOLUENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
TOTAL XYLENES	18	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRICHLOROETHENE	0.21 J	0.17 U	2.2	0.17 U	0.17 U	0.17 U
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	47	1.4	2.8	0.22 U	0.22 U	0.22 U
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-34I MSA-MW-34I-032714 20140327	MSA-MW-34S MSA-MW-34S-032714 20140327	MSA-MW-35S MSA-MW35S-032814 20140328	MSA-MW-36S MSA-MW-36S-041114 20140411	MSA-MW-37S MSA-MW-37S-041114 20140411	MSA-MW-38S MSA-MW-38S-042114 20140421
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	1 U	1 U	1 U	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.26 U	0.26 U	2.2	0.26 U	0.26 U	0.25 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-34I	MSA-MW-34S	MSA-MW-35S	MSA-MW-36S	MSA-MW-37S	MSA-MW-38S
SAMPLE ID	MSA-MW-34I-032714	MSA-MW-34S-032714	MSA-MW35S-032814	MSA-MW-36S-041114	MSA-MW-37S-041114	MSA-MW-38S-042114
SAMPLE DATE	20140327	20140327	20140328	20140411	20140411	20140421
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-34I	MSA-MW-34S	MSA-MW-35S	MSA-MW-36S	MSA-MW-37S	MSA-MW-38S
SAMPLE ID	MSA-MW-34I-032714	MSA-MW-34S-032714	MSA-MW35S-032814	MSA-MW-36S-041114	MSA-MW-37S-041114	MSA-MW-38S-042114
SAMPLE DATE	20140327	20140327	20140328	20140411	20140411	20140421
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.11 U	0.11 U	0.29 U	0.11 U	0.28 U	0.11 U
ARSENIC	0.91 U	1.3 U	1.9 J	1.8 J	0.85 U	14
BARIUM	58	66	64	25	36	46
BERYLLIUM	2.7	0.79 J	4.3	0.68 J	0.04 U	0.12 J
CADMIUM	0.15 J	0.12 J	0.097 J	0.026 U	0.04 J	0.044 U
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	0.46 J	0.72 J	1.2 J	0.26 U	0.17 U	0.45 J
COBALT	230	100	330	120	10	12
COPPER	4.9	4.8	2.9 U	0.24 U	0.75 U	0.32 U
IRON	980	260	6700	2100	510	31000
LEAD	0.14 J	0.14 U	1.3	0.14 U	0.14 U	0.14 U
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	140	60	450	14	1300	430
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
NICKEL	320	140	160	170	1.2 J	5.6
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	0.34 U	0.34 U	0.54 J	0.34 U	0.47 J	0.34 U
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	0.0083 U	0.0083 U	0.015 U	0.0083 U	0.0083 U	0.0083 U
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	1.7 U	13	2.5 J	1.6 U	3.2 U	1.5 J
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	0.11 U	0.11 U	0.15 U	0.11 U	0.17 U	0.11 U
ARSENIC	0.85 U	1.3 U	1.4 J	1.4 U	0.8 U	13
BARIUM	56	67	67	25	36	45
BERYLLIUM	2.8	0.83 J	4.5	0.68 J	0.031 U	0.089 J
CADMIUM	0.13 J	0.11 J	0.063 J	0.026 U	0.045 J	0.026 U
CHROMIUM	0.43 J	0.76 J	0.57 J	0.26 U	0.13 U	0.25 J
COBALT	230	110	360	120	10	11
COPPER	4.8	2.4	0.24 UJ	1.3 U	4.9 U	0.26 U
IRON	920	280	5400	2100	300	30000
LEAD	0.15 J	0.14 U	0.45 J	0.14 U	0.14 U	0.14 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-34I	MSA-MW-34S	MSA-MW-35S	MSA-MW-36S	MSA-MW-37S	MSA-MW-38S
SAMPLE ID	MSA-MW-34I-032714	MSA-MW-34S-032714	MSA-MW35S-032814	MSA-MW-36S-041114	MSA-MW-37S-041114	MSA-MW-38S-042114
SAMPLE DATE	20140327	20140327	20140328	20140411	20140411	20140421
MANGANESE	140	61	480	14	1300	430
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
NICKEL	310	150	170	170	1.5 J	5.5
SELENIUM	0.34 U	0.36 J	0.5 J	0.34 U	0.34 U	0.34 U
SILVER	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	1.6 U	11	1 J	1.1 U	2.2 U	0.57 J
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	NA	40 J	40 J	27 J	30 J	32 J
DIESEL-RANGE ORGANICS	NA	240 UJ	750	240 U	240 U	240 U
RADIONUCLIDES (PCI/L)						
RADIUM-228	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-39S	MSA-MW-40I	MSA-MW-40S	MSA-MW-41I	MSA-MW-41S	MSA-MW-42I
SAMPLE ID	MSA-MW39S-032814	MSA-MW40I-032814	MSA-MW40S-032814	MSA-MW41I-040414	MSA-MW41S-040414	MSA-MW42I-040214
SAMPLE DATE	20140328	20140328	20140328	20140404	20140404	20140402
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	0.23 U	12 U	23 U	1.5 U	12 U	0.23 U
1,1,1-TRICHLOROETHANE	0.22 U	12 J	22 U	1.5 U	11 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	0.18 U	9 U	18 U	1.2 U	9 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	14 U	28 U	1.9 U	14 U	0.28 U
1,1-DICHLOROETHANE	0.15 U	7.5 U	15 U	1 U	7.5 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	9.5 U	19 U	4.4 J	9.5 U	0.19 U
1,1-DICHLOROPROPENE	0.13 U	6.5 U	13 U	0.87 U	6.5 U	0.13 U
1,2,3-TRICHLOROBENZENE	0.17 U	8.5 U	17 U	1.1 U	8.5 U	0.17 U
1,2,3-TRICHLOROPROPANE	0.43 U	22 U	43 U	2.9 U	22 U	0.43 U
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.3 U	0.59 U	0.039 U	0.3 U	0.0059 U
1,2,4-TRICHLOROBENZENE	0.15 U	7.5 U	15 U	3.4 J	7.5 U	0.15 U
1,2,4-TRIMETHYLBENZENE	0.12 U	6 U	12 U	0.8 U	6 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	34 U	67 U	4.5 UJ	34 UJ	0.67 UJ
1,2-DIBROMOETHANE	0.24 U	12 U	24 U	1.6 U	12 U	0.24 U
1,2-DICHLOROBENZENE	0.19 J	6.5 U	13 U	0.87 U	6.5 U	0.13 U
1,2-DICHLOROETHANE	0.37 J	11 U	22 U	14	55	0.34 J
1,2-DICHLOROPROPANE	0.18 U	9 U	18 U	1.2 U	9 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	7 U	14 U	1.4 J	7 U	0.14 U
1,3-DICHLOROPROPANE	0.16 U	8 U	16 U	1.1 U	8 U	0.16 U
1,4-DICHLOROBENZENE	0.13 U	6.5 U	13 U	0.87 U	6.5 U	0.13 U
2,2-DICHLOROPROPANE	0.13 U	6.5 U	13 U	0.87 U	6.5 U	0.13 U
2-BUTANONE	0.57 U	29 U	57 U	3.8 U	29 U	0.57 U
2-CHLOROETHYL VINYL ETHER	0.99 U	50 U	99 U	6.6 U	50 U	0.99 U
2-CHLOROTOLUENE	0.11 U	5.5 U	11 U	0.73 U	5.5 U	0.11 U
2-HEXANONE	0.41 U	21 U	41 U	2.7 U	21 U	0.41 U
4-CHLOROTOLUENE	0.18 U	9 U	18 U	1.2 U	9 U	0.18 U
4-ISOPROPYLTOLUENE	0.12 U	6 U	12 U	0.8 U	6 U	0.12 U
4-METHYL-2-PENTANONE	0.32 U	16 U	32 U	2.1 U	16 U	0.32 U
ACETONE	1.1 U	55 U	110 U	11 U	89 U	1.1 U
BENZENE	1.5	6.5 U	13 U	8.2	26 J	0.83 J
BROMOBENZENE	0.13 U	6.5 U	13 U	0.87 U	6.5 U	0.13 U
BROMOCHLOROMETHANE	0.29 U	15 U	29 U	1.9 U	15 U	0.29 U
BROMODICHLOROMETHANE	0.15 U	7.5 U	15 U	1 U	7.5 U	0.15 U
BROMOFORM	0.64 U	32 U	64 U	4.3 U	32 U	0.64 UJ
BROMOMETHANE	0.41 U	21 U	41 U	2.7 U	21 U	0.41 UJ
CARBON DISULFIDE	0.13 U	6.5 U	13 U	0.87 U	6.6 U	0.13 UJ
CARBON TETRACHLORIDE	0.13 U	6.5 U	13 U	0.87 U	6.5 U	0.13 U
CHLOROBENZENE	4.6	7.5 U	15 U	24	7.5 U	0.15 U
CHLORODIBROMOMETHANE	0.18 U	9 U	18 U	1.2 U	9 U	0.18 U
CHLOROETHANE	0.29 U	15 U	29 U	10	15 U	0.29 U
CHLOROFORM	0.16 U	8 U	16 U	1.1 U	8 U	0.16 U
CHLOROMETHANE	0.3 U	15 U	30 U	2 U	15 U	0.3 UJ

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-39S	MSA-MW-40I	MSA-MW-40S	MSA-MW-41I	MSA-MW-41S	MSA-MW-42I
SAMPLE ID	MSA-MW39S-032814	MSA-MW40I-032814	MSA-MW40S-032814	MSA-MW41I-040414	MSA-MW41S-040414	MSA-MW42I-040214
SAMPLE DATE	20140328	20140328	20140328	20140404	20140404	20140402
CIS-1,2-DICHLOROETHENE	3	2100	3200	410	1100	25
CIS-1,3-DICHLOROPROPENE	0.14 U	7 U	14 U	0.93 U	7 U	0.14 U
DIBROMOMETHANE	0.28 U	14 U	28 U	1.9 U	14 U	0.28 U
DICHLORODIFLUOROMETHANE	0.31 U	16 U	31 U	2.1 U	16 U	0.31 U
DIISOPROPYL ETHER	1.5 U	75 U	150 U	10 U	75 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.11 U	5.5 U	11 U	0.73 UJ	5.5 UJ	0.11 U
ETHYLBENZENE	0.17 U	8.5 U	17 U	1.1 U	8.5 U	0.31 J
HEXACHLOROBUTADIENE	0.3 U	15 U	30 U	2 U	15 U	0.3 U
ISOPROPYLBENZENE	0.13 U	6.5 U	13 U	0.87 U	6.5 U	0.13 U
M+P-XYLENES	0.24 U	12 U	24 U	1.6 U	12 U	16
METHYL TERT-BUTYL ETHER	0.17 U	8.5 U	17 U	1.1 U	8.5 U	0.17 U
METHYLENE CHLORIDE	0.33 U	17 U	33 U	2.2 U	220 U	0.33 U
NAPHTHALENE	0.24 U	12 U	24 U	1.6 UJ	12 UJ	0.24 U
N-BUTYLBENZENE	0.12 U	6 U	12 U	0.8 U	6 U	0.12 U
N-PROPYLBENZENE	0.14 U	7 U	14 U	0.93 U	7 U	0.14 U
O-XYLENE	0.14 U	7 U	14 U	0.93 U	7 U	1.6
SEC-BUTYLBENZENE	0.13 U	6.5 U	13 U	0.87 U	6.5 U	0.13 U
STYRENE	0.11 U	5.5 U	11 U	0.73 U	5.5 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	3.4 U	6.7 U	0.45 U	3.4 U	0.067 U
TERT-BUTYLBENZENE	0.13 U	6.5 U	13 U	0.87 U	6.5 U	0.13 U
TERTIARY-BUTYL ALCOHOL	3.9 U	200 U	390 U	52 J	200 UJ	3.9 UJ
TETRACHLOROETHENE	0.29 U	15 U	29 U	1.9 U	15 U	0.29 U
TOLUENE	0.14 J	6.5 U	13 U	0.87 U	6.5 U	0.62 J
TOTAL XYLENES	0.14 U	7 U	14 U	0.93 U	7 U	18
TRANS-1,2-DICHLOROETHENE	0.41 J	58	130	3.5 J	9.5 U	0.23 J
TRANS-1,3-DICHLOROPROPENE	0.19 U	9.5 U	19 U	1.3 U	9.5 U	0.19 U
TRICHLOROETHENE	4	390	260	99	3000	2.4
TRICHLOROFLUOROMETHANE	0.21 U	11 U	21 U	1.4 UJ	11 UJ	0.21 U
VINYL ACETATE	0.19 U	9.5 U	19 U	1.3 U	9.5 U	0.19 U
VINYL CHLORIDE	2.4	52	22 U	510	890	13
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-39S MSA-MW39S-032814 20140328	MSA-MW-40I MSA-MW40I-032814 20140328	MSA-MW-40S MSA-MW40S-032814 20140328	MSA-MW-41I MSA-MW41I-040414 20140404	MSA-MW-41S MSA-MW41S-040414 20140404	MSA-MW-42I MSA-MW42I-040214 20140402
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	1 U	50 U	100 U	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	2.8 NJ	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	18	8.5	12	110	210	19
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-39S	MSA-MW-40I	MSA-MW-40S	MSA-MW-41I	MSA-MW-41S	MSA-MW-42I
SAMPLE ID	MSA-MW39S-032814	MSA-MW40I-032814	MSA-MW40S-032814	MSA-MW41I-040414	MSA-MW41S-040414	MSA-MW42I-040214
SAMPLE DATE	20140328	20140328	20140328	20140404	20140404	20140402
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-39S	MSA-MW-40I	MSA-MW-40S	MSA-MW-41I	MSA-MW-41S	MSA-MW-42I
SAMPLE ID	MSA-MW39S-032814	MSA-MW40I-032814	MSA-MW40S-032814	MSA-MW41I-040414	MSA-MW41S-040414	MSA-MW42I-040214
SAMPLE DATE	20140328	20140328	20140328	20140404	20140404	20140402
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.25 U	0.11 U	0.11 U	0.32 U	0.32 U	0.33 U
ARSENIC	43	13	3.6 J	9.8	0.89 U	3.1 J
BARIUM	24	12	16	27	130	38
BERYLLIUM	0.066 U	2.2	0.031 U	0.087 U	0.3 U	0.067 U
CADMIUM	0.026 U	1.7	0.03 J	0.15 U	46	0.026 U
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	1.2 J	4.6	0.28 J	2	0.61 U	0.92 J
COBALT	4.8	11	18	21	87	6
COPPER	0.24 UJ	0.4 J	0.24 J	1.1 U	4.3	2.1 U
IRON	43000	21000	9000	48000	25 U	5100
LEAD	0.3 J	0.39 J	0.18 J	0.66 U	0.14 U	0.78 U
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	190	4600	2900	2000	770	120
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 U	1.7 J	1.4 J	1.7 J
NICKEL	2.9	16	3.5	13	86	4.8
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	0.77 J	5	0.92 J	1.1 J	2.6 J	0.34 U
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	0.0083 U	0.0083 U	0.0083 U	0.047 U	0.01 U	0.019 U
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	0.4 U	0.4 U	0.4 U	1.1 J	0.48 J	0.4 U
VANADIUM	2 J	6	1.9 U	1.5 J	0.17 U	1.8 J
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	0.34 U	0.11 U	0.11 U	0.21 U	0.28 U	0.28 U
ARSENIC	33	13	3.7 J	6.9	0.77 U	2 U
BARIUM	22	12	16	26	120	35
BERYLLIUM	0.031 U	2.4	0.031 U	0.23 U	0.24 U	0.038 U
CADMIUM	0.026 U	1.7	0.026 U	0.026 U	42	0.026 U
CHROMIUM	0.88 J	4.8	0.21 J	0.52 U	0.38 U	0.38 U
COBALT	4.7	11	18	21	84	5.5
COPPER	0.24 UJ	0.83 J	0.31 J	0.24 U	3.2 U	1.2 U
IRON	40000	21000	9100	47000	12 U	2500
LEAD	0.14 U	0.4 J	0.14 U	0.14 U	0.14 U	0.15 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-39S	MSA-MW-40I	MSA-MW-40S	MSA-MW-41I	MSA-MW-41S	MSA-MW-42I
SAMPLE ID	MSA-MW39S-032814	MSA-MW40I-032814	MSA-MW40S-032814	MSA-MW41I-040414	MSA-MW41S-040414	MSA-MW42I-040214
SAMPLE DATE	20140328	20140328	20140328	20140404	20140404	20140402
MANGANESE	190	4700	2900	2000	740	110
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 U	0.9 J	1.4 J	1.6 J
NICKEL	4.9	17	4.7	12	83	4.4
SELENIUM	0.42 J	4.8 J	0.8 J	0.67 J	2.8 J	0.34 U
SILVER	0.011 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U
THALLIUM	0.4 U	0.4 U	0.4 U	1.8 J	0.4 U	0.4 U
VANADIUM	0.92 J	6.3	2.1 U	0.55 U	0.15 U	0.72 U
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	49 J	NA	480	NA	1400 J	NA
DIESEL-RANGE ORGANICS	1700	NA	1200	NA	750	NA
RADIONUCLIDES (PCI/L)						
RADIUM-228	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-42S	MSA-MW-43S	MSA-MW-44S	MSA-MW-45S	DR-MW-46D	DR-MW-46I
SAMPLE ID	MSA-MW42S-040214	MSA-MW43S-032814	MSA-MW44S-032814	MSA-MW45S-040414	MSA-MW46D-040214	MSA-MW46I-040214
SAMPLE DATE	20140402	20140328	20140328	20140404	20140402	20140402
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	23 U	0.23 U	0.46 U	190 U	0.23 U	0.77 U
1,1,1-TRICHLOROETHANE	22 U	0.22 U	1.3 J	180 U	0.22 U	0.73 U
1,1,2,2-TETRACHLOROETHANE	18 U	0.18 U	0.36 U	150 U	0.18 U	0.6 U
1,1,2-TRICHLOROTRIFLUOROETHANE	28 U	0.28 U	0.56 U	230 U	0.28 U	0.93 U
1,1-DICHLOROETHANE	15 U	0.15 U	43	120 U	0.15 U	0.5 U
1,1-DICHLOROETHENE	19 U	0.19 U	0.38 U	190 J	0.19 U	1.7 J
1,1-DICHLOROPROPENE	13 U	0.13 U	0.26 U	110 U	0.13 U	0.43 U
1,2,3-TRICHLOROBENZENE	17 U	0.17 U	0.34 U	140 U	0.17 U	0.57 U
1,2,3-TRICHLOROPROPANE	43 U	0.43 U	0.86 U	360 U	0.43 U	1.4 U
1,2,3-TRIMETHYLBENZENE	41 J	0.0059 U	0.012 U	4.9 U	0.0059 U	0.02 U
1,2,4-TRICHLOROBENZENE	15 U	0.15 U	0.3 U	740 J	0.15 U	0.5 U
1,2,4-TRIMETHYLBENZENE	98 J	0.12 U	0.24 U	100 U	0.12 U	0.4 U
1,2-DIBROMO-3-CHLOROPROPANE	67 UJ	0.67 U	1.3 U	560 UJ	0.67 UJ	2.2 UJ
1,2-DIBROMOETHANE	24 U	0.24 U	0.48 U	200 U	0.24 U	0.8 U
1,2-DICHLOROBENZENE	13 U	0.13 U	0.26 U	110 U	0.13 U	0.43 U
1,2-DICHLOROETHANE	22 U	0.22 U	0.44 U	430 J	0.22 U	12
1,2-DICHLOROPROPANE	18 U	0.18 U	0.36 U	150 U	0.18 U	0.6 U
1,3-DICHLOROBENZENE	14 U	0.14 U	0.28 U	170 J	0.14 U	0.47 U
1,3-DICHLOROPROPANE	16 U	0.16 U	0.32 U	130 U	0.16 U	0.53 U
1,4-DICHLOROBENZENE	13 U	0.13 U	2.3	110 U	0.13 U	0.43 U
2,2-DICHLOROPROPANE	13 U	0.13 U	0.26 U	110 U	0.13 U	0.43 U
2-BUTANONE	57 U	0.57 U	1.1 U	470 U	0.57 U	1.9 U
2-CHLOROETHYL VINYL ETHER	99 U	0.99 U	2 U	820 U	0.99 U	3.3 U
2-CHLOROTOLUENE	11 U	0.11 U	0.22 U	92 U	0.11 U	0.37 U
2-HEXANONE	41 U	0.41 U	0.82 U	340 U	0.41 U	1.4 U
4-CHLOROTOLUENE	18 U	0.18 U	0.36 U	150 U	0.18 U	0.6 U
4-ISOPROPYLTOLUENE	12 U	0.12 U	0.24 U	100 U	0.12 U	0.4 U
4-METHYL-2-PENTANONE	32 U	0.32 U	0.64 U	270 U	0.32 U	1.1 U
ACETONE	110 U	1.1 U	2.2 U	920 U	1.7 J	3.7 U
BENZENE	19 J	0.13 U	0.26 U	120 J	0.13 U	1.8 J
BROMOBENZENE	13 U	0.13 U	0.26 U	110 U	0.13 U	0.43 U
BROMOCHLOROMETHANE	29 U	0.29 U	0.58 U	240 U	0.29 U	0.97 U
BROMODICHLOROMETHANE	15 U	0.15 U	0.3 U	120 U	0.15 U	0.5 U
BROMOFORM	64 UJ	0.64 U	1.3 U	530 U	0.64 UJ	2.1 UJ
BROMOMETHANE	41 UJ	0.41 U	0.82 U	340 U	0.41 UJ	1.4 UJ
CARBON DISULFIDE	13 UJ	0.13 U	0.26 U	110 U	0.13 UJ	0.43 UJ
CARBON TETRACHLORIDE	13 U	0.13 U	0.26 U	110 U	0.13 U	0.43 U
CHLOROBENZENE	15 U	0.15 U	0.3 U	120 U	0.15 U	33
CHLORODIBROMOMETHANE	18 U	0.18 U	0.36 U	150 U	0.18 U	0.6 U
CHLOROETHANE	29 U	0.29 U	1.2 J	240 U	0.29 U	0.97 U
CHLOROFORM	16 U	0.16 U	0.32 U	130 U	0.16 U	1.5 J
CHLOROMETHANE	30 UJ	0.3 U	0.6 U	250 U	0.3 UJ	1 UJ

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-42S	MSA-MW-43S	MSA-MW-44S	MSA-MW-45S	DR-MW-46D	DR-MW-46I
SAMPLE ID	MSA-MW42S-040214	MSA-MW43S-032814	MSA-MW44S-032814	MSA-MW45S-040414	MSA-MW46D-040214	MSA-MW46I-040214
SAMPLE DATE	20140402	20140328	20140328	20140404	20140402	20140402
CIS-1,2-DICHLOROETHENE	880	0.39 J	120	37000	3.7	100
CIS-1,3-DICHLOROPROPENE	14 U	0.14 U	0.28 U	120 U	0.14 U	0.47 U
DIBROMOMETHANE	28 U	0.28 U	0.56 U	230 U	0.28 U	0.93 U
DICHLORODIFLUOROMETHANE	31 U	0.31 U	0.62 U	260 U	0.31 U	1 U
DIISOPROPYL ETHER	150 U	1.5 U	3 U	1200 U	1.5 U	5 U
ETHYL TERT-BUTYL ETHER	11 U	0.11 U	0.22 U	92 UJ	0.11 U	0.37 U
ETHYLBENZENE	420	0.17 U	1.4 J	140 U	0.17 U	0.57 U
HEXACHLOROBUTADIENE	30 U	0.3 U	0.6 U	250 U	0.3 U	1 U
ISOPROPYLBENZENE	13 U	0.13 U	0.26 U	110 U	0.13 U	0.43 U
M+P-XYLENES	7500	0.24 U	1.2 J	200 U	0.24 U	0.8 U
METHYL TERT-BUTYL ETHER	17 U	0.17 U	0.34 U	140 U	0.17 U	0.57 U
METHYLENE CHLORIDE	33 U	0.33 U	0.66 U	3000 U	0.33 U	1.1 U
NAPHTHALENE	24 U	0.24 U	120	200 UJ	0.24 U	0.8 U
N-BUTYLBENZENE	12 U	0.12 U	0.24 U	100 U	0.12 U	0.4 U
N-PROPYLBENZENE	14 U	0.14 U	0.28 U	120 U	0.14 U	0.47 U
O-XYLENE	380	0.14 U	0.75 J	120 U	0.14 U	0.47 U
SEC-BUTYLBENZENE	13 U	0.13 U	0.26 U	110 U	0.13 U	0.43 U
STYRENE	11 U	0.11 U	0.22 U	92 U	0.11 U	0.37 U
TERT-AMYL METHYL ETHER	6.7 U	0.067 U	0.13 U	56 U	0.067 U	0.22 U
TERT-BUTYLBENZENE	13 U	0.13 U	0.26 U	110 U	0.13 U	0.43 U
TERTIARY-BUTYL ALCOHOL	390 UJ	3.9 U	7.8 U	3200 UJ	3.9 UJ	13 UJ
TETRACHLOROETHENE	29 U	0.29 U	5.8	240 U	0.29 U	0.97 U
TOLUENE	250	0.13 U	0.26 U	2000	0.13 U	0.43 U
TOTAL XYLENES	7900	0.14 U	2 J	120 U	0.14 U	0.47 U
TRANS-1,2-DICHLOROETHENE	19 U	0.19 U	1.4 J	160 J	0.19 U	1.1 J
TRANS-1,3-DICHLOROPROPENE	19 U	0.19 U	0.38 U	160 U	0.19 U	0.63 U
TRICHLOROETHENE	17 U	0.17 U	20	50000	12	200
TRICHLOROFLUOROMETHANE	21 U	0.21 U	0.42 U	170 U	0.21 U	0.7 U
VINYL ACETATE	19 U	0.19 U	0.38 U	160 U	0.19 U	0.63 U
VINYL CHLORIDE	970	0.27 J	37	17000	0.22 U	90
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-42S MSA-MW42S-040214 20140402	MSA-MW-43S MSA-MW43S-032814 20140328	MSA-MW-44S MSA-MW44S-032814 20140328	MSA-MW-45S MSA-MW45S-040414 20140404	DR-MW-46D MSA-MW46D-040214 20140402	DR-MW-46I MSA-MW46I-040214 20140402
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	NA	1 U	2 U	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	4 NJ	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	1.1	2.2	18	1000	0.26 U	25
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-42S	MSA-MW-43S	MSA-MW-44S	MSA-MW-45S	DR-MW-46D	DR-MW-46I
SAMPLE ID	MSA-MW42S-040214	MSA-MW43S-032814	MSA-MW44S-032814	MSA-MW45S-040414	MSA-MW46D-040214	MSA-MW46I-040214
SAMPLE DATE	20140402	20140328	20140328	20140404	20140402	20140402
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-42S	MSA-MW-43S	MSA-MW-44S	MSA-MW-45S	DR-MW-46D	DR-MW-46I
SAMPLE ID	MSA-MW42S-040214	MSA-MW43S-032814	MSA-MW44S-032814	MSA-MW45S-040414	MSA-MW46D-040214	MSA-MW46I-040214
SAMPLE DATE	20140402	20140328	20140328	20140404	20140402	20140402
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.18 U	0.25 U	0.37 U	0.47 U	0.11 U	2.8 U
ARSENIC	4.3 J	1.4 J	1.8 J	3.4 J	0.5 U	28
BARIUM	360	54	110	63	29	23 U
BERYLLIUM	0.082 U	0.033 U	0.034 U	0.6 U	0.11 U	2
CADMIUM	0.026 UJ	0.082 J	0.22 J	4700	0.048 U	0.21 U
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	2 J	0.32 J	1.3 J	9300	0.23 U	8.4
COBALT	0.29 U	0.29 J	0.29 J	33	14	130
COPPER	0.46 U	0.24 UJ	0.24 UJ	6.1	0.86 U	14
IRON	52000	340	7700	180	7000	12000
LEAD	0.14 U	0.17 J	1.2	0.14 U	0.14 U	3.5 U
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	920	500	1300	2500	67	1100
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 U	1.6 J	0.81 U	1.2 J
NICKEL	0.37 U	1.3 J	0.49 J	180	25	67
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	0.52 J	0.44 J	0.45 J	7.7	0.34 U	60
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	0.0083 U	0.0083 U	0.023 U	0.0083 U	0.0083 U	0.0083 U
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	10 U
VANADIUM	2.7 J	1.8 J	12	0.15 U	0.15 U	7.4
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	0.17 U	0.22 U	0.3 U	0.49 U	0.11 U	0.55 U
ARSENIC	4.6 J	1.5 J	1.7 J	3.3 J	0.53 U	8.7
BARIUM	360	55	110	63	28	17 U
BERYLLIUM	0.076 U	0.031 U	0.031 U	0.6 U	0.11 U	0.86 J
CADMIUM	0.026 UJ	0.033 J	0.026 U	4700	0.026 U	0.11 U
CHROMIUM	1.9 J	0.2 J	0.78 J	9300	0.13 U	1.1 J
COBALT	0.29 U	0.36 J	0.48 J	33	18	110
COPPER	0.31 U	0.24 UJ	0.24 UJ	5.8	0.24 U	1.2 U
IRON	52000	400	6300	12 U	6100	5200
LEAD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.7 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-42S	MSA-MW-43S	MSA-MW-44S	MSA-MW-45S	DR-MW-46D	DR-MW-46I
SAMPLE ID	MSA-MW42S-040214	MSA-MW43S-032814	MSA-MW44S-032814	MSA-MW45S-040414	MSA-MW46D-040214	MSA-MW46I-040214
SAMPLE DATE	20140402	20140328	20140328	20140404	20140402	20140402
MANGANESE	940	590	1300	2400	66	1000
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 U	1.4 J	0.81 U	0.81 U
NICKEL	0.45 U	1.2 J	1.8 J	180	24	58
SELENIUM	0.58 J	0.46 J	0.55 J	8.2	0.34 U	20
SILVER	0.0083 U	0.01 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2 U
VANADIUM	2.6 J	1.8 J	11	0.15 U	0.15 U	0.92 J
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	0.04 UJ	0.04 UJ
PERCHLORATE	NA	NA	NA	NA	0.1 J	0.082 U
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	16000 J	45 J	150	38000 J	NA	NA
DIESEL-RANGE ORGANICS	1300	1200	1000	2200	NA	NA
RADIONUCLIDES (PCI/L)						
RADIUM-228	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	DR-MW-46S	MSA-MW-47D	MSA-MW-47I	MSA-MW-47S	MSA-MW-48D	MSA-MW-48I
SAMPLE ID	MSA-MW46S-040214	MSA-MW47D-040814	MSA-MW47I-040314	MSA-MW47S-040314	MSA-MW-48D-040914	MSA-MW-48I-040914
SAMPLE DATE	20140402	20140408	20140403	20140403	20140409	20140409
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	0.23 U	1.3 U	12 U	1.3 U	1.3 U	38 U
1,1,1-TRICHLOROETHANE	0.22 U	1.3 U	11 U	1.3 U	1.3 U	37 U
1,1,2,2-TETRACHLOROETHANE	0.18 U	1 U	9 U	1 U	1 UJ	30 UJ
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	1.6 U	14 U	1.6 U	1.6 U	47 U
1,1-DICHLOROETHANE	1.3	0.86 U	7.5 U	0.86 U	0.86 U	25 U
1,1-DICHLOROETHENE	0.19 U	1.1 U	9.5 U	1.3 J	1.1 U	32 U
1,1-DICHLOROPROPENE	0.13 U	0.74 U	6.5 U	0.74 U	0.74 U	22 U
1,2,3-TRICHLOROBENZENE	0.17 U	0.97 U	8.5 U	0.97 U	0.97 U	28 U
1,2,3-TRICHLOROPROPANE	0.43 U	2.5 U	22 U	2.5 U	2.5 UJ	72 UJ
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.034 U	0.3 U	0.034 U	0.034 U	0.98 U
1,2,4-TRICHLOROBENZENE	0.15 U	0.86 U	19 J	1.8 J	0.86 U	88 J
1,2,4-TRIMETHYLBENZENE	0.12 U	0.69 U	6 U	0.69 U	0.69 U	20 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 UJ	3.8 U	34 UJ	3.8 U	3.8 U	110 U
1,2-DIBROMOETHANE	0.24 U	1.4 U	12 U	1.4 U	1.4 U	40 U
1,2-DICHLOROBENZENE	0.13 U	0.74 U	6.5 U	0.74 U	0.74 U	22 U
1,2-DICHLOROETHANE	0.22 U	3.6 J	50	5.6 J	2.7 J	37 U
1,2-DICHLOROPROPANE	0.18 U	1 U	9 U	1 U	1 U	30 U
1,3-DICHLOROBENZENE	0.14 U	0.8 U	7 U	0.8 U	0.8 U	23 U
1,3-DICHLOROPROPANE	0.16 U	0.91 U	8 U	0.91 U	0.91 UJ	27 UJ
1,4-DICHLOROBENZENE	0.13 U	0.74 U	6.5 U	0.74 U	0.74 U	22 U
2,2-DICHLOROPROPANE	0.13 U	0.74 U	6.5 U	0.74 U	0.74 U	22 U
2-BUTANONE	0.57 U	3.3 U	29 U	3.3 U	3.3 U	95 U
2-CHLOROETHYL VINYL ETHER	0.99 U	5.7 U	50 U	5.7 U	5.7 U	170 U
2-CHLOROTOLUENE	0.11 U	0.63 U	5.5 U	0.63 U	0.63 U	18 U
2-HEXANONE	0.41 U	2.3 U	21 U	2.3 U	2.3 U	68 U
4-CHLOROTOLUENE	0.18 U	1 U	9 U	1 U	1 U	30 U
4-ISOPROPYLTOLUENE	0.12 U	0.69 U	6 U	0.69 U	0.69 U	20 U
4-METHYL-2-PENTANONE	0.32 U	1.8 U	16 U	1.8 U	1.8 U	53 U
ACETONE	1.1 U	6.3 U	55 U	6.3 U	6.3 U	180 U
BENZENE	0.13 U	0.74 U	6.5 U	1.5 J	0.96 J	22 U
BROMOBENZENE	0.13 U	0.74 U	6.5 U	0.74 U	0.74 U	22 U
BROMOCHLOROMETHANE	0.29 U	1.7 U	15 U	1.7 U	1.7 U	48 U
BROMODICHLOROMETHANE	0.15 U	0.86 U	7.5 U	0.86 U	0.86 U	25 U
BROMOFORM	0.64 UJ	3.7 U	32 UJ	3.7 U	3.7 U	110 U
BROMOMETHANE	0.41 UJ	2.3 UJ	21 UJ	2.3 UJ	2.3 U	68 U
CARBON DISULFIDE	0.27 J	0.74 U	6.5 UJ	0.74 U	0.74 U	22 U
CARBON TETRACHLORIDE	0.13 U	2.1 J	8.7 J	1.4 J	0.74 U	22 U
CHLOROBENZENE	0.15 U	0.86 U	42 J	5.9	0.86 U	25 U
CHLORODIBROMOMETHANE	0.18 U	1 U	9 U	1 U	1 U	30 U
CHLOROETHANE	0.29 U	1.7 U	15 U	1.7 U	1.7 U	48 U
CHLOROFORM	0.16 U	19	27 J	3 J	0.91 U	27 U
CHLOROMETHANE	0.3 UJ	1.7 U	15 UJ	1.7 U	1.7 U	50 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	DR-MW-46S MSA-MW46S-040214 20140402	MSA-MW-47D MSA-MW47D-040814 20140408	MSA-MW-47I MSA-MW47I-040314 20140403	MSA-MW-47S MSA-MW47S-040314 20140403	MSA-MW-48D MSA-MW-48D-040914 20140409	MSA-MW-48I MSA-MW-48I-040914 20140409
CIS-1,2-DICHLOROETHENE	0.52 J	38	490	64	100	510
CIS-1,3-DICHLOROPROPENE	0.14 U	0.8 U	7 U	0.8 U	0.8 U	23 U
DIBROMOMETHANE	0.28 U	1.6 UJ	14 U	1.6 UJ	1.6 U	47 U
DICHLORODIFLUOROMETHANE	0.31 U	1.8 U	16 U	1.8 U	1.8 U	52 U
DIISOPROPYL ETHER	1.5 U	8.6 U	75 U	8.6 U	8.6 U	250 U
ETHYL TERT-BUTYL ETHER	0.11 U	0.63 U	5.5 U	0.63 U	0.63 U	18 U
ETHYLBENZENE	0.17 U	0.97 U	8.5 U	0.97 U	0.97 U	28 U
HEXACHLOROBUTADIENE	0.3 U	1.7 U	15 U	1.7 U	1.7 U	50 U
ISOPROPYLBENZENE	0.13 U	0.74 U	6.5 U	0.74 U	0.74 U	22 U
M+P-XYLENES	0.24 U	1.4 U	12 U	1.4 U	1.4 U	40 U
METHYL TERT-BUTYL ETHER	0.17 U	0.97 U	8.5 U	0.97 U	0.97 U	28 U
METHYLENE CHLORIDE	0.33 U	1.9 U	47 U	4.2 U	1.9 U	55 U
NAPHTHALENE	0.24 U	1.4 U	12 U	1.4 U	1.4 U	40 U
N-BUTYLBENZENE	0.12 U	0.69 UJ	6 U	0.69 UJ	0.69 U	20 U
N-PROPYLBENZENE	0.14 U	0.8 U	7 U	0.8 U	0.8 U	23 U
O-XYLENE	0.14 U	0.8 U	7 U	0.8 U	0.8 U	23 U
SEC-BUTYLBENZENE	0.13 U	0.74 UJ	6.5 U	0.74 UJ	0.74 U	22 U
STYRENE	0.11 U	0.63 U	5.5 U	0.63 U	0.63 U	18 U
TERT-AMYL METHYL ETHER	0.067 U	0.38 U	3.4 U	0.38 U	0.38 U	11 U
TERT-BUTYLBENZENE	0.13 U	0.74 U	6.5 U	0.74 U	0.74 U	22 U
TERTIARY-BUTYL ALCOHOL	3.9 UJ	22 UJ	200 UJ	22 UJ	22 U	650 U
TETRACHLOROETHENE	0.29 U	1.7 U	15 U	1.7 U	1.7 U	48 U
TOLUENE	0.13 U	0.74 U	6.5 U	0.74 U	1.5 J	22 U
TOTAL XYLENES	0.14 U	0.8 U	7 U	0.8 U	0.8 U	23 U
TRANS-1,2-DICHLOROETHENE	0.19 U	1.1 U	9.5 U	1.1 U	1.3 J	32 U
TRANS-1,3-DICHLOROPROPENE	0.19 U	1.1 U	9.5 U	1.1 U	1.1 U	32 U
TRICHLOROETHENE	0.95 J	360	3400	440	180	4200
TRICHLOROFLUOROMETHANE	0.21 U	1.2 UJ	11 U	1.2 UJ	1.2 UJ	35 UJ
VINYL ACETATE	0.19 U	1.1 U	9.5 U	1.1 U	1.1 U	32 U
VINYL CHLORIDE	0.22 U	3.3 J	410	50	32	100 J
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	0.22 J	0.45
ETHENE	NA	NA	NA	NA	1.6	7.4
METHANE	NA	NA	NA	NA	57	110
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	DR-MW-46S MSA-MW46S-040214 20140402	MSA-MW-47D MSA-MW47D-040814 20140408	MSA-MW-47I MSA-MW47I-040314 20140403	MSA-MW-47S MSA-MW47S-040314 20140403	MSA-MW-48D MSA-MW-48D-040914 20140409	MSA-MW-48I MSA-MW-48I-040914 20140409
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	2.1	14 J	120	40	21 J	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	DR-MW-46S	MSA-MW-47D	MSA-MW-47I	MSA-MW-47S	MSA-MW-48D	MSA-MW-48I
SAMPLE ID	MSA-MW46S-040214	MSA-MW47D-040814	MSA-MW47I-040314	MSA-MW47S-040314	MSA-MW-48D-040914	MSA-MW-48I-040914
SAMPLE DATE	20140402	20140408	20140403	20140403	20140409	20140409
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	DR-MW-46S	MSA-MW-47D	MSA-MW-47I	MSA-MW-47S	MSA-MW-48D	MSA-MW-48I
SAMPLE ID	MSA-MW46S-040214	MSA-MW47D-040814	MSA-MW47I-040314	MSA-MW47S-040314	MSA-MW-48D-040914	MSA-MW-48I-040914
SAMPLE DATE	20140402	20140408	20140403	20140403	20140409	20140409
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.18 U	0.31 U	2.8 U	0.28 U	0.11 U	0.24 U
ARSENIC	9.6	2.4 J	52	9.5	3.7 J	4 J
BARIUM	56	18	30 U	32	27	19
BERYLLIUM	0.078 U	0.16 U	6.4	0.12 U	2.4	2.9
CADMIUM	0.088 U	0.026 U	110	1.7	14	170
CALCIUM	NA	NA	NA	NA	21000	21000
CHROMIUM	3	0.16 J	22	0.92 J	5	6.5
COBALT	5	11 J	240	46	170 J	300 J
COPPER	4.5	0.55 U	290	1.3 U	29	47
IRON	17000	3700 J	11000	11000	570 J	1500 J
LEAD	0.28 U	0.17 U	3.5 U	0.14 U	0.67 U	1 U
MAGNESIUM	NA	NA	NA	NA	17000	18000
MANGANESE	910	100 J	5200	4200	2600 J	4400 J
MERCURY	0.12 U	0.12 U	0.76	0.12 U	1.7	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 U	0.81 U	0.81 UJ	0.81 UJ
NICKEL	4.5	11 J	90	17	89 J	130 J
POTASSIUM	NA	NA	NA	NA	2200 J	2300 J
SELENIUM	0.64 J	0.58 J	76	1.1 J	10	9.4
SILICON DIOXIDE	NA	NA	NA	NA	11000	9200
SILVER	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.011 U
SODIUM	NA	NA	NA	NA	58000	64000
THALLIUM	0.4 U	0.4 U	10 U	0.4 U	0.4 U	0.4 U
VANADIUM	2.1 J	0.9 U	2.5 J	0.84 J	1.8 U	2.8 U
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	0.15 U	0.25 U	0.55 U	0.26 U	0.11 U	0.11 U
ARSENIC	5.9	2 U	6.8	11	3.3 J	3.9 J
BARIUM	51	16	26 U	33	26	19
BERYLLIUM	0.054 U	0.16 U	1.4	0.12 U	2.3	2.7
CADMIUM	0.026 U	0.026 U	90	0.045 U	13	150
CHROMIUM	2.3	0.13 U	1.3 J	0.86 U	4	5.7
COBALT	4.8	10 J	280	52	160 J	310 J
COPPER	0.24 U	0.24 U	14	0.24 U	27	16
IRON	13000	3100 J	3200	12000	280 J	1300 J
LEAD	0.14 U	0.14 U	0.7 U	0.14 U	0.58 U	0.71 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	DR-MW-46S	MSA-MW-47D	MSA-MW-47I	MSA-MW-47S	MSA-MW-48D	MSA-MW-48I
SAMPLE ID	MSA-MW46S-040214	MSA-MW47D-040814	MSA-MW47I-040314	MSA-MW47S-040314	MSA-MW-48D-040914	MSA-MW-48I-040914
SAMPLE DATE	20140402	20140408	20140403	20140403	20140409	20140409
MANGANESE	920	91 J	5500	4800	2400 J	4600 J
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 U	0.81 U	0.81 UJ	0.81 UJ
NICKEL	5.5	10 J	100	19	86 J	130 J
SELENIUM	0.5 J	0.5 J	13	1 J	9.6	9.4
SILVER	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U
THALLIUM	0.4 U	0.4 U	2 U	0.4 U	0.4 U	0.4 U
VANADIUM	0.85 J	0.72 U	0.26 U	0.9 J	0.96 U	2.1 U
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	1.9 U	4.4 J
AMMONIA-N	NA	NA	NA	NA	0.25	0.3
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	52	53
CHLORIDE	NA	NA	NA	NA	98	110
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	2	2.4
HARDNESS AS CACO3	NA	NA	NA	NA	120	130
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	70	76
NITRATE-N	NA	NA	NA	NA	0.36	1.1
NITRITE-N	NA	NA	NA	NA	0.012 U	0.29
ORTHOPHOSPHATE-P	NA	NA	NA	NA	0.98	1.5
SULFATE	NA	NA	NA	NA	170	240
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	440	540
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	0.04 UJ	0.04 U	0.04 U	0.04 UJ	1 U	1 UJ
PERCHLORATE	0.082 U	0.082 U	0.086 J	0.082 U	0.082 U	0.082 U
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	25 U	NA	NA	220	NA	NA
DIESEL-RANGE ORGANICS	250 U	NA	NA	700	NA	NA
RADIONUCLIDES (PCI/L)						
RADIUM-228	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-48I	MSA-MW-48S	MSA-MW-49D	MSA-MW-49I	MSA-MW-49S	MSA-MW-50D
SAMPLE ID	MSA-MW-48I-041414	MSA-MW-48S-041014	MSA-MW-49D-041714	MSA-MW-49I-041014	MSA-MW-49S-041014	MSA-MW-50D-041614
SAMPLE DATE	20140414	20140410	20140417	20140410	20140410	20140416
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	NA	1.2 U	19 U	46 U	3.3 U	0.23 U
1,1,1-TRICHLOROETHANE	NA	1.1 U	56 J	44 U	3.1 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	NA	0.9 UJ	15 U	36 UJ	2.6 UJ	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	1.4 U	23 U	56 U	4 U	0.28 U
1,1-DICHLOROETHANE	NA	0.75 U	23 J	30 U	2.1 U	0.15 U
1,1-DICHLOROETHENE	NA	0.95 U	150	160 J	7.4 J	0.19 U
1,1-DICHLOROPROPENE	NA	0.65 U	11 U	26 U	1.9 U	0.13 U
1,2,3-TRICHLOROBENZENE	NA	0.85 U	14 U	34 U	2.4 U	0.17 U
1,2,3-TRICHLOROPROPANE	NA	2.2 UJ	36 U	86 UJ	6.1 UJ	0.43 U
1,2,3-TRIMETHYLBENZENE	NA	0.03 U	0.49 U	1.2 U	0.084 U	0.0059 U
1,2,4-TRICHLOROBENZENE	NA	0.75 U	12 U	30 U	2.1 U	0.15 U
1,2,4-TRIMETHYLBENZENE	NA	0.6 U	10 UJ	24 U	1.7 U	0.12 UJ
1,2-DIBROMO-3-CHLOROPROPANE	NA	3.4 U	56 U	130 U	9.6 U	0.67 U
1,2-DIBROMOETHANE	NA	1.2 U	20 U	48 U	3.4 U	0.24 U
1,2-DICHLOROBENZENE	NA	0.65 U	11 U	26 U	1.9 U	0.13 U
1,2-DICHLOROETHANE	NA	1.1 U	18 U	44 U	8 J	0.22 U
1,2-DICHLOROPROPANE	NA	0.9 U	15 U	36 U	2.6 U	0.18 U
1,3-DICHLOROBENZENE	NA	0.7 U	12 U	28 U	2 U	0.14 U
1,3-DICHLOROPROPANE	NA	0.8 UJ	13 U	32 UJ	2.3 UJ	0.16 U
1,4-DICHLOROBENZENE	NA	0.65 U	11 U	26 U	1.9 U	0.13 U
2,2-DICHLOROPROPANE	NA	0.65 U	11 U	26 U	1.9 U	0.13 U
2-BUTANONE	NA	2.9 U	47 U	110 U	8.1 U	0.57 U
2-CHLOROETHYL VINYL ETHER	NA	5 U	82 U	200 U	14 U	0.99 U
2-CHLOROTOLUENE	NA	0.55 U	9.2 U	22 U	1.6 U	0.11 U
2-HEXANONE	NA	2.1 U	34 U	82 U	5.9 U	0.41 U
4-CHLOROTOLUENE	NA	0.9 U	15 U	36 U	2.6 U	0.18 U
4-ISOPROPYLTOLUENE	NA	0.6 U	10 U	24 U	1.7 U	0.12 U
4-METHYL-2-PENTANONE	NA	1.6 U	27 U	64 U	4.6 U	0.32 U
ACETONE	NA	6.1 U	92 U	220 U	16 U	1.1 U
BENZENE	NA	0.65 U	11 U	26 U	1.9 U	0.13 U
BROMOBENZENE	NA	0.65 U	11 U	26 U	1.9 U	0.13 U
BROMOCHLOROMETHANE	NA	1.5 U	24 U	58 U	4.1 U	0.29 U
BROMODICHLOROMETHANE	NA	0.75 U	12 U	30 U	2.1 U	3.6
BROMOFORM	NA	3.2 U	53 UJ	130 U	9.1 U	0.64 UJ
BROMOMETHANE	NA	2.1 U	34 UJ	82 U	5.9 U	0.41 UJ
CARBON DISULFIDE	NA	0.65 U	11 U	26 U	1.9 U	0.19 J
CARBON TETRACHLORIDE	NA	0.65 U	11 U	26 U	1.9 U	0.13 U
CHLOROBENZENE	NA	0.75 U	12 U	30 U	2.8 J	0.15 U
CHLORODIBROMOMETHANE	NA	0.9 U	15 U	36 U	2.6 U	0.31 J
CHLOROETHANE	NA	1.5 U	24 U	58 U	4.1 U	0.29 U
CHLOROFORM	NA	2.6 J	13 U	32 U	2.3 U	25
CHLOROMETHANE	NA	1.5 U	25 U	60 U	4.3 U	0.3 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-48I MSA-MW-48I-041414 20140414	MSA-MW-48S MSA-MW-48S-041014 20140410	MSA-MW-49D MSA-MW-49D-041714 20140417	MSA-MW-49I MSA-MW-49I-041014 20140410	MSA-MW-49S MSA-MW-49S-041014 20140410	MSA-MW-50D MSA-MW-50D-041614 20140416
CIS-1,2-DICHLOROETHENE	NA	24	1600	1700	56	1.4
CIS-1,3-DICHLOROPROPENE	NA	0.7 U	12 U	28 U	2 U	0.14 U
DIBROMOMETHANE	NA	1.4 U	23 UJ	56 U	4 U	0.28 UJ
DICHLORODIFLUOROMETHANE	NA	1.6 U	26 U	62 U	4.4 U	0.31 U
DIISOPROPYL ETHER	NA	7.5 U	120 U	300 U	21 U	1.5 U
ETHYL TERT-BUTYL ETHER	NA	0.55 U	9.2 U	22 U	1.6 U	0.11 U
ETHYLBENZENE	NA	0.85 U	14 U	34 U	2.4 U	0.17 U
HEXACHLOROBUTADIENE	NA	1.5 U	25 UJ	60 U	4.3 U	0.3 UJ
ISOPROPYLBENZENE	NA	0.65 U	11 U	26 U	1.9 U	0.13 U
M+P-XYLENES	NA	1.2 U	20 U	48 U	3.4 U	0.24 U
METHYL TERT-BUTYL ETHER	NA	0.85 U	14 U	34 U	2.4 U	0.17 U
METHYLENE CHLORIDE	NA	1.7 U	27 U	66 U	4.7 U	0.33 U
NAPHTHALENE	NA	1.2 U	20 U	48 U	3.4 U	0.24 U
N-BUTYLBENZENE	NA	0.6 U	10 UJ	24 U	1.7 U	0.12 UJ
N-PROPYLBENZENE	NA	0.7 U	12 U	28 U	2 U	0.14 U
O-XYLENE	NA	0.7 U	12 U	28 U	2 U	0.14 U
SEC-BUTYLBENZENE	NA	0.65 U	11 UJ	26 U	1.9 U	0.13 UJ
STYRENE	NA	0.55 U	9.2 U	22 U	1.6 U	0.11 U
TERT-AMYL METHYL ETHER	NA	0.34 U	5.6 U	13 U	0.96 U	0.067 U
TERT-BUTYLBENZENE	NA	0.65 U	11 U	26 U	1.9 U	0.13 U
TERTIARY-BUTYL ALCOHOL	NA	20 U	320 UJ	780 U	56 U	3.9 UJ
TETRACHLOROETHENE	NA	1.5 U	24 U	58 U	4.1 U	0.29 U
TOLUENE	NA	1.4 J	11 U	26 U	1.9 U	0.13 U
TOTAL XYLENES	NA	0.7 U	12 U	28 U	2 U	0.14 U
TRANS-1,2-DICHLOROETHENE	NA	0.95 U	16 U	38 U	2.7 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	NA	0.95 U	16 U	38 U	2.7 U	0.19 U
TRICHLOROETHENE	NA	0.85 U	5800	4800	440	2.3
TRICHLOROFLUOROMETHANE	NA	1.1 UJ	17 U	42 UJ	3 UJ	0.21 U
VINYL ACETATE	NA	0.95 U	16 U	38 U	2.7 U	0.19 U
VINYL CHLORIDE	NA	120	490	1600	29	0.22 U
VOLATILE GASES (UG/L)						
ETHANE	NA	40	NA	NA	NA	NA
ETHENE	NA	32	NA	NA	NA	NA
METHANE	NA	470	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-48I MSA-MW-48I-041414 20140414	MSA-MW-48S MSA-MW-48S-041014 20140410	MSA-MW-49D MSA-MW-49D-041714 20140417	MSA-MW-49I MSA-MW-49I-041014 20140410	MSA-MW-49S MSA-MW-49S-041014 20140410	MSA-MW-50D MSA-MW-50D-041614 20140416
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	3.5 R
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	140	1.8	39	88	60	0.26 U
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-48I	MSA-MW-48S	MSA-MW-49D	MSA-MW-49I	MSA-MW-49S	MSA-MW-50D
SAMPLE ID	MSA-MW-48I-041414	MSA-MW-48S-041014	MSA-MW-49D-041714	MSA-MW-49I-041014	MSA-MW-49S-041014	MSA-MW-50D-041614
SAMPLE DATE	20140414	20140410	20140417	20140410	20140410	20140416
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	NA
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-48I	MSA-MW-48S	MSA-MW-49D	MSA-MW-49I	MSA-MW-49S	MSA-MW-50D
SAMPLE ID	MSA-MW-48I-041414	MSA-MW-48S-041014	MSA-MW-49D-041714	MSA-MW-49I-041014	MSA-MW-49S-041014	MSA-MW-50D-041614
SAMPLE DATE	20140414	20140410	20140417	20140410	20140410	20140416
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	NA	0.74 U	0.12 U	0.21 U	0.23 U	0.79 U
ARSENIC	NA	4 J	17	12 J	2.8 U	0.71 U
BARIUM	NA	40	14 J	12	32	51
BERYLLIUM	NA	0.31 U	9.7	9.1	3.1	0.069 U
CADMIUM	NA	0.3 J	21	32	12	0.036 J
CALCIUM	NA	340000	NA	NA	NA	NA
CHROMIUM	NA	1.5 J	7.7 J	4 J	1.7 J	0.78 J
COBALT	NA	1.5	97	97 J	100	1.6
COPPER	NA	2.2 U	240	110 J	13	1.7 U
IRON	NA	3100	7900	27000 J	9100	250
LEAD	NA	0.79 U	1.7 U	2.1 J	1.4	0.41 U
MAGNESIUM	NA	47000	NA	NA	NA	NA
MANGANESE	NA	100	5500	5200 J	3700	22
MERCURY	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	NA	2.3 J	0.81 U	0.87 J	0.81 U	45
NICKEL	NA	3.6	89	57 J	41	2.4
POTASSIUM	NA	15000	NA	NA	NA	NA
SELENIUM	NA	0.81 J	58	32 J	3.6 J	0.78 J
SILICON DIOXIDE	NA	27000	NA	NA	NA	NA
SILVER	NA	0.043 U	0.014 U	0.017 U	0.011 U	0.0083 U
SODIUM	NA	27000	NA	NA	NA	NA
THALLIUM	NA	0.4 U	2 U	2 U	0.4 U	0.4 U
VANADIUM	NA	2.9 U	6 U	4.5 U	1.2 U	2 U
ZINC	NA	NA	NA	NA	NA	NA
DISSOLVED METALS (UG/L)						
ANTIMONY	NA	0.58 U	0.11 U	0.15 U	0.2 U	0.64 U
ARSENIC	NA	3.9 J	15	12	2.1 U	0.64 U
BARIUM	NA	39	13	12	21	48
BERYLLIUM	NA	0.091 U	9	13	2.5	0.031 U
CADMIUM	NA	0.066 J	21	33	11	0.026 U
CHROMIUM	NA	1.3 J	6.1	3.2	0.87 J	0.4 J
COBALT	NA	1.5	75	100	100	1.2
COPPER	NA	0.79 U	110	110	12	1.4 U
IRON	NA	3400	4500	26000	8700	59 U
LEAD	NA	0.24 U	1.5 U	1.4 J	0.93 U	0.14 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-48I	MSA-MW-48S	MSA-MW-49D	MSA-MW-49I	MSA-MW-49S	MSA-MW-50D
SAMPLE ID	MSA-MW-48I-041414	MSA-MW-48S-041014	MSA-MW-49D-041714	MSA-MW-49I-041014	MSA-MW-49S-041014	MSA-MW-50D-041614
SAMPLE DATE	20140414	20140410	20140417	20140410	20140410	20140416
MANGANESE	NA	110	4300	5300	3800	5.7
MERCURY	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	NA	2.2 J	0.81 U	0.81 U	0.81 U	43
NICKEL	NA	4	68	59	42	3
SELENIUM	NA	0.51 J	54	33	3.4 J	0.81 J
SILVER	NA	0.015 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U
THALLIUM	NA	0.4 U	2 U	2 U	0.4 U	0.4 U
VANADIUM	NA	2.5 U	4.3 U	3.6 U	0.96 U	1.6 U
ZINC	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	390	NA	NA	NA	NA
AMMONIA-N	NA	0.82	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	850	NA	NA	NA	NA
CHLORIDE	NA	19 J	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	9.1	NA	NA	NA	NA
HARDNESS AS CACO3	NA	1000	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	190	NA	NA	NA	NA
NITRATE-N	NA	0.023 UJ	NA	NA	NA	NA
NITRITE-N	NA	0.012 UJ	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	0.044 UJ	NA	NA	NA	NA
SULFATE	NA	740	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	1500	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	0.04 UJ	0.04 UR	0.04 UJ	0.04 UJ	0.224 J-
PERCHLORATE	NA	0.082 U	0.92	4.2	0.082 U	0.082 U
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	NA	45 J	NA	NA	260	NA
DIESEL-RANGE ORGANICS	NA	240 U	NA	NA	240 U	NA
RADIONUCLIDES (PCI/L)						
RADIUM-228	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-50I	MSA-MW-50S	MSA-MW-51D	MSA-MW-51I	MSA-MW-51S	DR-MW-52D
SAMPLE ID	MSA-MW-50I-041414	MSA-MW-50S-041414	MSA-MW-51D-041714	MSA-MW-51I-041614	MSA-MW-51S-041614	MSA-MW-52D-052014
SAMPLE DATE	20140414	20140414	20140417	20140416	20140416	20140520
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	0.46 U	1.3 U	0.58 U	0.23 U	5.8 U	46 U
1,1,1-TRICHLOROETHANE	0.44 U	1.3 U	0.55 U	0.22 U	5.5 U	44 U
1,1,2,2-TETRACHLOROETHANE	0.36 U	1 U	0.45 U	0.18 U	4.5 U	36 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.56 U	1.6 U	0.7 U	0.28 U	7 U	56 U
1,1-DICHLOROETHANE	0.3 U	0.86 U	0.38 U	0.15 U	3.8 U	30 U
1,1-DICHLOROETHENE	0.38 U	1.1 U	0.48 U	0.19 U	4.8 U	42 J
1,1-DICHLOROPROPENE	0.26 U	0.74 U	0.33 U	0.13 U	3.3 U	26 U
1,2,3-TRICHLOROBENZENE	0.34 U	0.97 U	0.43 U	0.17 U	4.3 U	34 U
1,2,3-TRICHLOROPROPANE	0.86 U	2.5 U	1.1 U	0.43 U	11 U	86 U
1,2,3-TRIMETHYLBENZENE	0.012 U	0.034 U	0.015 U	0.0059 U	0.15 U	1.2 U
1,2,4-TRICHLOROBENZENE	0.3 U	0.86 U	0.38 U	0.15 U	3.8 U	130 J
1,2,4-TRIMETHYLBENZENE	0.24 U	0.69 U	0.3 UJ	0.12 UJ	3 UJ	24 U
1,2-DIBROMO-3-CHLOROPROPANE	1.3 U	3.8 U	1.7 U	0.67 U	17 U	130 U
1,2-DIBROMOETHANE	0.48 U	1.4 U	0.6 U	0.24 U	6 U	48 U
1,2-DICHLOROBENZENE	0.26 U	0.74 U	0.33 U	0.13 U	3.3 U	26 U
1,2-DICHLOROETHANE	0.54 J	1.6 J	0.65 J	0.22 U	5.5 U	180 J
1,2-DICHLOROPROPANE	0.36 U	1 U	0.45 U	0.18 U	4.5 U	36 U
1,3-DICHLOROBENZENE	0.28 U	0.8 U	0.35 U	0.14 U	3.5 U	28 U
1,3-DICHLOROPROPANE	0.32 U	0.91 U	0.4 U	0.16 U	4 U	32 U
1,4-DICHLOROBENZENE	0.26 U	0.74 U	0.33 U	0.13 U	3.3 U	26 U
2,2-DICHLOROPROPANE	0.26 UJ	0.74 UJ	0.33 U	0.13 U	3.3 U	26 U
2-BUTANONE	1.1 U	3.3 U	1.4 U	0.57 U	14 U	110 UJ
2-CHLOROETHYL VINYL ETHER	2 U	5.7 U	2.5 UR	0.99 U	25 U	200 UJ
2-CHLOROTOLUENE	0.22 U	0.63 U	0.28 U	0.11 U	2.8 U	22 U
2-HEXANONE	0.82 U	2.3 U	1 U	0.41 U	10 U	82 UJ
4-CHLOROTOLUENE	0.36 U	1 U	0.45 U	0.18 U	4.5 U	36 U
4-ISOPROPYLTOLUENE	0.24 U	0.69 U	0.3 U	0.12 U	3 U	24 U
4-METHYL-2-PENTANONE	0.64 U	1.8 U	0.8 U	0.32 U	8 U	64 U
ACETONE	3 U	6.3 U	2.8 U	1.1 U	28 U	220 UJ
BENZENE	0.26 U	0.74 U	0.33 U	0.13 U	3.3 U	42 J
BROMOBENZENE	0.26 U	0.74 U	0.33 U	0.13 U	3.3 U	26 U
BROMOCHLOROMETHANE	0.58 U	1.7 U	0.73 U	0.29 U	7.3 U	58 U
BROMODICHLOROMETHANE	0.3 U	0.86 U	0.38 U	0.15 U	3.8 U	30 U
BROMOFORM	1.3 U	3.7 U	1.6 UJ	0.64 UJ	16 UJ	130 U
BROMOMETHANE	0.82 UJ	2.3 UJ	1 UJ	0.41 UJ	10 UJ	82 U
CARBON DISULFIDE	0.38 J	0.74 U	0.33 U	0.13 U	3.3 U	26 U
CARBON TETRACHLORIDE	0.26 U	0.74 U	0.33 U	0.13 U	3.3 U	26 U
CHLOROBENZENE	0.3 U	1.3 J	0.7 J	0.15 U	3.8 U	140 J
CHLORODIBROMOMETHANE	0.36 U	1 U	0.45 U	0.18 U	4.5 U	36 U
CHLOROETHANE	0.58 U	1.7 U	0.73 U	0.29 U	7.3 U	58 U
CHLOROFORM	0.32 U	0.91 U	0.4 U	0.16 U	4 U	71 J
CHLOROMETHANE	0.6 U	1.7 U	0.75 U	0.3 U	7.5 U	60 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-50I	MSA-MW-50S	MSA-MW-51D	MSA-MW-51I	MSA-MW-51S	DR-MW-52D
SAMPLE ID	MSA-MW-50I-041414	MSA-MW-50S-041414	MSA-MW-51D-041714	MSA-MW-51I-041614	MSA-MW-51S-041614	MSA-MW-52D-052014
SAMPLE DATE	20140414	20140414	20140417	20140416	20140416	20140520
CIS-1,2-DICHLOROETHENE	18	57	35	9.9	1100	5600
CIS-1,3-DICHLOROPROPENE	0.28 U	0.8 U	0.35 U	0.14 U	3.5 U	28 U
DIBROMOMETHANE	0.56 U	1.6 U	0.7 UJ	0.28 UJ	7 UJ	56 U
DICHLORODIFLUOROMETHANE	0.62 U	1.8 U	0.78 U	0.31 U	7.8 U	62 UJ
DIISOPROPYL ETHER	3 U	8.6 U	3.8 U	1.5 U	38 U	300 U
ETHYL TERT-BUTYL ETHER	0.22 U	0.63 U	0.28 U	0.11 U	2.8 U	22 UJ
ETHYLBENZENE	0.34 U	0.97 U	0.43 U	0.17 U	4.3 U	34 U
HEXACHLOROBUTADIENE	0.6 U	1.7 U	0.75 UJ	0.3 UJ	7.5 UJ	60 UJ
ISOPROPYLBENZENE	0.26 U	0.74 U	0.33 U	0.13 U	3.3 U	26 U
M+P-XYLENES	0.48 U	1.4 U	0.6 U	0.24 U	6 U	48 U
METHYL TERT-BUTYL ETHER	0.34 U	0.97 U	0.43 U	0.17 U	4.3 U	34 UJ
METHYLENE CHLORIDE	0.66 U	1.9 U	1.3 J	0.33 U	8.3 U	560 U
NAPHTHALENE	0.48 U	1.4 U	0.6 U	0.24 U	6 U	48 U
N-BUTYLBENZENE	0.24 U	0.69 U	0.3 UJ	0.12 UJ	3 UJ	24 UJ
N-PROPYLBENZENE	0.28 U	0.8 U	0.35 U	0.14 U	3.5 U	28 U
O-XYLENE	0.28 U	0.8 U	0.35 U	0.14 U	3.5 U	28 U
SEC-BUTYLBENZENE	0.26 U	0.74 U	0.33 UJ	0.13 UJ	3.3 UJ	26 UJ
STYRENE	0.22 U	0.63 U	0.28 U	0.11 U	2.8 U	22 U
TERT-AMYL METHYL ETHER	0.13 U	0.38 U	0.17 U	0.067 U	1.7 U	13 UJ
TERT-BUTYLBENZENE	0.26 U	0.74 U	0.33 U	0.13 U	3.3 U	26 U
TERTIARY-BUTYL ALCOHOL	7.8 U	22 U	9.8 UJ	3.9 UJ	98 UJ	780 UJ
TETRACHLOROETHENE	0.58 U	1.7 U	0.73 U	0.29 U	7.3 U	58 U
TOLUENE	0.26 U	0.74 U	0.33 U	0.13 U	3.3 U	26 U
TOTAL XYLENES	0.28 U	0.8 U	0.35 U	0.14 U	3.5 U	28 U
TRANS-1,2-DICHLOROETHENE	0.48 J	1.6 J	1.2 J	0.19 U	13 J	38 U
TRANS-1,3-DICHLOROPROPENE	0.38 U	1.1 U	0.48 U	0.19 U	4.8 U	38 U
TRICHLOROETHENE	60	170	94	9.9	730	16000
TRICHLOROFLUOROMETHANE	0.42 U	1.2 U	0.53 U	0.21 U	5.3 U	42 U
VINYL ACETATE	0.38 U	1.1 U	0.48 U	0.19 U	4.8 U	38 U
VINYL CHLORIDE	3.8	16	6.8	0.37 J	30	2200
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-50I MSA-MW-50I-041414 20140414	MSA-MW-50S MSA-MW-50S-041414 20140414	MSA-MW-51D MSA-MW-51D-041714 20140417	MSA-MW-51I MSA-MW-51I-041614 20140416	MSA-MW-51S MSA-MW-51S-041614 20140416	DR-MW-52D MSA-MW-52D-052014 20140520
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	1.1 NJ	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	NA	NA	NA	NA	2.5 U
1,4-DIOXANE	2.1	5	2.8	1.2	5.4	570
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	7.8 U
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	5.8 U
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	4.7 U
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	3.7 U
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	4.9 U
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	6.2 U
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	4.9 U
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	16 U
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	1.9 U
2-CHLOROPHENOL	NA	NA	NA	NA	NA	5.6 U
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	1.8 U
2-METHYLPHENOL	NA	NA	NA	NA	NA	3.3 U
2-NITROANILINE	NA	NA	NA	NA	NA	4.1 U
2-NITROPHENOL	NA	NA	NA	NA	NA	5.4 U
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	16 U
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	7.2 U
3-NITROANILINE	NA	NA	NA	NA	NA	5.4 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-50I	MSA-MW-50S	MSA-MW-51D	MSA-MW-51I	MSA-MW-51S	DR-MW-52D
SAMPLE ID	MSA-MW-50I-041414	MSA-MW-50S-041414	MSA-MW-51D-041714	MSA-MW-51I-041614	MSA-MW-51S-041614	MSA-MW-52D-052014
SAMPLE DATE	20140414	20140414	20140417	20140416	20140416	20140520
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	47 U
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	4.3 U
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	4.1 U
4-CHLOROANILINE	NA	NA	NA	NA	NA	4.1 U
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	5.8 U
4-NITROANILINE	NA	NA	NA	NA	NA	4.3 U
4-NITROPHENOL	NA	NA	NA	NA	NA	5.6 U
ACENAPHTHENE	NA	NA	NA	NA	NA	0.86 U
ACENAPHTHYLENE	NA	NA	NA	NA	NA	0.93 U
ACETOPHENONE	NA	NA	NA	NA	NA	6.6 U
ANTHRACENE	NA	NA	NA	NA	NA	1.7 U
ATRAZINE	NA	NA	NA	NA	NA	6.6 U
BAP EQUIVALENT-HALFND	NA	NA	NA	NA	NA	1 U
BAP EQUIVALENT-POS	NA	NA	NA	NA	NA	1 U
BENZALDEHYDE	NA	NA	NA	NA	NA	7.6 U
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	0.57 U
BENZO(A)PYRENE	NA	NA	NA	NA	NA	1 U
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	0.77 U
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	0.9 U
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	0.87 U
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	6.2 U
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	1.9 U
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	33 U
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	5 U
CAPROLACTAM	NA	NA	NA	NA	NA	3.9 U
CARBAZOLE	NA	NA	NA	NA	NA	5.4 U
CHRYSENE	NA	NA	NA	NA	NA	0.97 U
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	0.87 U
DIBENZOFURAN	NA	NA	NA	NA	NA	0.39 U
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	12 U
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	5.6 U
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	33 U
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	4.5 U
FLUORANTHENE	NA	NA	NA	NA	NA	0.87 U
FLUORENE	NA	NA	NA	NA	NA	0.79 U
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	1.7 U
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	5.2 U
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	4.7 U
HEXACHLOROETHANE	NA	NA	NA	NA	NA	3.7 U
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	0.84 U
ISOPHORONE	NA	NA	NA	NA	NA	5.2 U
NAPHTHALENE	NA	NA	NA	NA	NA	4.6
NITROBENZENE	NA	NA	NA	NA	NA	0.78 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-50I	MSA-MW-50S	MSA-MW-51D	MSA-MW-51I	MSA-MW-51S	DR-MW-52D
SAMPLE ID	MSA-MW-50I-041414	MSA-MW-50S-041414	MSA-MW-51D-041714	MSA-MW-51I-041614	MSA-MW-51S-041614	MSA-MW-52D-052014
SAMPLE DATE	20140414	20140414	20140417	20140416	20140416	20140520
N-NITROSODIMETHYLAMINE	NA	NA	NA	NA	NA	6 U
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	4.7 U
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	6 U
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	5.2 U
PHENANTHRENE	NA	NA	NA	NA	NA	1.2 U
PHENOL	NA	NA	NA	NA	NA	12 U
PYRENE	NA	NA	NA	NA	NA	0.82 U
METALS (UG/L)						
ANTIMONY	0.55 U	0.55 U	0.43 U	0.32 U	0.29 U	2.1 U
ARSENIC	8.7	12	2.1 U	5.6	2.3 J	3.2 U
BARIUM	21 J	16 U	96	15	33	34 J
BERYLLIUM	3	2.7	0.63 J	2	0.13 U	1 J
CADMIUM	0.026 U	0.026 U	1.8	13	0.055 J	22
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	42	7.9	1.2 J	8.8	0.77 J	10
COBALT	130	90	38	78	2.9	140
COPPER	0.24 U	0.24 U	17	130	1.2 U	4.5 U
IRON	31000	27000	15000	43000	6000	NA
LEAD	0.7 U	0.7 U	0.91 J	4.7	0.2 U	3 J
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	2500	2100	1600	2300	860	NA
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	2.6 J	0.81 U	1.8 J	1.3 U
NICKEL	38	77	25	37	5.4	41
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	18	24	3 J	12	1.4 J	4.1 U
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	2.2 U
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	2 U	2 U	0.4 U	0.4 U	0.4 U	4.7 U
VANADIUM	11	8.3	1.4 U	3.5 U	2.5 U	2.4 U
ZINC	NA	NA	NA	NA	NA	63
DISSOLVED METALS (UG/L)						
ANTIMONY	0.55 U	0.55 U	0.5 U	0.11 U	0.19 U	2.1 U
ARSENIC	7.9	11	8.2	4.7 J	1.8 J	3.2 U
BARIUM	22 J	17 U	27	15	31	32 J
BERYLLIUM	2.9	2.6	3.3	2.1	0.055 U	0.99 J
CADMIUM	0.026 U	0.026 U	4.7	2.5	0.026 U	0.66 U
CHROMIUM	25	7.6	3.9	7.6	0.21 J	8.4 J
COBALT	130	90	100	75	3.1	140
COPPER	0.34 U	0.24 U	37	7.4	2.2 U	4.5 U
IRON	27000	27000	19000	40000	560	NA
LEAD	0.7 U	0.7 U	1.4	1.8	0.14 U	2.5 J

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-50I	MSA-MW-50S	MSA-MW-51D	MSA-MW-51I	MSA-MW-51S	DR-MW-52D
SAMPLE ID	MSA-MW-50I-041414	MSA-MW-50S-041414	MSA-MW-51D-041714	MSA-MW-51I-041614	MSA-MW-51S-041614	MSA-MW-52D-052014
SAMPLE DATE	20140414	20140414	20140417	20140416	20140416	20140520
MANGANESE	2600	2000	2800	2300	870	NA
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.81 U	0.81 U	0.81 U	0.81 U	1.3 J	1.3 U
NICKEL	37	76	60	34	7.7	42
SELENIUM	17	25	17	12	1 J	4.1 U
SILVER	0.0083 U	0.0083 U	0.009 U	0.0083 U	0.0083 U	2.2 U
THALLIUM	2 U	2 U	0.4 U	0.4 U	0.4 U	4.7 U
VANADIUM	4 J	7.8	2.8 U	3.3 U	2.3 U	3.3 U
ZINC	NA	NA	NA	NA	NA	51
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	0.04 U	0.04 UJ	0.04 UR	0.04 UR	0.4 UR	10 U
PERCHLORATE	0.12 J	0.082 U	0.094 J	0.13 J	0.48 J	NA
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	NA	170 J	NA	NA	790 J	1000 J
DIESEL-RANGE ORGANICS	NA	240 U	NA	NA	640	990
RADIONUCLIDES (PCI/L)						
RADIUM-228	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	DR-MW-52I	DR-MW-52S	DR-MW-53I	DR-MW-53S	DR-MW-54I	DR-MW-54S
SAMPLE ID	MSA-MW-52I-052014	MSA-MW-52S-052014	MSA-MW-53I-052114	MSA-MW-53S-052114	MSA-MW-54I-051914	MSA-MW-54S-051914
SAMPLE DATE	20140520	20140520	20140521	20140521	20140519	20140519
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	58 U	12 U	58 U	0.46 U	230 U	230 U
1,1,1-TRICHLOROETHANE	55 J	11 U	55 U	0.44 U	220 U	220 U
1,1,2,2-TETRACHLOROETHANE	45 U	9 U	45 U	0.36 U	180 U	180 U
1,1,2-TRICHLOROTRIFLUOROETHANE	70 U	14 U	70 U	0.56 U	280 UJ	280 UJ
1,1-DICHLOROETHANE	38 U	7.5 U	38 U	0.3 U	150 U	150 U
1,1-DICHLOROETHENE	48 U	14 J	48 U	0.38 U	190 U	190 U
1,1-DICHLOROPROPENE	33 U	6.5 U	33 U	0.26 U	130 U	130 U
1,2,3-TRICHLOROBENZENE	43 U	8.5 U	43 U	0.34 U	170 U	170 U
1,2,3-TRICHLOROPROPANE	110 U	22 U	110 U	0.86 U	430 U	430 U
1,2,3-TRIMETHYLBENZENE	1.5 U	10 J	1.5 UJ	0.012 UJ	5.9 U	5.9 U
1,2,4-TRICHLOROBENZENE	210 J	12 J	38 U	0.3 U	150 U	150 U
1,2,4-TRIMETHYLBENZENE	30 U	8.6 J	30 UJ	0.24 UJ	120 U	120 U
1,2-DIBROMO-3-CHLOROPROPANE	170 U	34 U	170 U	1.3 U	670 UJ	670 UJ
1,2-DIBROMOETHANE	60 U	12 U	60 U	0.48 U	240 U	240 U
1,2-DICHLOROBENZENE	33 U	6.5 U	33 U	0.26 U	130 U	130 U
1,2-DICHLOROETHANE	150 J	52	76 J	1.2 J	220 U	220 U
1,2-DICHLOROPROPANE	45 U	9 U	45 U	0.36 U	180 U	180 U
1,3-DICHLOROBENZENE	35 U	7 U	35 U	0.28 U	140 U	140 U
1,3-DICHLOROPROPANE	40 U	8 U	40 U	0.32 U	160 U	160 U
1,4-DICHLOROBENZENE	33 U	6.5 U	33 U	0.26 U	130 U	130 U
2,2-DICHLOROPROPANE	33 U	6.5 U	33 U	0.26 U	130 UJ	130 UJ
2-BUTANONE	140 UJ	29 UJ	140 U	1.1 U	570 U	570 U
2-CHLOROETHYL VINYL ETHER	250 UJ	50 UJ	250 U	2 U	990 U	990 U
2-CHLOROTOLUENE	28 U	5.5 U	28 U	0.22 U	110 U	110 U
2-HEXANONE	100 UJ	21 UJ	100 UJ	0.82 UJ	410 U	410 U
4-CHLOROTOLUENE	45 U	9 U	45 U	0.36 U	180 U	180 U
4-ISOPROPYLTOLUENE	30 U	6 U	30 U	0.24 U	120 U	120 U
4-METHYL-2-PENTANONE	80 U	16 U	80 UJ	0.64 UJ	320 U	320 U
ACETONE	280 UJ	55 UJ	360 U	5.7 U	1100 U	1200 U
BENZENE	43 J	21 J	44 J	0.54 J	130 U	130 U
BROMOBENZENE	33 U	6.5 U	33 U	0.26 U	130 U	130 U
BROMOCHLOROMETHANE	73 U	15 U	73 U	0.58 U	290 U	290 U
BROMODICHLOROMETHANE	38 U	7.5 U	38 U	0.3 U	150 U	150 U
BROMOFORM	160 U	32 U	160 UJ	1.3 UJ	640 U	640 U
BROMOMETHANE	100 U	21 U	100 U	0.82 U	410 U	410 U
CARBON DISULFIDE	33 U	6.5 U	33 U	0.26 U	130 UJ	130 UJ
CARBON TETRACHLORIDE	34 J	6.5 U	33 U	0.26 U	3100	810 J
CHLOROBENZENE	130 J	65	38 U	0.3 U	150 U	150 U
CHLORODIBROMOMETHANE	45 U	9 U	45 U	0.36 U	180 U	180 U
CHLOROETHANE	73 U	15 U	73 UJ	0.58 UJ	290 UJ	290 UJ
CHLOROFORM	100 J	20 J	40 U	10	5500	7200
CHLOROMETHANE	75 U	15 U	75 U	0.6 U	300 U	300 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	DR-MW-52I MSA-MW-52I-052014 20140520	DR-MW-52S MSA-MW-52S-052014 20140520	DR-MW-53I MSA-MW-53I-052114 20140521	DR-MW-53S MSA-MW-53S-052114 20140521	DR-MW-54I MSA-MW-54I-051914 20140519	DR-MW-54S MSA-MW-54S-051914 20140519
CIS-1,2-DICHLOROETHENE	5600	2800	8300	76	6400	26000
CIS-1,3-DICHLOROPROPENE	35 U	7 U	35 U	0.28 U	140 U	140 U
DIBROMOMETHANE	70 U	14 U	70 U	0.56 U	280 U	280 U
DICHLORODIFLUOROMETHANE	78 UJ	16 UJ	78 UJ	0.62 UJ	310 U	310 U
DIISOPROPYL ETHER	380 U	75 U	380 U	3 U	1500 U	1500 U
ETHYL TERT-BUTYL ETHER	28 UJ	5.5 UJ	28 U	0.22 U	110 UJ	110 UJ
ETHYLBENZENE	43 U	27 J	43 U	0.34 U	170 U	170 U
HEXACHLOROBUTADIENE	75 UJ	15 UJ	75 UJ	0.6 UJ	300 UJ	300 UJ
ISOPROPYLBENZENE	33 U	6.5 U	33 U	0.26 U	130 U	130 U
M+P-XYLENES	60 U	18 J	60 U	0.48 U	240 U	240 U
METHYL TERT-BUTYL ETHER	43 UJ	8.5 UJ	43 U	0.34 U	170 UJ	170 UJ
METHYLENE CHLORIDE	700 U	130 U	83 U	1.1 J	980 J	700 J
NAPHTHALENE	60 U	12 U	60 U	0.48 U	240 UJ	240 UJ
N-BUTYLBENZENE	30 UJ	6 UJ	30 U	0.24 U	120 U	120 U
N-PROPYLBENZENE	35 U	7 U	35 U	0.28 U	140 U	140 U
O-XYLENE	35 U	9 J	35 U	0.28 U	140 U	140 U
SEC-BUTYLBENZENE	33 UJ	6.5 UJ	33 U	0.26 U	130 U	130 U
STYRENE	28 U	5.5 U	28 U	0.22 U	110 U	110 U
TERT-AMYL METHYL ETHER	17 UJ	3.4 UJ	17 U	0.13 U	67 UJ	67 UJ
TERT-BUTYLBENZENE	33 U	6.5 U	33 UJ	0.26 UJ	130 U	130 U
TERTIARY-BUTYL ALCOHOL	980 UJ	200 UJ	980 UJ	21 J	3900 UJ	3900 UJ
TETRACHLOROETHENE	73 U	15 U	73 U	0.58 U	290 U	290 U
TOLUENE	44 U	69	150 J	2.8	2400	15000
TOTAL XYLENES	35 U	27 J	35 U	0.28 U	140 U	140 U
TRANS-1,2-DICHLOROETHENE	48 U	22 J	48 U	0.55 J	190 U	190 U
TRANS-1,3-DICHLOROPROPENE	48 U	9.5 U	48 U	0.38 U	190 U	190 U
TRICHLOROETHENE	26000	3900	4700	60	28000	28000
TRICHLOROFLUOROMETHANE	53 U	11 U	53 U	0.42 U	210 UJ	210 UJ
VINYL ACETATE	48 U	9.5 U	48 UJ	0.38 UJ	190 UJ	190 UJ
VINYL CHLORIDE	2100	660	2100	26	450 J	1700
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)						
ACETALDEHYDE	NA	NA	NA	NA	NA	NA
CARBONYL SULFIDE	NA	NA	NA	NA	NA	NA
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-	NA	NA	NA	NA	NA	NA
2-OCTANONE	NA	NA	NA	NA	NA	NA
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-	NA	NA	NA	NA	NA	NA

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	DR-MW-52I MSA-MW-52I-052014 20140520	DR-MW-52S MSA-MW-52S-052014 20140520	DR-MW-53I MSA-MW-53I-052114 20140521	DR-MW-53S MSA-MW-53S-052114 20140521	DR-MW-54I MSA-MW-54I-051914 20140519	DR-MW-54S MSA-MW-54S-051914 20140519
BUTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
CHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, METHYL-	NA	NA	NA	NA	NA	NA
CYCLOHEXANE, PROPYL-	NA	NA	NA	NA	NA	NA
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA	NA	NA	NA	NA	NA	NA
DI-SEC-BUTYL ETHER	NA	NA	NA	NA	NA	NA
FORMAMIDE, N-METHYLTHIO	NA	NA	NA	NA	NA	NA
N-BUTYL ETHER	NA	NA	NA	NA	NA	NA
PENTANE, 2,2,4-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2,3,3-TRIMETHYL-	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA
TETRACYCLO[3.3.1.0(2,8).0(4,6)]-NON-2-EN	NA	NA	NA	NA	NA	NA
HALOACETIC ACIDS (UG/L)						
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	1.6 U	0.86 U	0.13 U	0.51 U	0.18 J	1.6 U
1,4-DIOXANE	500	290	380	150	140	480
2,2'-OXYBIS(1-CHLOROPROPANE)	4.8 U	2.6 U	0.39 U	1.6 U	0.38 U	4.9 U
2,4,5-TRICHLOROPHENOL	3.6 U	2 U	0.29 U	1.2 U	0.29 U	3.7 U
2,4,6-TRICHLOROPHENOL	2.9 U	1.6 U	0.24 U	0.94 U	0.23 U	2.9 U
2,4-DICHLOROPHENOL	2.3 U	1.3 U	0.19 U	0.75 U	0.18 U	2.3 U
2,4-DIMETHYLPHENOL	3 U	1.7 U	0.78 J	0.98 U	0.24 U	10 J
2,4-DINITROPHENOL	3.8 U	2.1 U	0.31 UJ	1.3 U	0.31 U	3.9 U
2,4-DINITROTOLUENE	3 U	1.7 U	0.25 U	0.98 U	0.24 U	3.1 U
2,6-DINITROTOLUENE	9.6 U	5.3 U	0.78 U	3.1 U	0.77 U	9.8 U
2-CHLORONAPHTHALENE	1.2 U	0.66 U	0.098 U	0.39 U	0.096 U	1.2 U
2-CHLOROPHENOL	3.5 U	1.9 U	0.28 U	1.1 U	0.28 U	3.6 U
2-METHYLNAPHTHALENE	2.1 J	0.6 U	0.16 J	0.35 U	1.9	1.1 U
2-METHYLPHENOL	2 U	1.1 U	0.61 J	0.67 U	2.8	350
2-NITROANILINE	2.5 U	1.4 U	0.21 U	0.82 U	0.2 U	2.6 U
2-NITROPHENOL	3.4 U	1.8 U	0.27 U	1.1 U	0.27 U	3.4 U
3&4-METHYLPHENOL	9.6 U	5.3 U	1.8 J	3.1 U	3.5	410
3,3'-DICHLOROBENZIDINE	4.4 U	2.4 U	0.36 UR	1.5 U	0.36 U	4.5 U
3-NITROANILINE	3.4 U	1.8 U	0.27 U	1.1 U	0.27 U	3.4 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	DR-MW-52I	DR-MW-52S	DR-MW-53I	DR-MW-53S	DR-MW-54I	DR-MW-54S
SAMPLE ID	MSA-MW-52I-052014	MSA-MW-52S-052014	MSA-MW-53I-052114	MSA-MW-53S-052114	MSA-MW-54I-051914	MSA-MW-54S-051914
SAMPLE DATE	20140520	20140520	20140521	20140521	20140519	20140519
4,6-DINITRO-2-METHYLPHENOL	29 U	16 U	2.4 U	9.4 U	2.3 UJ	29 UJ
4-BROMOPHENYL PHENYL ETHER	2.6 U	1.5 U	0.22 U	0.86 U	0.21 U	2.7 U
4-CHLORO-3-METHYLPHENOL	2.5 U	1.4 U	0.21 U	0.82 U	0.2 U	2.6 U
4-CHLOROANILINE	2.5 U	1.4 U	0.21 U	0.82 U	0.2 U	2.6 U
4-CHLOROPHENYL PHENYL ETHER	3.6 U	2 U	0.29 U	1.2 U	0.29 U	3.7 U
4-NITROANILINE	2.6 U	1.5 U	0.22 U	0.86 U	0.21 U	2.7 U
4-NITROPHENOL	3.5 U	1.9 U	0.28 U	1.1 UJ	1.7 J	3.6 U
ACENAPHTHENE	0.53 U	1.5	0.043 U	0.17 U	0.043 U	0.54 U
ACENAPHTHYLENE	0.58 U	0.32 U	0.047 U	0.19 U	0.046 U	0.59 U
ACETOPHENONE	4.1 U	2.2 U	0.33 U	1.3 U	4.7	7.4 J
ANTHRACENE	1.1 U	0.58 U	0.086 U	0.34 U	0.085 U	1.1 U
ATRAZINE	4.1 U	2.2 U	0.33 U	1.3 U	0.33 U	4.2 U
BAP EQUIVALENT-HALFND	0.62 U	0.34 U	0.05 U	0.2 U	0.049 U	0.63 U
BAP EQUIVALENT-POS	0.62 U	0.34 U	0.05 U	0.2 U	0.049 U	0.63 U
BENZALDEHYDE	4.7 U	2.6 U	0.38 U	1.5 U	0.37 U	4.8 U
BENZO(A)ANTHRACENE	0.35 U	0.19 U	0.029 U	0.12 U	0.028 U	0.36 U
BENZO(A)PYRENE	0.62 U	0.34 U	0.05 U	0.2 U	0.049 U	0.63 U
BENZO(B)FLUORANTHENE	0.47 U	0.26 U	0.039 U	0.15 U	0.038 U	0.48 U
BENZO(G,H,I)PERYLENE	0.56 U	0.31 U	0.045 U	0.18 U	0.045 U	0.57 U
BENZO(K)FLUORANTHENE	0.54 U	0.3 U	0.044 U	0.18 U	0.043 U	0.55 U
BIS(2-CHLOROETHOXY)METHANE	3.8 U	2.1 U	0.31 U	1.3 U	0.31 U	3.9 U
BIS(2-CHLOROETHYL)ETHER	1.2 U	0.66 U	0.098 U	0.39 U	0.096 U	1.2 U
BIS(2-ETHYLHEXYL)PHTHALATE	20 U	11 U	1.7 U	6.7 U	1.6 U	21 U
BUTYL BENZYL PHTHALATE	3.1 U	1.7 U	0.25 U	1 U	0.25 U	3.2 U
CAPROLACTAM	2.4 U	1.3 U	0.2 U	1.1 U	0.19 U	7.6 J
CARBAZOLE	3.4 U	1.8 U	0.27 U	1.1 U	0.27 U	3.4 U
CHRYSENE	0.6 U	0.33 U	0.049 U	0.2 U	0.048 U	0.62 U
DIBENZO(A,H)ANTHRACENE	0.54 U	0.29 U	0.044 U	0.17 U	0.043 U	0.55 U
DIBENZOFURAN	0.24 U	0.13 U	0.02 U	0.078 U	0.34 J	0.25 U
DIETHYL PHTHALATE	7.2 U	4 U	0.59 U	2.4 U	1 J	7.4 U
DIMETHYL PHTHALATE	3.5 U	1.9 U	0.28 U	1.1 U	0.28 U	3.6 U
DI-N-BUTYL PHTHALATE	20 U	11 U	1.7 U	6.7 U	1.6 U	21 U
DI-N-OCTYL PHTHALATE	2.8 U	1.5 U	0.23 U	0.9 UJ	0.22 U	2.8 U
FLUORANTHENE	0.54 U	0.29 U	0.044 U	0.17 U	0.043 U	0.55 U
FLUORENE	0.49 U	1.1 J	0.2	0.16 U	0.039 U	0.5 U
HEXACHLOROBENZENE	1 U	0.56 U	0.084 U	0.33 U	0.082 U	1 U
HEXACHLOROBUTADIENE	3.2 U	1.8 U	0.26 U	1.1 U	0.26 U	3.3 U
HEXACHLOROCYCLOPENTADIENE	2.9 U	1.6 U	0.24 UR	0.94 UR	0.23 U	2.9 U
HEXACHLOROETHANE	2.3 U	1.3 U	0.19 U	0.75 U	0.18 U	2.3 U
INDENO(1,2,3-CD)PYRENE	0.52 U	0.29 U	0.042 U	0.17 U	0.042 U	0.53 U
ISOPHORONE	3.2 U	1.8 U	0.26 U	1.1 U	0.26 U	3.3 U
NAPHTHALENE	5.5	0.41 U	1	0.25 U	8	8.3
NITROBENZENE	0.48 U	0.26 U	0.039 U	0.16 U	0.038 U	0.49 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	DR-MW-52I	DR-MW-52S	DR-MW-53I	DR-MW-53S	DR-MW-54I	DR-MW-54S
SAMPLE ID	MSA-MW-52I-052014	MSA-MW-52S-052014	MSA-MW-53I-052114	MSA-MW-53S-052114	MSA-MW-54I-051914	MSA-MW-54S-051914
SAMPLE DATE	20140520	20140520	20140521	20140521	20140519	20140519
N-NITROSODIMETHYLAMINE	3.7 U	2 U	0.3 U	1.2 U	0.3 U	3.8 U
N-NITROSO-DI-N-PROPYLAMINE	2.9 U	1.6 U	0.24 U	0.94 U	0.23 U	2.9 U
N-NITROSODIPHENYLAMINE	3.7 U	2 U	0.3 U	1.2 U	0.3 U	3.8 U
PENTACHLOROPHENOL	3.2 U	1.8 U	0.26 U	1.1 U	0.26 U	3.3 U
PHENANTHRENE	0.74 U	0.76 J	0.18 J	0.24 U	0.06 U	0.76 U
PHENOL	7.2 U	4 U	0.82 J	2.4 U	7.5	23
PYRENE	0.5 U	0.28 U	0.041 U	0.16 U	0.04 U	0.51 U
METALS (UG/L)						
ANTIMONY	3.6 J	2.1 J	4.2 U	4.1 J	2.1 U	4.9 J
ARSENIC	3.6 J	7 J	8.9 J	3.2 U	3.2 U	7.1 J
BARIUM	19 J	65 J	19 J	170 J	53 J	62 J
BERYLLIUM	1.1 J	0.46 U	2.9 J	0.46 UJ	0.46 U	0.46 U
CADMIUM	75	1.3 J	200 J	9.1 J	120	44
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	8.5 J	6.8 J	48 J	5 J	9.1 J	28
COBALT	220	13	320	61	170	79
COPPER	4.5 U	4.5 U	90 J	4.5 UJ	4.5 U	17 J
IRON	NA	NA	NA	NA	NA	NA
LEAD	5.1 J	2.6 J	4.8 J	1.9 UJ	1.9 U	6.5 J
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	1.3 U	4.6 J	2.6 U	3.9 J	5 J	6.3 J
NICKEL	72	20 J	240	67	120	89
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	4.1 U	4.1 U	8.2 U	4.1 U	4.1 U	4.1 U
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	2.2 U	2.2 U	4.4 UJ	2.2 UJ	2.2 U	2.2 U
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U
VANADIUM	11 U	6.6 U	64 J	2.4 UJ	2.4 U	26
ZINC	190	33 J	570	210	910	740
DISSOLVED METALS (UG/L)						
ANTIMONY	3.3 J	3.8 J	4.2 U	2.1 U	2.1 U	2.1 U
ARSENIC	3.2 U	6.3 J	7 J	3.2 U	3.2 U	3.9 J
BARIUM	17 J	65 J	18 J	170 J	53 J	34 J
BERYLLIUM	1.2 J	0.46 U	2.9 J	0.46 U	0.46 U	0.46 U
CADMIUM	11	1.5 J	190 J	9.1 J	110	45
CHROMIUM	5.9 J	5.8 J	36 J	3.5 J	4.6 J	5.2 J
COBALT	230	13	320	61	170	80
COPPER	4.5 U	4.5 U	56 J	4.5 UJ	4.5 U	4.5 U
IRON	NA	NA	NA	NA	NA	NA
LEAD	2 J	2.8 J	5.4 J	2.7 J	1.9 U	1.9 U

Table C-1
Chemical Results for Groundwater Samples-2014
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	DR-MW-52I	DR-MW-52S	DR-MW-53I	DR-MW-53S	DR-MW-54I	DR-MW-54S
SAMPLE ID	MSA-MW-52I-052014	MSA-MW-52S-052014	MSA-MW-53I-052114	MSA-MW-53S-052114	MSA-MW-54I-051914	MSA-MW-54S-051914
SAMPLE DATE	20140520	20140520	20140521	20140521	20140519	20140519
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	1.3 U	3.8 J	2.6 U	3.2 J	6.2 J	4.6 J
NICKEL	76	21 J	240	68	110	90
SELENIUM	4.1 U	4.1 U	8.2 U	4.1 U	4.1 U	4.1 U
SILVER	2.2 U	2.2 U	4.4 UJ	2.2 UJ	2.2 U	2.2 U
THALLIUM	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U
VANADIUM	5.1 U	3.8 U	53	2.4 U	2.4 U	2.4 U
ZINC	160	35 J	580	210	870	690
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CALCIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
MAGNESIUM HARDNESS AS CACO3	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	10 U	10 U	10 U	10 U	10 UR	10 UR
PERCHLORATE	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)						
GASOLINE-RANGE ORGANICS	1200 J	660 J	5400 J	100 U	19000 J	52000 J
DIESEL-RANGE ORGANICS	570	3200	1400	470 J	2700	1500
RADIONUCLIDES (PCI/L)						
RADIUM-228	NA	NA	NA	NA	NA	NA
TOTAL RADIUM	NA	NA	NA	NA	NA	NA

Notes:

J - estimated concentration

UG/L - micrograms per liter (i.e., parts per billion)

MG/L - milligrams per liter (i.e., parts per million)

MSA - Martin State Airport

MW - monitoring well

NA - not analyzed.

NJ - tentatively identified compound

U - analyte is not detected at the concentration shown left of the letter.

UR - not detected. Result is not considered reliable.

Table C-2
Chemical Results for Groundwater Samples-2014
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW01S	MT-MW02S	MT-MW03S	MT-MW04S	MT-MW05S	MT-MW06S	MT-MW07S
SAMPLE ID	MT-MW-01S-032614	MT-MW-02S-032614	MT-MW-03S-032814	MT-MW-4S-032714	MT-MW-5S-032714	MT-MW-6S-032714	MT-MW-07S-032614
SAMPLE DATE	3/26/2014	3/26/2014	3/28/2014	3/27/2014	3/27/2014	3/27/2014	3/26/2014
VOLATILES (UG/L)							
1,1,1,2-TETRACHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1,1-TRICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2,3-TRICHLOROBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
1,2,3-TRICHLOROPROPANE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
1,2,3-TRIMETHYLBENZENE	0.0059 U	2.3 J	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U
1,2,4-TRICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.53 J	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
1,2-DIBROMOETHANE	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,3-DICHLOROPROPANE	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,2-DICHLOROPROPANE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	3.2 J
2-CHLOROETHYL VINYL ETHER	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
2-CHLOROTOLUENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
4-CHLOROTOLUENE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-ISOPROPYLTOLUENE	0.12 U	0.33 J	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
ACETONE	2.8 J	2.9 J	4.4 J	1.1 U	1.1 U	1.1 U	11
BENZENE	0.13 U	13	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOCHLOROMETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
BROMODICHLOROMETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
BROMOFORM	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
BROMOMETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
CARBON DISULFIDE	0.13 U	0.48 U	0.13 U	0.13 U	0.13 U	0.13 U	1.4 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
CHLORODIBROMOMETHANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
CHLOROETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
CHLOROFORM	0.16 U	0.16 U	0.16 U	0.4 J	0.16 U	0.16 U	0.16 U

Table C-2
Chemical Results for Groundwater Samples-2014
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW01S	MT-MW02S	MT-MW03S	MT-MW04S	MT-MW05S	MT-MW06S	MT-MW07S
SAMPLE ID	MT-MW-01S-032614	MT-MW-02S-032614	MT-MW-03S-032814	MT-MW-4S-032714	MT-MW-5S-032714	MT-MW-6S-032714	MT-MW-07S-032614
SAMPLE DATE	3/26/2014	3/26/2014	3/28/2014	3/27/2014	3/27/2014	3/27/2014	3/26/2014
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CIS-1,2-DICHLOROETHENE	0.17 U	1.8	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
CIS-1,3-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
DIBROMOMETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
DICHLORODIFLUOROMETHANE	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
DIISOPROPYL ETHER	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
ETHYLBENZENE	0.17 U	6.3	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
HEXACHLOROBUTADIENE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
ISOPROPYLBENZENE	0.13 U	6.9	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
M+P-XYLENES	0.24 U	4.4	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	0.6 J	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
N-BUTYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
N-PROPYLBENZENE	0.14 U	1.6	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
O-XYLENE	0.14 U	3.2	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
SEC-BUTYLBENZENE	0.13 U	0.28 J	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
TERT-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
TERTIARY-BUTYL ALCOHOL	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U
TETRACHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
TOLUENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
TOTAL XYLENES	0.14 U	7.6	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRICHLOROETHENE	0.17 U	0.17 U	0.17 U	0.17 U	0.37 J	0.17 U	0.17 U
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
TENTATIVELY IDENTIFIED COMPOUNDS (UG/L)							
CYCLOBUTANE, METHYL-	NA	4.4 NJ	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)							
1,4-DIOXANE	0.25 UJ	0.27 UJ	0.26 U	0.28 U	0.27 U	0.26 U	0.24 UJ
METALS (UG/L)							
ANTIMONY	0.67 U	0.23 U	0.24 U	0.63 U	0.34 U	0.11 U	0.22 U
ARSENIC	4.1 J	4 J	1 U	0.57 U	0.65 U	0.74 U	0.96 J
BARIUM	150	83	44	61	22	140	23
BERYLLIUM	1.9	0.52 J	0.57 J	4.3	28	87	0.37 J
CADMIUM	0.026 U	0.026 U	0.026 U	0.16 J	0.86 J	2.6	0.026 U
CHROMIUM	1.2 J	0.5 J	0.92 J	0.31 J	0.5 J	0.32 J	0.55 J

Table C-2
Chemical Results for Groundwater Samples-2014
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW01S	MT-MW02S	MT-MW03S	MT-MW04S	MT-MW05S	MT-MW06S	MT-MW07S
SAMPLE ID	MT-MW-01S-032614	MT-MW-02S-032614	MT-MW-03S-032814	MT-MW-4S-032714	MT-MW-5S-032714	MT-MW-6S-032714	MT-MW-07S-032614
SAMPLE DATE	3/26/2014	3/26/2014	3/28/2014	3/27/2014	3/27/2014	3/27/2014	3/26/2014
COBALT	200	42	8.9	230	350	640	19
COPPER	1.2 U	15	2.4	76	33	57	0.24 U
IRON	47000	120000	4000	160	4600	47 J	11000
LEAD	0.5 J	0.42 J	1.1	1.2	2.2	1.5	0.17 J
MANGANESE	2800	720	180	210	4600	11000	130
MERCURY	0.12 UJ	0.12 UJ	0.12 U	0.12 U	0.12 U	0.12 U	0.12 UJ
MOLYBDENUM	1.2 J	0.81 U	2.2 J	0.81 U	0.81 U	0.81 U	0.81 U
NICKEL	83	31	21	340	700	1400	18
SELENIUM	0.38 J	0.45 J	0.35 J	0.34 U	0.71 J	1 J	0.34 U
SILVER	0.015 U	0.025 U	0.0083 U	0.018 U	0.031 U	0.081 J	0.0083 U
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 J	0.4 U	0.4 U
VANADIUM	0.68 J	1 J	2.2 U	0.81 U	0.97 U	0.76 U	4 J
DISSOLVED METALS (UG/L)							
ANTIMONY	0.76 U	0.19 U	0.29 U	0.89 U	0.14 U	0.11 U	0.19 U
ARSENIC	3.1 J	3.5 J	0.82 U	0.58 U	0.59 U	0.72 U	0.91 J
BARIUM	140	85	42	61	19	140	22
BERYLLIUM	1.5	0.48 J	0.32 J	4.3	29	86	0.36 J
CADMIUM	0.031 J	0.026 U	0.026 U	0.17 J	0.89 J	2.5	0.026 U
CHROMIUM	0.46 J	0.27 J	0.13 U	0.17 J	0.13 U	0.27 J	0.18 J
COBALT	180	42	8.7	230	370	660	19
COPPER	0.58 U	0.24 U	0.84 J	80	29	58	0.24 U
IRON	45000	120000	1800	12 U	170	12 U	10000
LEAD	0.59 J	0.14 U	0.14 U	1.3	0.36 J	1.5	0.14 U
MANGANESE	2700	750	180	220	4800	10000	140
MERCURY	0.12 UJ	0.12 UJ	0.12 U	0.12 U	0.12 U	0.12 U	0.12 UJ
MOLYBDENUM	1.1 J	0.81 U	2.4 J	0.81 U	0.81 U	0.81 U	0.81 U
NICKEL	67	30	23	360	720	1400	19
SELENIUM	0.46 J	0.61 J	0.34 J	0.34 U	0.34 U	0.98 J	0.34 U
SILVER	0.02 U	0.0083 U	0.0083 U	0.022 U	0.011 U	0.061 J	0.0083 U
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	0.22 J	0.63 J	1.1 U	0.61 U	0.91 U	0.76 U	1.5 J
PETROLEUM HYDROCARBONS (UG/L)							
GASOLINE-RANGE ORGANICS	36 J	510	32 J	36 J	57 J	46 J	34 J
DIESEL-RANGE ORGANICSS	1300	5200	1900	240 U	240 U	610	1100

Table C-2
Chemical Results for Groundwater Samples-2014
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW08S	MT-MW09S	MT-MW10S	MT-MW11S	MT-MW12S
SAMPLE ID	MT-MW-08S-032614	MT-MW-9S-032714	MT-MW-10S-032714	MT-MW-11S-032814	MT-MW-12S-032814
SAMPLE DATE	3/26/2014	3/27/2014	3/27/2014	3/28/2014	3/28/2014
VOLATILES (UG/L)					
1,1,1,2-TETRACHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1,1-TRICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2,3-TRICHLOROBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
1,2,3-TRICHLOROPROPANE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U
1,2,4-TRICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
1,2-DIBROMOETHANE	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,3-DICHLOROPROPANE	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2,2-DICHLOROPROPANE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	2.5 J	0.57 U	0.57 U	0.57 U	0.57 U
2-CHLOROETHYL VINYL ETHER	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
2-CHLOROTOLUENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
4-CHLOROTOLUENE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
4-ISOPROPYLTOLUENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
ACETONE	12	1.1 U	1.1 U	1.1 U	1.1 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
BROMOCHLOROMETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
BROMODICHLOROMETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
BROMOFORM	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
BROMOMETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
CARBON DISULFIDE	0.59 U	0.13 U	0.13 U	0.13 U	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.13 U	0.3 J
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
CHLORODIBROMOMETHANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
CHLOROETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
CHLOROFORM	0.16 U	0.16 U	0.16 U	0.16 U	6.7

Table C-2
Chemical Results for Groundwater Samples-2014
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW08S	MT-MW09S	MT-MW10S	MT-MW11S	MT-MW12S
SAMPLE ID	MT-MW-08S-032614	MT-MW-9S-032714	MT-MW-10S-032714	MT-MW-11S-032814	MT-MW-12S-032814
SAMPLE DATE	3/26/2014	3/27/2014	3/27/2014	3/28/2014	3/28/2014
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CIS-1,2-DICHLOROETHENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
CIS-1,3-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
DIBROMOMETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
DICHLORODIFLUOROMETHANE	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
DIISOPROPYL ETHER	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
HEXACHLOROBUTADIENE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
ISOPROPYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
N-BUTYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
N-PROPYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
O-XYLENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
TERT-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
TERTIARY-BUTYL ALCOHOL	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U
TETRACHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
TOLUENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
TOTAL XYLENES	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
TRICHLOROETHENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
TENTATIVELY IDENTIFIED COMPOUNDS (UG					
CYCLOBUTANE, METHYL-	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)					
1,4-DIOXANE	0.26 UJ	0.26 U	0.26 U	0.26 U	0.26 U
METALS (UG/L)					
ANTIMONY	0.34 U	0.23 U	0.43 U	0.3 U	0.28 U
ARSENIC	3.1 J	0.85 U	1.4 U	1 J	0.98 J
BARIUM	20	52	69	74	28
BERYLLIUM	0.23 U	2.6	4.8	0.13 U	53
CADMIUM	0.026 U	0.03 J	0.026 U	0.079 J	1.2
CHROMIUM	1.3 J	0.13 J	0.7 J	0.42 J	0.17 J

Table C-2
Chemical Results for Groundwater Samples-2014
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW08S	MT-MW09S	MT-MW10S	MT-MW11S	MT-MW12S
SAMPLE ID	MT-MW-08S-032614	MT-MW-9S-032714	MT-MW-10S-032714	MT-MW-11S-032814	MT-MW-12S-032814
SAMPLE DATE	3/26/2014	3/27/2014	3/27/2014	3/28/2014	3/28/2014
COBALT	14	6.3	140	410	580
COPPER	2.8	0.88 J	3.2	1.1 J	37
IRON	13000	1400	2300	3200	2800
LEAD	0.47 J	0.14 U	0.31 J	0.14 J	0.32 J
MANGANESE	74	280	430	2800	5200
MERCURY	0.12 UJ	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	1.2 J	0.81 U	1.2 J	0.81 U	0.81 U
NICKEL	8	15	220	670	1200
SELENIUM	0.34 U	0.34 U	0.34 U	0.36 J	1.2 J
SILVER	0.015 U	0.009 U	0.0083 U	0.014 U	0.012 U
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	1.3 J	0.8 U	2.1 U	0.94 J	0.66 J
DISSOLVED METALS (UG/L)					
ANTIMONY	0.26 U	0.11 U	0.38 U	0.16 U	0.18 U
ARSENIC	2.5 J	0.56 U	0.85 U	0.74 J	0.95 J
BARIUM	19	49	68	74	28
BERYLLIUM	0.13 U	2.1	2.7	0.12 U	55
CADMIUM	0.026 U	0.027 J	0.026 U	0.06 J	1.3
CHROMIUM	0.29 J	0.13 U	0.3 J	0.13 UJ	0.34 J
COBALT	14	6.2	120	420	600
COPPER	0.66 U	0.75 J	2.2	0.24 UJ	33
IRON	12000	520	590	1100	3700
LEAD	0.23 J	0.14 U	0.14 U	0.14 U	0.44 J
MANGANESE	72	280	330	2800	5300
MERCURY	0.12 UJ	0.12 U	0.12 U	0.12 U	0.12 U
MOLYBDENUM	0.83 J	0.81 U	1.1 J	0.81 U	0.81 U
NICKEL	9.8	15	210	670	1300
SELENIUM	0.34 U	0.34 U	0.34 U	0.34 U	1.1 J
SILVER	0.01 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U
THALLIUM	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
VANADIUM	0.29 J	0.76 U	1.4 U	0.61 J	0.61 J
PETROLEUM HYDROCARBONS (UG/L)					
GASOLINE-RANGE ORGANICS	33 J	46 J	58 J	35 J	41 J
DIESEL-RANGE ORGANICSS	750	240 U	240 U	240 U	240 U

J - estimated concentration
UG/L - micrograms per liter (i.e., parts per billion)
MSA - Martin State Airport
MT - Main Terminal
MW - monitoring well
NA - not analyzed.
NJ - tentatively identified compound
U - analyte is not detected at the concentration shown left of the letter.
UR - not detected. Result is not considered reliable.

APPENDIX D—DATA-VALIDATION REPORTS WITH CHAIN OF CUSTODY FORMS

Tetra Tech **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE:** **JULY 9, 2014**

FROM: **EDWARD SEDLMYER** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – TOTAL and DISSOLVED METALS**
LOCKHEED – MARTIN STATE AIRPORT (MSA)
SDG 240-35541-1

SAMPLES: 12 / Aqueous / Total and Dissolved Metals

MSA-MW15D-033114	MSA-MW15I-033114	MSA-MW20D-033114
MSA-MW20I-033114	MSA-MW20S-033114	MSA-MW26S-033114
MSA-MW33I-033114	MSA-MW33S-033114	MT-MW-01S-032614
MT-MW-02S-032614	MT-MW-07S-032614	MT-MW-08S-032614

Overview

The sample set for Lockheed – MSA, SDG 240-35541-1 consists of twelve (12) aqueous environmental samples. The samples were analyzed for total and dissolved metals.

The samples were collected by Tetra Tech on March 26 and 31, 2014 and analyzed by Test America. All analyses were conducted in accordance with SW-846 Method 6020A and 7470A analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, ICP/MS tuning, initial/continuing calibrations, laboratory method blank results, blank spike/blank spike duplicate results, internal standard recoveries, ICP interference results, laboratory duplicate results, ICP serial dilution results, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

- None

Minor

- The contract required detection limit (CRDL) percent recovery for nickel on 04/04/14 @13:29 was greater than 130% quality control limit affecting total and dissolved samples MSA-MW26S-033114, MSA-MW20S-033114, MSA-MW20I-033114, MSA-MW20D-033114, MSA-MW33S-033114, MSA-MW33I-033114, MSA-MW15I-033114, and MSA-MW15D-033114. Positive results less than 2X the CRDL reported for nickel were qualified as estimated (J).

- The following contaminants were detected in the laboratory method or calibration blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Antimony[(1)]	0.508 ug/L	2.54 ug/L
Beryllium[(1)]	0.0500 ug/L	0.25 ug/L
Silver[(1)]	0.0140 ug/L	0.07 ug/L
Silver[(2)]	0.0110 ug/L	0.55 ug/L
Antimony[(3)]	0.495 ug/L	2.475 ug/L
Iron[(4)]	36.8 ug/L	184 ug/L
Nickel[(4)]	0.0920 ug/L	0.46 ug/L
Arsenic[(5)]	0.231 ug/L	1.155 ug/L
Cadmium[(5)]	0.106 ug/L	0.53 ug/L
Cobalt[(5)]	0.0880 ug/L	0.44 ug/lL
Manganese[(5)]	1.81 ug/L	9.05 ug/L
Silver[(5)]	0.0810 ug/L	0.405 ug/L
Antimony[(6)]	0.199 ug/L	0.995 ug/L
Arsenic[(6)]	0.0940 ug/L	0.47 ug/L
Copper[(6)]	0.260 ug/L	1.3 ug/L
Silver[(6)]	0.0110 ug/L	0.55 ug/L
Antimony[(7)]	0.112 ug/L	0.56 ug/L
Barium[(7)]	0.996 ug/L	4.98 ug/L
Copper[(7)]	0.536 ug/L	2.68 ug/L

(1) - Maximum concentration present in calibration blank analyzed on 04/02/14 @ 12:08 affecting total and dissolved samples MT-MW-01S-032614 and MT-MW-08S-032614.

(2) - Maximum concentration present in calibration blank analyzed on 04/03/14 @ 12:16 affecting total and dissolved samples MT-MW-02S-032614 MT-MW-07S-032614.

(3) - Maximum concentration present in calibration blank analyzed on 04/03/14 @ 13:02 affecting total and dissolved samples MT-MW-02S-032614 MT-MW-07S-032614.

(4) - Maximum concentration present in calibration blank analyzed on 04/05/14 @ 01:06 affecting total and dissolved samples MSA-MW26S-033114, MSA-MW20S-033114, MSA-MW20I-033114, MSA-MW20D-033114, MSA-MW33S-033114, MSA-MW33I-033114, MSA-MW15I-033114, and MSA-MW15D-033114.

(5) - Maximum concentration present in calibration blank analyzed on 04/05/14 @ 03:56 affecting total and dissolved samples MSA-MW26S-033114, MSA-MW20S-033114, MSA-MW20I-033114, MSA-MW20D-033114, MSA-MW33S-033114, MSA-MW33I-033114, MSA-MW15I-033114, and MSA-MW15D-033114.

(6) - Maximum concentration present in method blank (MB240-124733/1-A affecting total and dissolved samples MT-MW-01S-032614, MT-MW-02S-032614, MT-MW-07S-032614, and MT-MW-08S-032614.

(7) - Maximum concentration present in method blank (MB240-124733/1-A affecting total and dissolved samples MSA-MW26S-033114, MSA-MW20S-033114, MSA-MW20I-033114, MSA-MW20D-033114, MSA-MW33S-033114, MSA-MW33I-033114, MSA-MW15I-033114, and MSA-MW15D-033114.

An action level of 5X for all analytes has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Results less than the action level have been qualified (U) due to blank contamination.

- The interfering analyte iron was present in the total and dissolved sample MT-MW-02S-032614 at a concentration comparable to the concentration of iron in the interference check sample (ICS) solution. Several analytes namely, antimony, arsenic, cadmium, chromium, manganese, nickel, and silver were present in the ICS solution at a concentration that exceeded the absolute value of the instrument detection limit (IDL). Interference effects exist for chromium and silver in total and dissolved samples MT-MW-02S-032614. No action was taken on the silver results because the results were nondetected or qualified due to blank contamination. The detected results reported for chromium in total and dissolved samples MT-MW-02S-032614 were qualified as estimated (J).

- The interfering analyte iron was present in the total and dissolved sample MT-MW-20S-033114 at a concentration comparable to the concentration of iron in the interference check sample (ICS) solution. Several analytes namely, beryllium, cadmium, chromium, cobalt, manganese, and nickel were present in the ICS solution at a concentration that exceeded the absolute value of the instrument detection limit (IDL). Interference effects exist for beryllium, chromium, and nickel in total and dissolved samples MT-MW-20S-033114. The detected results reported for beryllium, chromium, and nickel in total and dissolved samples MT-MW-20S-033114 were qualified as estimated (J).

- The matrix spike / matrix spike duplicate (MS/MSD) performed on total sample MT-MW-01S-032614 had percent recoveries for mercury <69% quality control limit affecting total and dissolved samples MT-MW-01S-032614, MT-MW-02S-032614, MT-MW-07S-032614, and MT-MW-08S-032614. The nondetected mercury results for the aforementioned samples were qualified as (UJ).

- The internal standard recovery for holium was outside the 60-125% quality control limit for total and dissolved sample MSA-MW20S-033114. The total and dissolved sample MSA-MW20S-033114 was reanalyzed at a two-fold dilution. The holium internal standard recovery was still outside for total sample MSA-MW20S-033114 and the detected and nondetected results for antimony, barium, lead, and thallium were qualified as estimated (J) and (UJ), respectively. The internal standard recovery for dissolved sample MSA-MW20S-033114 was acceptable and the results are reported unqualified at the elevated detection limits.

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) for the organic analyses were qualified as estimated, (J).

Notes

Nondetected results were reported to the MDL.

The matrix spike/matrix spike duplicate (MS/MSD) percent recoveries (%Rs) were outside quality control limits in the spiked total sample MT-MW-01S-032614. The sample iron concentration was greater than 4X the spike amount. No validation action was required.

The matrix spike/matrix spike duplicate (MS/MSD) percent recoveries (%Rs) were outside quality control limits in the spiked total sample MSA-MW26S-033114. The sample calcium concentration was greater than 4X the spike amount. No validation action was required.

Executive Summary

Laboratory Performance: Blank contamination resulted in the qualification of data. The CRDL percent recoveries were outside the 70-130% quality control limits resulting in qualification of the data.

Other Factors Affecting Data Quality: The interfering analyte iron was present is several samples resulting in qualification of the sample. Matrix spike percent recovery noncompliances resulted in qualification of data. Internal standard recovery noncompliance resulted in the qualification of data for one total sample. Positive results less than the reporting limit (RL) were qualified as estimated, due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to USEPA National Functional Guidelines for Inorganic Data Validation (January 2010). The text of this report has been formulated to address only those problem areas affecting data quality.

Edward Sedlmyer

Tetra Tech
Edward Sedlmyer
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 06183	NSAMPLE	MSA-MW15D-033114			MSA-MW15I-033114			MSA-MW20D-033114			MSA-MW20I-033114		
SDG: 240-35541-1	LAB_ID	240-35667-9			240-35667-8			240-35667-5			240-35667-4		
FRACTION: M	SAMP_DATE	3/31/2014			3/31/2014			3/31/2014			3/31/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.11	U		0.11	U	A	0.11	U		0.11	U	
ARSENIC		0.11	U	A	1.2	J	P	1.2	J	P	4.8	J	P
BARIUM		5.6			8			120			15		
BERYLLIUM		0.031	U		0.1	J	P	1			0.031	U	
CADMIUM		0.026	U		0.026	U		2.6			0.026	U	
CHROMIUM		1.1	J	P	2.5			2			0.23	J	P
COBALT		10			15			130			15		
COPPER		4.8			5			6.9			0.24	U	
IRON		510			1600			250			37000		
LEAD		0.14	U		0.66	J	P	0.14	U		0.14	U	
MANGANESE		40			67			1600			1400		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		0.81	U		0.81	U		0.81	U	
NICKEL		15			20			54			2.8	J	C
SELENIUM		0.34	U		0.34	U		2.3	J	P	0.34	U	
SILVER		0.0083	U		0.0083	U		0.0083	U		0.0083	U	
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		0.37	J	P	1.7	J	P	0.18	J	P	0.58	J	P

PROJ_NO: 06183	NSAMPLE	MSA-MW20S-033114			MSA-MW26S-033114			MSA-MW33I-033114			MSA-MW33S-033114		
SDG: 240-35541-1	LAB_ID	240-35667-3			240-35667-2			240-35667-7			240-35667-6		
FRACTION: M	SAMP_DATE	3/31/2014			3/31/2014			3/31/2014			3/31/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.22	UJ	N	0.56	U	A	0.33	U	A	0.48	U	A
ARSENIC		20			0.59	U	A	1.7	J	P	0.95	U	A
BARIUM		14	J	N	61			70			24		
BERYLLIUM		0.99	J	KP	0.031	U		0.031	U		0.031	U	
CADMIUM		0.026	U		1			0.026	U		0.026	U	
CHROMIUM		2.5	J	K	0.43	J	P	0.22	J	P	0.93	J	P
COBALT		4.6			0.51	J	P	3.1			0.053	U	A
COPPER		0.24	U		5.4			4.4			8.2		
IRON		130000			890			770			540		
LEAD		0.34	J	NP	0.15	J	P	0.14	U		1		
MANGANESE		4300			120			9.2			2.4	U	A
MERCURY		0.12	U		0.12	U		0.12	U		0.14	J	P
MOLYBDENUM		0.81	U		2.8	J	P	0.81	U		0.81	U	
NICKEL		1.8	J	CKP	2.6	J	C	5.6			1.3	J	CP
SELENIUM		15			0.34	U		0.34	U		0.34	U	
SILVER		0.0083	U		0.028	U	A	0.0083	U		0.1	U	A
THALLIUM		0.8	UJ	N	0.66	J	P	0.4	U		0.4	U	
VANADIUM		13			0.81	J	P	2.1	J	P	2.6	J	P

PROJ_NO: 06183	NSAMPLE	MT-MW-01S-032614			MT-MW-02S-032614			MT-MW-07S-032614			MT-MW-08S-032614		
SDG: 240-35541-1	LAB_ID	240-35541-1			240-35541-3			240-35541-4			240-35541-2		
FRACTION: M	SAMP_DATE	3/26/2014			3/26/2014			3/26/2014			3/26/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.67	U	A	0.23	U	A	0.22	U	A	0.34	U	A
ARSENIC		4.1	J	P	4	J	P	0.96	J	P	3.1	J	P
BARIUM		150			83			23			20		
BERYLLIUM		1.9			0.52	J	P	0.37	J	P	0.23	U	A
CADMIUM		0.026	U		0.026	U		0.026	U		0.026	U	
CHROMIUM		1.2	J	P	0.5	J	KP	0.55	J	P	1.3	J	P
COBALT		200			42			19			14		
COPPER		1.2	U	A	15			0.24	U		2.8		
IRON		47000			120000			11000			13000		
LEAD		0.5	J	P	0.42	J	P	0.17	J	P	0.47	J	P
MANGANESE		2800			720			130			74		
MERCURY		0.12	UJ	D	0.12	UJ	D	0.12	UJ	D	0.12	UJ	D
MOLYBDENUM		1.2	J	P	0.81	U		0.81	U		1.2	J	P
NICKEL		83			31			18			8		
SELENIUM		0.38	J	P	0.45	J	P	0.34	U		0.34	U	
SILVER		0.015	U	A	0.025	U	A	0.0083	U		0.015	U	A
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		0.68	J	P	1	J	P	4	J	P	1.3	J	P

PROJ_NO: 06183	NSAMPLE	MSA-MW15D-033114			MSA-MW15I-033114			MSA-MW20D-033114			MSA-MW20I-033114		
SDG: 240-35541-1	LAB_ID	240-35667-9			240-35667-8			240-35667-5			240-35667-4		
FRACTION: MF	SAMP_DATE	3/31/2014			3/31/2014			3/31/2014			3/31/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.11	U		0.11	U		0.11	U		0.11	U	
ARSENIC		0.063	U		0.53	U	A	0.96	U	A	4.5	J	P
BARIUM		5.1			4.8	U	A	120			14		
BERYLLIUM		0.031	U		0.031	U		0.94	J	P	0.031	U	
CADMIUM		0.026	U		0.026	U		2.5			0.026	U	
CHROMIUM		0.32	J	P	0.78	J	P	0.41	J	P	0.13	U	
COBALT		11			12			120			14		
COPPER		4.4			2.8			7.9			0.24	U	
IRON		160			540			12	U		37000		
LEAD		0.14	U		0.14	U		0.14	U		0.14	U	
MANGANESE		40			52			1500			1400		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		0.81	U		0.81	U		0.81	U	
NICKEL		17			17			56			2.1	J	C
SELENIUM		0.34	U		0.34	U		2	J	P	0.34	U	
SILVER		0.0083	U		0.0083	U		0.0083	U		0.0083	U	
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		0.15	U		0.15	U		0.15	U		0.32	J	P

PROJ_NO: 06183	NSAMPLE	MSA-MW20S-033114			MSA-MW26S-033114			MSA-MW33I-033114			MSA-MW33S-033114		
SDG: 240-35541-1	LAB_ID	240-35667-3			240-35667-2			240-35667-7			240-35667-6		
FRACTION: MF	SAMP_DATE	3/31/2014			3/31/2014			3/31/2014			3/31/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.22	U		0.48	U	A	0.28	U	A	0.46	U	A
ARSENIC		18			0.55	U	A	1.5	J	P	0.77	U	A
BARIUM		14			55			67			22		
BERYLLIUM		0.82	J	KP	0.031	U		0.031	U		0.031	U	
CADMIUM		0.026	U		0.61	J	P	0.026	U		0.026	U	
CHROMIUM		2.1	J	K	0.2	J	P	0.13	U		0.54	J	P
COBALT		4.6			0.029	J	P	0.61	J	P	0.02	U	
COPPER		0.24	U		4.8			5.1			6.8		
IRON		130000			12	U		12	U		61	U	A
LEAD		0.28	U		0.14	U		0.14	U		0.14	U	
MANGANESE		4200			12			1.9	U	A	1.9	U	A
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		2.9	J	P	0.81	U		0.81	U	
NICKEL		1.6	J	CKP	4.3			4.7			1.9	J	CP
SELENIUM		13			0.35	J	P	0.34	U		0.34	U	
SILVER		0.0083	U		0.0083	U		0.0083	U		0.0083	U	
THALLIUM		0.8	U		0.94	J	P	0.4	U		0.4	U	
VANADIUM		8.7			0.23	J	P	1.9	J	P	2	J	P

PROJ_NO: 06183	NSAMPLE	MT-MW-01S-032614			MT-MW-02S-032614			MT-MW-07S-032614			MT-MW-08S-032614		
SDG: 240-35541-1	LAB_ID	240-35541-1			240-35541-3			240-35541-4			240-35541-2		
FRACTION: MF	SAMP_DATE	3/26/2014			3/26/2014			3/26/2014			3/26/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.76	U	A	0.19	U	A	0.19	U	A	0.26	U	A
ARSENIC		3.1	J	P	3.5	J	P	0.91	J	P	2.5	J	P
BARIUM		140			85			22			19		
BERYLLIUM		1.5			0.48	J	P	0.36	J	P	0.13	U	A
CADMIUM		0.031	J	P	0.026	U		0.026	U		0.026	U	
CHROMIUM		0.46	J	P	0.27	J	KP	0.18	J	P	0.29	J	P
COBALT		180			42			19			14		
COPPER		0.58	U	A	0.24	U		0.24	U		0.66	U	A
IRON		45000			120000			10000			12000		
LEAD		0.59	J	P	0.14	U		0.14	U		0.23	J	P
MANGANESE		2700			750			140			72		
MERCURY		0.12	UJ	D	0.12	UJ	D	0.12	UJ	D	0.12	UJ	D
MOLYBDENUM		1.1	J	P	0.81	U		0.81	U		0.83	J	P
NICKEL		67			30			19			9.8		
SELENIUM		0.46	J	P	0.61	J	P	0.34	U		0.34	U	
SILVER		0.02	U	A	0.0083	U		0.0083	U		0.01	U	A
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		0.22	J	P	0.63	J	P	1.5	J	P	0.29	J	P

Appendix B

Results as Reported by the Laboratory

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW15D-033114 Lab Sample ID: 240-35667-9

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 15:47

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW15D-033114 Lab Sample ID: 240-35667-9

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 15:47

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	0.11	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	5.6	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	10	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	1.1	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	4.8	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	510	100	12	ug/L			1	6020
7439-96-5	Manganese	40	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	15	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.37	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW15D-033114 Lab Sample ID: 240-35667-9

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 15:47

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	0.063	5.0	0.063	ug/L	U		1	6020
7440-39-3	Barium	5.1	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.32	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	11	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	4.4	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	17	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	160	100	12	ug/L			1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	40	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.15	5.0	0.15	ug/L	U		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW15I-033114 Lab Sample ID: 240-35667-8

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 14:32

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW15I-033114 Lab Sample ID: 240-35667-8

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 14:32

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	1.2	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	8.0	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.10	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	15	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	2.5	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	5.0	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	1600	100	12	ug/L			1	6020
7439-96-5	Manganese	67	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	20	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.66	1.0	0.14	ug/L	J		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.7	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW15I-033114 Lab Sample ID: 240-35667-8

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 14:32

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	0.53	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	4.8	5.0	0.32	ug/L	J	B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.78	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	12	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	2.8	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	17	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	540	100	12	ug/L			1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	52	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.15	5.0	0.15	ug/L	U		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW20D-033114 Lab Sample ID: 240-35667-5

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 14:05

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW20D-033114 Lab Sample ID: 240-35667-5

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 14:05

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	1.2	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	120	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	1.0	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	2.6	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	130	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	2.0	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	6.9	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	250	100	12	ug/L			1	6020
7439-96-5	Manganese	1600	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	54	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7782-49-2	Selenium	2.3	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.18	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW20D-033114 Lab Sample ID: 240-35667-5

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 14:05

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	0.96	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	120	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.94	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	2.5	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	0.41	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	120	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	7.9	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	56	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	12	100	12	ug/L	U		1	6020
7782-49-2	Selenium	2.0	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	1500	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.15	5.0	0.15	ug/L	U		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW20I-033114 Lab Sample ID: 240-35667-4

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 12:55

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW20I-033114 Lab Sample ID: 240-35667-4

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 12:55

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	4.8	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	15	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	15	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.23	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-89-6	Iron	37000	100	12	ug/L			1	6020
7439-96-5	Manganese	1400	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	2.8	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.58	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW20I-033114 Lab Sample ID: 240-35667-4

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 12:55

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	4.5	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	14	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.13	2.0	0.13	ug/L	U		1	6020
7440-48-4	Cobalt	14	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	2.1	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	37000	100	12	ug/L			1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	1400	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.32	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW20S-033114 Lab Sample ID: 240-35667-3

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 11:45

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW20S-033114 Lab Sample ID: 240-35667-3

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 11:45

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.22	4.0	0.22	ug/L	U		2	6020
7440-38-2	Arsenic	20	5.0	0.063	ug/L			1	6020
7440-39-3	Barium	14	10	0.64	ug/L		B	2	6020
7440-41-7	Beryllium	0.99	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	4.6	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	2.5	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-89-6	Iron	130000	100	12	ug/L			1	6020
7439-96-5	Manganese	4300	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	1.8	2.0	0.088	ug/L	J		1	6020
7439-92-1	Lead	0.34	2.0	0.28	ug/L	J		2	6020
7782-49-2	Selenium	15	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	0.80	4.0	0.80	ug/L	U		2	6020
7440-62-2	Vanadium	13	5.0	0.15	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW20S-033114 Lab Sample ID: 240-35667-3

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 11:45

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.22	4.0	0.22	ug/L	U		2	6020
7440-38-2	Arsenic	18	5.0	0.063	ug/L			1	6020
7440-39-3	Barium	14	10	0.64	ug/L		B	2	6020
7440-41-7	Beryllium	0.82	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	2.1	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	4.6	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-92-1	Lead	0.28	2.0	0.28	ug/L	U		2	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	1.6	2.0	0.088	ug/L	J		1	6020
7439-89-6	Iron	130000	100	12	ug/L			1	6020
7782-49-2	Selenium	13	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	4200	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.80	4.0	0.80	ug/L	U		2	6020
7440-62-2	Vanadium	8.7	5.0	0.15	ug/L			1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW26S-033114 Lab Sample ID: 240-35667-2

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 10:25

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW26S-033114 Lab Sample ID: 240-35667-2

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 10:25

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.56	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.59	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	61	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	0.51	1.0	0.020	ug/L	J		1	6020
7440-47-3	Chromium	0.43	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	5.4	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	890	100	12	ug/L			1	6020
7439-96-5	Manganese	120	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	2.8	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	2.6	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.15	1.0	0.14	ug/L	J		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.66	2.0	0.40	ug/L	J		1	6020
7440-62-2	Vanadium	0.81	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.028	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW26S-033114 Lab Sample ID: 240-35667-2

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 10:25

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.48	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.55	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	55	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.61	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	0.20	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	0.029	1.0	0.020	ug/L	J		1	6020
7440-50-8	Copper	4.8	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	2.9	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	4.3	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	12	100	12	ug/L	U		1	6020
7782-49-2	Selenium	0.35	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	12	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.94	2.0	0.40	ug/L	J		1	6020
7440-62-2	Vanadium	0.23	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW33I-033114 Lab Sample ID: 240-35667-7

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 11:50

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW33I-033114 Lab Sample ID: 240-35667-7

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 11:50

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.33	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	1.7	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	70	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	3.1	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.22	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	4.4	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	770	100	12	ug/L			1	6020
7439-96-5	Manganese	9.2	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	5.6	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.1	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW33I-033114 Lab Sample ID: 240-35667-7

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 11:50

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.28	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	1.5	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	67	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.13	2.0	0.13	ug/L	U		1	6020
7440-48-4	Cobalt	0.61	1.0	0.020	ug/L	J		1	6020
7440-50-8	Copper	5.1	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	4.7	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	12	100	12	ug/L	U		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	1.9	5.0	0.41	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.9	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW33S-033114 Lab Sample ID: 240-35667-6

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 10:38

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.14	0.20	0.12	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW33S-033114 Lab Sample ID: 240-35667-6

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 10:38

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.48	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.95	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	24	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	0.053	1.0	0.020	ug/L	J		1	6020
7440-47-3	Chromium	0.93	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	8.2	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	540	100	12	ug/L			1	6020
7439-96-5	Manganese	2.4	5.0	0.41	ug/L	J		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	1.3	2.0	0.088	ug/L	J		1	6020
7439-92-1	Lead	1.0	1.0	0.14	ug/L			1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.6	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.10	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW33S-033114 Lab Sample ID: 240-35667-6

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/31/2014 10:38

Reporting Basis: WET Date Received: 04/02/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.46	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.77	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	22	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.54	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	0.020	1.0	0.020	ug/L	U		1	6020
7440-50-8	Copper	6.8	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	1.9	2.0	0.088	ug/L	J		1	6020
7439-89-6	Iron	61	100	12	ug/L	J		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	1.9	5.0	0.41	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.0	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW-01S-032614 Lab Sample ID: 240-35541-1

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2014 10:05

Reporting Basis: WET Date Received: 03/28/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW-01S-032614 Lab Sample ID: 240-35541-1

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2014 10:05

Reporting Basis: WET Date Received: 03/28/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.67	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	4.1	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	150	5.0	0.32	ug/L			1	6020
7440-41-7	Beryllium	1.9	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	200	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	1.2	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	1.2	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	47000	100	12	ug/L			1	6020
7439-96-5	Manganese	2800	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	1.2	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	83	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.50	1.0	0.14	ug/L	J		1	6020
7782-49-2	Selenium	0.38	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.68	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.015	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW-01S-032614 Lab Sample ID: 240-35541-1

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2014 10:05

Reporting Basis: WET Date Received: 03/28/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.76	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	3.1	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	140	5.0	0.32	ug/L			1	6020
7440-41-7	Beryllium	1.5	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	0.031	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	0.46	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	180	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.58	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.59	1.0	0.14	ug/L	J		1	6020
7439-98-7	Molybdenum	1.1	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	67	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	45000	100	12	ug/L			1	6020
7782-49-2	Selenium	0.46	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	2700	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.020	1.0	0.0083	ug/L	J	B	1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.22	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW-02S-032614 Lab Sample ID: 240-35541-3

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2014 13:30

Reporting Basis: WET Date Received: 03/28/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW-02S-032614 Lab Sample ID: 240-35541-3

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2014 13:30

Reporting Basis: WET Date Received: 03/28/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.23	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	4.0	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	83	5.0	0.32	ug/L			1	6020
7440-41-7	Beryllium	0.52	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	42	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.50	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	15	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	120000	100	12	ug/L			1	6020
7439-96-5	Manganese	720	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	31	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.42	1.0	0.14	ug/L	J		1	6020
7782-49-2	Selenium	0.45	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.0	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.025	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW-02S-032614 Lab Sample ID: 240-35541-3

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2014 13:30

Reporting Basis: WET Date Received: 03/28/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.19	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	3.5	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	85	5.0	0.32	ug/L			1	6020
7440-41-7	Beryllium	0.48	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.27	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	42	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	30	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	120000	100	12	ug/L			1	6020
7782-49-2	Selenium	0.61	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	750	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.63	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW-07S-032614 Lab Sample ID: 240-35541-4

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2014 15:30

Reporting Basis: WET Date Received: 03/28/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN

INORGANIC ANALYSIS DATA SHEET

METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW-07S-032614 Lab Sample ID: 240-35541-4

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2014 15:30

Reporting Basis: WET Date Received: 03/28/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.22	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.96	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	23	5.0	0.32	ug/L			1	6020
7440-41-7	Beryllium	0.37	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	19	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.55	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-89-6	Iron	11000	100	12	ug/L			1	6020
7439-96-5	Manganese	130	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	18	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.17	1.0	0.14	ug/L	J		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	4.0	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW-07S-032614 Lab Sample ID: 240-35541-4

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2014 15:30

Reporting Basis: WET Date Received: 03/28/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.19	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.91	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	22	5.0	0.32	ug/L			1	6020
7440-41-7	Beryllium	0.36	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.18	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	19	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	19	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	10000	100	12	ug/L			1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	140	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.5	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW-08S-032614 Lab Sample ID: 240-35541-2

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2014 11:50

Reporting Basis: WET Date Received: 03/28/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW-08S-032614 Lab Sample ID: 240-35541-2

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2014 11:50

Reporting Basis: WET Date Received: 03/28/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.34	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	3.1	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	20	5.0	0.32	ug/L			1	6020
7440-41-7	Beryllium	0.23	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	14	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	1.3	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	2.8	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	13000	100	12	ug/L			1	6020
7439-96-5	Manganese	74	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	1.2	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	8.0	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.47	1.0	0.14	ug/L	J		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.3	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.015	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW-08S-032614 Lab Sample ID: 240-35541-2

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG ID.:

Matrix: Water Date Sampled: 03/26/2014 11:50

Reporting Basis: WET Date Received: 03/28/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.26	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	2.5	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	19	5.0	0.32	ug/L			1	6020
7440-41-7	Beryllium	0.13	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.29	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	14	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.66	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.23	1.0	0.14	ug/L	J		1	6020
7439-98-7	Molybdenum	0.83	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	9.8	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	12000	100	12	ug/L			1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	72	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.010	1.0	0.0083	ug/L	J	B	1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.29	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

Appendix C

Support Documentation

HOLDTIME

PROJ_NO 06183

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35541-1	HG	UG/L	MT-MW-08S-032614	240-35541-2	NM	03/26/2014	04/01/2014	04/03/2014	6	2	8
240-35541-1	HG	UG/L	MSA-MW26S-033114	240-35667-2	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	HG	UG/L	MSA-MW15D-033114	240-35667-9	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	HG	UG/L	MT-MW-07S-032614	240-35541-4	NM	03/26/2014	04/01/2014	04/03/2014	6	2	8
240-35541-1	HG	UG/L	MSA-MW33S-033114	240-35667-6	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	HG	UG/L	MSA-MW20S-033114	240-35667-3	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	HG	UG/L	MT-MW-02S-032614	240-35541-3	NM	03/26/2014	04/01/2014	04/03/2014	6	2	8
240-35541-1	HG	UG/L	MSA-MW33I-033114	240-35667-7	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	HG	UG/L	MSA-MW20I-033114	240-35667-4	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	HG	UG/L	MSA-MW20D-033114	240-35667-5	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	HG	UG/L	MSA-MW15I-033114	240-35667-8	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	HG	UG/L	MT-MW-01S-032614	240-35541-1	NM	03/26/2014	04/01/2014	04/03/2014	6	2	8
240-35541-1	M	UG/L	MSA-MW15I-033114	240-35667-8	NM	03/31/2014	04/03/2014	04/05/2014	3	2	5
240-35541-1	M	UG/L	MSA-MW26S-033114	240-35667-2	NM	03/31/2014	04/03/2014	04/04/2014	3	1	4
240-35541-1	M	UG/L	MSA-MW15D-033114	240-35667-9	NM	03/31/2014	04/03/2014	04/05/2014	3	2	5
240-35541-1	M	UG/L	MT-MW-01S-032614	240-35541-1	NM	03/26/2014	04/01/2014	04/02/2014	6	1	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35541-1	M	UG/L	MT-MW-07S-032614	240-35541-4	NM	03/26/2014	04/01/2014	04/03/2014	6	2	8
240-35541-1	M	UG/L	MSA-MW20I-033114	240-35667-4	NM	03/31/2014	04/03/2014	04/05/2014	3	2	5
240-35541-1	M	UG/L	MSA-MW20S-033114	240-35667-3	NM	03/31/2014	04/03/2014	04/05/2014	3	2	5
240-35541-1	M	UG/L	MSA-MW20D-033114	240-35667-5	NM	03/31/2014	04/03/2014	04/05/2014	3	2	5
240-35541-1	M	UG/L	MT-MW-02S-032614	240-35541-3	NM	03/26/2014	04/01/2014	04/03/2014	6	2	8
240-35541-1	M	UG/L	MSA-MW20S-033114	240-35667-3	NM	03/31/2014	04/03/2014	04/07/2014	3	4	7
240-35541-1	M	UG/L	MT-MW-08S-032614	240-35541-2	NM	03/26/2014	04/01/2014	04/02/2014	6	1	7
240-35541-1	M	UG/L	MSA-MW33S-033114	240-35667-6	NM	03/31/2014	04/03/2014	04/05/2014	3	2	5
240-35541-1	M	UG/L	MSA-MW33I-033114	240-35667-7	NM	03/31/2014	04/03/2014	04/05/2014	3	2	5
240-35541-1	MF	UG/L	MSA-MW33S-033114	240-35667-6	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	MF	UG/L	MSA-MW33I-033114	240-35667-7	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	MF	UG/L	MT-MW-01S-032614	240-35541-1	NM	03/26/2014	04/01/2014	04/02/2014	6	1	7
240-35541-1	MF	UG/L	MSA-MW33S-033114	240-35667-6	NM	03/31/2014	04/03/2014	04/05/2014	3	2	5
240-35541-1	MF	UG/L	MSA-MW26S-033114	240-35667-2	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	MF	UG/L	MSA-MW26S-033114	240-35667-2	NM	03/31/2014	04/03/2014	04/04/2014	3	1	4
240-35541-1	MF	UG/L	MSA-MW20S-033114	240-35667-3	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	MF	UG/L	MT-MW-01S-032614	240-35541-1	NM	03/26/2014	04/01/2014	04/03/2014	6	2	8
240-35541-1	MF	UG/L	MSA-MW20S-033114	240-35667-3	NM	03/31/2014	04/03/2014	04/05/2014	3	2	5
240-35541-1	MF	UG/L	MSA-MW20I-033114	240-35667-4	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35541-1	MF	UG/L	MSA-MW20I-033114	240-35667-4	NM	03/31/2014	04/03/2014	04/05/2014	3	2	5
240-35541-1	MF	UG/L	MSA-MW20D-033114	240-35667-5	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	MF	UG/L	MSA-MW20D-033114	240-35667-5	NM	03/31/2014	04/03/2014	04/05/2014	3	2	5
240-35541-1	MF	UG/L	MSA-MW15I-033114	240-35667-8	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	MF	UG/L	MSA-MW15I-033114	240-35667-8	NM	03/31/2014	04/03/2014	04/05/2014	3	2	5
240-35541-1	MF	UG/L	MSA-MW15D-033114	240-35667-9	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	MF	UG/L	MSA-MW15D-033114	240-35667-9	NM	03/31/2014	04/03/2014	04/05/2014	3	2	5
240-35541-1	MF	UG/L	MSA-MW20S-033114	240-35667-3	NM	03/31/2014	04/03/2014	04/07/2014	3	4	7
240-35541-1	MF	UG/L	MT-MW-08S-032614	240-35541-2	NM	03/26/2014	04/01/2014	04/03/2014	6	2	8
240-35541-1	MF	UG/L	MSA-MW33I-033114	240-35667-7	NM	03/31/2014	04/03/2014	04/05/2014	3	2	5
240-35541-1	MF	UG/L	MT-MW-07S-032614	240-35541-4	NM	03/26/2014	04/01/2014	04/03/2014	6	2	8
240-35541-1	MF	UG/L	MT-MW-08S-032614	240-35541-2	NM	03/26/2014	04/01/2014	04/02/2014	6	1	7
240-35541-1	MF	UG/L	MT-MW-02S-032614	240-35541-3	NM	03/26/2014	04/01/2014	04/03/2014	6	2	8
240-35541-1	PCL	UG/L	MSA-MW15D-033114	240-35667-9	NM	03/31/2014	04/09/2014	04/10/2014	9	1	10
240-35541-1	PCL	UG/L	MSA-MW20I-033114	240-35667-4	NM	03/31/2014	04/09/2014	04/10/2014	9	1	10
240-35541-1	PCL	UG/L	MSA-MW20D-033114	240-35667-5	NM	03/31/2014	04/09/2014	04/10/2014	9	1	10
240-35541-1	PCL	UG/L	MSA-MW15I-033114	240-35667-8	NM	03/31/2014	04/09/2014	04/10/2014	9	1	10
240-35541-1	OS	UG/L	MT-MW-02S-032614	240-35541-3	NM	03/26/2014	04/02/2014	04/07/2014	7	5	12
240-35541-1	OS	UG/L	MT-MW-07S-032614	240-35541-4	NM	03/26/2014	04/02/2014	04/07/2014	7	5	12

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35541-1	OS	UG/L	MT-MW-01S-032614	240-35541-1	NM	03/26/2014	04/02/2014	04/07/2014	7	5	12
240-35541-1	OS	UG/L	MSA-MW20S-033114	240-35667-3	SUR	03/31/2014	04/04/2014	04/11/2014	4	7	11
240-35541-1	OS	UG/L	MSA-MW20I-033114	240-35667-4	SUR	03/31/2014	04/04/2014	04/09/2014	4	5	9
240-35541-1	OS	UG/L	MSA-MW20I-033114	240-35667-4	NM	03/31/2014	04/04/2014	04/09/2014	4	5	9
240-35541-1	OS	UG/L	MSA-MW15D-033114	240-35667-9	SUR	03/31/2014	04/04/2014	04/11/2014	4	7	11
240-35541-1	OS	UG/L	MT-MW-02S-032614	240-35541-3	SUR	03/26/2014	04/02/2014	04/07/2014	7	5	12
240-35541-1	OS	UG/L	MT-MW-07S-032614	240-35541-4	SUR	03/26/2014	04/02/2014	04/07/2014	7	5	12
240-35541-1	OS	UG/L	MSA-MW26S-033114	240-35667-2	NM	03/31/2014	04/04/2014	04/09/2014	4	5	9
240-35541-1	OS	UG/L	MSA-MW20D-033114	240-35667-5	SUR	03/31/2014	04/04/2014	04/09/2014	4	5	9
240-35541-1	OS	UG/L	MSA-MW20D-033114	240-35667-5	NM	03/31/2014	04/04/2014	04/09/2014	4	5	9
240-35541-1	OS	UG/L	MSA-MW26S-033114	240-35667-2	SUR	03/31/2014	04/04/2014	04/09/2014	4	5	9
240-35541-1	OS	UG/L	MSA-MW15D-033114	240-35667-9	NM	03/31/2014	04/04/2014	04/11/2014	4	7	11
240-35541-1	OS	UG/L	MT-MW-01S-032614	240-35541-1	SUR	03/26/2014	04/02/2014	04/07/2014	7	5	12
240-35541-1	OS	UG/L	MT-MW-08S-032614	240-35541-2	SUR	03/26/2014	04/02/2014	04/07/2014	7	5	12
240-35541-1	OS	UG/L	MSA-MW33S-033114	240-35667-6	SUR	03/31/2014	04/04/2014	04/09/2014	4	5	9
240-35541-1	OS	UG/L	MSA-MW33S-033114	240-35667-6	NM	03/31/2014	04/04/2014	04/09/2014	4	5	9
240-35541-1	OS	UG/L	MSA-MW15I-033114	240-35667-8	NM	03/31/2014	04/04/2014	04/09/2014	4	5	9
240-35541-1	OS	UG/L	MSA-MW15I-033114	240-35667-8	SUR	03/31/2014	04/04/2014	04/09/2014	4	5	9
240-35541-1	OS	UG/L	MSA-MW20S-033114	240-35667-3	NM	03/31/2014	04/04/2014	04/11/2014	4	7	11

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35541-1	OS	UG/L	MSA-MW33I-033114	240-35667-7	SUR	03/31/2014	04/04/2014	04/09/2014	4	5	9
240-35541-1	OS	UG/L	MSA-MW33I-033114	240-35667-7	NM	03/31/2014	04/04/2014	04/09/2014	4	5	9
240-35541-1	OS	UG/L	MT-MW-08S-032614	240-35541-2	NM	03/26/2014	04/02/2014	04/07/2014	7	5	12
240-35541-1	OV	UG/L	MT-MW-07S-032614	240-35541-4	SUR	03/26/2014	04/02/2014	04/02/2014	7	0	7
240-35541-1	OV	UG/L	MSA-MW20D-033114	240-35667-5	SUR	03/31/2014	04/09/2014	04/09/2014	9	0	9
240-35541-1	OV	UG/L	MT-MW-08S-032614	240-35541-2	NM	03/26/2014	04/02/2014	04/02/2014	7	0	7
240-35541-1	OV	UG/L	MSA-MW20D-033114	240-35667-5	NM	03/31/2014	04/09/2014	04/09/2014	9	0	9
240-35541-1	OV	UG/L	MSA-MW15I-033114	240-35667-8	NM	03/31/2014	04/09/2014	04/09/2014	9	0	9
240-35541-1	OV	UG/L	MSA-MW20I-033114	240-35667-4	NM	03/31/2014	04/09/2014	04/09/2014	9	0	9
240-35541-1	OV	UG/L	MSA-MW20I-033114	240-35667-4	SUR	03/31/2014	04/09/2014	04/09/2014	9	0	9
240-35541-1	OV	UG/L	MT-MW-08S-032614	240-35541-2	SUR	03/26/2014	04/02/2014	04/02/2014	7	0	7
240-35541-1	OV	UG/L	MT-MW-07S-032614	240-35541-4	NM	03/26/2014	04/02/2014	04/02/2014	7	0	7
240-35541-1	OV	UG/L	MSA-MW15D-033114	240-35667-9	SUR	03/31/2014	04/09/2014	04/09/2014	9	0	9
240-35541-1	OV	UG/L	MSA-MW15D-033114	240-35667-9	NM	03/31/2014	04/09/2014	04/09/2014	9	0	9
240-35541-1	OV	UG/L	TB-032614	240-35541-5	NM	03/26/2014	04/02/2014	04/02/2014	7	0	7
240-35541-1	OV	UG/L	MSA-MW15I-033114	240-35667-8	SUR	03/31/2014	04/09/2014	04/09/2014	9	0	9
240-35541-1	OV	UG/L	MT-MW-02S-032614	240-35541-3	NM	03/26/2014	04/02/2014	04/02/2014	7	0	7
240-35541-1	OV	UG/L	MT-MW-01S-032614	240-35541-1	NM	03/26/2014	04/07/2014	04/07/2014	12	0	12
240-35541-1	OV	UG/L	MSA-MW33S-033114	240-35667-6	SUR	03/31/2014	04/09/2014	04/09/2014	9	0	9

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35541-1	OV	UG/L	MSA-MW33S-033114	240-35667-6	NM	03/31/2014	04/09/2014	04/09/2014	9	0	9
240-35541-1	OV	UG/L	MT-MW-01S-032614	240-35541-1	SUR	03/26/2014	04/07/2014	04/07/2014	12	0	12
240-35541-1	OV	UG/L	MSA-MW33I-033114	240-35667-7	SUR	03/31/2014	04/09/2014	04/09/2014	9	0	9
240-35541-1	OV	UG/L	MSA-MW33I-033114	240-35667-7	NM	03/31/2014	04/09/2014	04/09/2014	9	0	9
240-35541-1	OV	UG/L	TB-032614	240-35541-5	TB	03/26/2014	04/02/2014	04/02/2014	7	0	7
240-35541-1	OV	UG/L	MSA-MW26S-033114	240-35667-2	SUR	03/31/2014	04/09/2014	04/09/2014	9	0	9
240-35541-1	OV	UG/L	MSA-MW26S-033114	240-35667-2	NM	03/31/2014	04/09/2014	04/09/2014	9	0	9
240-35541-1	OV	UG/L	MT-MW-02S-032614	240-35541-3	SUR	03/26/2014	04/02/2014	04/02/2014	7	0	7
240-35541-1	OV	UG/L	MSA-MW20S-033114	240-35667-3	NM	03/31/2014	04/09/2014	04/09/2014	9	0	9
240-35541-1	OV	UG/L	MSA-MW20S-033114	240-35667-3	SUR	03/31/2014	04/09/2014	04/09/2014	9	0	9
240-35541-1	DRO	UG/L	MT-MW-01S-032614	240-35541-1	NM	03/26/2014	04/01/2014	04/02/2014	6	1	7
240-35541-1	DRO	UG/L	MSA-MW26S-033114	240-35667-2	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	DRO	UG/L	MT-MW-08S-032614	240-35541-2	NM	03/26/2014	04/01/2014	04/02/2014	6	1	7
240-35541-1	DRO	UG/L	MSA-MW20S-033114	240-35667-3	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	DRO	UG/L	MT-MW-02S-032614	240-35541-3	NM	03/26/2014	04/01/2014	04/02/2014	6	1	7
240-35541-1	DRO	UG/L	MT-MW-07S-032614	240-35541-4	NM	03/26/2014	04/01/2014	04/02/2014	6	1	7
240-35541-1	DRO	UG/L	MSA-MW33S-033114	240-35667-6	NM	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	GRO	UG/L	MSA-MW33S-033114	240-35667-6	NM	03/31/2014	04/11/2014	04/11/2014	11	0	11
240-35541-1	GRO	UG/L	MT-MW-02S-032614	240-35541-3	NM	03/26/2014	04/08/2014	04/08/2014	13	0	13

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35541-1	GRO	UG/L	MSA-MW20S-033114	240-35667-3	NM	03/31/2014	04/10/2014	04/10/2014	10	0	10
240-35541-1	GRO	UG/L	MT-MW-01S-032614	240-35541-1	NM	03/26/2014	03/31/2014	03/31/2014	5	0	5
240-35541-1	GRO	UG/L	MSA-MW26S-033114	240-35667-2	NM	03/31/2014	04/10/2014	04/10/2014	10	0	10
240-35541-1	GRO	UG/L	MT-MW-08S-032614	240-35541-2	NM	03/26/2014	03/31/2014	03/31/2014	5	0	5
240-35541-1	GRO	UG/L	MT-MW-07S-032614	240-35541-4	NM	03/26/2014	03/31/2014	03/31/2014	5	0	5
240-35541-1	TPH	UG/L	MSA-MW33S-033114	240-35667-6	SUR	03/31/2014	04/11/2014	04/11/2014	11	0	11
240-35541-1	TPH	UG/L	MT-MW-08S-032614	240-35541-2	SUR	03/26/2014	03/31/2014	03/31/2014	5	0	5
240-35541-1	TPH	UG/L	MT-MW-08S-032614	240-35541-2	SUR	03/26/2014	04/01/2014	04/02/2014	6	1	7
240-35541-1	TPH	UG/L	MSA-MW33S-033114	240-35667-6	SUR	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	TPH	UG/L	MT-MW-01S-032614	240-35541-1	SUR	03/26/2014	04/01/2014	04/02/2014	6	1	7
240-35541-1	TPH	UG/L	MSA-MW20S-033114	240-35667-3	SUR	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	TPH	UG/L	MSA-MW20S-033114	240-35667-3	SUR	03/31/2014	04/10/2014	04/10/2014	10	0	10
240-35541-1	TPH	UG/L	MT-MW-02S-032614	240-35541-3	SUR	03/26/2014	04/08/2014	04/08/2014	13	0	13
240-35541-1	TPH	UG/L	MSA-MW26S-033114	240-35667-2	SUR	03/31/2014	04/10/2014	04/10/2014	10	0	10
240-35541-1	TPH	UG/L	MSA-MW26S-033114	240-35667-2	SUR	03/31/2014	04/03/2014	04/08/2014	3	5	8
240-35541-1	TPH	UG/L	MT-MW-02S-032614	240-35541-3	SUR	03/26/2014	04/01/2014	04/02/2014	6	1	7
240-35541-1	TPH	UG/L	MT-MW-07S-032614	240-35541-4	SUR	03/26/2014	04/01/2014	04/02/2014	6	1	7
240-35541-1	TPH	UG/L	MT-MW-07S-032614	240-35541-4	SUR	03/26/2014	03/31/2014	03/31/2014	5	0	5
240-35541-1	TPH	UG/L	MT-MW-01S-032614	240-35541-1	SUR	03/26/2014	03/31/2014	03/31/2014	5	0	5

SDG 240-35541-1

Water ICP Interference

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interferenc	Validation Action	Validation Action
Sb	MT-MW-02S-032614 Total	0.23	u	Fe	49911	0.247	120000	0.59	na	na
As		4			49911	0.109	120000	0.26	na	na
Cd		0.026	u		49911	0.045	120000	0.11	na	na
Cr		0.5			49911	0.515	120000	1.24	J	na
Mn		720			49911	0.631	120000	1.52	na	na
Ni		31			49911	0.317	120000	0.76	na	na
Ag		0.025	u		49911	0.025	120000	0.06	na	na

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interferenc	Validation Action	Validation Action
Sb	MT-MW-02S-032614 Diss	0.19	u	Fe	49911	0.247	120000	0.59	na	na
As		3.5			49911	0.109	120000	0.26	na	na
Cd		0.026	u		49911	0.045	120000	0.11	na	na
Cr		0.27			49911	0.515	120000	1.24	J	na
Mn		750			49911	0.631	120000	1.52	na	na
Ni		30			49911	0.317	120000	0.76	na	na
Ag		0.0083	u		49911	0.025	120000	0.06	na	na

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interferenc	Validation Action	Validation Action
Be	MT-MW-20S-033114 Total	0.99		Fe	50250	-0.043	130000	-0.11	J	na
Cd		0.026	u		50250	-0.424	130000	-1.10	na	UJ
Cr		2.5			50250	0.442	130000	1.14	J	na
Co		4.6			50250	-0.105	130000	-0.27	na	na
Mn		4300			50250	0.791	130000	2.05	na	na
Ni		1.8			50250	0.583	130000	1.51	J	na

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. nterferenc	Validation Action	Validation Action
Be	MT-MW-20S-033114 Diss	0.82		Fe	50250	-0.043	130000	-0.11	J	na
Cd		0.026	u		50250	-0.424	130000	-1.10	na	UJ
Cr		2.1			50250	0.442	130000	1.14	J	na
Co		4.6			50250	-0.105	130000	-0.27	na	na
Mn		4200			50250	0.791	130000	2.05	na	na
Ni		1.6			50250	0.583	130000	1.51	J	na

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-35541-1

Job Description: MSA Main Terminal

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Tony Apanavage

Approved for release.
John McFadden
Project Manager I
4/24/2014 4:57 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
04/24/2014

cc: Samantha Brenner
Ms. Kelly Carper
Tobrena Sedlmyer
Final Data Tracking

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA Main Terminal

Report Number: 240-35541-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 6850 Perchlorate analysis was performed at TestAmerica Sacramento.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 3/28/2014 9:30 AM and 4/2/2014 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.2° C, 1.8° C and 1.8° C.

The laboratory did not receive the sample TB-033114 that is listed on the Chain of Custody.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MT-MW-01S-032614 (240-35541-1), MT-MW-08S-032614 (240-35541-2), MSA-MW26S-033114 (240-35667-2), MT-MW-02S-032614 (240-35541-3), MSA-MW20S-033114 (240-35667-3), MT-MW-07S-032614 (240-35541-4), MSA-MW20I-033114 (240-35667-4), TB-032614 (240-35541-5), MSA-MW20D-033114 (240-35667-5), MSA-MW33S-033114 (240-35667-6), MSA-MW33I-033114 (240-35667-7), MSA-MW15I-033114 (240-35667-8) and MSA-MW15D-033114 (240-35667-9) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 04/02/2014, 04/07/2014 and 04/09/2014.

Carbon disulfide and Methylene Chloride were detected in method blank MB 240-124904/6 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

tert-Butyl alcohol failed the recovery criteria high for LCS 240-125779/4. Xylenes, Total failed the recovery criteria low for MRL 240-124904/5. Methylene Chloride failed the recovery criteria high. Xylenes, Total failed the recovery criteria low for MRL 240-125439/5. Bromomethane failed the recovery criteria high.

Samples MSA-MW20S-033114 (240-35667-3)[25X], MSA-MW20I-033114 (240-35667-4)[16.67X] and MSA-MW15I-033114 (240-35667-8)[5.71X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) for analytical batch 125779 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The laboratory control sample (LCS) for batch 125779 recovered outside control limits for 2-Methyl-2-propanol. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

No other difficulties were encountered during the VOCs analysis. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MT-MW-01S-032614 (240-35541-1), MT-MW-08S-032614 (240-35541-2), MSA-MW26S-033114 (240-35667-2), MT-MW-02S-032614 (240-35541-3), MSA-MW20S-033114 (240-35667-3), MT-MW-07S-032614 (240-35541-4), MSA-MW20I-033114 (240-35667-4), MSA-MW20D-033114 (240-35667-5), MSA-MW33S-033114 (240-35667-6), MSA-MW33I-033114 (240-35667-7), MSA-MW15I-033114 (240-35667-8) and MSA-MW15D-033114 (240-35667-9) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 04/02/2014 and 04/04/2014 and analyzed on 04/07/2014, 04/09/2014 and 04/11/2014.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

1,4-Dioxane failed the recovery criteria low for LCS 240-124959/10-A.

Sample MSA-MW20S-033114 (240-35667-3)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 124959.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 125295.

No other difficulties were encountered during the SVOCs analysis. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)

Samples MT-MW-01S-032614 (240-35541-1), MT-MW-08S-032614 (240-35541-2), MSA-MW26S-033114 (240-35667-2), MT-MW-02S-032614 (240-35541-3), MSA-MW20S-033114 (240-35667-3), MT-MW-07S-032614 (240-35541-4) and MSA-MW33S-033114 (240-35667-6) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 03/31/2014, 04/08/2014, 04/10/2014 and 04/11/2014.

Batch 124625 is reported without a matrix spike/matrix spike duplicate (MS/MSD). The batch MS/MSD was originally performed on another client's sample, for method 8015c. This MS/MSD result does not have immediate bearing on any samples except for the actual sample spiked. The associated laboratory control sample (LCS) met acceptance criteria and provides long-term precision and accuracy for this batch.

The following volatile sample was analyzed with headspace in the sample vial due to multiple injections : MT-MW-02S-032614 (240-35541-3).

No other difficulties were encountered during the GRO analysis. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples MT-MW-01S-032614 (240-35541-1), MT-MW-08S-032614 (240-35541-2), MSA-MW26S-033114 (240-35667-2), MT-MW-02S-032614 (240-35541-3), MSA-MW20S-033114 (240-35667-3), MT-MW-07S-032614 (240-35541-4) and MSA-MW33S-033114 (240-35667-6) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 04/01/2014 and 04/03/2014 and analyzed on 04/02/2014 and 04/08/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 124801, 8015.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 125991.

No other difficulties were encountered during the DRO analysis. All other quality control parameters were within the acceptance limits.

PERCHLORATE

Samples MSA-MW20I-033114 (240-35667-4), MSA-MW20D-033114 (240-35667-5), MSA-MW15I-033114 (240-35667-8) and MSA-MW15D-033114 (240-35667-9) were analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 04/09/2014 and analyzed on 04/10/2014.

No difficulties were encountered during the perchlorate analysis. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)

Samples MT-MW-01S-032614 (240-35541-1), MT-MW-08S-032614 (240-35541-2), MSA-MW26S-033114 (240-35667-2), MT-MW-02S-032614 (240-35541-3), MSA-MW20S-033114 (240-35667-3), MT-MW-07S-032614 (240-35541-4), MSA-MW20I-033114 (240-35667-4), MSA-MW20D-033114 (240-35667-5), MSA-MW33S-033114 (240-35667-6), MSA-MW33I-033114 (240-35667-7), MSA-MW15I-033114 (240-35667-8) and MSA-MW15D-033114 (240-35667-9) were analyzed for dissolved metals (ICPMS) in accordance

with EPA SW-846 Method 6020. The samples were prepared on 04/01/2014 and 04/03/2014 and analyzed on 04/02/2014, 04/03/2014, 04/04/2014, 04/05/2014 and 04/07/2014.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-MW20S-033114 (240-35667-3). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the metals analysis. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)

Samples MT-MW-01S-032614 (240-35541-1), MT-MW-08S-032614 (240-35541-2), MSA-MW26S-033114 (240-35667-2), MT-MW-02S-032614 (240-35541-3), MSA-MW20S-033114 (240-35667-3), MT-MW-07S-032614 (240-35541-4), MSA-MW20I-033114 (240-35667-4), MSA-MW20D-033114 (240-35667-5), MSA-MW33S-033114 (240-35667-6), MSA-MW33I-033114 (240-35667-7), MSA-MW15I-033114 (240-35667-8) and MSA-MW15D-033114 (240-35667-9) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/01/2014 and 04/03/2014 and analyzed on 04/02/2014, 04/03/2014, 04/04/2014, 04/05/2014 and 04/07/2014.

Antimony, Arsenic, Copper and Silver were detected in method blank MB 240-124733/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Antimony, Barium, Calcium, Copper and Magnesium were detected in method blank MB 240-125040/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Sample MSA-MW20S-033114 (240-35667-3)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-MW20S-033114 (240-35667-3). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)

Samples MT-MW-01S-032614 (240-35541-1), MT-MW-08S-032614 (240-35541-2), MSA-MW26S-033114 (240-35667-2), MT-MW-02S-032614 (240-35541-3), MSA-MW20S-033114 (240-35667-3), MT-MW-07S-032614 (240-35541-4), MSA-MW20I-033114 (240-35667-4), MSA-MW20D-033114 (240-35667-5), MSA-MW33S-033114 (240-35667-6), MSA-MW33I-033114 (240-35667-7), MSA-MW15I-033114 (240-35667-8) and MSA-MW15D-033114 (240-35667-9) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/01/2014 and 04/03/2014 and analyzed on 04/03/2014 and 04/08/2014.

No difficulties were encountered during the mercury analysis. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples MT-MW-01S-032614 (240-35541-1), MT-MW-08S-032614 (240-35541-2), MSA-MW26S-033114 (240-35667-2), MT-MW-02S-032614 (240-35541-3), MSA-MW20S-033114 (240-35667-3), MT-MW-07S-032614 (240-35541-4), MSA-MW20I-033114 (240-35667-4), MSA-MW20D-033114 (240-35667-5), MSA-MW33S-033114 (240-35667-6), MSA-MW33I-033114 (240-35667-7), MSA-MW15I-033114 (240-35667-8) and MSA-MW15D-033114 (240-35667-9) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/01/2014 and 04/03/2014 and analyzed on 04/03/2014 and 04/08/2014.

No difficulties were encountered during the mercury analysis. All other quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-35541-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-35541-1	MT-MW-01S-032614	Water	03/26/2014 1005	03/28/2014 0930
240-35541-2	MT-MW-08S-032614	Water	03/26/2014 1150	03/28/2014 0930
240-35541-3	MT-MW-02S-032614	Water	03/26/2014 1330	03/28/2014 0930
240-35541-4	MT-MW-07S-032614	Water	03/26/2014 1530	03/28/2014 0930
240-35541-5TB	TB-032614	Water	03/26/2014 0000	03/28/2014 0930
240-35667-2	MSA-MW26S-033114	Water	03/31/2014 1025	04/02/2014 0930
240-35667-3	MSA-MW20S-033114	Water	03/31/2014 1145	04/02/2014 0930
240-35667-4	MSA-MW20I-033114	Water	03/31/2014 1255	04/02/2014 0930
240-35667-5	MSA-MW20D-033114	Water	03/31/2014 1405	04/02/2014 0930
240-35667-6	MSA-MW33S-033114	Water	03/31/2014 1038	04/02/2014 0930
240-35667-7	MSA-MW33I-033114	Water	03/31/2014 1150	04/02/2014 0930
240-35667-8	MSA-MW15I-033114	Water	03/31/2014 1432	04/02/2014 0930
240-35667-9	MSA-MW15D-033114	Water	03/31/2014 1547	04/02/2014 0930

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-35541-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL CAN	SW846 8260C	
Purge and Trap	TAL CAN		SW846 5030C
Semivolatile Organic Compounds (GC/MS)	TAL CAN	SW846 8270C	
Liquid-Liquid Extraction (Separatory Funnel)	TAL CAN		SW846 3510C
Gasoline Range Organics - (GC)	TAL CAN	SW846 8015B	
Purge and Trap	TAL CAN		SW846 5030B
Diesel Range Organics (DRO) (GC)	TAL CAN	SW846 8015B	
Liquid-Liquid Extraction (Separatory Funnel)	TAL CAN		SW846 3510C
Metals (ICP/MS)	TAL CAN	SW846 6020	
Preparation, Total Recoverable or Dissolved Metals	TAL CAN		SW846 3005A
Metals (ICP/MS)	TAL CAN	SW846 6020	
Preparation, Total Recoverable or Dissolved Metals	TAL CAN		SW846 3005A
Sample Filtration, Field			FIELD_FLTRD
Mercury (CVAA)	TAL CAN	SW846 7470A	
Preparation, Mercury	TAL CAN		SW846 7470A
Mercury (CVAA)	TAL CAN	SW846 7470A	
Preparation, Mercury	TAL CAN		SW846 7470A
Sample Filtration, Field			FIELD_FLTRD
Perchlorate by LC/MS or LC/MS/MS	TAL SAC	EPA 6850	
Sample Filtration	TAL SAC		Filtration

Lab References:

TAL CAN = TestAmerica Canton

TAL SAC = TestAmerica Sacramento

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-35541-1

Lab Section	Qualifier	Description
LCMS		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

TETRA TECH NUS, INC. 1 of 8 CHAIN OF CUSTODY | NUMBER 3506 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112IC06183	MSA, Main Terminal	Tracy Aguinaga	301-578-3021	Pat O'meara, TestAmerica
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Joel Mullis	PHONE NUMBER: 410-271-5641	ADDRESS: 4101 Shuffel Street NW
		CARRIER/WAYBILL NUMBER		CITY, STATE: North Canton, OH

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE (Year 2014)	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	G	G	G	G	P	P			
									PRESERVATIVE USED	HCl	HCl	1	1	HNO3	HNO3			
									TYPE OF ANALYSIS	VOCs	TPH-GRO	TPH-DRO	1-4 dioxane	Total Metals + Mercury	Dissolved Metals			COMMENTS
3/26	1005	MT-MW-015-032614	MT	✓	✓	GW	G	11		X	X	X	X	X	X			
3/26	1150	MT-MW-085-032614	MT	✓	✓	↓	↓	11		X	X	X	X	X	X			
3/26	1330	MT-MW-025-032614	MT	✓	✓	↓	↓	11		X	X	X	X	X	X			
3/26	1530	MT-MW-075-032614	MT	✓	✓	↓	↓	9		X	X	X	X	X	X			#075: 1-L ambers used for GRO + 1-4 dioxane, each filled up to 500 mL
3/26	—	TB-032614		—	—	—	—	2		X								

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	3/27/14	1300	1. RECEIVED BY	3/27/14	1800
2. RELINQUISHED BY	3/27/14	1710	2. RECEIVED BY	3/28/14	930
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 35541

Client Tetra Tech Site Name

Cooler Received on 3/28/14 Opened on 3/28/14

Cooler unpacked by:

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp. 1.8 °C	Corrected Cooler Temp. 1.8 °C	
IR GUN# 4	(CF -1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	☐ See Multiple Cooler Form
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	

2. Were custody seals on the outside of the cooler(s)?	If Yes Quantity 1	Yes	No	
-Were custody seals on the outside of the cooler(s) signed & dated?		Yes	No	NA
-Were custody seals on the bottle(s)?		Yes	No	
3. Shippers' packing slip attached to the cooler(s)?		Yes	No	
4. Did custody papers accompany the sample(s)?		Yes	No	
5. Were the custody papers relinquished & signed in the appropriate place?		Yes	No	
6. Did all bottles arrive in good condition (Unbroken)?		Yes	No	
7. Could all bottle labels be reconciled with the COC?		Yes	No	
8. Were correct bottle(s) used for the test(s) indicated?		Yes	No	
9. Sufficient quantity received to perform indicated analyses?		Yes	No	
10. Were sample(s) at the correct pH upon receipt?		Yes	No	NA pH Strip Lot# HC391902
11. Were VOAs on the COC?		Yes	No	
12. Were air bubbles >6 mm in any VOA vials?		Yes	No	NA
13. Was a trip blank present in the cooler(s)?		Yes	No	

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.

Sample(s) ____ were received in a broken container.

Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.

Time preserved: ____ Preservative(s) added/Lot number(s): ____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MT-MW-01S-032614	240-35541-J-1	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MT-MW-01S-032614	240-35541-K-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
MT-MW-08S-032614	240-35541-J-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MT-MW-08S-032614	240-35541-K-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
MT-MW-02S-032614	240-35541-J-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MT-MW-02S-032614	240-35541-K-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
MT-MW-07S-032614	240-35541-F-4	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MT-MW-07S-032614	240-35541-G-4	Plastic 500ml - with Nitric Acid	<2	_____	_____

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

1.2, 1.8

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 3/31/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	____ of ____ COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			112IC06183
(301) 528-3021 Phone	TAT if different from Below: 14 DAY			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Groundwater Sampling	☐ 1 week			
Site: MSA, Middle River MD	☐ 2 days			Sampler:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs	Total Metals	Dissolved Metals	TPH-GRO	TPH-DRO	1,4-Dioxane	Perchlorate	Sample Specific Notes:
TB-033114	–	–	TB	AQ	2		2							
MSA-MW26S-033114	3/31/14	1025	GW	AQ	11		3	1	1	2	2	2		
MSA-MW20S-033114	3/31/14	1145	GW	AQ	11		3	1	1	2	2	2		
MSA-MW20I-033114	3/31/14	1255	GW	AQ	8		3	1	1			2	1	
MSA-MW20D-033114	3/31/14	1405	GW	AQ	8		3	1	1			2	1	
MSA-MW33S-033114	3/31/14	1038	GW	AQ	11		3	1	1	2	2	2		
MSA-MW33I-033114	3/31/14	1150	GW	AQ	7		3	1	1			2		
MSA-MW-15I-033114	3/31/14	1432	GW	AQ	8		3	1	1			2	1	
MSA-MW15D-033014	3/31/14	1547	GW	AQ	8		3	1	1			2	1	

Page 1993 of 1997

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments: **DISSOLVED METALS FILTERED IN FIELD**

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walter Pr	TT INC	4-1-14 / 1230	Paul [signature]	TestAmerica	4/1/14 / 1230
Paul [signature]	TestAmerica	4/1/14/1415			
			[signature]	TA Canton	4/2/14 9:30Am

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 35667

Client Tetra Tech Site Name

Cooler unpacked by:

Cooler Received on 4/02/14 Opened on 4/02/14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # Foam Box Client Cooler Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C
IR GUN# 4	(CF -1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C

(☒ See Multiple Cooler Form)

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM JWM Date 4/02/14 by JM via (Verbal) Voice Mail Other
Concerning TB14

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

Did not receive TB listed on COC.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative
Canton Facility

Login # : 35667

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
TA Canton	A	1.2	1.2	ICE
Client	1	1.8	1.8	1

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW26S-033114	240-35667-J-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW26S-033114	240-35667-K-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW20S-033114	240-35667-J-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW20S-033114	240-35667-K-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW20I-033114	240-35667-G-4	Plastic 500ml - with Nitric Acid	<2		
MSA-MW20I-033114	240-35667-H-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW20D-033114	240-35667-G-5	Plastic 500ml - with Nitric Acid	<2		
MSA-MW20D-033114	240-35667-H-5	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW33S-033114	240-35667-J-6	Plastic 500ml - with Nitric Acid	<2		
MSA-MW33S-033114	240-35667-K-6	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW33I-033114	240-35667-F-7	Plastic 500ml - with Nitric Acid	<2		
MSA-MW33I-033114	240-35667-G-7	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW15I-033114	240-35667-G-8	Plastic 500ml - with Nitric Acid	<2		
MSA-MW15I-033114	240-35667-H-8	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW15D-033114	240-35667-G-9	Plastic 500ml - with Nitric Acid	<2		
MSA-MW15D-033114	240-35667-H-9	Plastic 500ml - w/ Nitric - Dis.	<2		

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-35541-1

Login Number: 35667
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 04/05/14 12:00 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-35541-1

SDG No.:

Project: MSA Main Terminal

Client Sample ID	Lab Sample ID
MT-MW-01S-032614	240-35541-1
MT-MW-08S-032614	240-35541-2
MT-MW-02S-032614	240-35541-3
MT-MW-07S-032614	240-35541-4
MSA-MW26S-033114	240-35667-2
MSA-MW20S-033114	240-35667-3
MSA-MW20I-033114	240-35667-4
MSA-MW20D-033114	240-35667-5
MSA-MW33S-033114	240-35667-6
MSA-MW33I-033114	240-35667-7
MSA-MW15I-033114	240-35667-8
MSA-MW15D-033114	240-35667-9

Comments:

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: I10 Method: 6020

Start Date: 04/02/2014 10:03 End Date: 04/02/2014 13:17

Lab Sample ID	D/F	Type	Time	Analytes																		
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	
ZZZZZZ			10:03																			
ICIS 240-124984/2			10:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
STD1 240-124984/3 IC	1		10:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
STD2 240-124984/4 IC	1		10:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
STD3 240-124984/5 IC	1		10:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
STD4 240-124984/6 IC	1		10:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICV 240-124984/7	1		10:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICB 240-124984/8	1		10:30	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	
CRI 240-124984/9	1		10:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICSA 240-124984/10	1		10:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICSAB 240-124984/11	1		10:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCV 240-124984/12			10:46																				
CCB 240-124984/13			10:50																				
ZZZZZZ			10:59																				
ZZZZZZ			11:03																				
ZZZZZZ			11:07																				
ZZZZZZ			11:11																				
ZZZZZZ			11:14																				
CCV 240-124984/19	1		11:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB 240-124984/20	1		11:22	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	
MB 240-124733/1-A	1	R	11:26	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	
LCS 240-124733/2-A	1	R	11:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
240-35541-1	1	R	11:34	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	
240-35541-1 SD	5	R	11:37	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ			11:41																				
240-35541-1 MS	1	R	11:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
240-35541-1 MSD	1	R	11:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
240-35541-1	1	D	11:52	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	
240-35541-2	1	R	11:56	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	
240-35541-2	1	D	12:00	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV 240-124984/31	1		12:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB 240-124984/32	1		12:08	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ			12:12																				
ZZZZZZ			12:15																				
ZZZZZZ			12:19																				
ZZZZZZ			12:23																				
ZZZZZZ			12:27																				
ZZZZZZ			12:31																				
ZZZZZZ			12:35																				
ZZZZZZ			12:39																				
ZZZZZZ			12:42																				
ZZZZZZ			12:46																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: I10 Method: 6020

Start Date: 04/02/2014 10:03 End Date: 04/02/2014 13:17

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	
CCV 240-124984/43	1		12:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB 240-124984/44	1		12:54	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ			12:58																				
ZZZZZZ			13:02																				
ZZZZZZ			13:05																				
ZZZZZZ			13:09																				
CCV 240-124984/49			13:13																				
CCB 240-124984/50			13:17																				

Prep Types

D = Dissolved

R = Total Recoverable

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICV Source: MTMSICVW_00032 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00086

Analyte	ICV 240-124984/7 04/02/2014 10:27				CCV 240-124984/19 04/02/2014 11:18				CCV 240-124984/31 04/02/2014 12:04			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.5		40.0	101	49.2		50.0	98	50.2		50.0	100
Arsenic	40.8		40.0	102	51.1		50.0	102	50.3		50.0	101
Barium	40.2		40.0	100	50.6		50.0	101	51.1		50.0	102
Beryllium	40.3		40.0	101	50.5		50.0	101	50.4		50.0	101
Cadmium	41.4		40.0	104	51.6		50.0	103	52.1		50.0	104
Calcium	18300		20000	92	24300		25000	97	24500		25000	98
Chromium	38.4		40.0	96	51.2		50.0	102	51.3		50.0	103
Cobalt	38.5		40.0	96	52.0		50.0	104	51.9		50.0	104
Copper	39.6		40.0	99	52.3		50.0	105	52.8		50.0	106
Iron	9570		10000	96	12900		12500	103	12800		12500	102
Lead	41.2		40.0	103	51.0		50.0	102	52.1		50.0	104
Magnesium	18900		20000	94	24900		25000	100	25400		25000	102
Manganese	191		200	96	249		250	100	251		250	100
Molybdenum	41.7		40.0	104	51.6		50.0	103	51.5		50.0	103
Nickel	39.1		40.0	98	52.1		50.0	104	51.5		50.0	103
Selenium	41.5		40.0	104	50.7		50.0	101	50.7		50.0	101
Silver	40.8		40.0	102	50.6		50.0	101	51.0		50.0	102
Thallium	41.3		40.0	103	51.0		50.0	102	51.9		50.0	104
Vanadium	38.9		40.0	97	50.6		50.0	101	50.8		50.0	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICV Source: MTMSICVW_00032 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00086

Analyte	CCV 240-124984/43 04/02/2014 12:50											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	45.8		50.0	92								
Arsenic	47.4		50.0	95								
Barium	45.9		50.0	92								
Beryllium	50.6		50.0	101								
Cadmium	47.1		50.0	94								
Calcium	22300		25000	89								
Chromium	46.7		50.0	93								
Cobalt	47.2		50.0	94								
Copper	47.8		50.0	96								
Iron	11700		12500	93								
Lead	47.0		50.0	94								
Magnesium	23500		25000	94								
Manganese	226		250	91								
Molybdenum	47.8		50.0	96								
Nickel	46.8		50.0	94								
Selenium	47.0		50.0	94								
Silver	46.6		50.0	93								
Thallium	46.9		50.0	94								
Vanadium	46.5		50.0	93								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Method: 6020 Instrument ID: I10

Lab Sample ID: CRI 240-124984/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.01		100	50-150
Arsenic	5.00	4.98	J	100	50-150
Barium	5.00	4.73	J	95	50-150
Beryllium	1.00	1.01		101	50-150
Calcium	1000	973	J	97	50-150
Cadmium	1.00	0.959	J	96	50-150
Cobalt	1.00	1.06		106	50-150
Chromium	2.00	2.20		110	50-150
Copper	2.00	2.24		112	50-150
Magnesium	1000	1030		103	50-150
Iron	100	119		119	50-150
Molybdenum	10.0	9.95	J	100	50-150
Manganese	5.00	5.00		100	50-150
Nickel	2.00	2.19		109	50-150
Lead	1.00	1.12		112	50-150
Selenium	5.00	4.85	J	97	50-150
Thallium	2.00	2.06		103	50-150
Vanadium	5.00	4.82	J	96	50-150
Silver	1.00	1.07		107	50-150

Lab Sample ID: CRI 240-125216/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.04		102	50-150
Arsenic	5.00	4.89	J	98	50-150
Barium	5.00	4.81	J	96	50-150
Beryllium	1.00	1.08		108	50-150
Calcium	1000	945	J	94	50-150
Cadmium	1.00	1.01		101	50-150
Cobalt	1.00	1.05		105	50-150
Chromium	2.00	2.22		111	50-150
Copper	2.00	2.52		126	50-150
Magnesium	1000	1010		101	50-150
Iron	100	119		119	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Method: 6020 Instrument ID: I10

Lab Sample ID: CRI 240-125216/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Molybdenum	10.0	9.80	J	98	50-150
Manganese	5.00	4.82	J	96	50-150
Nickel	2.00	1.86	J	93	50-150
Lead	1.00	1.10		110	50-150
Selenium	5.00	4.93	J	99	50-150
Thallium	2.00	2.03		102	50-150
Vanadium	5.00	4.88	J	98	50-150
Silver	1.00	1.09		109	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-124984/8 04/02/2014 10:30		CCB 240-124984/20 04/02/2014 11:22		CCB 240-124984/32 04/02/2014 12:08		CCB 240-124984/44 04/02/2014 12:54	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.457	J	0.312	J	0.508	J	0.513	J
Arsenic	5.0	0.063	U	0.063	U	0.063	U	0.063	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.031	U	0.0508	J	0.031	U
Cadmium	1.0	0.026	U	0.026	U	0.026	U	0.026	U
Calcium	1000	54.7	J	27	U	27	U	27	U
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	12	U	12	U	12	U
Lead	1.0	0.14	U	0.14	U	0.14	U	0.14	U
Magnesium	1000	15	U	15	U	15	U	15	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0083	U	0.0083	U	0.0140	J	0.0120	J
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Not used Not used

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: I10 Method: 6020

Start Date: 04/03/2014 09:21 End Date: 04/03/2014 19:07

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V			
ZZZZZZ			09:21																				
ICIS 240-125216/2			09:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD1 240-125216/3 IC	1		09:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD2 240-125216/4 IC	1		09:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD3 240-125216/5 IC	1		09:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD4 240-125216/6 IC	1		09:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICV 240-125216/7	1		09:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICB 240-125216/8	1		09:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CRI 240-125216/9	1		09:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSA 240-125216/10	1		09:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSAB 240-125216/11	1		10:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-125216/12			10:04																				
CCB 240-125216/13			10:08																				
ZZZZZZ			10:13																				
ZZZZZZ			10:17																				
ZZZZZZ			10:21																				
ZZZZZZ			10:25																				
ZZZZZZ			10:29																				
ZZZZZZ			10:33																				
ZZZZZZ			10:36																				
ZZZZZZ			10:40																				
ZZZZZZ			10:44																				
ZZZZZZ			10:48																				
CCV 240-125216/24			10:52																				
CCB 240-125216/25			10:56																				
ZZZZZZ			11:00																				
CCV 240-125216/27			11:03																				
CCB 240-125216/28			11:07																				
ZZZZZZ			11:11																				
ZZZZZZ			11:15																				
ZZZZZZ			11:19																				
ZZZZZZ			11:23																				
ZZZZZZ			11:26																				
ZZZZZZ			11:30																				
ZZZZZZ			11:34																				
ZZZZZZ			11:38																				
ZZZZZZ			11:41																				
ZZZZZZ			11:45																				
CCV 240-125216/39			11:49																				
CCB 240-125216/40			11:53																				
ZZZZZZ			11:57																				
ZZZZZZ			12:01																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: I10 Method: 6020

Start Date: 04/03/2014 09:21 End Date: 04/03/2014 19:07

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V			
ZZZZZZ			12:04																				
ZZZZZZ			12:08																				
CCV 240-125216/45	1		12:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-125216/46	1		12:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			12:20																				
240-35541-3	1	R	12:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-35541-3	1	D	12:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-35541-4	1	R	12:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-35541-4	1	D	12:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			12:39																				
ZZZZZZ			12:43																				
ZZZZZZ			12:47																				
ZZZZZZ			12:51																				
ZZZZZZ			12:54																				
CCV 240-125216/57	1		12:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-125216/58	1		13:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			13:06																				
ZZZZZZ			13:10																				
ZZZZZZ			13:14																				
ZZZZZZ			13:17																				
ZZZZZZ			13:21																				
ZZZZZZ			13:25																				
ZZZZZZ			13:29																				
ZZZZZZ			13:33																				
ZZZZZZ			13:37																				
ZZZZZZ			13:41																				
CCV 240-125216/69			13:44																				
CCB 240-125216/70			13:48																				
CCV 240-125216/71			13:52																				
CCB 240-125216/72			13:56																				
ZZZZZZ			14:00																				
ZZZZZZ			14:04																				
ZZZZZZ			14:07																				
ZZZZZZ			14:11																				
ZZZZZZ			14:15																				
ZZZZZZ			14:19																				
ZZZZZZ			14:23																				
ZZZZZZ			14:26																				
ZZZZZZ			14:30																				
ZZZZZZ			14:34																				
CCV 240-125216/83			14:38																				
CCB 240-125216/84			14:41																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: I10 Method: 6020

Start Date: 04/03/2014 09:21 End Date: 04/03/2014 19:07

Lab Sample ID	D/F	Type	Time	Analytes																				
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V				
ZZZZZZ			14:45																					
ZZZZZZ			14:49																					
ZZZZZZ			14:53																					
ZZZZZZ			14:57																					
ZZZZZZ			15:01																					
ZZZZZZ			15:05																					
ZZZZZZ			15:08																					
ZZZZZZ			15:12																					
ZZZZZZ			15:16																					
ZZZZZZ			15:20																					
CCV 240-125216/95			15:24																					
CCB 240-125216/96			15:28																					
ZZZZZZ			15:32																					
CCV 240-125216/98			15:36																					
CCB 240-125216/99			15:40																					
ZZZZZZ			15:44																					
ZZZZZZ			15:48																					
ZZZZZZ			15:51																					
ZZZZZZ			15:55																					
ZZZZZZ			15:59																					
ZZZZZZ			16:03																					
ZZZZZZ			16:07																					
CCV 240-125216/107			16:11																					
CCB 240-125216/108			16:15																					
CCV 240-125216/109			16:18																					
CCB 240-125216/110			16:22																					
ZZZZZZ			16:26																					
ZZZZZZ			16:30																					
ZZZZZZ			16:34																					
ZZZZZZ			16:38																					
ZZZZZZ			16:42																					
ZZZZZZ			16:46																					
ZZZZZZ			16:49																					
ZZZZZZ			16:53																					
CCV 240-125216/119			16:57																					
CCB 240-125216/120			17:01																					
ZZZZZZ			17:05																					
ZZZZZZ			17:09																					
ZZZZZZ			17:12																					
ZZZZZZ			17:16																					
ZZZZZZ			17:20																					
ZZZZZZ			17:24																					

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: I10 Method: 6020

Start Date: 04/03/2014 09:21 End Date: 04/03/2014 19:07

Lab Sample ID	D / F	Type	Time	Analytes																				
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V			
ZZZZZZ			17:27																				
ZZZZZZ			17:31																				
ZZZZZZ			17:35																				
ZZZZZZ			17:39																				
CCV 240-125216/131			17:42																				
CCB 240-125216/132			17:46																				
ZZZZZZ			17:50																				
ZZZZZZ			17:54																				
ZZZZZZ			17:58																				
CCV 240-125216/136			18:02																				
CCB 240-125216/137			18:06																				
ZZZZZZ			18:10																				
ZZZZZZ			18:14																				
ZZZZZZ			18:18																				
ZZZZZZ			18:21																				
ZZZZZZ			18:25																				
ZZZZZZ			18:29																				
ZZZZZZ			18:33																				
ZZZZZZ			18:37																				
ZZZZZZ			18:41																				
ZZZZZZ			18:44																				
CCV 240-125216/148			18:48																				
CCB 240-125216/149			18:52																				
ZZZZZZ			18:56																				
ZZZZZZ			19:00																				
CCV 240-125216/152			19:03																				
CCB 240-125216/153			19:07																				

Prep Types
D = Dissolved
R = Total Recoverable

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICV Source: MTMSICVW_00032 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00086

Analyte	ICV 240-125216/7 04/03/2014 09:44				CCV 240-125216/45 04/03/2014 12:12				CCV 240-125216/57 04/03/2014 12:58			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.9		40.0	102	50.9		50.0	102	50.0		50.0	100
Arsenic	40.4		40.0	101	51.7		50.0	103	51.9		50.0	104
Barium	40.5		40.0	101	50.8		50.0	102	50.2		50.0	100
Beryllium	41.1		40.0	103	51.0		50.0	102	51.1		50.0	102
Cadmium	41.5		40.0	104	51.6		50.0	103	51.3		50.0	103
Chromium	38.8		40.0	97	51.2		50.0	102	51.5		50.0	103
Cobalt	38.5		40.0	96	51.6		50.0	103	51.8		50.0	104
Copper	39.9		40.0	100	49.8		50.0	100	50.3		50.0	101
Iron	9610		10000	96	12700		12500	102	12800		12500	103
Lead	41.0		40.0	103	47.6		50.0	95	47.5		50.0	95
Manganese	189		200	95	256		250	102	259		250	104
Molybdenum	41.4		40.0	104	51.8		50.0	104	51.2		50.0	102
Nickel	39.0		40.0	97	51.4		50.0	103	51.8		50.0	104
Selenium	40.9		40.0	102	52.2		50.0	104	52.5		50.0	105
Silver	40.8		40.0	102	50.9		50.0	102	50.4		50.0	101
Thallium	41.1		40.0	103	47.8		50.0	96	47.4		50.0	95
Vanadium	39.2		40.0	98	51.5		50.0	103	51.6		50.0	103
Calcium	18200		20000	91	25600		25000	102	26000		25000	104
Magnesium	18800		20000	94	26000		25000	104	25800		25000	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-125216/8 04/03/2014 09:48		CCB 240-125216/46 04/03/2014 12:16		CCB 240-125216/58 04/03/2014 13:02			
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.442	J	0.409	J	0.495	J		
Arsenic	5.0	0.063	U	0.063	U	0.063	U		
Barium	5.0	0.32	U	0.32	U	0.32	U		
Beryllium	1.0	0.031	U	0.031	U	0.031	U		
Cadmium	1.0	0.026	U	0.026	U	0.026	U		
Chromium	2.0	0.13	U	0.13	U	0.13	U		
Cobalt	1.0	0.020	U	0.020	U	0.020	U		
Copper	2.0	0.573	J	0.24	U	0.24	U		
Iron	100	12	U	12	U	12	U		
Lead	1.0	0.14	U	0.14	U	0.14	U		
Manganese	5.0	0.41	U	0.41	U	0.41	U		
Molybdenum	10	0.81	U	0.81	U	0.81	U		
Nickel	2.0	0.088	U	0.088	U	0.088	U		
Selenium	5.0	0.34	U	0.34	U	0.34	U		
Silver	1.0	0.0083	U	0.0110	J	0.0083	U		
Thallium	2.0	0.40	U	0.40	U	0.40	U		
Vanadium	5.0	0.15	U	0.15	U	0.15	U		
Calcium	1000	27	U	27	U	27	U		
Magnesium	1000	15	U	15	U	15	U		

Not used

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: I11 Method: 6020

Start Date: 04/04/2014 12:46 End Date: 04/05/2014 04:39

Lab Sample ID	D/F	Type	Time	Analytes																		
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V
ICIS 240-125428/1	1		12:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD2 240-125428/2 IC	1		12:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD3 240-125428/3 IC	1		13:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD4 240-125428/4 IC	1		13:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV 240-125428/5	1		13:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICB 240-125428/6	1		13:22	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
CRI 240-125428/7	1		13:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			13:36																			
ZZZZZZ			13:43																			
ICSA 240-125428/10	1		13:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB 240-125428/11	1		13:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 240-125428/12			14:04																			
CCB 240-125428/13			14:11																			
CCV 240-125428/14			14:18																			
CCB 240-125428/15			14:26																			
ZZZZZZ			14:33																			
ZZZZZZ			14:40																			
CCV 240-125428/18			14:47																			
CCB 240-125428/19			14:54																			
CCV 240-125428/20			15:02																			
CCB 240-125428/21			15:09																			
ZZZZZZ			15:16																			
ZZZZZZ			15:23																			
ZZZZZZ			15:30																			
ZZZZZZ			15:37																			
ZZZZZZ			15:44																			
ZZZZZZ			15:51																			
ZZZZZZ			15:58																			
ZZZZZZ			16:05																			
ZZZZZZ			16:13																			
CCV 240-125428/31			16:20																			
CCB 240-125428/32			16:27																			
ZZZZZZ			16:34																			
ZZZZZZ			16:41																			
ZZZZZZ			16:48																			
ZZZZZZ			16:55																			
ZZZZZZ			17:02																			
ZZZZZZ			17:09																			
ZZZZZZ			17:16																			
CRI 240-125428/40			17:23																			
CCV 240-125428/41			17:31																			
CCB 240-125428/42			17:38																			

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: I11 Method: 6020

Start Date: 04/04/2014 12:46 End Date: 04/05/2014 04:39

Lab Sample ID	D/F	Type	Time	Analytes																				
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V		
ZZZZZZ			17:45																					
ZZZZZZ			17:52																					
ZZZZZZ			17:59																					
ZZZZZZ			18:06																					
ZZZZZZ			18:13																					
ZZZZZZ			18:20																					
ZZZZZZ			18:27																					
ZZZZZZ			18:34																					
CCV 240-125428/51			18:42																					
CCB 240-125428/52			18:49																					
ZZZZZZ			18:56																					
ZZZZZZ			19:03																					
ZZZZZZ			19:10																					
ZZZZZZ			19:17																					
ZZZZZZ			19:24																					
ZZZZZZ			19:31																					
ZZZZZZ			19:38																					
ZZZZZZ			19:45																					
ZZZZZZ			19:53																					
ZZZZZZ			20:00																					
CCV 240-125428/63			20:07																					
CCB 240-125428/64			20:14																					
ZZZZZZ			20:21																					
ZZZZZZ			20:28																					
ZZZZZZ			20:35																					
ZZZZZZ			20:42																					
ZZZZZZ			20:50																					
ZZZZZZ			20:57																					
CCV 240-125428/71			21:04																					
CCB 240-125428/72			21:11																					
CCV 240-125428/73			21:18																					
CCB 240-125428/74			21:25																					
ZZZZZZ			21:32																					
ZZZZZZ			21:39																					
ZZZZZZ			21:46																					
ZZZZZZ			21:54																					
ZZZZZZ			22:01																					
ZZZZZZ			22:08																					
ZZZZZZ			22:15																					
ZZZZZZ			22:22																					
ZZZZZZ			22:29																					
ZZZZZZ			22:36																					

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: I11 Method: 6020

Start Date: 04/04/2014 12:46 End Date: 04/05/2014 04:39

Lab Sample ID	D/F	Type	Time	Analytes																		
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V
CCV 240-125428/85	1		22:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-125428/86	1		22:51	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
ZZZZZZ			22:58																			
ZZZZZZ			23:05																			
MB 240-125040/1-A	1	R	23:12	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
LCS 240-125040/2-A	1	R	23:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-35667-2	1	R	23:26	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
240-35667-2 SD	5	R	23:33	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
240-35667-2 MS	1	R	23:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-35667-2 MSD	1	R	23:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-35667-2	1	D	23:55	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
240-35667-3	1	R	00:02	X	X		X		X	X	X	X	X		X	X	X			X		X
CCV 240-125428/97	1		00:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-125428/98	1		00:16	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
ICSA 240-125428/99	1		00:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB 240-125428/100	1		00:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 240-125428/101			00:37																			
CCB 240-125428/102			00:44																			
ZZZZZZ			00:51																			
CCV 240-125428/104	1		00:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-125428/105	1		01:06	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
240-35667-3	1	D	01:13	X	X		X		X	X	X	X	X		X	X	X			X		X
240-35667-4	1	R	01:20	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
240-35667-4	1	D	01:27	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
240-35667-5	1	R	01:34	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
240-35667-5	1	D	01:41	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
240-35667-6	1	R	01:48	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
240-35667-6	1	D	01:55	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
240-35667-7	1	R	02:02	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
240-35667-7	1	D	02:10	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
240-35667-8	1	R	02:17	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
CCV 240-125428/116	1		02:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-125428/117	1		02:31	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
240-35667-8	1	D	02:38	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
240-35667-9	1	R	02:45	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
240-35667-9	1	D	02:52	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
ZZZZZZ			02:59																			
ZZZZZZ			03:06																			
ZZZZZZ			03:13																			
ZZZZZZ			03:21																			
ZZZZZZ			03:28																			
ZZZZZZ			03:35																			

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: I11 Method: 6020

Start Date: 04/04/2014 12:46 End Date: 04/05/2014 04:39

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	
ZZZZZZ			03:42																				
CCV 240-125428/128	1		03:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB 240-125428/129	1		03:56	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ			04:03																				
ZZZZZZ			04:10																				
ZZZZZZ			04:17																				
ZZZZZZ			04:24																				
CCV 240-125428/134			04:32																				
CCB 240-125428/135			04:39																				

Prep Types

D = Dissolved

R = Total Recoverable

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICV Source: MTMSICVW_00032 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	ICV 240-125428/5 04/04/2014 13:14				CCV 240-125428/85 04/04/2014 22:43				CCV 240-125428/97 04/05/2014 00:09			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	41.1		40.0	103	51.4		50.0	103	50.9		50.0	102
Arsenic	40.8		40.0	102	49.6		50.0	99	50.8		50.0	102
Barium	40.1		40.0	100	50.7		50.0	101	50.2		50.0	100
Beryllium	41.1		40.0	103	51.6		50.0	103	51.8		50.0	104
Cadmium	41.5		40.0	104	50.9		50.0	102	50.2		50.0	100
Calcium	19900		20000	99	26100		25000	104	25800		25000	103
Chromium	40.8		40.0	102	49.8		50.0	100	50.2		50.0	100
Cobalt	40.0		40.0	100	50.3		50.0	101	50.1		50.0	100
Copper	41.6		40.0	104	50.4		50.0	101	50.4		50.0	101
Iron	10200		10000	102	12200		12500	98	12300		12500	98
Lead	41.7		40.0	104	52.4		50.0	105	51.7		50.0	103
Magnesium	20100		20000	101	25300		25000	101	24700		25000	99
Manganese	204		200	102	254		250	102	255		250	102
Molybdenum	41.5		40.0	104	51.1		50.0	102	51.4		50.0	103
Nickel	40.3		40.0	101	50.5		50.0	101	50.5		50.0	101
Selenium	41.8		40.0	104	48.8		50.0	98	48.8		50.0	98
Silver	41.7		40.0	104	50.4		50.0	101	50.4		50.0	101
Thallium	40.7		40.0	102	51.9		50.0	104	51.2		50.0	102
Vanadium	40.7		40.0	102	49.6		50.0	99	50.9		50.0	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICV Source: MTMSICVW_00032 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	CCV 240-125428/104 04/05/2014 00:59				CCV 240-125428/116 04/05/2014 02:24				CCV 240-125428/128 04/05/2014 03:49			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.9		50.0	102	50.7		50.0	101	51.1		50.0	102
Arsenic	49.7		50.0	99	48.9		50.0	98	50.2		50.0	100
Barium	49.1		50.0	98	49.5		50.0	99	50.6		50.0	101
Beryllium	52.0		50.0	104	50.8		50.0	102	51.7		50.0	103
Cadmium	50.6		50.0	101	49.9		50.0	100	50.3		50.0	101
Calcium	26100		25000	104	26200		25000	105	26700		25000	107
Chromium	49.8		50.0	100	50.0		50.0	100	49.5		50.0	99
Cobalt	49.3		50.0	99	49.7		50.0	99	49.0		50.0	98
Copper	49.9		50.0	100	49.8		50.0	100	49.7		50.0	99
Iron	12100		12500	96	12000		12500	96	11800		12500	94
Lead	52.2		50.0	104	51.5		50.0	103	52.4		50.0	105
Magnesium	24900		25000	99	25300		25000	101	25000		25000	100
Manganese	254		250	102	253		250	101	252		250	101
Molybdenum	51.1		50.0	102	51.1		50.0	102	50.9		50.0	102
Nickel	50.4		50.0	101	50.5		50.0	101	49.3		50.0	99
Selenium	49.0		50.0	98	49.2		50.0	98	50.7		50.0	101
Silver	50.1		50.0	100	49.7		50.0	99	49.7		50.0	99
Thallium	51.4		50.0	103	50.8		50.0	102	51.9		50.0	104
Vanadium	49.7		50.0	99	49.7		50.0	99	49.6		50.0	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Method: 6020 Instrument ID: I11

Lab Sample ID: CRI 240-125428/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

4/4

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.01		100	50-150
Arsenic	5.00	5.06		101	50-150
Barium	5.00	4.78	J	96	50-150
Beryllium	1.00	1.01		101	50-150
Calcium	1000	1050		105	50-150
Cadmium	1.00	0.977	J	98	50-150
Cobalt	1.00	0.944	J	94	50-150
Chromium	2.00	2.22		111	50-150
Copper	2.00	2.01		101	50-150
Magnesium	1000	1050		105	50-150
Iron	100	138		138	50-150
Molybdenum	10.0	10.1		101	50-150
Manganese	5.00	5.41		108	50-150
Nickel	2.00	2.81		140	50-150
Lead	1.00	1.03		103	50-150
Selenium	5.00	5.31		106	50-150
Thallium	2.00	2.11		105	50-150
Vanadium	5.00	5.17		103	50-150
Silver	1.00	1.10		110	50-150

Lab Sample ID: CRI 240-125595/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

4/7

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.09		105	50-150
Arsenic	5.00	5.12		102	50-150
Barium	5.00	5.19		104	50-150
Beryllium	1.00	1.15		115	50-150
Calcium	1000	1060		106	50-150
Cadmium	1.00	1.21		121	50-150
Cobalt	1.00	1.15		115	50-150
Chromium	2.00	2.40		120	50-150
Copper	2.00	2.24		112	50-150
Magnesium	1000	1090		109	50-150
Iron	100	116		116	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Method: 6020 Instrument ID: I11

Lab Sample ID: CRI 240-125595/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Molybdenum	10.0	10.1		101	50-150
Manganese	5.00	5.17		103	50-150
Nickel	2.00	2.45		123	50-150
Lead	1.00	1.25		125	50-150
Selenium	5.00	5.34		107	50-150
Thallium	2.00	2.21		110	50-150
Vanadium	5.00	5.20		104	50-150
Silver	1.00	1.15		115	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-125428/6 04/04/2014 13:22		CCB 240-125428/86 04/04/2014 22:51		CCB 240-125428/98 04/05/2014 00:16		CCB 240-125428/105 04/05/2014 01:06	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.11	U	0.11	U	0.11	U	0.11	U
Arsenic	5.0	0.130	J	0.063	U	0.063	U	0.115	J
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.031	U	0.031	U	0.031	U
Cadmium	1.0	0.0760	J	0.026	U	0.026	U	0.0530	J
Calcium	1000	27	U	27	U	27	U	28.6	J
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.100	J	0.020	U	0.020	U	0.0500	J
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	19.6	J	17.6	J	25.4	J	36.8	J
Lead	1.0	0.14	U	0.14	U	0.14	U	0.14	U
Magnesium	1000	38.3	J	15	U	15	U	43.8	J
Manganese	5.0	0.41	U	1.50	J	1.52	J	1.62	J
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.0920	J
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0460	J	0.0390	J	0.0410	J	0.0570	J
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Not used

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-125428/117 04/05/2014 02:31		CCB 240-125428/129 04/05/2014 03:56					
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.11	U	0.11	U				
Arsenic	5.0	0.063	U	0.231	J				
Barium	5.0	0.32	U	0.32	U				
Beryllium	1.0	0.031	U	0.031	U				
Cadmium	1.0	0.026	U	0.106	J				
Calcium	1000	37.7	J	49.4	J	NA			
Chromium	2.0	0.13	U	0.13	U				
Cobalt	1.0	0.020	U	0.0880	J				
Copper	2.0	0.24	U	0.24	U				
Iron	100	29.8	J	34.2	J				
Lead	1.0	0.14	U	0.14	U				
Magnesium	1000	31.2	J	57.7	J	NA			
Manganese	5.0	1.73	J	1.81	J				
Molybdenum	10	0.81	U	0.81	U				
Nickel	2.0	0.088	U	0.088	U				
Selenium	5.0	0.34	U	0.34	U				
Silver	1.0	0.0380	J	0.0810	J				
Thallium	2.0	0.40	U	0.40	U				
Vanadium	5.0	0.15	U	0.15	U				

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: I11 Method: 6020

Start Date: 04/07/2014 10:48 End Date: 04/07/2014 18:58

Lab Sample ID	D/F	Type	Time	Analytes																					
				Ba	Pb	Sb	Tl																		
ICIS 240-125595/1	1		10:48	X	X	X	X																		
STD2 240-125595/2 IC	1		10:55	X	X	X	X																		
STD3 240-125595/3 IC	1		11:03	X	X	X	X																		
STD4 240-125595/4 IC	1		11:10	X	X	X	X																		
ICV 240-125595/5	1		11:17	X	X	X	X																		
ICB 240-125595/6	1		11:24	X	X	X	X																		
CRI 240-125595/7	1		11:31	X	X	X	X																		
ICSA 240-125595/8	1		11:38	X	X	X	X																		
ICSAB 240-125595/9	1		11:45	X	X	X	X																		
CCV 240-125595/10			11:52																						
CCB 240-125595/11			11:59																						
ZZZZZZ			12:06																						
ZZZZZZ			12:14																						
ZZZZZZ			12:21																						
ZZZZZZ			12:28																						
ZZZZZZ			12:35																						
ZZZZZZ			12:42																						
ZZZZZZ			12:49																						
ZZZZZZ			12:56																						
CCV 240-125595/20			13:03																						
CCB 240-125595/21			13:10																						
CRI 240-125595/22			13:17																						
ZZZZZZ			13:25																						
ZZZZZZ			13:32																						
ZZZZZZ			13:39																						
ZZZZZZ			13:46																						
ZZZZZZ			13:53																						
ZZZZZZ			14:00																						
ZZZZZZ			14:07																						
CCV 240-125595/30	1		14:14	X	X	X	X																		
CCB 240-125595/31	1		14:21	X	X	X	X																		
ZZZZZZ			14:28																						
240-35667-3	2	R	14:35	X	X	X	X																		
ZZZZZZ			14:43																						
240-35667-3	2	D	14:50	X	X	X	X																		
ZZZZZZ			14:57																						
ZZZZZZ			15:04																						
ZZZZZZ			15:11																						
ZZZZZZ			15:18																						
CCV 240-125595/40	1		15:25	X	X	X	X																		
CCB 240-125595/41	1		15:32	X	X	X	X																		
ZZZZZZ			15:39																						

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: I11 Method: 6020

Start Date: 04/07/2014 10:48 End Date: 04/07/2014 18:58

Lab Sample ID	D / F	Type	Time	Analytes																					
				Ba	Pb	Sb	Tl																		
ZZZZZZ			15:46																						
ZZZZZZ			15:53																						
ZZZZZZ			16:01																						
ZZZZZZ			16:08																						
ZZZZZZ			16:15																						
ZZZZZZ			16:22																						
ZZZZZZ			16:29																						
ZZZZZZ			16:36																						
ZZZZZZ			16:43																						
CCV 240-125595/52			16:50																						
CCB 240-125595/53			16:57																						
ZZZZZZ			17:05																						
ZZZZZZ			17:12																						
ZZZZZZ			17:19																						
ZZZZZZ			17:26																						
ZZZZZZ			17:33																						
CCV 240-125595/59			17:40																						
CCB 240-125595/60			17:47																						
ZZZZZZ			17:54																						
ZZZZZZ			18:01																						
ZZZZZZ			18:08																						
ZZZZZZ			18:16																						
ZZZZZZ			18:23																						
ZZZZZZ			18:30																						
ZZZZZZ			18:37																						
ZZZZZZ			18:44																						
CCV 240-125595/69			18:51																						
CCB 240-125595/70			18:58																						

Prep Types

D = Dissolved

R = Total Recoverable

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICV Source: MTMSICVW_00032 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	ICV 240-125595/5 04/07/2014 11:17				CCV 240-125595/30 04/07/2014 14:14				CCV 240-125595/40 04/07/2014 15:25			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	41.1		40.0	103	52.3		50.0	105	51.1		50.0	102
Barium	40.5		40.0	101	51.6		50.0	103	51.2		50.0	102
Lead	41.7		40.0	104	53.0		50.0	106	52.2		50.0	104
Thallium	41.6		40.0	104	52.4		50.0	105	51.7		50.0	103
Arsenic	40.4		40.0	101	51.2		50.0	102	51.6		50.0	103
Beryllium	40.8		40.0	102	50.6		50.0	101	51.5		50.0	103
Cadmium	41.2		40.0	103	52.5		50.0	105	52.5		50.0	105
Calcium	19800		20000	99	25800		25000	103	25400		25000	102
Chromium	40.3		40.0	101	52.3		50.0	105	51.9		50.0	104
Cobalt	39.7		40.0	99	52.2		50.0	104	52.2		50.0	104
Copper	41.4		40.0	103	52.7		50.0	105	53.9		50.0	108
Iron	10000		10000	100	13000		12500	104	12800		12500	103
Magnesium	20200		20000	101	26800		25000	107	26100		25000	105
Manganese	202		200	101	263		250	105	260		250	104
Molybdenum	40.8		40.0	102	53.2		50.0	106	53.1		50.0	106
Nickel	40.2		40.0	101	52.7		50.0	105	53.1		50.0	106
Selenium	40.1		40.0	100	51.2		50.0	102	51.9		50.0	104
Silver	41.9		40.0	105	53.7		50.0	107	52.8		50.0	106
Vanadium	40.1		40.0	100	51.2		50.0	102	51.0		50.0	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-125595/6 04/07/2014 11:24		CCB 240-125595/31 04/07/2014 14:21		CCB 240-125595/41 04/07/2014 15:32			
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.11	U	0.11	U	0.11	U		
Barium	5.0	0.32	U	0.32	U	0.32	U		
Lead	1.0	0.14	U	0.14	U	0.14	U		
Thallium	2.0	0.40	U	0.40	U	0.40	U		
Arsenic	5.0	0.063	U	0.063	U	0.063	U		
Beryllium	1.0	0.031	U	0.031	U	0.031	U		
Cadmium	1.0	0.026	U	0.0700	J	0.0470	J		
Calcium	1000	27	U	27	U	27	U		
Chromium	2.0	0.13	U	0.13	U	0.13	U		
Cobalt	1.0	0.020	U	0.0790	J	0.0500	J		
Copper	2.0	0.24	U	0.24	U	0.24	U		
Iron	100	12	U	14.1	J	12	U		
Magnesium	1000	15	U	30.7	J	16.7	J		
Manganese	5.0	0.41	U	0.41	U	0.41	U		
Molybdenum	10	0.81	U	0.81	U	0.81	U		
Nickel	2.0	0.088	U	0.088	U	0.088	U		
Selenium	5.0	0.34	U	0.34	U	0.34	U		
Silver	1.0	0.0083	U	0.0510	J	0.0120	J		
Vanadium	5.0	0.15	U	0.15	U	0.15	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-125158/8-A 04/03/2014 08:22		CCB 240-125158/12-A 04/03/2014 12:13		CCB 240-125158/12-A 04/03/2014 12:33		CCB 240-125158/12-A 04/03/2014 12:52	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-125521/8-A 04/08/2014 08:39		CCB 240-125521/12-A 04/08/2014 08:43		CCB 240-125521/12-A 04/08/2014 09:03		CCB 240-125521/12-A 04/08/2014 09:21	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-124733/1-A

Instrument Code: I10 Batch No.: 124984

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.199	J		6020
7440-38-2	Arsenic	0.0940	J		6020
7440-39-3	Barium	0.32	U		6020
7440-41-7	Beryllium	0.031	U		6020
7440-70-2	Calcium	27	U		6020
7440-43-9	Cadmium	0.026	U		6020
7440-48-4	Cobalt	0.020	U		6020
7440-47-3	Chromium	0.13	U		6020
7440-50-8	Copper	0.260	J		6020
7439-95-4	Magnesium	15	U		6020
7439-89-6	Iron	12	U		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-96-5	Manganese	0.41	U		6020
7440-02-0	Nickel	0.088	U		6020
7439-92-1	Lead	0.14	U		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-62-2	Vanadium	0.15	U		6020
7440-22-4	Silver	0.0110	J		6020

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-125040/1-A

Instrument Code: I11 Batch No.: 125428

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.112	J		6020
7440-38-2	Arsenic	0.063	U		6020
7440-39-3	Barium	0.996	J		6020
7440-41-7	Beryllium	0.031	U		6020
7440-70-2	Calcium	185	J		6020
7440-43-9	Cadmium	0.026	U		6020
7440-48-4	Cobalt	0.020	U		6020
7440-47-3	Chromium	0.13	U		6020
7440-50-8	Copper	0.536	J		6020
7439-95-4	Magnesium	22.0	J		6020
7439-89-6	Iron	12	U		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-96-5	Manganese	0.41	U		6020
7440-02-0	Nickel	0.088	U		6020
7439-92-1	Lead	0.14	U		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-62-2	Vanadium	0.15	U		6020
7440-22-4	Silver	0.0083	U		6020

FORM III-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-124740/1-A

Instrument Code: H1 Batch No.: 125190

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

FORM III-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-124733/1-A	04/01/2014 08:34	124733		50	50
LCS 240-124733/2-A	04/01/2014 08:34	124733		50	50
240-35541-1	04/01/2014 08:34	124733		50	50
240-35541-1 MS	04/01/2014 08:34	124733		50	50
240-35541-1 MSD	04/01/2014 08:34	124733		50	50
240-35541-1	04/01/2014 08:34	124733		50	50
240-35541-2	04/01/2014 08:34	124733		50	50
240-35541-2	04/01/2014 08:34	124733		50	50
240-35541-3	04/01/2014 08:34	124733		50	50
240-35541-3	04/01/2014 08:34	124733		50	50
240-35541-4	04/01/2014 08:34	124733		50	50
240-35541-4	04/01/2014 08:34	124733		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-125040/1-A	04/03/2014 07:39	125040		50	50
LCS 240-125040/2-A	04/03/2014 07:39	125040		50	50
240-35667-2	04/03/2014 07:39	125040		50	50
240-35667-2 MS	04/03/2014 07:39	125040		50	50
240-35667-2 MSD	04/03/2014 07:39	125040		50	50
240-35667-2	04/03/2014 07:39	125040		50	50
240-35667-3	04/03/2014 07:39	125040		50	50
240-35667-3	04/03/2014 07:39	125040		50	50
240-35667-4	04/03/2014 07:39	125040		50	50
240-35667-4	04/03/2014 07:39	125040		50	50
240-35667-5	04/03/2014 07:39	125040		50	50
240-35667-5	04/03/2014 07:39	125040		50	50
240-35667-6	04/03/2014 07:39	125040		50	50
240-35667-6	04/03/2014 07:39	125040		50	50
240-35667-7	04/03/2014 07:39	125040		50	50
240-35667-7	04/03/2014 07:39	125040		50	50
240-35667-8	04/03/2014 07:39	125040		50	50
240-35667-8	04/03/2014 07:39	125040		50	50
240-35667-9	04/03/2014 07:39	125040		50	50
240-35667-9	04/03/2014 07:39	125040		50	50

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-125050/1-A

Instrument Code: H1 Batch No.: 125741

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Lab Sample ID: ICSA 240-124984/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.247**	
Arsenic		**0.0430**	
Barium		**0.0640**	
Beryllium		**-0.0080**	
Cadmium		**0.0040**	
Calcium	**50000**	**49790**	**100**
Chromium		**0.539**	
Cobalt		**0.0160**	
Copper		**0.204**	
Iron	**50000**	**50330**	**101**
Lead		**0.0780**	
Magnesium	**50000**	**49382**	**99**
Manganese		**0.776**	
Molybdenum	**1000**	**1070**	**107**
Nickel		**0.621**	
Selenium		**0.0020**	
Silver		**0.0240**	
Thallium		**0.0090**	
Vanadium		**-0.172**	
Aluminum	*50000*	*48630*	*97*
Boron		*0.100*	
Potassium	*50000*	*49067*	*98*
Sodium	*50000*	*49901*	*100*
Strontium		*2.27*	
Tin		*0.326*	
Titanium	*1000*	*1004*	*100*
Tungsten		*0.294*	
Zinc		*0.380*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Lab Sample ID: ICSAB 240-124984/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**97.1**	**97**
Arsenic	**100**	**99.4**	**99**
Barium	**100**	**101**	**101**
Beryllium	**100**	**99.3**	**99**
Cadmium	**100**	**101**	**101**
Calcium	**50000**	**49311**	**99**
Chromium	**100**	**99.5**	**99**
Cobalt	**100**	**101**	**101**
Copper	**100**	**102**	**102**
Iron	**50000**	**49924**	**100**
Lead	**100**	**101**	**101**
Magnesium	**50000**	**48465**	**97**
Manganese	**100**	**97.6**	**98**
Molybdenum	**1100**	**1194**	**109**
Nickel	**100**	**100**	**100**
Selenium	**100**	**98.4**	**98**
Silver	**100**	**100**	**100**
Thallium	**100**	**101**	**101**
Vanadium	**100**	**99.6**	**100**
Aluminum	*50000*	*47475*	*95*
Boron	*100*	*108*	*108*
Potassium	*50000*	*48731*	*97*
Sodium	*50000*	*48814*	*98*
Strontium	*100*	*103*	*103*
Tin	*100*	*96.4*	*96*
Titanium	*1100*	*1091*	*99*
Tungsten	*100*	*101*	*101*
Zinc	*100*	*103*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Lab Sample ID: ICSA 240-125216/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Antimony		**0.247**	
Arsenic		**0.109**	
Barium		**0.0300**	
Beryllium		**0.0050**	
Cadmium		**0.0450**	
Chromium		**0.515**	
Cobalt		**0.0180**	
Copper		**0.110**	
Iron	**50000**	**49911**	**100**
Lead		**0.0740**	
Manganese		**0.631**	
Molybdenum	**1000**	**1057**	**106**
Nickel		**0.317**	
Selenium		**-0.0140**	
Silver		**0.0250**	
Thallium		**0.0050**	
Vanadium		**-0.0120**	
Aluminum	*50000*	*48900*	*98*
Boron		*1.60*	
Calcium	*50000*	*49322*	*99*
Magnesium	*50000*	*48742*	*97*
Potassium	*50000*	*49404*	*99*
Sodium	*50000*	*49854*	*100*
Strontium		*2.33*	
Tin		*0.185*	
Titanium	*1000*	*984*	*98*
Tungsten		*0.322*	
Zinc		*-0.349*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Lab Sample ID: ICSAB 240-125216/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**94.9**	**95**
Arsenic	**100**	**97.1**	**97**
Barium	**100**	**100**	**100**
Beryllium	**100**	**100**	**100**
Cadmium	**100**	**99.6**	**100**
Chromium	**100**	**101**	**101**
Cobalt	**100**	**102**	**102**
Copper	**100**	**102**	**102**
Iron	**50000**	**50178**	**100**
Lead	**100**	**99.9**	**100**
Manganese	**100**	**97.4**	**97**
Molybdenum	**1100**	**1190**	**108**
Nickel	**100**	**102**	**102**
Selenium	**100**	**95.5**	**96**
Silver	**100**	**101**	**101**
Thallium	**100**	**99.2**	**99**
Vanadium	**100**	**100**	**100**
Aluminum	*50000*	*48410*	*97*
Boron	*100*	*98.6*	*99*
Calcium	*50000*	*49171*	*98*
Magnesium	*50000*	*48865*	*98*
Potassium	*50000*	*49111*	*98*
Sodium	*50000*	*49147*	*98*
Strontium	*100*	*105*	*105*
Tin	*100*	*96.9*	*97*
Titanium	*1100*	*1072*	*97*
Tungsten	*100*	*101*	*101*
Zinc	*100*	*104*	*104*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Lab Sample ID: ICSA 240-125428/10 Instrument ID: I11

Lab File ID: I11040414C.csv ICS Source: MTMSICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.110**	
Arsenic		**-0.0640**	
Barium		**-0.151**	
Beryllium		**-0.0480**	
Cadmium		**-0.507**	
Calcium	**50000**	**52780**	**106**
Chromium		**0.473**	
Cobalt		**-0.110**	
Copper		**0.0080**	
Iron	**50000**	**52880**	**106**
Lead		**-0.117**	
Magnesium	**50000**	**52050**	**104**
Manganese		**0.905**	
Molybdenum	**1000**	**1075**	**108**
Nickel		**0.527**	
Selenium		**-0.119**	
Silver		**-0.0030**	
Thallium		**-0.0560**	
Vanadium		**-0.112**	
Aluminum	*50000*	*52050*	*104*
Boron		*-3.21*	
Potassium	*50000*	*53420*	*107*
Sodium	*50000*	*52260*	*105*
Strontium		*1.76*	
Tin		*0.0320*	
Titanium	*1000*	*1063*	*106*
Tungsten		*0.0500*	
Zinc		*0.424*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Lab Sample ID: ICSAB 240-125428/11 Instrument ID: I11

Lab File ID: I11040414C.csv ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**103**	**103**
Arsenic	**100**	**104**	**104**
Barium	**100**	**103**	**103**
Beryllium	**100**	**104**	**104**
Cadmium	**100**	**101**	**101**
Calcium	**50000**	**52000**	**104**
Chromium	**100**	**104**	**104**
Cobalt	**100**	**102**	**102**
Copper	**100**	**100**	**100**
Iron	**50000**	**52950**	**106**
Lead	**100**	**106**	**106**
Magnesium	**50000**	**51260**	**103**
Manganese	**100**	**106**	**106**
Molybdenum	**1100**	**1165**	**106**
Nickel	**100**	**102**	**102**
Selenium	**100**	**102**	**102**
Silver	**100**	**101**	**101**
Thallium	**100**	**104**	**104**
Vanadium	**100**	**104**	**104**
Aluminum	*50000*	*51460*	*103*
Boron	*100*	*103*	*103*
Potassium	*50000*	*53370*	*107*
Sodium	*50000*	*52290*	*105*
Strontium	*100*	*105*	*105*
Tin	*100*	*99.7*	*100*
Titanium	*1100*	*1137*	*103*
Tungsten	*100*	*109*	*109*
Zinc	*100*	*103*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Lab Sample ID: ICSA 240-125428/99 Instrument ID: I11

Lab File ID: I11040414C.csv ICS Source: MTMSICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0770**	
Arsenic		**0.0120**	
Barium		**0.0160**	
Beryllium		**-0.0430**	
Cadmium		**-0.424**	
Calcium	**50000**	**53780**	**108**
Chromium		**0.442**	
Cobalt		**-0.105**	
Copper		**0.0780**	
Iron	**50000**	**50250**	**101**
Lead		**-0.0890**	
Magnesium	**50000**	**50180**	**100**
Manganese		**0.791**	
Molybdenum	**1000**	**1054**	**105**
Nickel		**0.583**	
Selenium		**-0.193**	
Silver		**0.0020**	
Thallium		**0.103**	
Vanadium		**-0.109**	
Aluminum	*50000*	*52300*	*105*
Boron		*-2.13*	
Potassium	*50000*	*52810*	*106*
Sodium	*50000*	*51340*	*103*
Strontium		*1.76*	
Tin		*-0.0160*	
Titanium	*1000*	*1038*	*104*
Tungsten		*0.0570*	
Zinc		*0.942*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Lab Sample ID: ICSAB 240-125428/100 Instrument ID: I11

Lab File ID: I11040414C.csv ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**104**	**104**
Arsenic	**100**	**102**	**102**
Barium	**100**	**103**	**103**
Beryllium	**100**	**105**	**105**
Cadmium	**100**	**99.7**	**100**
Calcium	**50000**	**52220**	**104**
Chromium	**100**	**102**	**102**
Cobalt	**100**	**99.7**	**100**
Copper	**100**	**99.6**	**100**
Iron	**50000**	**49880**	**100**
Lead	**100**	**106**	**106**
Magnesium	**50000**	**49660**	**99**
Manganese	**100**	**106**	**106**
Molybdenum	**1100**	**1154**	**105**
Nickel	**100**	**99.7**	**100**
Selenium	**100**	**99.1**	**99**
Silver	**100**	**99.0**	**99**
Thallium	**100**	**103**	**103**
Vanadium	**100**	**102**	**102**
Aluminum	*50000*	*51330*	*103*
Boron	*100*	*103*	*103*
Potassium	*50000*	*51570*	*103*
Sodium	*50000*	*50410*	*101*
Strontium	*100*	*102*	*102*
Tin	*100*	*99.0*	*99*
Titanium	*1100*	*1125*	*102*
Tungsten	*100*	*107*	*107*
Zinc	*100*	*100*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Lab Sample ID: ICSA 240-125595/8 Instrument ID: I11

Lab File ID: I11040714B.csv ICS Source: MTMSICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.131**	
Barium		**0.142**	
Lead		**0.0840**	
Thallium		**-0.0110**	
Aluminum	*50000*	*48800*	*98*
Arsenic		*0.0780*	
Beryllium		*0.0150*	
Boron		*-1.06*	
Cadmium		*-0.314*	
Calcium	*50000*	*50800*	*102*
Chromium		*0.590*	
Cobalt		*0.0480*	
Copper		*0.180*	
Iron	*50000*	*51130*	*102*
Magnesium	*50000*	*50540*	*101*
Manganese		*0.575*	
Molybdenum	*1000*	*1038*	*104*
Nickel		*0.678*	
Potassium	*50000*	*52100*	*104*
Selenium		*0.0050*	
Silver		*0.0240*	
Sodium	*50000*	*51540*	*103*
Strontium		*2.36*	
Tin		*0.0170*	
Titanium	*1000*	*1014*	*101*
Tungsten		*0.0520*	
Vanadium		*0.0590*	
Zinc		*0.395*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Lab Sample ID: ICSAB 240-125595/9 Instrument ID: I11

Lab File ID: I11040714B.csv ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**100**	**100**
Barium	**100**	**102**	**102**
Lead	**100**	**105**	**105**
Thallium	**100**	**103**	**103**
Aluminum	*50000*	*48020*	*96*
Arsenic	*100*	*100.0*	*100*
Beryllium	*100*	*100*	*100*
Boron	*100*	*98.6*	*99*
Cadmium	*100*	*101*	*101*
Calcium	*50000*	*49610*	*99*
Chromium	*100*	*102*	*102*
Cobalt	*100*	*99.9*	*100*
Copper	*100*	*99.3*	*99*
Iron	*50000*	*51480*	*103*
Magnesium	*50000*	*49460*	*99*
Manganese	*100*	*94.4*	*94*
Molybdenum	*1100*	*1136*	*103*
Nickel	*100*	*101*	*101*
Potassium	*50000*	*51700*	*103*
Selenium	*100*	*100.0*	*100*
Silver	*100*	*99.9*	*100*
Sodium	*50000*	*51740*	*103*
Strontium	*100*	*102*	*102*
Tin	*100*	*98.6*	*99*
Titanium	*1100*	*1106*	*101*
Tungsten	*100*	*106*	*106*
Vanadium	*100*	*101*	*101*
Zinc	*100*	*101*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MT-MW-01S-032614 MS
Lab ID: 240-35541-1 MS
Lab Name: TestAmerica Canton
Job No.: 240-35541-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.212		0.12	U	1.00	21	69-134	F1	7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MT-MW-01S-032614 MSD Lab ID: 240-35541-1 MSD

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.199	J	1.00	20	69-134	6	20	F1	7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MT-MW-01S-032614 MS
Lab ID: 240-35541-1 MS
Lab Name: TestAmerica Canton
Job No.: 240-35541-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	98.1		0.67	J	100	97	44-153		6020
Arsenic	966		4.1	J	1000	96	82-123		6020
Barium	1200		150		1000	105	45-144		6020
Beryllium	968		1.9		1000	97	77-124		6020
Calcium	24100		14000		10000	96	70-130		6020
Cadmium	1000		0.026	U	1000	100	78-117		6020
Cobalt	1210		200		1000	100	67-114		6020
Chromium	973		1.2	J	1000	97	72-110		6020
Copper	1020		1.2	J	1000	102	60-123		6020
Magnesium	18500		9200		10000	93	70-130		6020
Iron	56300		47000		10000	89	22-169	4	6020
Molybdenum	101		1.2	J	100	100	80-110		6020
Manganese	3720		2800		1000	92	10-172		6020
Nickel	1090		83		1000	101	72-111		6020
Lead	1010		0.50	J	1000	101	73-115		6020
Selenium	937		0.38	J	1000	94	72-148		6020
Thallium	258		0.40	U	250	103	69-117		6020
Vanadium	982		0.68	J	1000	98	70-112		6020
Silver	98.8		0.015	J	100	99	10-139		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MT-MW-01S-032614 MSD Lab ID: 240-35541-1 MSD

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	98.7		100	98	44-153	1	20		6020
Arsenic	961		1000	96	82-123	1	20		6020
Barium	1210		1000	106	45-144	1	20		6020
Beryllium	964		1000	96	77-124	0	20		6020
Calcium	23800		10000	93	70-130	1	20		6020
Cadmium	1010		1000	101	78-117	1	20		6020
Cobalt	1200		1000	100	67-114	0	20		6020
Chromium	978		1000	98	72-110	0	20		6020
Copper	1010		1000	101	60-123	0	20		6020
Magnesium	18700		10000	95	70-130	1	20		6020
Iron	56400		10000	90	22-169	0	20	4	6020
Molybdenum	100		100	99	80-110	1	20		6020
Manganese	3690		1000	90	10-172	1	20		6020
Nickel	1090		1000	100	72-111	0	20		6020
Lead	1020		1000	102	73-115	1	20		6020
Selenium	936		1000	94	72-148	0	20		6020
Thallium	256		250	103	69-117	1	20		6020
Vanadium	981		1000	98	70-112	0	20		6020
Silver	98.4		100	98	10-139	0	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MSA-MW26S-033114 MS
Lab ID: 240-35667-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-35541-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.03		0.12	U	1.00	103	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MSA-MW26S-033114 MSD Lab ID: 240-35667-2 MSD

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.05		1.00	105	69-134	2	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW26S-033114 MS
Lab ID: 240-35667-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-35541-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	95.9		0.56	J	100	95	44-153		6020
Arsenic	958		0.59	J	1000	96	82-123		6020
Barium	982		61		1000	92	45-144		6020
Beryllium	938		0.031	U	1000	94	77-124		6020
Calcium	92400		89000		10000	32	70-130	4	6020
Cadmium	932		1.0		1000	93	78-117		6020
Cobalt	919		0.51	J	1000	92	67-114		6020
Chromium	938		0.43	J	1000	94	72-110		6020
Copper	935		5.4		1000	93	60-123		6020
Magnesium	23100		14000		10000	86	70-130		6020
Iron	9540		890		10000	87	22-169		6020
Molybdenum	99.8		2.8	J	100	97	80-110		6020
Manganese	1050		120		1000	92	10-172		6020
Nickel	941		2.6		1000	94	72-111		6020
Lead	882		0.15	J	1000	88	73-115		6020
Selenium	917		0.34	U	1000	92	72-148		6020
Thallium	231		0.66	J	250	92	69-117		6020
Vanadium	936		0.81	J	1000	94	70-112		6020
Silver	94.8		0.028	J	100	95	10-139		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW26S-033114 MSD
Lab ID: 240-35667-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-35541-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	101		100	100	44-153	5	20		6020
Arsenic	996		1000	100	82-123	4	20		6020
Barium	1030		1000	96	45-144	4	20		6020
Beryllium	980		1000	98	77-124	4	20		6020
Calcium	96900		10000	77	70-130	5	20	4	6020
Cadmium	976		1000	97	78-117	5	20		6020
Cobalt	951		1000	95	67-114	3	20		6020
Chromium	971		1000	97	72-110	3	20		6020
Copper	969		1000	96	60-123	4	20		6020
Magnesium	23700		10000	93	70-130	3	20		6020
Iron	9840		10000	90	22-169	3	20		6020
Molybdenum	105		100	103	80-110	5	20		6020
Manganese	1110		1000	98	10-172	6	20		6020
Nickel	974		1000	97	72-111	3	20		6020
Lead	920		1000	92	73-115	4	20		6020
Selenium	954		1000	95	72-148	4	20		6020
Thallium	241		250	96	69-117	4	20		6020
Vanadium	969		1000	97	70-112	3	20		6020
Silver	98.8		100	99	10-139	4	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-124733/2-A

Lab Name: TestAmerica Canton Job No.: 240-35541-1

Sample Matrix: Water LCS Source: MTICPMSB_00015

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	88.6		89	80	120		6020
Arsenic	1000	877		88	80	120		6020
Barium	1000	873		87	80	120		6020
Beryllium	1000	878		88	80	120		6020
Calcium	10000	9190		92	80	120		6020
Cadmium	1000	917		92	80	120		6020
Cobalt	1000	920		92	80	120		6020
Chromium	1000	903		90	80	120		6020
Copper	1000	938		94	80	120		6020
Magnesium	10000	8890		89	80	120		6020
Iron	10000	9200		92	80	120		6020
Molybdenum	100	89.2		89	80	120		6020
Manganese	1000	896		90	80	120		6020
Nickel	1000	944		94	80	120		6020
Lead	1000	900		90	80	120		6020
Selenium	1000	880		88	80	120		6020
Thallium	250	229		92	80	120		6020
Vanadium	1000	899		90	80	120		6020
Silver	100	90.6		91	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-125040/2-A

Lab Name: TestAmerica Canton Job No.: 240-35541-1

Sample Matrix: Water LCS Source: MTICPMSB_00015

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	95.2		95	80	120		6020
Arsenic	1000	966		97	80	120		6020
Barium	1000	905		91	80	120		6020
Beryllium	1000	927		93	80	120		6020
Calcium	10000	10100		101	80	120		6020
Cadmium	1000	938		94	80	120		6020
Cobalt	1000	927		93	80	120		6020
Chromium	1000	929		93	80	120		6020
Copper	1000	967		97	80	120		6020
Magnesium	10000	9180		92	80	120		6020
Iron	10000	9000		90	80	120		6020
Molybdenum	100	96.0		96	80	120		6020
Manganese	1000	933		93	80	120		6020
Nickel	1000	960		96	80	120		6020
Lead	1000	898		90	80	120		6020
Selenium	1000	954		95	80	120		6020
Thallium	250	231		92	80	120		6020
Vanadium	1000	920		92	80	120		6020
Silver	100	96.6		97	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-124740/2-A

Lab Name: TestAmerica Canton Job No.: 240-35541-1

Sample Matrix: Water LCS Source: MTHGCALW_00603

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.79		96	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-125050/2-A

Lab Name: TestAmerica Canton Job No.: 240-35541-1

Sample Matrix: Water LCS Source: MTHGCALW_00605

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.01		100	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-35541-1

SDG No:

Lab Name: TestAmerica Canton Job No: 240-35541-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.67	J	0.800	J	NC		6020
Arsenic	4.1	J	4.05	J	NC		6020
Barium	150		155		NC		6020
Beryllium	1.9		1.86	J	NC		6020
Calcium	14000		15400		NC		6020
Cadmium	0.026	U	0.13	U	NC		6020
Cobalt	200		214		5.9		6020
Chromium	1.2	J	1.16	J	NC		6020
Copper	1.2	J	3.12	J	NC		6020
Magnesium	9200		9800		NC		6020
Iron	47000		50300		6.2		6020
Molybdenum	1.2	J	4.1	U	NC		6020
Manganese	2800		3020		7.8		6020
Nickel	83		90.7		NC		6020
Lead	0.50	J	0.800	J	NC		6020
Selenium	0.38	J	1.7	U	NC		6020
Thallium	0.40	U	2.0	U	NC		6020
Vanadium	0.68	J	0.75	U	NC		6020
Silver	0.015	J	0.042	U	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-35667-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-35541-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.56	J	0.55	U	NC		6020
Arsenic	0.59	J	0.675	J	NC		6020
Barium	61		61.6		NC		6020
Beryllium	0.031	U	0.16	U	NC		6020
Calcium	89000		91800		NC		6020
Cadmium	1.0		0.925	J	NC		6020
Cobalt	0.51	J	0.345	J	NC		6020
Chromium	0.43	J	0.65	U	NC		6020
Copper	5.4		5.22	J	NC		6020
Magnesium	14000		15000		NC		6020
Iron	890		886		NC		6020
Molybdenum	2.8	J	4.1	U	NC		6020
Manganese	120		125		NC		6020
Nickel	2.6		2.76	J	NC		6020
Lead	0.15	J	0.70	U	NC		6020
Selenium	0.34	U	1.7	U	NC		6020
Thallium	0.66	J	2.0	U	NC		6020
Vanadium	0.81	J	0.75	U	NC		6020
Silver	0.028	J	0.042	U	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35541-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35541-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35541-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35541-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35541-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35541-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35541-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35541-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-35541-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-35541-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A XMDL Date: 02/08/2010 16:06

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.12

FORM IX - IN

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35541-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35541-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A XMDL Date: 02/08/2010 16:06

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.12

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-35541-1

SDG No.:

Instrument ID: I10 Date: 10/21/2013 15:11

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony			6020
Arsenic			6020
Barium			6020
Beryllium			6020
Cadmium			6020
Cobalt			6020
Chromium			6020
Copper			6020
Iron			6020
Molybdenum			6020
Manganese			6020
Nickel			6020
Lead			6020
Selenium			6020
Thallium			6020
Vanadium			6020
Silver			6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-35541-1

SDG No.:

Instrument ID: I10 Date: 04/03/2014 09:02

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		300	6020
Arsenic		10000	6020
Barium		10000	6020
Beryllium		10000	6020
Cadmium		4000	6020
Cobalt		10000	6020
Chromium		10000	6020
Copper		10000	6020
Iron		200000	6020
Molybdenum		2000	6020
Manganese		10000	6020
Nickel		10000	6020
Lead		4000	6020
Selenium		10000	6020
Thallium		5000	6020
Vanadium		10000	6020
Silver		300	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-35541-1

SDG No.:

Instrument ID: I11 Date: 03/10/2014 12:42

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		1000	6020
Arsenic		10000	6020
Barium		10000	6020
Beryllium		10000	6020
Cadmium		10000	6020
Cobalt		10000	6020
Chromium		10000	6020
Copper		10000	6020
Iron		500000	6020
Molybdenum		2000	6020
Manganese		10000	6020
Nickel		10000	6020
Lead		10000	6020
Selenium		10000	6020
Thallium		500	6020
Vanadium		10000	6020
Silver		500	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-35541-1

SDG No.:

Instrument ID: H1 Date: 12/10/2013 15:54

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

FORM XI - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-124740/1-A	04/01/2014 12:40	124740		50	50
LCS 240-124740/2-A	04/01/2014 12:40	124740		50	50
240-35541-1	04/01/2014 12:40	124740		50	50
240-35541-1 MS	04/01/2014 12:40	124740		50	50
240-35541-1 MSD	04/01/2014 12:40	124740		50	50
240-35541-1	04/01/2014 12:40	124740		50	50
240-35541-2	04/01/2014 12:40	124740		50	50
240-35541-2	04/01/2014 12:40	124740		50	50
240-35541-3	04/01/2014 12:40	124740		50	50
240-35541-3	04/01/2014 12:40	124740		50	50
240-35541-4	04/01/2014 12:40	124740		50	50
240-35541-4	04/01/2014 12:40	124740		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-125050/1-A	04/03/2014 14:20	125050		50	50
LCS 240-125050/2-A	04/03/2014 14:20	125050		50	50
240-35667-2	04/03/2014 14:20	125050		50	50
240-35667-2 MS	04/03/2014 14:20	125050		50	50
240-35667-2 MSD	04/03/2014 14:20	125050		50	50
240-35667-2	04/03/2014 14:20	125050		50	50
240-35667-3	04/03/2014 14:20	125050		50	50
240-35667-3	04/03/2014 14:20	125050		50	50
240-35667-4	04/03/2014 14:20	125050		50	50
240-35667-4	04/03/2014 14:20	125050		50	50
240-35667-5	04/03/2014 14:20	125050		50	50
240-35667-5	04/03/2014 14:20	125050		50	50
240-35667-6	04/03/2014 14:20	125050		50	50
240-35667-6	04/03/2014 14:20	125050		50	50
240-35667-7	04/03/2014 14:20	125050		50	50
240-35667-7	04/03/2014 14:20	125050		50	50
240-35667-8	04/03/2014 14:20	125050		50	50
240-35667-8	04/03/2014 14:20	125050		50	50
240-35667-9	04/03/2014 14:20	125050		50	50
240-35667-9	04/03/2014 14:20	125050		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 04/03/2014 08:07 End Date: 04/03/2014 13:19

Lab Sample ID	D/F	Type	Time	Analytes																					
				Hg																					
IC 240-125158/1-A			08:07	X																					
IC 240-125158/2-A			08:08	X																					
IC 240-125158/3-A			08:10	X																					
IC 240-125158/4-A			08:11	X																					
IC 240-125158/5-A			08:13	X																					
IC 240-125158/6-A			08:14	X																					
ICV 240-125158/7-A	1		08:21	X																					
ICB 240-125158/8-A	1		08:22	X																					
CRA 240-125158/9-A	1		08:23	X																					
CCVL 240-125158/10-A	1		10:36	X																					
CCB 240-125158/12-A			10:37																						
ZZZZZZ			10:39																						
ZZZZZZ			10:40																						
ZZZZZZ			10:41																						
ZZZZZZ			10:43																						
ZZZZZZ			10:44																						
ZZZZZZ			10:46																						
ZZZZZZ			10:47																						
ZZZZZZ			10:49																						
ZZZZZZ			10:50																						
ZZZZZZ			10:52																						
CCV 240-125158/11-A			10:53																						
CCB 240-125158/12-A			10:55																						
ZZZZZZ			10:56																						
ZZZZZZ			10:58																						
ZZZZZZ			10:59																						
ZZZZZZ			11:00																						
ZZZZZZ			11:02																						
ZZZZZZ			11:04																						
ZZZZZZ			11:05																						
ZZZZZZ			11:07																						
ZZZZZZ			11:09																						
ZZZZZZ			11:11																						
CCV 240-125158/11-A			11:12																						
CCB 240-125158/12-A			11:15																						
ZZZZZZ			11:16																						
ZZZZZZ			11:18																						
ZZZZZZ			11:19																						
ZZZZZZ			11:21																						
ZZZZZZ			11:22																						
ZZZZZZ			11:24																						
ZZZZZZ			11:26																						

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 04/03/2014 08:07 End Date: 04/03/2014 13:19

Lab Sample ID	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			11:27	
ZZZZZZ			11:29	
ZZZZZZ			11:31	
CCV 240-125158/11-A			11:32	
CCB 240-125158/12-A			11:33	
ZZZZZZ			11:35	
ZZZZZZ			11:36	
ZZZZZZ			11:38	
ZZZZZZ			11:39	
ZZZZZZ			11:42	
ZZZZZZ			11:43	
ZZZZZZ			11:45	
ZZZZZZ			11:47	
ZZZZZZ			11:49	
ZZZZZZ			11:50	
CCV 240-125158/11-A			11:52	
CCB 240-125158/12-A			11:53	
ZZZZZZ			11:55	
ZZZZZZ			11:56	
ZZZZZZ			11:58	
ZZZZZZ			11:59	
ZZZZZZ			12:01	
ZZZZZZ			12:03	
ZZZZZZ			12:05	
ZZZZZZ			12:06	
ZZZZZZ			12:08	
ZZZZZZ			12:10	
CCV 240-125158/11-A	1		12:11	X
CCB 240-125158/12-A	1		12:13	X
ZZZZZZ			12:15	
ZZZZZZ			12:16	
ZZZZZZ			12:19	
ZZZZZZ			12:20	
MB 240-124740/1-A	1	T	12:22	X
LCS 240-124740/2-A	1	T	12:24	X
240-35541-1	1	T	12:25	X
240-35541-1 MS	1	T	12:26	X
240-35541-1 MSD	1	T	12:28	X
240-35541-1	1	D	12:29	X
CCV 240-125158/11-A	1		12:31	X
CCB 240-125158/12-A	1		12:33	X
240-35541-2	1	T	12:34	X

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 04/03/2014 08:07 End Date: 04/03/2014 13:19

Lab Sample ID	D / F	Type	Time	Analytes																				
				Hg																				
240-35541-2	1	D	12:36	X																				
240-35541-3	1	T	12:38	X																				
240-35541-3	1	D	12:39	X																				
240-35541-4	1	T	12:41	X																				
240-35541-4	1	D	12:42	X																				
ZZZZZZ			12:43																					
ZZZZZZ			12:45																					
ZZZZZZ			12:46																					
ZZZZZZ			12:48																					
CCV 240-125158/11-A	1		12:51	X																				
CCB 240-125158/12-A	1		12:52	X																				
ZZZZZZ			12:54																					
ZZZZZZ			12:57																					
ZZZZZZ			12:58																					
ZZZZZZ			13:01																					
ZZZZZZ			13:03																					
ZZZZZZ			13:04																					
CCV 240-125158/11-A			13:06																					
CCB 240-125158/12-A			13:08																					
ZZZZZZ			13:09																					
ZZZZZZ			13:11																					
ZZZZZZ			13:12																					
ZZZZZZ			13:14																					
ZZZZZZ			13:15																					
ZZZZZZ			13:17																					
CCV 240-125158/11-A			13:18																					
CCB 240-125158/12-A			13:19																					

Prep Types

D = Dissolved

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 04/08/2014 08:24 End Date: 04/08/2014 18:14

Lab Sample ID	D/F	Type	Time	Analytes																				
				Hg																				
IC 240-125521/1-A			08:24	X																				
IC 240-125521/2-A			08:25	X																				
IC 240-125521/3-A			08:28	X																				
IC 240-125521/4-A			08:29	X																				
IC 240-125521/5-A			08:31	X																				
IC 240-125521/6-A			08:33	X																				
ICV 240-125521/7-A	1		08:37	X																				
ICB 240-125521/8-A	1		08:39	X																				
CRA 240-125521/9-A	1		08:40	X																				
CCVL 240-125521/10-A	1		08:42	X																				
CCB 240-125521/12-A	1		08:43	X																				
MB 240-125050/1-A	1	T	08:45	X																				
LCS 240-125050/2-A	1	T	08:46	X																				
240-35667-2	1	T	08:48	X																				
240-35667-2 MS	1	T	08:49	X																				
240-35667-2 MSD	1	T	08:51	X																				
240-35667-2	1	D	08:52	X																				
240-35667-3	1	T	08:54	X																				
240-35667-3	1	D	08:55	X																				
240-35667-4	1	T	08:57	X																				
240-35667-4	1	D	08:59	X																				
CCV 240-125521/11-A	1		09:01	X																				
CCB 240-125521/12-A	1		09:03	X																				
240-35667-5	1	T	09:04	X																				
240-35667-5	1	D	09:05	X																				
240-35667-6	1	T	09:07	X																				
240-35667-6	1	D	09:08	X																				
240-35667-7	1	T	09:10	X																				
240-35667-7	1	D	09:12	X																				
240-35667-8	1	T	09:13	X																				
240-35667-8	1	D	09:15	X																				
240-35667-9	1	T	09:16	X																				
240-35667-9	1	D	09:18	X																				
CCV 240-125521/11-A	1		09:19	X																				
CCB 240-125521/12-A	1		09:21	X																				
CCV 240-125521/11-A			12:56																					
CCB 240-125521/12-A			12:57																					
ZZZZZZ			12:59																					
ZZZZZZ			13:00																					
ZZZZZZ			13:02																					
ZZZZZZ			13:03																					
ZZZZZZ			13:05																					

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 04/08/2014 08:24 End Date: 04/08/2014 18:14

Lab Sample ID	D / F	Type	Time	Analytes
				Hg
ZZZZZZ			13:07	
ZZZZZZ			13:09	
ZZZZZZ			13:11	
ZZZZZZ			13:12	
ZZZZZZ			13:14	
CCV 240-125521/11-A			13:15	
CCB 240-125521/12-A			13:17	
ZZZZZZ			13:18	
ZZZZZZ			13:20	
ZZZZZZ			13:21	
ZZZZZZ			13:23	
ZZZZZZ			13:24	
ZZZZZZ			13:26	
ZZZZZZ			13:27	
ZZZZZZ			13:29	
ZZZZZZ			13:31	
ZZZZZZ			13:32	
CCV 240-125521/11-A			13:34	
CCB 240-125521/12-A			13:35	
ZZZZZZ			13:37	
ZZZZZZ			13:39	
ZZZZZZ			13:41	
ZZZZZZ			13:42	
ZZZZZZ			13:43	
ZZZZZZ			13:45	
ZZZZZZ			13:46	
ZZZZZZ			13:48	
ZZZZZZ			13:49	
ZZZZZZ			13:51	
CCV 240-125521/11-A			13:53	
CCB 240-125521/12-A			13:54	
ZZZZZZ			13:56	
ZZZZZZ			13:57	
ZZZZZZ			13:58	
ZZZZZZ			14:00	
ZZZZZZ			14:02	
ZZZZZZ			14:03	
ZZZZZZ			14:05	
ZZZZZZ			14:07	
ZZZZZZ			14:08	
ZZZZZZ			14:10	
CCV 240-125521/11-A			14:11	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 04/08/2014 08:24 End Date: 04/08/2014 18:14

Lab Sample ID	D/F	Type	Time	Analytes
				Hg
CCB 240-125521/12-A			14:13	
ZZZZZZ			14:14	
ZZZZZZ			14:15	
ZZZZZZ			14:17	
ZZZZZZ			14:19	
ZZZZZZ			14:20	
ZZZZZZ			14:21	
ZZZZZZ			14:23	
ZZZZZZ			14:24	
ZZZZZZ			14:26	
ZZZZZZ			14:28	
CCV 240-125521/11-A			14:29	
CCB 240-125521/12-A			14:30	
ZZZZZZ			14:32	
ZZZZZZ			14:35	
ZZZZZZ			14:36	
ZZZZZZ			14:38	
ZZZZZZ			14:40	
ZZZZZZ			14:41	
ZZZZZZ			14:43	
ZZZZZZ			14:44	
ZZZZZZ			14:46	
ZZZZZZ			14:47	
CCV 240-125521/11-A			14:49	
CCB 240-125521/12-A			14:50	
ZZZZZZ			14:52	
ZZZZZZ			14:54	
ZZZZZZ			14:55	
ZZZZZZ			14:57	
ZZZZZZ			14:58	
ZZZZZZ			15:00	
ZZZZZZ			15:02	
CCV 240-125521/11-A			15:04	
CCB 240-125521/12-A			15:05	
CCV 240-125521/11-A			15:18	
CCB 240-125521/12-A			15:19	
ZZZZZZ			15:21	
ZZZZZZ			15:22	
ZZZZZZ			15:24	
ZZZZZZ			15:26	
ZZZZZZ			15:27	
ZZZZZZ			15:28	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 04/08/2014 08:24 End Date: 04/08/2014 18:14

Lab Sample ID	D / F	Type	Time	Analytes
				Hg
ZZZZZZ			15:30	
ZZZZZZ			15:31	
ZZZZZZ			15:33	
ZZZZZZ			15:34	
CCV 240-125521/11-A			15:36	
CCB 240-125521/12-A			15:37	
ZZZZZZ			15:38	
ZZZZZZ			15:40	
ZZZZZZ			15:42	
ZZZZZZ			15:43	
ZZZZZZ			15:44	
ZZZZZZ			15:46	
ZZZZZZ			15:47	
ZZZZZZ			15:49	
ZZZZZZ			15:50	
ZZZZZZ			15:52	
CCV 240-125521/11-A			15:53	
CCB 240-125521/12-A			15:55	
ZZZZZZ			15:57	
ZZZZZZ			15:59	
ZZZZZZ			16:01	
ZZZZZZ			16:03	
ZZZZZZ			16:04	
ZZZZZZ			16:05	
ZZZZZZ			16:07	
ZZZZZZ			16:09	
ZZZZZZ			16:10	
ZZZZZZ			16:12	
CCV 240-125521/11-A			16:14	
CCB 240-125521/12-A			16:16	
ZZZZZZ			16:18	
ZZZZZZ			16:19	
ZZZZZZ			16:21	
ZZZZZZ			16:23	
ZZZZZZ			16:25	
ZZZZZZ			16:27	
ZZZZZZ			16:28	
ZZZZZZ			16:30	
ZZZZZZ			16:31	
ZZZZZZ			16:33	
CCV 240-125521/11-A			16:35	
CCB 240-125521/12-A			16:36	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 04/08/2014 08:24 End Date: 04/08/2014 18:14

Lab Sample ID	D / F	Type	Time	Analytes
				Hg
ZZZZZZ			16:38	
ZZZZZZ			16:39	
ZZZZZZ			16:41	
ZZZZZZ			16:43	
ZZZZZZ			16:44	
ZZZZZZ			16:46	
ZZZZZZ			16:48	
ZZZZZZ			16:49	
ZZZZZZ			16:51	
ZZZZZZ			16:52	
CCV 240-125521/11-A			16:53	
CCB 240-125521/12-A			16:55	
ZZZZZZ			16:56	
ZZZZZZ			16:58	
ZZZZZZ			17:00	
ZZZZZZ			17:01	
ZZZZZZ			17:02	
ZZZZZZ			17:04	
ZZZZZZ			17:05	
ZZZZZZ			17:06	
ZZZZZZ			17:08	
ZZZZZZ			17:09	
CCV 240-125521/11-A			17:14	
CCB 240-125521/12-A			17:15	
ZZZZZZ			17:17	
ZZZZZZ			17:19	
ZZZZZZ			17:20	
ZZZZZZ			17:21	
ZZZZZZ			17:23	
ZZZZZZ			17:25	
ZZZZZZ			17:27	
ZZZZZZ			17:28	
ZZZZZZ			17:30	
ZZZZZZ			17:31	
CCV 240-125521/11-A			17:32	
CCB 240-125521/12-A			17:34	
ZZZZZZ			17:35	
ZZZZZZ			17:37	
ZZZZZZ			17:38	
ZZZZZZ			17:40	
ZZZZZZ			17:41	
ZZZZZZ			17:43	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 04/08/2014 08:24 End Date: 04/08/2014 18:14

Lab Sample ID	D / F	Type	Time	Analytes
				Hg
ZZZZZZ			17:46	
ZZZZZZ			17:49	
ZZZZZZ			17:50	
ZZZZZZ			17:52	
CCV 240-125521/11-A			17:54	
CCB 240-125521/12-A			17:56	
ZZZZZZ			17:57	
ZZZZZZ			17:59	
ZZZZZZ			18:00	
ZZZZZZ			18:02	
ZZZZZZ			18:03	
ZZZZZZ			18:04	
ZZZZZZ			18:06	
ZZZZZZ			18:08	
ZZZZZZ			18:09	
ZZZZZZ			18:10	
CCV 240-125521/11-A			18:13	
CCB 240-125521/12-A			18:14	

Prep Types

D = Dissolved

T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00604

Analyte	ICV 240-125158/7-A 04/03/2014 08:21				CCVL 240-125158/10-A 04/03/2014 10:36				CCV 240-125158/11-A 04/03/2014 12:11			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.40		2.50	96	5.04		5.00	101	4.98		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00604

Analyte	CCV 240-125158/11-A 04/03/2014 12:31				CCV 240-125158/11-A 04/03/2014 12:51							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.05		5.00	101	4.96		5.00	99				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00607

Analyte	ICV 240-125521/7-A 04/08/2014 08:37				CCVL 240-125521/10-A 04/08/2014 08:42				CCV 240-125521/11-A 04/08/2014 09:01			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.54		2.50	102	4.80		5.00	96	4.77		5.00	95

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00607

Analyte	CCV 240-125521/11-A 04/08/2014 09:19											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.73		5.00	95								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Method: 7470A Instrument ID: H1

Lab Sample ID: CRA 240-125158/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00604

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.201		101	50-150

Lab Sample ID: CRA 240-125521/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00607

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.237		119	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/02/2014 End Date: 04/02/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-124984/3 IC	10:11	96		98		99		99		99	
STD2 240-124984/4 IC	10:15	92		95		95		93		94	
STD3 240-124984/5 IC	10:19	90		94		95		90		92	
STD4 240-124984/6 IC	10:23	89		92		91		95		94	
ICV 240-124984/7	10:27	93		99		101		93		93	
ICB 240-124984/8	10:30	94		96		96		98		96	
CRI 240-124984/9	10:34	94		96		97		97		97	
ICSA 240-124984/10	10:38	77		86		83		85		88	
ICSAB 240-124984/11	10:42	75		85		82		84		86	
CCV 240-124984/19	11:18	83		92		91		92		92	
CCB 240-124984/20	11:22	85		89		92		93		93	
MB 240-124733/1-A	11:26	80		89		89		95		93	
LCS 240-124733/2-A	11:30	76		84		81		88		87	
240-35541-1	11:34	78		84		84		88		87	
240-35541-1 SD	11:37	85		90		92		95		95	
240-35541-1 PDS	11:41	72		82		78		84		83	
240-35541-1 MS	11:45	71		78		76		81		80	
240-35541-1 MSD	11:49	70		77		76		81		80	
240-35541-1	11:52	73		78		79		84		82	
240-35541-2	11:56	73		79		79		83		84	
240-35541-2	12:00	75		81		81		86		85	
CCV 240-124984/31	12:04	83		88		88		90		89	
CCB 240-124984/32	12:08	83		93		88		99		98	
240-35541-3	12:12	78		90		87		95		94	
240-35541-3	12:15	78		95		87		98		96	
240-35541-4	12:19	72		82		76		88		88	
240-35541-4	12:23	71		82		75		87		87	
CCV 240-124984/43	12:50	96		107		101		105		105	
CCB 240-124984/44	12:54	98		104		101		105		104	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/02/2014 End Date: 04/02/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-124984/3 IC	10:11	100		101		102					
STD2 240-124984/4 IC	10:15	98		98		99					
STD3 240-124984/5 IC	10:19	96		96		100					
STD4 240-124984/6 IC	10:23	97		98		99					
ICV 240-124984/7	10:27	96		98		104					
ICB 240-124984/8	10:30	98		98		94					
CRI 240-124984/9	10:34	98		97		99					
ICSA 240-124984/10	10:38	93		93		108					
ICSAB 240-124984/11	10:42	92		92		95					
CCV 240-124984/19	11:18	97		97		89					
CCB 240-124984/20	11:22	94		94		91					
MB 240-124733/1-A	11:26	97		98		114					
LCS 240-124733/2-A	11:30	94		95		97					
240-35541-1	11:34	94		95		99					
240-35541-1 SD	11:37	99		99		101					
240-35541-1 PDS	11:41	92		91		96					
240-35541-1 MS	11:45	89		87		90					
240-35541-1 MSD	11:49	89		87		89					
240-35541-1	11:52	91		91		94					
240-35541-2	11:56	89		89		95					
240-35541-2	12:00	92		93		98					
CCV 240-124984/31	12:04	95		95		91					
CCB 240-124984/32	12:08	101		101		108					
240-35541-3	12:12	99		100		116					
240-35541-3	12:15	102		103		107					
240-35541-4	12:19	97		98		104					
240-35541-4	12:23	96		98		104					
CCV 240-124984/43	12:50	110		110		104					
CCB 240-124984/44	12:54	106		105		107					

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/03/2014 End Date: 04/03/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-125216/3 IC	09:29	96		98		97		96		97	
STD2 240-125216/4 IC	09:33	93		97		95		92		94	
STD3 240-125216/5 IC	09:37	92		95		95		89		91	
STD4 240-125216/6 IC	09:41	89		94		89		95		95	
ICV 240-125216/7	09:44	91		101		101		92		93	
ICB 240-125216/8	09:48	93		93		97		93		95	
CRI 240-125216/9	09:52	94		97		97		97		98	
ICSA 240-125216/10	09:56	80		90		87		88		90	
ICSAB 240-125216/11	10:00	77		87		84		85		89	
CCV 240-125216/45	12:12	111		111		117		105		105	
CCB 240-125216/46	12:16	114		106		116		105		105	
240-35541-3	12:24	94		100		101		101		101	
240-35541-3	12:27	96		101		102		102		100	
240-35541-4	12:31	95		96		102		98		99	
240-35541-4	12:35	94		97		101		99		99	
CCV 240-125216/57	12:58	111		110		117		105		105	
CCB 240-125216/58	13:02	113		109		117		108		107	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/03/2014 End Date: 04/03/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-125216/3 IC	09:29	96		96		99					
STD2 240-125216/4 IC	09:33	95		95		97					
STD3 240-125216/5 IC	09:37	92		92		95					
STD4 240-125216/6 IC	09:41	93		94		100					
ICV 240-125216/7	09:44	92		94		100					
ICB 240-125216/8	09:48	93		93		93					
CRI 240-125216/9	09:52	98		96		100					
ICSA 240-125216/10	09:56	93		93		104					
ICSAB 240-125216/11	10:00	89		91		94					
CCV 240-125216/45	12:12	107		110		98					
CCB 240-125216/46	12:16	103		105		101					
240-35541-3	12:24	108		108		107					
240-35541-3	12:27	107		107		105					
240-35541-4	12:31	105		107		105					
240-35541-4	12:35	104		108		105					
CCV 240-125216/57	12:58	108		110		98					
CCB 240-125216/58	13:02	108		109		104					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/04/2014 End Date: 04/05/2014

Lab Sample ID	Time	Internal Standards %RI For: 114.6									
		Element Li-6	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
ICIS 240-125428/1	12:46	100		100		100		100		100	
STD2 240-125428/2 IC	12:53	95		97		98		96		95	
STD3 240-125428/3 IC	13:00	91		96		97		94		95	
STD4 240-125428/4 IC	13:07	100		101		100		100		100	
ICV 240-125428/5	13:14	95		100		98		96		97	
ICB 240-125428/6	13:22	100		100		100		99		100	
CRI 240-125428/7	13:29	100		99		100		99		100	
ICSA 240-125428/10	13:50	86		90		94		92		94	
ICSAB 240-125428/11	13:57	83		89		92		91		92	
CCV 240-125428/85	22:43	88		88		83		83		85	
CCB 240-125428/86	22:51	92		93		87		89		90	
MB 240-125040/1-A	23:12	87		83		79		82		83	
LCS 240-125040/2-A	23:19	84		82		79		77		82	
240-35667-2	23:26	81		81		79		79		81	
240-35667-2 SD	23:33	92		89		85		86		88	
240-35667-2 MS	23:40	82		83		80		80		82	
240-35667-2 MSD	23:47	80		81		79		79		81	
240-35667-2	23:55	83		82		78		78		81	
240-35667-3	00:02	70		76		75		75		77	
CCV 240-125428/97	00:09	85		92		86		85		88	
CCB 240-125428/98	00:16	91		94		88		90		91	
ICSA 240-125428/99	00:23	80		85		85		84		87	
ICSAB 240-125428/100	00:30	78		81		83		83		85	
CCV 240-125428/104	00:59	83		81		79		80		83	
CCB 240-125428/105	01:06	87		84		82		84		86	
240-35667-3	01:13	68		73		71		71		74	
240-35667-4	01:20	68		77		73		73		78	
240-35667-4	01:27	68		74		73		71		77	
240-35667-5	01:34	79		77		76		78		80	
240-35667-5	01:41	80		79		75		78		80	
240-35667-6	01:48	81		79		77		80		82	
240-35667-6	01:55	81		79		77		79		81	
240-35667-7	02:02	79		79		77		79		81	
240-35667-7	02:10	79		78		76		78		80	
240-35667-8	02:17	82		78		77		79		81	
CCV 240-125428/116	02:24	86		86		83		83		85	
CCB 240-125428/117	02:31	91		89		86		87		88	
240-35667-8	02:38	84		81		78		80		82	
240-35667-9	02:45	83		79		78		80		82	
240-35667-9	02:52	82		77		77		79		81	
CCV 240-125428/128	03:49	86		83		83		82		83	
CCB 240-125428/129	03:56	91		88		85		87		88	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/04/2014 End Date: 04/05/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho (104)	Q	Element Bi	Q	Element	Q	Element	Q
ICIS 240-125428/1	12:46			100							
STD2 240-125428/2 IC	12:53			97							
STD3 240-125428/3 IC	13:00			97							
STD4 240-125428/4 IC	13:07			101							
ICV 240-125428/5	13:14			99							
ICB 240-125428/6	13:22			102							
CRI 240-125428/7	13:29			102							
ICSA 240-125428/10	13:50			93							
ICSAB 240-125428/11	13:57			94							
CCV 240-125428/85	22:43			88							
CCB 240-125428/86	22:51			91							
MB 240-125040/1-A	23:12			89							
LCS 240-125040/2-A	23:19			87							
240-35667-2	23:26			87							
240-35667-2 SD	23:33			90							
240-35667-2 MS	23:40			87							
240-35667-2 MSD	23:47			87							
240-35667-2	23:55			87							
240-35667-3	00:02			127	*	Sb, Ba Pb Tl					
CCV 240-125428/97	00:09			90							
CCB 240-125428/98	00:16			92							
ICSA 240-125428/99	00:23			87							
ICSAB 240-125428/100	00:30			87							
CCV 240-125428/104	00:59			88							
CCB 240-125428/105	01:06			90							
240-35667-3	01:13			121	*						
240-35667-4	01:20			85							
240-35667-4	01:27			84							
240-35667-5	01:34			93							
240-35667-5	01:41			92							
240-35667-6	01:48			86							
240-35667-6	01:55			87							
240-35667-7	02:02			86							
240-35667-7	02:10			86							
240-35667-8	02:17			87							
CCV 240-125428/116	02:24			88							
CCB 240-125428/117	02:31			89							
240-35667-8	02:38			87							
240-35667-9	02:45			87							
240-35667-9	02:52			87							
CCV 240-125428/128	03:49			86							
CCB 240-125428/129	03:56			88							

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/07/2014 End Date: 04/07/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
ICIS 240-125595/1	10:48	100		100		100		100		100	
STD2 240-125595/2 IC	10:55	96		99		98		95		96	
STD3 240-125595/3 IC	11:03	93		100		97		93		94	
STD4 240-125595/4 IC	11:10	100		104		100		98		99	
ICV 240-125595/5	11:17	97		104		100		96		96	
ICB 240-125595/6	11:24	101		103		98		97		99	
CRI 240-125595/7	11:31	100		103		100		98		99	
ICSA 240-125595/8	11:38	87		92		94		92		93	
ICSAB 240-125595/9	11:45	82		88		89		88		91	
CCV 240-125595/30	14:14	93		93		87		84		86	
CCB 240-125595/31	14:21	98		98		91		90		91	
240-35667-3	14:28	73		83		76		77		77	
240-35667-3	14:35	79		88		80		80		82	
240-35667-3	14:43	69		83		74		74		75	
240-35667-3	14:50	76		87		78		78		80	
CCV 240-125595/40	15:25	89		95		85		82		85	
CCB 240-125595/41	15:32	95		99		88		87		89	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/07/2014 End Date: 04/07/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
ICIS 240-125595/1	10:48			100							
STD2 240-125595/2 IC	10:55			97							
STD3 240-125595/3 IC	11:03			96							
STD4 240-125595/4 IC	11:10			101							
ICV 240-125595/5	11:17			98							
ICB 240-125595/6	11:24			101							
CRI 240-125595/7	11:31			100							
ICSA 240-125595/8	11:38			95							
ICSAB 240-125595/9	11:45			94							
CCV 240-125595/30	14:14			90							
CCB 240-125595/31	14:21			94							
240-35667-3	14:28			141	*						
240-35667-3	14:35			118							
240-35667-3	14:43			135	*						
240-35667-3	14:50			114							
CCV 240-125595/40	15:25			90							
CCB 240-125595/41	15:32			93							

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Batch Number: 124733 Batch Start Date: 04/01/14 08:34 Batch Analyst: McGall, Lisa

Batch Method: 3005A Batch End Date: 04/01/14 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00015	MTICPMSA 00015	MTICPMSB 00015	MTTMHCL 00029
MB 240-124733/1		3005A, 6020		50 mL	50 mL				2.5 mL
LCS 240-124733/2		3005A, 6020		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-35541-K-1	MT-MW-01S-032614	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35541-K-1 MS	MT-MW-01S-032614	3005A, 6020	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-35541-K-1 MSD	MT-MW-01S-032614	3005A, 6020	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-35541-J-1	MT-MW-01S-032614	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35541-K-2	MT-MW-08S-032614	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35541-J-2	MT-MW-08S-032614	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35541-K-3	MT-MW-02S-032614	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35541-J-3	MT-MW-02S-032614	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35541-G-4	MT-MW-07S-032614	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35541-F-4	MT-MW-07S-032614	3005A, 6020	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00026					
MB 240-124733/1		3005A, 6020		1 mL					
LCS 240-124733/2		3005A, 6020		1 mL					
240-35541-K-1	MT-MW-01S-032614	3005A, 6020	R	1 mL					
240-35541-K-1 MS	MT-MW-01S-032614	3005A, 6020	R	1 mL					
240-35541-K-1 MSD	MT-MW-01S-032614	3005A, 6020	R	1 mL					
240-35541-J-1	MT-MW-01S-032614	3005A, 6020	D	1 mL					
240-35541-K-2	MT-MW-08S-032614	3005A, 6020	R	1 mL					
240-35541-J-2	MT-MW-08S-032614	3005A, 6020	D	1 mL					
240-35541-K-3	MT-MW-02S-032614	3005A, 6020	R	1 mL					
240-35541-J-3	MT-MW-02S-032614	3005A, 6020	D	1 mL					
240-35541-G-4	MT-MW-07S-032614	3005A, 6020	R	1 mL					
240-35541-F-4	MT-MW-07S-032614	3005A, 6020	D	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Batch Number: 124733 Batch Start Date: 04/01/14 08:34 Batch Analyst: McGall, Lisa

Batch Method: 3005A Batch End Date: 04/01/14 17:00

Batch Notes	
Filter Paper Lot Number	9546553
Hot Block ID number	hb4
Pipette ID	383363
Digestion Tube/Cup Lot #	1308077

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Batch Number: 125040 Batch Start Date: 04/03/14 07:39 Batch Analyst: McGall, Lisa

Batch Method: 3005A Batch End Date: 04/03/14 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00015	MTICPMSA 00015	MTICPMSB 00015	MTTMHCL 00029
MB 240-125040/1		3005A, 6020		50 mL	50 mL				2.5 mL
LCS 240-125040/2		3005A, 6020		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-35667-J-2	MSA-MW26S-033114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35667-J-2 MS	MSA-MW26S-033114	3005A, 6020	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-35667-J-2 MSD	MSA-MW26S-033114	3005A, 6020	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-35667-K-2	MSA-MW26S-033114	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35667-J-3	MSA-MW20S-033114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35667-K-3	MSA-MW20S-033114	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35667-G-4	MSA-MW20I-033114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35667-H-4	MSA-MW20I-033114	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35667-G-5	MSA-MW20D-033114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35667-H-5	MSA-MW20D-033114	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35667-J-6	MSA-MW33S-033114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35667-K-6	MSA-MW33S-033114	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35667-F-7	MSA-MW33I-033114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35667-G-7	MSA-MW33I-033114	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35667-G-8	MSA-MW15I-033114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35667-H-8	MSA-MW15I-033114	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35667-G-9	MSA-MW15D-033114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35667-H-9	MSA-MW15D-033114	3005A, 6020	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-125040/1		3005A, 6020		1 mL					
LCS 240-125040/2		3005A, 6020		1 mL					
240-35667-J-2	MSA-MW26S-033114	3005A, 6020	R	1 mL					
240-35667-J-2 MS	MSA-MW26S-033114	3005A, 6020	R	1 mL					
240-35667-J-2 MSD	MSA-MW26S-033114	3005A, 6020	R	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

6020

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Batch Number: 125040 Batch Start Date: 04/03/14 07:39 Batch Analyst: McGall, Lisa

Batch Method: 3005A Batch End Date: 04/03/14 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
240-35667-K-2	MSA-MW26S-033114	3005A, 6020	D	1 mL					
240-35667-J-3	MSA-MW20S-033114	3005A, 6020	R	1 mL					
240-35667-K-3	MSA-MW20S-033114	3005A, 6020	D	1 mL					
240-35667-G-4	MSA-MW20I-033114	3005A, 6020	R	1 mL					
240-35667-H-4	MSA-MW20I-033114	3005A, 6020	D	1 mL					
240-35667-G-5	MSA-MW20D-033114	3005A, 6020	R	1 mL					
240-35667-H-5	MSA-MW20D-033114	3005A, 6020	D	1 mL					
240-35667-J-6	MSA-MW33S-033114	3005A, 6020	R	1 mL					
240-35667-K-6	MSA-MW33S-033114	3005A, 6020	D	1 mL					
240-35667-F-7	MSA-MW33I-033114	3005A, 6020	R	1 mL					
240-35667-G-7	MSA-MW33I-033114	3005A, 6020	D	1 mL					
240-35667-G-8	MSA-MW15I-033114	3005A, 6020	R	1 mL					
240-35667-H-8	MSA-MW15I-033114	3005A, 6020	D	1 mL					
240-35667-G-9	MSA-MW15D-033114	3005A, 6020	R	1 mL					
240-35667-H-9	MSA-MW15D-033114	3005A, 6020	D	1 mL					

Batch Notes	
Filter Paper Lot Number	9546553
Hot Block ID number	hb4
Pipette ID	383363
Digestion Tube/Cup Lot #	1308077

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Batch Number: 124740 Batch Start Date: 04/01/14 12:40 Batch Analyst: McGall, Lisa

Batch Method: 7470A Batch End Date: 04/01/14 14:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00015	MTHGCALW 00603	MTK2S208RGNT 00052	MTKMN04W 00058
MB 240-124740/1		7470A, 7470A		50 mL	50 mL	2.5 mL		4 mL	7.5 mL
LCS 240-124740/2		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL	4 mL	7.5 mL
240-35541-K-1	MT-MW-01S-032614	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35541-K-1 MS	MT-MW-01S-032614	7470A, 7470A	T	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-35541-K-1 MSD	MT-MW-01S-032614	7470A, 7470A	T	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-35541-J-1	MT-MW-01S-032614	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35541-K-2	MT-MW-08S-032614	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35541-J-2	MT-MW-08S-032614	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35541-K-3	MT-MW-02S-032614	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35541-J-3	MT-MW-02S-032614	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35541-G-4	MT-MW-07S-032614	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35541-F-4	MT-MW-07S-032614	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHN03 00026					
MB 240-124740/1		7470A, 7470A		1.25 mL					
LCS 240-124740/2		7470A, 7470A		1.25 mL					
240-35541-K-1	MT-MW-01S-032614	7470A, 7470A	T	1.25 mL					
240-35541-K-1 MS	MT-MW-01S-032614	7470A, 7470A	T	1.25 mL					
240-35541-K-1 MSD	MT-MW-01S-032614	7470A, 7470A	T	1.25 mL					
240-35541-J-1	MT-MW-01S-032614	7470A, 7470A	D	1.25 mL					
240-35541-K-2	MT-MW-08S-032614	7470A, 7470A	T	1.25 mL					
240-35541-J-2	MT-MW-08S-032614	7470A, 7470A	D	1.25 mL					
240-35541-K-3	MT-MW-02S-032614	7470A, 7470A	T	1.25 mL					
240-35541-J-3	MT-MW-02S-032614	7470A, 7470A	D	1.25 mL					
240-35541-G-4	MT-MW-07S-032614	7470A, 7470A	T	1.25 mL					
240-35541-F-4	MT-MW-07S-032614	7470A, 7470A	D	1.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Batch Number: 124740 Batch Start Date: 04/01/14 12:40 Batch Analyst: McGall, Lisa

Batch Method: 7470A Batch End Date: 04/01/14 14:40

Batch Notes	
Hot Block ID number	c2
Pipette ID	383363 383366
Digestion Tube/Cup Lot #	1308077

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Batch Number: 125050 Batch Start Date: 04/03/14 14:20 Batch Analyst: McGall, Lisa

Batch Method: 7470A Batch End Date: 04/03/14 16:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00015	MTHGCALW 00605	MTK2S208RGNT 00052	MTKMN04W 00058
MB 240-125050/1		7470A, 7470A		50 mL	50 mL	2.5 mL		4 mL	7.5 mL
LCS 240-125050/2		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL	4 mL	7.5 mL
240-35667-J-2	MSA-MW26S-033114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35667-J-2 MS	MSA-MW26S-033114	7470A, 7470A	T	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-35667-J-2 MSD	MSA-MW26S-033114	7470A, 7470A	T	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-35667-K-2	MSA-MW26S-033114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35667-J-3	MSA-MW20S-033114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35667-K-3	MSA-MW20S-033114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35667-G-4	MSA-MW20I-033114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35667-H-4	MSA-MW20I-033114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35667-G-5	MSA-MW20D-033114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35667-H-5	MSA-MW20D-033114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35667-J-6	MSA-MW33S-033114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35667-K-6	MSA-MW33S-033114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35667-F-7	MSA-MW33I-033114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35667-G-7	MSA-MW33I-033114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35667-G-8	MSA-MW15I-033114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35667-H-8	MSA-MW15I-033114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35667-G-9	MSA-MW15D-033114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35667-H-9	MSA-MW15D-033114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHN03 00027					
MB 240-125050/1		7470A, 7470A		1.25 mL					
LCS 240-125050/2		7470A, 7470A		1.25 mL					
240-35667-J-2	MSA-MW26S-033114	7470A, 7470A	T	1.25 mL					
240-35667-J-2 MS	MSA-MW26S-033114	7470A, 7470A	T	1.25 mL					
240-35667-J-2 MSD	MSA-MW26S-033114	7470A, 7470A	T	1.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Batch Number: 125050 Batch Start Date: 04/03/14 14:20 Batch Analyst: McGall, Lisa

Batch Method: 7470A Batch End Date: 04/03/14 16:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
240-35667-K-2	MSA-MW26S-033114	7470A, 7470A	D	1.25 mL					
240-35667-J-3	MSA-MW20S-033114	7470A, 7470A	T	1.25 mL					
240-35667-K-3	MSA-MW20S-033114	7470A, 7470A	D	1.25 mL					
240-35667-G-4	MSA-MW20I-033114	7470A, 7470A	T	1.25 mL					
240-35667-H-4	MSA-MW20I-033114	7470A, 7470A	D	1.25 mL					
240-35667-G-5	MSA-MW20D-033114	7470A, 7470A	T	1.25 mL					
240-35667-H-5	MSA-MW20D-033114	7470A, 7470A	D	1.25 mL					
240-35667-J-6	MSA-MW33S-033114	7470A, 7470A	T	1.25 mL					
240-35667-K-6	MSA-MW33S-033114	7470A, 7470A	D	1.25 mL					
240-35667-F-7	MSA-MW33I-033114	7470A, 7470A	T	1.25 mL					
240-35667-G-7	MSA-MW33I-033114	7470A, 7470A	D	1.25 mL					
240-35667-G-8	MSA-MW15I-033114	7470A, 7470A	T	1.25 mL					
240-35667-H-8	MSA-MW15I-033114	7470A, 7470A	D	1.25 mL					
240-35667-G-9	MSA-MW15D-033114	7470A, 7470A	T	1.25 mL					
240-35667-H-9	MSA-MW15D-033114	7470A, 7470A	D	1.25 mL					

Batch Notes	
Hot Block ID number	c1 c2
Pipette ID	383363 383366
Digestion Tube/Cup Lot #	1308077

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Batch Number: 125158 Batch Start Date: 04/02/14 08:10 Batch Analyst: Martin, Aaron

Batch Method: 7470A Batch End Date: 04/02/14 10:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2SO4 00015	MTHGCALW 00604	MTHgStd 00010	MTHNO3 00045
ICV 240-125158/7		7470A, 7470A		50 mL	50 mL	2.5 mL		0.125 mL	1.25 mL
ICB 240-125158/8		7470A, 7470A		50 mL	50 mL	2.5 mL			1.25 mL
CRA 240-125158/9		7470A, 7470A		50 mL	50 mL	2.5 mL	0.1 mL		1.25 mL
CCVL 240-125158/10		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL		1.25 mL
CCV 240-125158/11		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL		1.25 mL
CCB 240-125158/12		7470A, 7470A		50 mL	50 mL	2.5 mL			1.25 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTK2S208RGNT 00052	MTKMN04W 00058				
ICV 240-125158/7		7470A, 7470A		4 mL	7.5 mL				
ICB 240-125158/8		7470A, 7470A		4 mL	7.5 mL				
CRA 240-125158/9		7470A, 7470A		4 mL	7.5 mL				
CCVL 240-125158/10		7470A, 7470A		4 mL	7.5 mL				
CCV 240-125158/11		7470A, 7470A		4 mL	7.5 mL				
CCB 240-125158/12		7470A, 7470A		4 mL	7.5 mL				

Batch Notes	
Hot Block ID number	B1
Pipette ID	383364-383366
Digestion Tube/Cup Lot #	1308077

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35541-1

SDG No.:

Batch Number: 125521 Batch Start Date: 04/07/14 08:35 Batch Analyst: Martin, Aaron

Batch Method: 7470A Batch End Date: 04/07/14 10:35

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00015	MTHGCALW 00607	MTHgStd 00010	MTHNO3 00045
ICV 240-125521/7		7470A, 7470A		50 mL	50 mL	2.5 mL		0.125 mL	1.25 mL
ICB 240-125521/8		7470A, 7470A		50 mL	50 mL	2.5 mL			1.25 mL
CRA 240-125521/9		7470A, 7470A		50 mL	50 mL	2.5 mL	0.1 mL		1.25 mL
CCVL 240-125521/10		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL		1.25 mL
CCV 240-125521/11		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL		1.25 mL
CCB 240-125521/12		7470A, 7470A		50 mL	50 mL	2.5 mL			1.25 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTK2S208RGNT 00052	MTKMN04W 00058				
ICV 240-125521/7		7470A, 7470A		4 mL	7.5 mL				
ICB 240-125521/8		7470A, 7470A		4 mL	7.5 mL				
CRA 240-125521/9		7470A, 7470A		4 mL	7.5 mL				
CCVL 240-125521/10		7470A, 7470A		4 mL	7.5 mL				
CCV 240-125521/11		7470A, 7470A		4 mL	7.5 mL				
CCB 240-125521/12		7470A, 7470A		4 mL	7.5 mL				

Batch Notes	
Hot Block ID number	B1
Pipette ID	383364-383366
Digestion Tube/Cup Lot #	1308077

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE:** **JULY 8, 2014**

FROM: **J. KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / 1,4-DIOXANE / OVG**
ORGANIC DATA VALIDATION – TPH C06-C10 / TPH C10-C32 / PERCHLORATE
LOCKHEED MARTIN STATE AIRPORT (MSA)
SAMPLE DELIVERY GROUP (SDG) 240-35725-1

SAMPLES: 18 / Aqueous - VOC

MSA-MW16I-040314	MSA-MW16S-040314	MSA-MW18I-040114
MSA-MW18S-040114	MSA-MW41I-040414	MSA-MW41S-040414
MSA-MW42I-040214	MSA-MW42S-040214	MSA-MW45S-040414
MSA-MW46D-040214	MSA-MW46I-040214	MSA-MW46S-040214
MSA-MW47I-040314	MSA-MW47S-040314	TB-040114
TB-040214	TB-040314	TB-040414

14 / Aqueous – 1.4-Dioxane

MSA-MW16I-040314	MSA-MW16S-040314	MSA-MW18I-040114
MSA-MW18S-040114	MSA-MW41I-040414	MSA-MW41S-040414
MSA-MW42I-040214	MSA-MW42S-040214	MSA-MW45S-040414
MSA-MW46D-040214	MSA-MW46I-040214	MSA-MW46S-040214
MSA-MW47I-040314	MSA-MW47S-040314	

7 / Aqueous - TPH C06-C10 / TPH C10-C32

MSA-MW16S-040314	MSA-MW18S-040114	MSA-MW41S-040414
MSA-MW42S-040214	MSA-MW45S-040414	MSA-MW46S-040214
MSA-MW47S-040314		

6 / Aqueous - Perchlorate

MSA-MW18I-040114	MSA-MW46D-040214	MSA-MW46I-040214
MSA-MW46S-040214	MSA-MW47I-040314	MSA-MW47S-040314

2 / Aqueous - OVG

MSA-MW18I-040114	MSA-MW18S-040114

Overview

The sample set for Lockheed MSA, SDG 240-35725-1, consisted of eighteen (18) aqueous samples including four (4) aqueous trip blank samples. All samples were analyzed for volatile organic compounds (VOCs) as listed above. Fourteen (14) aqueous samples were analyzed for the semi-volatile organic compound (SVOC) 1,4-dioxane as listed above. Seven (7) aqueous samples were analyzed for the total petroleum hydrocarbons (TPH) TPH C06-C10 & TPH C10-C32 as listed above. Six (6) aqueous samples were analyzed for perchlorate as listed above. Two (2) aqueous samples were analyzed for organic volatile compounds (OVG) as listed above. No field duplicate sample pairs were included in the sample delivery group (SDG).

The samples were collected by Tetra Tech on April 1, 2, 3, and 4, 2014 and analyzed by TestAmerica Laboratories, Inc., North Canton and Sacramento for all analyses. All analyses were conducted in accordance with EPA SW-846 Methods 8260C for VOCs, 8270C for 1,4-dioxane, 8015B for TPH C06-C10 & TPH C10-C32, 6850 for perchlorate, and RSK-175 for OVG, analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, blank results, blank spike/blank spike duplicate results, matrix spike/matrix spike duplicate results, surrogate spike recoveries, internal standard recoveries, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major Problems

No major issues were identified.

Minor Problems

- The following laboratory VOC contaminants were detected in the method blank and trip blank samples at the following maximum concentration.

Analytes	Maximum Conc.	Action Level
Methylene chloride [1]	0.55 µg/l	5.50 µg/l
Acetone [2]	2.75 µg/l	27.5 µg/l
Carbon disulfide [2]	0.355 µg/l	1.775 µg/l
Carbon disulfide [3]	1.07 µg/l	5.35 µg/l
Methylene chloride [3]	0.982 µg/l	9.82 µg/l

[1] Trip blank sample TB-040114 result – Maximum result from all trip blank samples used to qualify all samples.
[2] Method blank sample MB 240-126387/6 affecting samples MSA-MW41I-040414 and MSA-MW41S-040414.
[3] Method blank sample MB 240-126549/7 affecting samples MSA-MW16I-040314, MSA-MW16S-040314 and MSA-MW45S-040414.

An action level of ten times the maximum level for the common laboratory contaminants acetone and methylene chloride, and five times the maximum level for carbon disulfide were used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive sample results less than the action level were qualified non-detected, (U), for blank contamination. The trip blank samples were not qualified for blank contamination.

- The VOC continuing calibration verification (CCV) percent differences (%Ds) were greater than the 20% quality control limit for chloromethane, bromomethane, carbon disulfide, tert-butyl alcohol, bromoform, and 1,2-dibromo-3-chloropropane for instrument A3UX12 on 04/09/14 @ 08:43.

Affected Samples:

MSA-MW18S-040114	MSA-MW42I-040214	MSA-MW42S-040214
MSA-MW46D-040214	MSA-MW46I-040214	MSA-MW46S-040214
MSA-MW47I-040314	TB-040114	TB-040214

Action: The aforementioned sample detected and non-detected analyte results were qualified estimated, (J) and (UJ), respectively.

- The VOC CCV %Ds were greater than the 20% quality control limit for bromomethane, trichlorofluoromethane, tert-butyl alcohol, dibromomethane, sec-butyl benzene, and n-butylbenzene for instrument A3UX12 on 04/14/14 @ 12:16.
  Affected Samples:
  MSA-MW47S-040314 TB-040314 TB-040414
  Action: The sample non-detected aforementioned analyte results were qualified estimated, (UJ).

- The VOC CCV %Ds were greater than the 20% quality control limit for trichlorofluoromethane, tert-butyl alcohol, 1,2-dibromo-3-chloropropane, naphthalene, and ethyl tert-butyl ether for instrument A3UX16 on 04/14/14 @ 12:04 and @ 12:27.
  Affected Samples: MSA-MW41I-040414 and MSA-MW41S-040414
  Action: The sample detected and non-detected aforementioned analyte results were qualified estimated, (J) and (UJ), respectively.

- The VOC CCV %Ds were greater than the 20% quality control limit for tert-butyl alcohol, 1,2-dibromo-3-chloropropane, naphthalene, and ethyl tert-butyl ether for instrument A3UX16 on 04/15/14 @ 12:58 and @ 13:20.
  Affected Samples:
  MSA-MW16I-040314 MSA-MW16S-040314 MSA-MW45S-040414
  Action: The sample non-detected aforementioned analyte results were qualified estimated, (UJ).

- Detected results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

- Samples MSA-MW41S-040414, MSA-MW42S-040214, and MSA-MW45S-040414 contain high concentrations of chlorinated organic compounds as reported in the volatile organic fraction analysis. The compounds vinyl chloride, cis-1,2-dichloroethene, and trichloroethene were detected and reported at high concentrations in the aforementioned samples. Because of the presence of the chlorinated compounds in the samples, the reported concentrations of TPH (C06-C10) in samples MSA-MW41S-040414, MSA-MW42S-040214, and MSA-MW45S-040414 likely contain contribution from chlorinated organic compounds thus elevating the concentrations of TPH (C06-C10). The results for TPH (C06-C10) in both samples are qualified as estimated, J.

Notes

VOC samples MSA-MW18I-040114 and MSA-MW47I-040314 were noted in the laboratory narrative as having pHs greater than 2. The sample login pH check sheets did not indicate this issue. No action was taken.

The VOC laboratory control sample (LCS) percent recovery (%R) was greater than the quality control limit for tert-butyl alcohol for LCS 240-125779. No action was taken because all results were nondetected.

The VOC LCS %R was greater than the quality control limit for dibromomethane for LCS 240-126390. No action was taken because all results were nondetected.

The VOC matrix spike (MS) %R was greater than the quality control limit for vinyl chloride for spiked sample MSA-MW41I-040414. No action was taken as the MS duplicate (MSD) %R and the MS/MSD vinyl chloride result relative percent difference (RPD) was compliant.

The VOC MS/MSD RPD for 2-chloroethyl vinyl ether results for spiked sample MSA-MW41I-040414 was non-compliant. No action was taken as the MS and MSD %Rs were compliant for the analyte.

Samples were diluted as listed below for the VOC analysis resulting in elevated levels reported for non-detected VOC analytes.

Sample	Dilution
MSA-MW16I-040314	14.29X
MSA-MW16S-040314	2.86X
MSA-MW18I-040114	250X
MSA-MW18S-040114	25X
MSA-MW41S-040414	50X
MSA-MW42S-040214	100X
MSA-MW41I-040414	6.67X
MSA-MW45S-040414	833.33X
MSA-MW46I-040214	3.33X
MSA-MW47I-040314	50X
MSA-MW47S-040314	5.71X

Samples were diluted as listed below for the 1,4-dioxane analysis.

Sample	Dilution
MSA-MW16S-040314	10X
MSA-MW18I-040114	5X
MSA-MW41I-040414	5X
MSA-MW41S-040414	10X
MSA-MW45S-040414	50X
MSA-MW47I-040314	5X

Sample MSA-MW42S-040214 was diluted 20X and sample MSA-MW45S-040414 was diluted 50X for the TPH C06-C10 analysis.

Sample analyte results were reported to the Method Detection Limit (MDL).

EXECUTIVE SUMMARY

Laboratory Performance Issues: VOC sample results were qualified for blank contamination and CCV %D non-compliances.
Other Factors Affecting Data Quality: Detected results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

The data for these analyses were reviewed with reference to EPA SW-846 Methods 8260C, 8270C, 8015B, 6850, RSK-175, and the USEPA National Functional Guidelines for Organic Data Validation (June 2008).

Tetra Tech
Joseph Kalinyak
Data Validator/Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 06183	NSAMPLE	MSA-MW16I-040314			MSA-MW16S-040314			MSA-MW18I-040114			MSA-MW18S-040114		
SDG: 240-35725-1	LAB_ID	240-35834-3			240-35834-2			240-35725-3			240-35725-2		
FRACTION: OV	SAMP_DATE	4/3/2014			4/3/2014			4/1/2014			4/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		3.3	U		0.66	U		58	U		5.8	U	
1,1,1-TRICHLOROETHANE		3.1	U		0.63	U		55	U		5.5	U	
1,1,2,2-TETRACHLOROETHANE		2.6	U		0.51	U		45	U		4.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		4	U		0.8	U		70	U		7	U	
1,1-DICHLOROETHANE		2.1	U		0.43	U		38	U		3.8	U	
1,1-DICHLOROETHENE		3.4	J	P	0.81	J	P	48	U		4.8	U	
1,1-DICHLOROPROPENE		1.9	U		0.37	U		33	U		3.3	U	
1,2,3-TRICHLOROBENZENE		2.4	U		0.49	U		43	U		4.3	U	
1,2,3-TRICHLOROPROPANE		6.1	U		1.2	U		110	U		11	U	
1,2,3-TRIMETHYLBENZENE		0.084	U		0.017	U		1.5	U		0.15	U	
1,2,4-TRICHLOROBENZENE		2.1	U		1.8	J	P	55	J	P	8.1	J	P
1,2,4-TRIMETHYLBENZENE		1.7	U		0.34	U		30	U		3	U	
1,2-DIBROMO-3-CHLOROPROPANE		9.6	UJ	C	1.9	UJ	C	170	U		17	UJ	C
1,2-DIBROMOETHANE		3.4	U		0.69	U		60	U		6	U	
1,2-DICHLOROBENZENE		1.9	U		3			33	U		3.3	U	
1,2-DICHLOROETHANE		3.1	J	P	0.63	U		55	U		7	J	P
1,2-DICHLOROPROPANE		2.6	U		0.51	U		45	U		4.5	U	
1,3-DICHLOROBENZENE		2	U		1.2	J	P	35	U		3.5	U	
1,3-DICHLOROPROPANE		2.3	U		0.46	U		40	U		4	U	
1,4-DICHLOROBENZENE		1.9	U		1.4	J	P	33	U		3.3	U	
2,2-DICHLOROPROPANE		1.9	U		0.37	U		33	U		3.3	U	
2-BUTANONE		8.1	U		1.6	U		140	U		14	U	
2-CHLOROETHYL VINYL ETHER		14	U		2.8	U		250	U		25	U	
2-CHLOROTOLUENE		1.6	U		0.31	U		28	U		2.8	U	
2-HEXANONE		5.9	U		1.2	U		100	U		10	U	
4-CHLOROTOLUENE		2.6	U		0.51	U		45	U		4.5	U	
4-ISOPROPYLTOLUENE		1.7	U		0.34	U		30	U		3	U	
4-METHYL-2-PENTANONE		4.6	U		0.92	U		80	U		8	U	
ACETONE		16	U		3.1	U		280	U		28	U	
BENZENE		1.9	U		7.5			33	U		3.3	U	
BROMOBENZENE		1.9	U		0.37	U		33	U		3.3	U	
BROMOCHLOROMETHANE		4.1	U		0.83	U		73	U		7.3	U	
BROMODICHLOROMETHANE		2.1	U		0.43	U		38	U		3.8	U	
BROMOFORM		9.1	U		1.8	U		160	U		16	UJ	C
BROMOMETHANE		5.9	U		1.2	U		100	U		10	UJ	C

PROJ_NO: 06183	NSAMPLE	MSA-MW41I-040414			MSA-MW41S-040414			MSA-MW42I-040214			MSA-MW42S-040214		
SDG: 240-35725-1	LAB_ID	240-35833-3			240-35833-2			240-35791-3			240-35791-2		
FRACTION: OV	SAMP_DATE	4/4/2014			4/4/2014			4/2/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	1.5	U		12	U		0.23	U		23	U	
1,1,1-TRICHLOROETHANE	1.5	U		11	U		0.22	U		22	U	
1,1,2,2-TETRACHLOROETHANE	1.2	U		9	U		0.18	U		18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1.9	U		14	U		0.28	U		28	U	
1,1-DICHLOROETHANE	1	U		7.5	U		0.15	U		15	U	
1,1-DICHLOROETHENE	4.4	J	P	9.5	U		0.19	U		19	U	
1,1-DICHLOROPROPENE	0.87	U		6.5	U		0.13	U		13	U	
1,2,3-TRICHLOROBENZENE	1.1	U		8.5	U		0.17	U		17	U	
1,2,3-TRICHLOROPROPANE	2.9	U		22	U		0.43	U		43	U	
1,2,3-TRIMETHYLBENZENE	0.039	U		0.3	U		0.0059	U		41	J	P
1,2,4-TRICHLOROBENZENE	3.4	J	P	7.5	U		0.15	U		15	U	
1,2,4-TRIMETHYLBENZENE	0.8	U		6	U		0.12	U		98	J	P
1,2-DIBROMO-3-CHLOROPROPANE	4.5	UJ	C	34	UJ	C	0.67	UJ	C	67	UJ	C
1,2-DIBROMOETHANE	1.6	U		12	U		0.24	U		24	U	
1,2-DICHLOROBENZENE	0.87	U		6.5	U		0.13	U		13	U	
1,2-DICHLOROETHANE	14			55			0.34	J	P	22	U	
1,2-DICHLOROPROPANE	1.2	U		9	U		0.18	U		18	U	
1,3-DICHLOROBENZENE	1.4	J	P	7	U		0.14	U		14	U	
1,3-DICHLOROPROPANE	1.1	U		8	U		0.16	U		16	U	
1,4-DICHLOROBENZENE	0.87	U		6.5	U		0.13	U		13	U	
2,2-DICHLOROPROPANE	0.87	U		6.5	U		0.13	U		13	U	
2-BUTANONE	3.8	U		29	U		0.57	U		57	U	
2-CHLOROETHYL VINYL ETHER	6.6	U		50	U		0.99	U		99	U	
2-CHLOROTOLUENE	0.73	U		5.5	U		0.11	U		11	U	
2-HEXANONE	2.7	U		21	U		0.41	U		41	U	
4-CHLOROTOLUENE	1.2	U		9	U		0.18	U		18	U	
4-ISOPROPYLTOLUENE	0.8	U		6	U		0.12	U		12	U	
4-METHYL-2-PENTANONE	2.1	U		16	U		0.32	U		32	U	
ACETONE	11	U	A	89	U	A	1.1	U		110	U	
BENZENE	8.2			26	J	P	0.83	J	P	19	J	P
BROMOBENZENE	0.87	U		6.5	U		0.13	U		13	U	
BROMOCHLOROMETHANE	1.9	U		15	U		0.29	U		29	U	
BROMODICHLOROMETHANE	1	U		7.5	U		0.15	U		15	U	
BROMOFORM	4.3	U		32	U		0.64	UJ	C	64	UJ	C
BROMOMETHANE	2.7	U		21	U		0.41	UJ	C	41	UJ	C

PROJ_NO: 06183	NSAMPLE	MSA-MW45S-040414			MSA-MW46D-040214			MSA-MW46I-040214			MSA-MW46S-040214		
SDG: 240-35725-1	LAB_ID	240-35833-4			240-35791-6			240-35791-5			240-35791-4		
FRACTION: OV	SAMP_DATE	4/4/2014			4/2/2014			4/2/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		190	U		0.23	U		0.77	U		0.23	U	
1,1,1-TRICHLOROETHANE		180	U		0.22	U		0.73	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		150	U		0.18	U		0.6	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		230	U		0.28	U		0.93	U		0.28	U	
1,1-DICHLOROETHANE		120	U		0.15	U		0.5	U		1.3		
1,1-DICHLOROETHENE		190	J	P	0.19	U		1.7	J	P	0.19	U	
1,1-DICHLOROPROPENE		110	U		0.13	U		0.43	U		0.13	U	
1,2,3-TRICHLOROBENZENE		140	U		0.17	U		0.57	U		0.17	U	
1,2,3-TRICHLOROPROPANE		360	U		0.43	U		1.4	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		4.9	U		0.0059	U		0.02	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		740	J	P	0.15	U		0.5	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		100	U		0.12	U		0.4	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		560	UJ	C	0.67	UJ	C	2.2	UJ	C	0.67	UJ	C
1,2-DIBROMOETHANE		200	U		0.24	U		0.8	U		0.24	U	
1,2-DICHLOROBENZENE		110	U		0.13	U		0.43	U		0.13	U	
1,2-DICHLOROETHANE		430	J	P	0.22	U		12			0.22	U	
1,2-DICHLOROPROPANE		150	U		0.18	U		0.6	U		0.18	U	
1,3-DICHLOROBENZENE		170	J	P	0.14	U		0.47	U		0.14	U	
1,3-DICHLOROPROPANE		130	U		0.16	U		0.53	U		0.16	U	
1,4-DICHLOROBENZENE		110	U		0.13	U		0.43	U		0.13	U	
2,2-DICHLOROPROPANE		110	U		0.13	U		0.43	U		0.13	U	
2-BUTANONE		470	U		0.57	U		1.9	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		820	U		0.99	U		3.3	U		0.99	U	
2-CHLOROTOLUENE		92	U		0.11	U		0.37	U		0.11	U	
2-HEXANONE		340	U		0.41	U		1.4	U		0.41	U	
4-CHLOROTOLUENE		150	U		0.18	U		0.6	U		0.18	U	
4-ISOPROPYLTOLUENE		100	U		0.12	U		0.4	U		0.12	U	
4-METHYL-2-PENTANONE		270	U		0.32	U		1.1	U		0.32	U	
ACETONE		920	U		1.7	J	P	3.7	U		1.1	U	
BENZENE		120	J	P	0.13	U		1.8	J	P	0.13	U	
BROMOBENZENE		110	U		0.13	U		0.43	U		0.13	U	
BROMOCHLOROMETHANE		240	U		0.29	U		0.97	U		0.29	U	
BROMODICHLOROMETHANE		120	U		0.15	U		0.5	U		0.15	U	
BROMOFORM		530	U		0.64	UJ	C	2.1	UJ	C	0.64	UJ	C
BROMOMETHANE		340	U		0.41	UJ	C	1.4	UJ	C	0.41	UJ	C

PROJ_NO: 06183	NSAMPLE	MSA-MW47I-040314			MSA-MW47S-040314			TB-040114			TB-040214		
SDG: 240-35725-1	LAB_ID	240-35834-5			240-35834-4			240-35725-1			240-35791-1		
FRACTION: OV	SAMP_DATE	4/3/2014			4/3/2014			4/1/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		12	U		1.3	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		11	U		1.3	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		9	U		1	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		14	U		1.6	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		7.5	U		0.86	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		9.5	U		1.3	J	P	0.19	U		0.19	U	
1,1-DICHLOROPROPENE		6.5	U		0.74	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		8.5	U		0.97	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		22	U		2.5	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.3	U		0.034	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		19	J	P	1.8	J	P	0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		6	U		0.69	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		34	UJ	C	3.8	U		0.67	UJ	C	0.67	UJ	C
1,2-DIBROMOETHANE		12	U		1.4	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		6.5	U		0.74	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		50			5.6	J	P	0.22	U		0.22	U	
1,2-DICHLOROPROPANE		9	U		1	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		7	U		0.8	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		8	U		0.91	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		6.5	U		0.74	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		6.5	U		0.74	U		0.13	U		0.13	U	
2-BUTANONE		29	U		3.3	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		50	U		5.7	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		5.5	U		0.63	U		0.11	U		0.11	U	
2-HEXANONE		21	U		2.3	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		9	U		1	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		6	U		0.69	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		16	U		1.8	U		0.32	U		0.32	U	
ACETONE		55	U		6.3	U		1.1	U		1.1	U	
BENZENE		6.5	U		1.5	J	P	0.13	U		0.13	U	
BROMOBENZENE		6.5	U		0.74	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		15	U		1.7	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		7.5	U		0.86	U		0.15	U		0.15	U	
BROMOFORM		32	UJ	C	3.7	U		0.64	UJ	C	0.64	UJ	C
BROMOMETHANE		21	UJ	C	2.3	UJ	C	0.41	UJ	C	0.41	UJ	C

PROJ_NO: 06183	NSAMPLE	TB-040314			TB-040414		
SDG: 240-35725-1	LAB_ID	240-35834-1			240-35833-1		
FRACTION: OV	SAMP_DATE	4/3/2014			4/4/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U	
2-BUTANONE		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U	
ACETONE		1.1	U		1.1	U	
BENZENE		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U	
BROMOMETHANE		0.41	UJ	C	0.41	UJ	C

PROJ_NO: 06183	NSAMPLE	MSA-MW16I-040314			MSA-MW16S-040314			MSA-MW18I-040114			MSA-MW18S-040114		
SDG: 240-35725-1	LAB_ID	240-35834-3			240-35834-2			240-35725-3			240-35725-2		
FRACTION: OV	SAMP_DATE	4/3/2014			4/3/2014			4/1/2014			4/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		8.3	U	A	0.37	U		33	U		3.3	UJ	C
CARBON TETRACHLORIDE		1.9	U		0.37	U		33	U		3.3	U	
CHLOROBENZENE		2.1	U		0.73	J	P	44	J	P	3.8	U	
CHLORODIBROMOMETHANE		2.6	U		0.51	U		45	U		4.5	U	
CHLOROETHANE		4.1	U		0.83	U		73	U		7.3	U	
CHLOROFORM		2.3	U		0.46	U		40	U		4	U	
CHLOROMETHANE		4.3	U		0.86	U		75	U		7.5	UJ	C
CIS-1,2-DICHLOROETHENE		180			79			1300			210		
CIS-1,3-DICHLOROPROPENE		2	U		0.4	U		35	U		3.5	U	
DIBROMOMETHANE		4	U		0.8	U		70	U		7	U	
DICHLORODIFLUOROMETHANE		4.4	U		0.89	U		78	U		7.8	U	
DIISOPROPYL ETHER		21	U		4.3	U		380	U		38	U	
ETHYL TERT-BUTYL ETHER		1.6	UJ	C	0.31	UJ	C	28	U		2.8	U	
ETHYLBENZENE		2.4	U		0.49	U		43	U		4.3	U	
HEXACHLOROBUTADIENE		4.3	U		0.86	U		75	U		7.5	U	
ISOPROPYLBENZENE		1.9	U		0.37	U		33	U		3.3	U	
M+P-XYLENES		3.4	U		0.69	U		60	U		6	U	
METHYL TERT-BUTYL ETHER		2.4	U		0.49	U		43	U		4.3	U	
METHYLENE CHLORIDE		9.4	U	A	1.3	U	A	83	U		8.3	U	
NAPHTHALENE		3.4	UJ	C	0.69	UJ	C	60	U		6	U	
N-BUTYLBENZENE		1.7	U		0.34	U		30	U		3	U	
N-PROPYLBENZENE		2	U		0.4	U		35	U		3.5	U	
O-XYLENE		2	U		0.4	U		35	U		3.5	U	
SEC-BUTYLBENZENE		1.9	U		0.37	U		33	U		3.3	U	
STYRENE		1.6	U		0.31	U		28	U		2.8	U	
TERT-AMYL METHYL ETHER		0.96	U		0.19	U		17	U		1.7	U	
TERT-BUTYLBENZENE		1.9	U		0.37	U		33	U		3.3	U	
TERTIARY-BUTYL ALCOHOL		56	UJ	C	11	UJ	C	980	U		98	UJ	C
TETRACHLOROETHENE		4.1	U		0.83	U		73	U		7.3	U	
TOLUENE		1.9	U		0.37	U		33	U		3.3	U	
TOTAL XYLENES		2	U		0.4	U		35	U		3.5	U	
TRANS-1,2-DICHLOROETHENE		3.3	J	P	0.54	U		48	U		4.8	U	
TRANS-1,3-DICHLOROPROPENE		2.7	U		0.54	U		48	U		4.8	U	
TRICHLOROETHENE		960			0.49	U		9200			1500		
TRICHLOROFLUOROMETHANE		3	U		0.6	U		53	U		5.3	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW41I-040414			MSA-MW41S-040414			MSA-MW42I-040214			MSA-MW42S-040214		
SDG: 240-35725-1	LAB_ID	240-35833-3			240-35833-2			240-35791-3			240-35791-2		
FRACTION: OV	SAMP_DATE	4/4/2014			4/4/2014			4/2/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.87	U		6.6	U	A	0.13	UJ	C	13	UJ	C
CARBON TETRACHLORIDE		0.87	U		6.5	U		0.13	U		13	U	
CHLOROBENZENE		24			7.5	U		0.15	U		15	U	
CHLORODIBROMOMETHANE		1.2	U		9	U		0.18	U		18	U	
CHLOROETHANE		10			15	U		0.29	U		29	U	
CHLOROFORM		1.1	U		8	U		0.16	U		16	U	
CHLOROMETHANE		2	U		15	U		0.3	UJ	C	30	UJ	C
CIS-1,2-DICHLOROETHENE		410			1100			25			880		
CIS-1,3-DICHLOROPROPENE		0.93	U		7	U		0.14	U		14	U	
DIBROMOMETHANE		1.9	U		14	U		0.28	U		28	U	
DICHLORODIFLUOROMETHANE		2.1	U		16	U		0.31	U		31	U	
DIISOPROPYL ETHER		10	U		75	U		1.5	U		150	U	
ETHYL TERT-BUTYL ETHER		0.73	UJ	C	5.5	UJ	C	0.11	U		11	U	
ETHYLBENZENE		1.1	U		8.5	U		0.31	J	P	420		
HEXACHLOROBUTADIENE		2	U		15	U		0.3	U		30	U	
ISOPROPYLBENZENE		0.87	U		6.5	U		0.13	U		13	U	
M+P-XYLENES		1.6	U		12	U		16			7500		
METHYL TERT-BUTYL ETHER		1.1	U		8.5	U		0.17	U		17	U	
METHYLENE CHLORIDE		2.2	U		220	U	B	0.33	U		33	U	
NAPHTHALENE		1.6	UJ	C	12	UJ	C	0.24	U		24	U	
N-BUTYLBENZENE		0.8	U		6	U		0.12	U		12	U	
N-PROPYLBENZENE		0.93	U		7	U		0.14	U		14	U	
O-XYLENE		0.93	U		7	U		1.6			380		
SEC-BUTYLBENZENE		0.87	U		6.5	U		0.13	U		13	U	
STYRENE		0.73	U		5.5	U		0.11	U		11	U	
TERT-AMYL METHYL ETHER		0.45	U		3.4	U		0.067	U		6.7	U	
TERT-BUTYLBENZENE		0.87	U		6.5	U		0.13	U		13	U	
TERTIARY-BUTYL ALCOHOL		52	J	CP	200	UJ	C	3.9	UJ	C	390	UJ	C
TETRACHLOROETHENE		1.9	U		15	U		0.29	U		29	U	
TOLUENE		0.87	U		6.5	U		0.62	J	P	250		
TOTAL XYLENES		0.93	U		7	U		18			7900		
TRANS-1,2-DICHLOROETHENE		3.5	J	P	9.5	U		0.23	J	P	19	U	
TRANS-1,3-DICHLOROPROPENE		1.3	U		9.5	U		0.19	U		19	U	
TRICHLOROETHENE		99			3000			2.4			17	U	
TRICHLOROFLUOROMETHANE		1.4	UJ	C	11	UJ	C	0.21	U		21	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW45S-040414			MSA-MW46D-040214			MSA-MW46I-040214			MSA-MW46S-040214		
SDG: 240-35725-1	LAB_ID	240-35833-4			240-35791-6			240-35791-5			240-35791-4		
FRACTION: OV	SAMP_DATE	4/4/2014			4/2/2014			4/2/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		110	U		0.13	UJ	C	0.43	UJ	C	0.27	J	CP
CARBON TETRACHLORIDE		110	U		0.13	U		0.43	U		0.13	U	
CHLOROBENZENE		120	U		0.15	U		33			0.15	U	
CHLORODIBROMOMETHANE		150	U		0.18	U		0.6	U		0.18	U	
CHLOROETHANE		240	U		0.29	U		0.97	U		0.29	U	
CHLOROFORM		130	U		0.16	U		1.5	J	P	0.16	U	
CHLOROMETHANE		250	U		0.3	UJ	C	1	UJ	C	0.3	UJ	C
CIS-1,2-DICHLOROETHENE		37000			3.7			100			0.52	J	P
CIS-1,3-DICHLOROPROPENE		120	U		0.14	U		0.47	U		0.14	U	
DIBROMOMETHANE		230	U		0.28	U		0.93	U		0.28	U	
DICHLORODIFLUOROMETHANE		260	U		0.31	U		1	U		0.31	U	
DIISOPROPYL ETHER		1200	U		1.5	U		5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		92	UJ	C	0.11	U		0.37	U		0.11	U	
ETHYLBENZENE		140	U		0.17	U		0.57	U		0.17	U	
HEXACHLOROBUTADIENE		250	U		0.3	U		1	U		0.3	U	
ISOPROPYLBENZENE		110	U		0.13	U		0.43	U		0.13	U	
M+P-XYLENES		200	U		0.24	U		0.8	U		0.24	U	
METHYL TERT-BUTYL ETHER		140	U		0.17	U		0.57	U		0.17	U	
METHYLENE CHLORIDE		3000	U	A	0.33	U		1.1	U		0.33	U	
NAPHTHALENE		200	UJ	C	0.24	U		0.8	U		0.24	U	
N-BUTYLBENZENE		100	U		0.12	U		0.4	U		0.12	U	
N-PROPYLBENZENE		120	U		0.14	U		0.47	U		0.14	U	
O-XYLENE		120	U		0.14	U		0.47	U		0.14	U	
SEC-BUTYLBENZENE		110	U		0.13	U		0.43	U		0.13	U	
STYRENE		92	U		0.11	U		0.37	U		0.11	U	
TERT-AMYL METHYL ETHER		56	U		0.067	U		0.22	U		0.067	U	
TERT-BUTYLBENZENE		110	U		0.13	U		0.43	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3200	UJ	C	3.9	UJ	C	13	UJ	C	3.9	UJ	C
TETRACHLOROETHENE		240	U		0.29	U		0.97	U		0.29	U	
TOLUENE		2000			0.13	U		0.43	U		0.13	U	
TOTAL XYLENES		120	U		0.14	U		0.47	U		0.14	U	
TRANS-1,2-DICHLOROETHENE		160	J	P	0.19	U		1.1	J	P	0.19	U	
TRANS-1,3-DICHLOROPROPENE		160	U		0.19	U		0.63	U		0.19	U	
TRICHLOROETHENE		50000			12			200			0.95	J	P
TRICHLOROFLUOROMETHANE		170	U		0.21	U		0.7	U		0.21	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW47I-040314			MSA-MW47S-040314			TB-040114			TB-040214		
SDG: 240-35725-1	LAB_ID	240-35834-5			240-35834-4			240-35725-1			240-35791-1		
FRACTION: OV	SAMP_DATE	4/3/2014			4/3/2014			4/1/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		6.5	UJ	C	0.74	U		0.13	UJ	C	0.13	UJ	C
CARBON TETRACHLORIDE		8.7	J	P	1.4	J	P	0.13	U		0.13	U	
CHLOROBENZENE		42	J	P	5.9			0.15	U		0.15	U	
CHLORODIBROMOMETHANE		9	U		1	U		0.18	U		0.18	U	
CHLOROETHANE		15	U		1.7	U		0.29	U		0.29	U	
CHLOROFORM		27	J	P	3	J	P	0.16	U		0.16	U	
CHLOROMETHANE		15	UJ	C	1.7	U		0.3	UJ	C	0.3	UJ	C
CIS-1,2-DICHLOROETHENE		490			64			0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		7	U		0.8	U		0.14	U		0.14	U	
DIBROMOMETHANE		14	U		1.6	UJ	C	0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		16	U		1.8	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		75	U		8.6	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		5.5	U		0.63	U		0.11	U		0.11	U	
ETHYLBENZENE		8.5	U		0.97	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		15	U		1.7	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		6.5	U		0.74	U		0.13	U		0.13	U	
M+P-XYLENES		12	U		1.4	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		8.5	U		0.97	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		47	U	B	4.2	U	B	0.55	J	P	0.49	J	P
NAPHTHALENE		12	U		1.4	U		0.24	U		0.24	U	
N-BUTYLBENZENE		6	U		0.69	UJ	C	0.12	U		0.12	U	
N-PROPYLBENZENE		7	U		0.8	U		0.14	U		0.14	U	
O-XYLENE		7	U		0.8	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		6.5	U		0.74	UJ	C	0.13	U		0.13	U	
STYRENE		5.5	U		0.63	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		3.4	U		0.38	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		6.5	U		0.74	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		200	UJ	C	22	UJ	C	3.9	UJ	C	3.9	UJ	C
TETRACHLOROETHENE		15	U		1.7	U		0.29	U		0.29	U	
TOLUENE		6.5	U		0.74	U		0.13	U		0.13	U	
TOTAL XYLENES		7	U		0.8	U		0.14	U		0.14	U	
TRANS-1,2-DICHLOROETHENE		9.5	U		1.1	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		9.5	U		1.1	U		0.19	U		0.19	U	
TRICHLOROETHENE		3400			440			0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		11	U		1.2	UJ	C	0.21	U		0.21	U	

PROJ_NO: 06183	NSAMPLE	TB-040314			TB-040414		
SDG: 240-35725-1	LAB_ID	240-35834-1			240-35833-1		
FRACTION: OV	SAMP_DATE	4/3/2014			4/4/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	UJ	C	0.28	UJ	C
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.55	J	P	0.48	J	P
NAPHTHALENE		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	UJ	C	0.12	UJ	C
N-PROPYLBENZENE		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	UJ	C	0.13	UJ	C
STYRENE		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UJ	C	3.9	UJ	C
TETRACHLOROETHENE		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U	
TOTAL XYLENES		0.14	U		0.14	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U	
TRICHLOROETHENE		0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		0.21	UJ	C	0.21	UJ	C

PROJ_NO: 06183	NSAMPLE	MSA-MW16I-040314			MSA-MW16S-040314			MSA-MW18I-040114			MSA-MW18S-040114		
SDG: 240-35725-1	LAB_ID	240-35834-3			240-35834-2			240-35725-3			240-35725-2		
FRACTION: OV	SAMP_DATE	4/3/2014			4/3/2014			4/1/2014			4/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		2.7	U		0.54	U		48	U		4.8	U	
VINYL CHLORIDE		16			170			670			110		

PROJ_NO: 06183	NSAMPLE	MSA-MW41I-040414			MSA-MW41S-040414			MSA-MW42I-040214			MSA-MW42S-040214		
SDG: 240-35725-1	LAB_ID	240-35833-3			240-35833-2			240-35791-3			240-35791-2		
FRACTION: OV	SAMP_DATE	4/4/2014			4/4/2014			4/2/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		1.3	U		9.5	U		0.19	U		19	U	
VINYL CHLORIDE		510			890			13			970		

PROJ_NO: 06183	NSAMPLE	MSA-MW45S-040414			MSA-MW46D-040214			MSA-MW46I-040214			MSA-MW46S-040214		
SDG: 240-35725-1	LAB_ID	240-35833-4			240-35791-6			240-35791-5			240-35791-4		
FRACTION: OV	SAMP_DATE	4/4/2014			4/2/2014			4/2/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		160	U		0.19	U		0.63	U		0.19	U	
VINYL CHLORIDE		17000			0.22	U		90			0.22	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW47I-040314			MSA-MW47S-040314			TB-040114			TB-040214		
SDG: 240-35725-1	LAB_ID	240-35834-5			240-35834-4			240-35725-1			240-35791-1		
FRACTION: OV	SAMP_DATE	4/3/2014			4/3/2014			4/1/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		9.5	U		1.1	U		0.19	U		0.19	U	
VINYL CHLORIDE		410			50			0.22	U		0.22	U	

PROJ_NO: 06183	NSAMPLE	TB-040314			TB-040414		
SDG: 240-35725-1	LAB_ID	240-35834-1			240-35833-1		
FRACTION: OV	SAMP_DATE	4/3/2014			4/4/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	U		0.19	U	
VINYL CHLORIDE		0.22	U		0.22	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW16S-040314			MSA-MW18S-040114			MSA-MW41S-040414			MSA-MW42S-040214		
SDG: 240-35725-1	LAB_ID	240-35834-2			240-35725-2			240-35833-2			240-35791-2		
FRACTION: PET	SAMP_DATE	4/3/2014			4/1/2014			4/4/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		100			690			1400	J	Q	16000	J	Q
TPH (C10-C32)		240	U		210	U		750			1300		

PROJ_NO: 06183	NSAMPLE	MSA-MW45S-040414			MSA-MW46S-040214			MSA-MW47S-040314		
SDG: 240-35725-1	LAB_ID	240-35833-4			240-35791-4			240-35834-4		
FRACTION: PET	SAMP_DATE	4/4/2014			4/2/2014			4/3/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		38000	J	Q	25	U		220		
TPH (C10-C32)		2200			250	U		700		

PROJ_NO: 06183	NSAMPLE	MSA-MW18I-040114			MSA-MW18S-040114		
SDG: 240-35725-1	LAB_ID	240-35725-3			240-35725-2		
FRACTION: OVG	SAMP_DATE	4/1/2014			4/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHANE		7			1.2		
ETHENE		60			6.4		
METHANE		560			190		

PROJ_NO: 06183	NSAMPLE	MSA-MW18I-040114			MSA-MW46D-040214			MSA-MW46I-040214			MSA-MW46S-040214		
SDG: 240-35725-1	LAB_ID	240-35725-3			240-35791-6			240-35791-5			240-35791-4		
FRACTION: MISCO	SAMP_DATE	4/1/2014			4/2/2014			4/2/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.082	U		0.1	J	P	0.082	U		0.082	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW47I-040314			MSA-MW47S-040314		
SDG: 240-35725-1	LAB_ID	240-35834-5			240-35834-4		
FRACTION: MISCO	SAMP_DATE	4/3/2014			4/3/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.086	J	P	0.082	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW16I-040314 | Lab Sample ID: 240-35834-3

Matrix: Water | Lab File ID: UXM4799.D

Analysis Method: 8260C | Date Collected: 04/03/2014 10:45

Sample wt/vol: 10(mL) | Date Analyzed: 04/15/2014 15:58

Soil Aliquot Vol: | Dilution Factor: 14.29

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.3	U	14	3.3
71-55-6	1,1,1-Trichloroethane	3.1	U	14	3.1
79-34-5	1,1,2,2-Tetrachloroethane	2.6	U	14	2.6
76-13-1	1,1,2-Trichlorotrifluoroethane	4.0	U	14	4.0
75-34-3	1,1-Dichloroethane	2.1	U	14	2.1
75-35-4	1,1-Dichloroethene	3.4	J	14	2.7
563-58-6	1,1-Dichloropropene	1.9	U	14	1.9
87-61-6	1,2,3-Trichlorobenzene	2.4	U	14	2.4
96-18-4	1,2,3-Trichloropropane	6.1	U	14	6.1
526-73-8	1,2,3-Trimethylbenzene	0.084	U	71	0.084
120-82-1	1,2,4-Trichlorobenzene	2.1	U	14	2.1
95-63-6	1,2,4-Trimethylbenzene	1.7	U	14	1.7
96-12-8	1,2-Dibromo-3-Chloropropane	9.6	U	29	9.6
95-50-1	1,2-Dichlorobenzene	1.9	U	14	1.9
107-06-2	1,2-Dichloroethane	3.1	J	14	3.1
78-87-5	1,2-Dichloropropane	2.6	U	14	2.6
541-73-1	1,3-Dichlorobenzene	2.0	U	14	2.0
142-28-9	1,3-Dichloropropane	2.3	U	14	2.3
106-46-7	1,4-Dichlorobenzene	1.9	U	14	1.9
594-20-7	2,2-Dichloropropane	1.9	U	14	1.9
78-93-3	2-Butanone (MEK)	8.1	U	140	8.1
110-75-8	2-Chloroethyl vinyl ether	14	U	140	14
95-49-8	2-Chlorotoluene	1.6	U	14	1.6
591-78-6	2-Hexanone	5.9	U	140	5.9
106-43-4	4-Chlorotoluene	2.6	U	14	2.6
99-87-6	4-Isopropyltoluene	1.7	U	14	1.7
108-10-1	4-Methyl-2-pentanone (MIBK)	4.6	U	140	4.6
67-64-1	Acetone	16	U	140	16
71-43-2	Benzene	1.9	U	14	1.9
108-86-1	Bromobenzene	1.9	U	14	1.9
75-25-2	Bromoform	9.1	U	14	9.1
74-83-9	Bromomethane	5.9	U	14	5.9
75-15-0	Carbon disulfide	8.3	J B	14	1.9
56-23-5	Carbon tetrachloride	1.9	U	14	1.9
108-90-7	Chlorobenzene	2.1	U	14	2.1
124-48-1	Chlorodibromomethane	2.6	U	14	2.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW16I-040314 | Lab Sample ID: 240-35834-3

Matrix: Water | Lab File ID: UXM4799.D

Analysis Method: 8260C | Date Collected: 04/03/2014 10:45

Sample wt/vol: 10(mL) | Date Analyzed: 04/15/2014 15:58

Soil Aliquot Vol: | Dilution Factor: 14.29

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	4.1	U	14	4.1
67-66-3	Chloroform	2.3	U	14	2.3
74-87-3	Chloromethane	4.3	U	14	4.3
156-59-2	cis-1,2-Dichloroethene	180		14	2.4
10061-01-5	cis-1,3-Dichloropropene	2.0	U	14	2.0
74-95-3	Dibromomethane	4.0	U	14	4.0
74-97-5	Bromochloromethane	4.1	U	14	4.1
75-71-8	Dichlorodifluoromethane	4.4	U	14	4.4
75-27-4	Bromodichloromethane	2.1	U	14	2.1
75-65-0	tert-Butyl alcohol	56	U	710	56
100-41-4	Ethylbenzene	2.4	U	14	2.4
87-68-3	Hexachlorobutadiene	4.3	U	14	4.3
108-20-3	Diisopropyl ether	21	U	140	21
98-82-8	Isopropylbenzene	1.9	U	14	1.9
1634-04-4	Methyl tert-butyl ether	2.4	U	14	2.4
75-09-2	Methylene Chloride	9.4	J B	14	4.7
179601-23-1	m-Xylene & p-Xylene	3.4	U	29	3.4
91-20-3	Naphthalene	3.4	U	14	3.4
104-51-8	n-Butylbenzene	1.7	U	14	1.7
103-65-1	N-Propylbenzene	2.0	U	14	2.0
95-47-6	o-Xylene	2.0	U	14	2.0
135-98-8	sec-Butylbenzene	1.9	U	14	1.9
100-42-5	Styrene	1.6	U	14	1.6
994-05-8	Tert-amyl methyl ether	0.96	U	71	0.96
637-92-3	Ethyl tert-butyl ether	1.6	U	71	1.6
127-18-4	Tetrachloroethene	4.1	U	14	4.1
108-88-3	Toluene	1.9	U	14	1.9
156-60-5	trans-1,2-Dichloroethene	3.3	J	14	2.7
10061-02-6	trans-1,3-Dichloropropene	2.7	U	14	2.7
79-01-6	Trichloroethene	960		14	2.4
75-69-4	Trichlorofluoromethane	3.0	U	14	3.0
108-05-4	Vinyl acetate	2.7	U	29	2.7
75-01-4	Vinyl chloride	16		14	3.1
1330-20-7	Xylenes, Total	2.0	U	29	2.0
98-06-6	tert-Butylbenzene	1.9	U	14	1.9
106-93-4	1,2-Dibromoethane	3.4	U	14	3.4

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW16I-040314 Lab Sample ID: 240-35834-3

Matrix: Water Lab File ID: UXM4799.D

Analysis Method: 8260C Date Collected: 04/03/2014 10:45

Sample wt/vol: 10(mL) Date Analyzed: 04/15/2014 15:58

Soil Aliquot Vol: Dilution Factor: 14.29

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126549 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		74-120
1868-53-7	Dibromofluoromethane (Surr)	89		75-121
460-00-4	4-Bromofluorobenzene (Surr)	83		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW16I-040314 | Lab Sample ID: 240-35834-3

Matrix: Water | Lab File ID: UXM4799.D

Analysis Method: 8260C | Date Collected: 04/03/2014 10:45

Sample wt/vol: 10(mL) | Date Analyzed: 04/15/2014 15:58

Soil Aliquot Vol: | Dilution Factor: 14.29

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126549 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW16S-040314 | Lab Sample ID: 240-35834-2

Matrix: Water | Lab File ID: UXM4798.D

Analysis Method: 8260C | Date Collected: 04/03/2014 09:40

Sample wt/vol: 10(mL) | Date Analyzed: 04/15/2014 15:35

Soil Aliquot Vol: | Dilution Factor: 2.86

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.66	U	2.9	0.66
71-55-6	1,1,1-Trichloroethane	0.63	U	2.9	0.63
79-34-5	1,1,2,2-Tetrachloroethane	0.51	U	2.9	0.51
76-13-1	1,1,2-Trichlorotrifluoroethane	0.80	U	2.9	0.80
75-34-3	1,1-Dichloroethane	0.43	U	2.9	0.43
75-35-4	1,1-Dichloroethene	0.81	J	2.9	0.54
563-58-6	1,1-Dichloropropene	0.37	U	2.9	0.37
87-61-6	1,2,3-Trichlorobenzene	0.49	U	2.9	0.49
96-18-4	1,2,3-Trichloropropane	1.2	U	2.9	1.2
526-73-8	1,2,3-Trimethylbenzene	0.017	U	14	0.017
120-82-1	1,2,4-Trichlorobenzene	1.8	J	2.9	0.43
95-63-6	1,2,4-Trimethylbenzene	0.34	U	2.9	0.34
96-12-8	1,2-Dibromo-3-Chloropropane	1.9	U	5.7	1.9
95-50-1	1,2-Dichlorobenzene	3.0		2.9	0.37
107-06-2	1,2-Dichloroethane	0.63	U	2.9	0.63
78-87-5	1,2-Dichloropropane	0.51	U	2.9	0.51
541-73-1	1,3-Dichlorobenzene	1.2	J	2.9	0.40
142-28-9	1,3-Dichloropropane	0.46	U	2.9	0.46
106-46-7	1,4-Dichlorobenzene	1.4	J	2.9	0.37
594-20-7	2,2-Dichloropropane	0.37	U	2.9	0.37
78-93-3	2-Butanone (MEK)	1.6	U	29	1.6
110-75-8	2-Chloroethyl vinyl ether	2.8	U	29	2.8
95-49-8	2-Chlorotoluene	0.31	U	2.9	0.31
591-78-6	2-Hexanone	1.2	U	29	1.2
106-43-4	4-Chlorotoluene	0.51	U	2.9	0.51
99-87-6	4-Isopropyltoluene	0.34	U	2.9	0.34
108-10-1	4-Methyl-2-pentanone (MIBK)	0.92	U	29	0.92
67-64-1	Acetone	3.1	U	29	3.1
71-43-2	Benzene	7.5		2.9	0.37
108-86-1	Bromobenzene	0.37	U	2.9	0.37
75-25-2	Bromoform	1.8	U	2.9	1.8
74-83-9	Bromomethane	1.2	U	2.9	1.2
75-15-0	Carbon disulfide	0.37	U	2.9	0.37
56-23-5	Carbon tetrachloride	0.37	U	2.9	0.37
108-90-7	Chlorobenzene	0.73	J	2.9	0.43
124-48-1	Chlorodibromomethane	0.51	U	2.9	0.51

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW16S-040314 | Lab Sample ID: 240-35834-2

Matrix: Water | Lab File ID: UXM4798.D

Analysis Method: 8260C | Date Collected: 04/03/2014 09:40

Sample wt/vol: 10(mL) | Date Analyzed: 04/15/2014 15:35

Soil Aliquot Vol: | Dilution Factor: 2.86

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	2.9	0.83
67-66-3	Chloroform	0.46	U	2.9	0.46
74-87-3	Chloromethane	0.86	U	2.9	0.86
156-59-2	cis-1,2-Dichloroethene	79		2.9	0.49
10061-01-5	cis-1,3-Dichloropropene	0.40	U	2.9	0.40
74-95-3	Dibromomethane	0.80	U	2.9	0.80
74-97-5	Bromochloromethane	0.83	U	2.9	0.83
75-71-8	Dichlorodifluoromethane	0.89	U	2.9	0.89
75-27-4	Bromodichloromethane	0.43	U	2.9	0.43
75-65-0	tert-Butyl alcohol	11	U	140	11
100-41-4	Ethylbenzene	0.49	U	2.9	0.49
87-68-3	Hexachlorobutadiene	0.86	U	2.9	0.86
108-20-3	Diisopropyl ether	4.3	U	29	4.3
98-82-8	Isopropylbenzene	0.37	U	2.9	0.37
1634-04-4	Methyl tert-butyl ether	0.49	U	2.9	0.49
75-09-2	Methylene Chloride	1.3	J B	2.9	0.94
179601-23-1	m-Xylene & p-Xylene	0.69	U	5.7	0.69
91-20-3	Naphthalene	0.69	U	2.9	0.69
104-51-8	n-Butylbenzene	0.34	U	2.9	0.34
103-65-1	N-Propylbenzene	0.40	U	2.9	0.40
95-47-6	o-Xylene	0.40	U	2.9	0.40
135-98-8	sec-Butylbenzene	0.37	U	2.9	0.37
100-42-5	Styrene	0.31	U	2.9	0.31
994-05-8	Tert-amyl methyl ether	0.19	U	14	0.19
637-92-3	Ethyl tert-butyl ether	0.31	U	14	0.31
127-18-4	Tetrachloroethene	0.83	U	2.9	0.83
108-88-3	Toluene	0.37	U	2.9	0.37
156-60-5	trans-1,2-Dichloroethene	0.54	U	2.9	0.54
10061-02-6	trans-1,3-Dichloropropene	0.54	U	2.9	0.54
79-01-6	Trichloroethene	0.49	U	2.9	0.49
75-69-4	Trichlorofluoromethane	0.60	U	2.9	0.60
108-05-4	Vinyl acetate	0.54	U	5.7	0.54
75-01-4	Vinyl chloride	170		2.9	0.63
1330-20-7	Xylenes, Total	0.40	U	5.7	0.40
98-06-6	tert-Butylbenzene	0.37	U	2.9	0.37
106-93-4	1,2-Dibromoethane	0.69	U	2.9	0.69

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW16S-040314 Lab Sample ID: 240-35834-2

Matrix: Water Lab File ID: UXM4798.D

Analysis Method: 8260C Date Collected: 04/03/2014 09:40

Sample wt/vol: 10(mL) Date Analyzed: 04/15/2014 15:35

Soil Aliquot Vol: Dilution Factor: 2.86

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126549 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		74-120
1868-53-7	Dibromofluoromethane (Surr)	89		75-121
460-00-4	4-Bromofluorobenzene (Surr)	83		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW16S-040314 Lab Sample ID: 240-35834-2

Matrix: Water Lab File ID: UXM4798.D

Analysis Method: 8260C Date Collected: 04/03/2014 09:40

Sample wt/vol: 10(mL) Date Analyzed: 04/15/2014 15:35

Soil Aliquot Vol: Dilution Factor: 2.86

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126549 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW18I-040114 | Lab Sample ID: 240-35725-3

Matrix: Water | Lab File ID: UX942699.D

Analysis Method: 8260C | Date Collected: 04/01/2014 13:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2014 16:33

Soil Aliquot Vol: | Dilution Factor: 250

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125439 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	58	U	250	58
71-55-6	1,1,1-Trichloroethane	55	U	250	55
79-34-5	1,1,2,2-Tetrachloroethane	45	U	250	45
76-13-1	1,1,2-Trichlorotrifluoroethane	70	U	250	70
75-34-3	1,1-Dichloroethane	38	U	250	38
75-35-4	1,1-Dichloroethene	48	U	250	48
563-58-6	1,1-Dichloropropene	33	U	250	33
87-61-6	1,2,3-Trichlorobenzene	43	U	250	43
96-18-4	1,2,3-Trichloropropane	110	U	250	110
526-73-8	1,2,3-Trimethylbenzene	1.5	U	1300	1.5
120-82-1	1,2,4-Trichlorobenzene	55	J	250	38
95-63-6	1,2,4-Trimethylbenzene	30	U	250	30
96-12-8	1,2-Dibromo-3-Chloropropane	170	U	500	170
95-50-1	1,2-Dichlorobenzene	33	U	250	33
107-06-2	1,2-Dichloroethane	55	U	250	55
78-87-5	1,2-Dichloropropane	45	U	250	45
541-73-1	1,3-Dichlorobenzene	35	U	250	35
142-28-9	1,3-Dichloropropane	40	U	250	40
106-46-7	1,4-Dichlorobenzene	33	U	250	33
594-20-7	2,2-Dichloropropane	33	U	250	33
78-93-3	2-Butanone (MEK)	140	U	2500	140
110-75-8	2-Chloroethyl vinyl ether	250	U	2500	250
95-49-8	2-Chlorotoluene	28	U	250	28
591-78-6	2-Hexanone	100	U	2500	100
106-43-4	4-Chlorotoluene	45	U	250	45
99-87-6	4-Isopropyltoluene	30	U	250	30
108-10-1	4-Methyl-2-pentanone (MIBK)	80	U	2500	80
67-64-1	Acetone	280	U	2500	280
71-43-2	Benzene	33	U	250	33
108-86-1	Bromobenzene	33	U	250	33
75-25-2	Bromoform	160	U	250	160
74-83-9	Bromomethane	100	U	250	100
75-15-0	Carbon disulfide	33	U	250	33
56-23-5	Carbon tetrachloride	33	U	250	33
108-90-7	Chlorobenzene	44	J	250	38
124-48-1	Chlorodibromomethane	45	U	250	45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW18I-040114 | Lab Sample ID: 240-35725-3

Matrix: Water | Lab File ID: UX942699.D

Analysis Method: 8260C | Date Collected: 04/01/2014 13:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2014 16:33

Soil Aliquot Vol: | Dilution Factor: 250

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125439 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	73	U	250	73
67-66-3	Chloroform	40	U	250	40
74-87-3	Chloromethane	75	U	250	75
156-59-2	cis-1,2-Dichloroethene	1300		250	43
10061-01-5	cis-1,3-Dichloropropene	35	U	250	35
74-95-3	Dibromomethane	70	U	250	70
74-97-5	Bromochloromethane	73	U	250	73
75-71-8	Dichlorodifluoromethane	78	U	250	78
75-27-4	Bromodichloromethane	38	U	250	38
75-65-0	tert-Butyl alcohol	980	U	13000	980
100-41-4	Ethylbenzene	43	U	250	43
87-68-3	Hexachlorobutadiene	75	U	250	75
108-20-3	Diisopropyl ether	380	U	2500	380
98-82-8	Isopropylbenzene	33	U	250	33
1634-04-4	Methyl tert-butyl ether	43	U	250	43
75-09-2	Methylene Chloride	83	U	250	83
179601-23-1	m-Xylene & p-Xylene	60	U	500	60
91-20-3	Naphthalene	60	U	250	60
104-51-8	n-Butylbenzene	30	U	250	30
103-65-1	N-Propylbenzene	35	U	250	35
95-47-6	o-Xylene	35	U	250	35
135-98-8	sec-Butylbenzene	33	U	250	33
100-42-5	Styrene	28	U	250	28
994-05-8	Tert-amyl methyl ether	17	U	1300	17
637-92-3	Ethyl tert-butyl ether	28	U	1300	28
127-18-4	Tetrachloroethene	73	U	250	73
108-88-3	Toluene	33	U	250	33
156-60-5	trans-1,2-Dichloroethene	48	U	250	48
10061-02-6	trans-1,3-Dichloropropene	48	U	250	48
79-01-6	Trichloroethene	9200		250	43
75-69-4	Trichlorofluoromethane	53	U	250	53
108-05-4	Vinyl acetate	48	U	500	48
75-01-4	Vinyl chloride	670		250	55
1330-20-7	Xylenes, Total	35	U	500	35
98-06-6	tert-Butylbenzene	33	U	250	33
106-93-4	1,2-Dibromoethane	60	U	250	60

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW18I-040114 | Lab Sample ID: 240-35725-3

Matrix: Water | Lab File ID: UX942699.D

Analysis Method: 8260C | Date Collected: 04/01/2014 13:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2014 16:33

Soil Aliquot Vol: | Dilution Factor: 250

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125439 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		74-120
1868-53-7	Dibromofluoromethane (Surr)	95		75-121
460-00-4	4-Bromofluorobenzene (Surr)	90		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW18I-040114 Lab Sample ID: 240-35725-3

Matrix: Water Lab File ID: UX942699.D

Analysis Method: 8260C Date Collected: 04/01/2014 13:40

Sample wt/vol: 5(mL) Date Analyzed: 04/07/2014 16:33

Soil Aliquot Vol: Dilution Factor: 250

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125439 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW18S-040114 | Lab Sample ID: 240-35725-2

Matrix: Water | Lab File ID: U1236893.D

Analysis Method: 8260C | Date Collected: 04/01/2014 11:15

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 11:11

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.8	U	25	5.8
71-55-6	1,1,1-Trichloroethane	5.5	U	25	5.5
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U	25	4.5
76-13-1	1,1,2-Trichlorotrifluoroethane	7.0	U	25	7.0
75-34-3	1,1-Dichloroethane	3.8	U	25	3.8
75-35-4	1,1-Dichloroethene	4.8	U	25	4.8
563-58-6	1,1-Dichloropropene	3.3	U	25	3.3
87-61-6	1,2,3-Trichlorobenzene	4.3	U	25	4.3
96-18-4	1,2,3-Trichloropropane	11	U	25	11
526-73-8	1,2,3-Trimethylbenzene	0.15	U	130	0.15
120-82-1	1,2,4-Trichlorobenzene	8.1	J	25	3.8
95-63-6	1,2,4-Trimethylbenzene	3.0	U	25	3.0
96-12-8	1,2-Dibromo-3-Chloropropane	17	U	50	17
95-50-1	1,2-Dichlorobenzene	3.3	U	25	3.3
107-06-2	1,2-Dichloroethane	7.0	J	25	5.5
78-87-5	1,2-Dichloropropane	4.5	U	25	4.5
541-73-1	1,3-Dichlorobenzene	3.5	U	25	3.5
142-28-9	1,3-Dichloropropane	4.0	U	25	4.0
106-46-7	1,4-Dichlorobenzene	3.3	U	25	3.3
594-20-7	2,2-Dichloropropane	3.3	U	25	3.3
78-93-3	2-Butanone (MEK)	14	U	250	14
110-75-8	2-Chloroethyl vinyl ether	25	U	250	25
95-49-8	2-Chlorotoluene	2.8	U	25	2.8
591-78-6	2-Hexanone	10	U	250	10
106-43-4	4-Chlorotoluene	4.5	U	25	4.5
99-87-6	4-Isopropyltoluene	3.0	U	25	3.0
108-10-1	4-Methyl-2-pentanone (MIBK)	8.0	U	250	8.0
67-64-1	Acetone	28	U	250	28
71-43-2	Benzene	3.3	U	25	3.3
108-86-1	Bromobenzene	3.3	U	25	3.3
75-25-2	Bromoform	16	U	25	16
74-83-9	Bromomethane	10	U	25	10
75-15-0	Carbon disulfide	3.3	U	25	3.3
56-23-5	Carbon tetrachloride	3.3	U	25	3.3
108-90-7	Chlorobenzene	3.8	U	25	3.8
124-48-1	Chlorodibromomethane	4.5	U	25	4.5

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW18S-040114 | Lab Sample ID: 240-35725-2

Matrix: Water | Lab File ID: U1236893.D

Analysis Method: 8260C | Date Collected: 04/01/2014 11:15

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 11:11

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	7.3	U	25	7.3
67-66-3	Chloroform	4.0	U	25	4.0
74-87-3	Chloromethane	7.5	U	25	7.5
156-59-2	cis-1,2-Dichloroethene	210		25	4.3
10061-01-5	cis-1,3-Dichloropropene	3.5	U	25	3.5
74-95-3	Dibromomethane	7.0	U	25	7.0
74-97-5	Bromochloromethane	7.3	U	25	7.3
75-71-8	Dichlorodifluoromethane	7.8	U	25	7.8
75-27-4	Bromodichloromethane	3.8	U	25	3.8
75-65-0	tert-Butyl alcohol	98	U *	1300	98
100-41-4	Ethylbenzene	4.3	U	25	4.3
87-68-3	Hexachlorobutadiene	7.5	U	25	7.5
108-20-3	Diisopropyl ether	38	U	250	38
98-82-8	Isopropylbenzene	3.3	U	25	3.3
1634-04-4	Methyl tert-butyl ether	4.3	U	25	4.3
75-09-2	Methylene Chloride	8.3	U	25	8.3
179601-23-1	m-Xylene & p-Xylene	6.0	U	50	6.0
91-20-3	Naphthalene	6.0	U	25	6.0
104-51-8	n-Butylbenzene	3.0	U	25	3.0
103-65-1	N-Propylbenzene	3.5	U	25	3.5
95-47-6	o-Xylene	3.5	U	25	3.5
135-98-8	sec-Butylbenzene	3.3	U	25	3.3
100-42-5	Styrene	2.8	U	25	2.8
994-05-8	Tert-amyl methyl ether	1.7	U	130	1.7
637-92-3	Ethyl tert-butyl ether	2.8	U	130	2.8
127-18-4	Tetrachloroethene	7.3	U	25	7.3
108-88-3	Toluene	3.3	U	25	3.3
156-60-5	trans-1,2-Dichloroethene	4.8	U	25	4.8
10061-02-6	trans-1,3-Dichloropropene	4.8	U	25	4.8
79-01-6	Trichloroethene	1500		25	4.3
75-69-4	Trichlorofluoromethane	5.3	U	25	5.3
108-05-4	Vinyl acetate	4.8	U	50	4.8
75-01-4	Vinyl chloride	110		25	5.5
1330-20-7	Xylenes, Total	3.5	U	50	3.5
98-06-6	tert-Butylbenzene	3.3	U	25	3.3
106-93-4	1,2-Dibromoethane	6.0	U	25	6.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW18S-040114 | Lab Sample ID: 240-35725-2

Matrix: Water | Lab File ID: U1236893.D

Analysis Method: 8260C | Date Collected: 04/01/2014 11:15

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 11:11

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		74-120
1868-53-7	Dibromofluoromethane (Surr)	95		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW18S-040114 Lab Sample ID: 240-35725-2

Matrix: Water Lab File ID: U1236893.D

Analysis Method: 8260C Date Collected: 04/01/2014 11:15

Sample wt/vol: 5(mL) Date Analyzed: 04/09/2014 11:11

Soil Aliquot Vol: Dilution Factor: 25

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125779 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW41I-040414 | Lab Sample ID: 240-35833-3

Matrix: Water | Lab File ID: UXM4765.D

Analysis Method: 8260C | Date Collected: 04/04/2014 10:40

Sample wt/vol: 10(mL) | Date Analyzed: 04/14/2014 14:25

Soil Aliquot Vol: | Dilution Factor: 6.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126387 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.5	U	6.7	1.5
71-55-6	1,1,1-Trichloroethane	1.5	U	6.7	1.5
79-34-5	1,1,2,2-Tetrachloroethane	1.2	U	6.7	1.2
76-13-1	1,1,2-Trichlorotrifluoroethane	1.9	U	6.7	1.9
75-34-3	1,1-Dichloroethane	1.0	U	6.7	1.0
75-35-4	1,1-Dichloroethene	4.4	J	6.7	1.3
563-58-6	1,1-Dichloropropene	0.87	U	6.7	0.87
87-61-6	1,2,3-Trichlorobenzene	1.1	U	6.7	1.1
96-18-4	1,2,3-Trichloropropane	2.9	U	6.7	2.9
526-73-8	1,2,3-Trimethylbenzene	0.039	U	33	0.039
120-82-1	1,2,4-Trichlorobenzene	3.4	J	6.7	1.0
95-63-6	1,2,4-Trimethylbenzene	0.80	U	6.7	0.80
96-12-8	1,2-Dibromo-3-Chloropropane	4.5	U	13	4.5
95-50-1	1,2-Dichlorobenzene	0.87	U	6.7	0.87
107-06-2	1,2-Dichloroethane	14		6.7	1.5
78-87-5	1,2-Dichloropropane	1.2	U	6.7	1.2
541-73-1	1,3-Dichlorobenzene	1.4	J	6.7	0.93
142-28-9	1,3-Dichloropropane	1.1	U	6.7	1.1
106-46-7	1,4-Dichlorobenzene	0.87	U	6.7	0.87
594-20-7	2,2-Dichloropropane	0.87	U	6.7	0.87
78-93-3	2-Butanone (MEK)	3.8	U	67	3.8
110-75-8	2-Chloroethyl vinyl ether	6.6	U	67	6.6
95-49-8	2-Chlorotoluene	0.73	U	6.7	0.73
591-78-6	2-Hexanone	2.7	U	67	2.7
106-43-4	4-Chlorotoluene	1.2	U	6.7	1.2
99-87-6	4-Isopropyltoluene	0.80	U	6.7	0.80
108-10-1	4-Methyl-2-pentanone (MIBK)	2.1	U	67	2.1
67-64-1	Acetone	11	J	67	7.3
71-43-2	Benzene	8.2		6.7	0.87
108-86-1	Bromobenzene	0.87	U	6.7	0.87
75-25-2	Bromoform	4.3	U	6.7	4.3
74-83-9	Bromomethane	2.7	U	6.7	2.7
75-15-0	Carbon disulfide	0.87	U	6.7	0.87
56-23-5	Carbon tetrachloride	0.87	U	6.7	0.87
108-90-7	Chlorobenzene	24		6.7	1.0
124-48-1	Chlorodibromomethane	1.2	U	6.7	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW41I-040414 | Lab Sample ID: 240-35833-3

Matrix: Water | Lab File ID: UXM4765.D

Analysis Method: 8260C | Date Collected: 04/04/2014 10:40

Sample wt/vol: 10(mL) | Date Analyzed: 04/14/2014 14:25

Soil Aliquot Vol: | Dilution Factor: 6.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126387 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	10		6.7	1.9
67-66-3	Chloroform	1.1	U	6.7	1.1
74-87-3	Chloromethane	2.0	U	6.7	2.0
156-59-2	cis-1,2-Dichloroethene	410		6.7	1.1
10061-01-5	cis-1,3-Dichloropropene	0.93	U	6.7	0.93
74-95-3	Dibromomethane	1.9	U	6.7	1.9
74-97-5	Bromochloromethane	1.9	U	6.7	1.9
75-71-8	Dichlorodifluoromethane	2.1	U	6.7	2.1
75-27-4	Bromodichloromethane	1.0	U	6.7	1.0
75-65-0	tert-Butyl alcohol	52	J	330	26
100-41-4	Ethylbenzene	1.1	U	6.7	1.1
87-68-3	Hexachlorobutadiene	2.0	U	6.7	2.0
108-20-3	Diisopropyl ether	10	U	67	10
98-82-8	Isopropylbenzene	0.87	U	6.7	0.87
1634-04-4	Methyl tert-butyl ether	1.1	U	6.7	1.1
75-09-2	Methylene Chloride	2.2	U	6.7	2.2
179601-23-1	m-Xylene & p-Xylene	1.6	U	13	1.6
91-20-3	Naphthalene	1.6	U	6.7	1.6
104-51-8	n-Butylbenzene	0.80	U	6.7	0.80
103-65-1	N-Propylbenzene	0.93	U	6.7	0.93
95-47-6	o-Xylene	0.93	U	6.7	0.93
135-98-8	sec-Butylbenzene	0.87	U	6.7	0.87
100-42-5	Styrene	0.73	U	6.7	0.73
994-05-8	Tert-amyl methyl ether	0.45	U	33	0.45
637-92-3	Ethyl tert-butyl ether	0.73	U	33	0.73
127-18-4	Tetrachloroethene	1.9	U	6.7	1.9
108-88-3	Toluene	0.87	U	6.7	0.87
156-60-5	trans-1,2-Dichloroethene	3.5	J	6.7	1.3
10061-02-6	trans-1,3-Dichloropropene	1.3	U	6.7	1.3
79-01-6	Trichloroethene	99		6.7	1.1
75-69-4	Trichlorofluoromethane	1.4	U	6.7	1.4
108-05-4	Vinyl acetate	1.3	U	13	1.3
75-01-4	Vinyl chloride	510		6.7	1.5
1330-20-7	Xylenes, Total	0.93	U	13	0.93
98-06-6	tert-Butylbenzene	0.87	U	6.7	0.87
106-93-4	1,2-Dibromoethane	1.6	U	6.7	1.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW41I-040414 Lab Sample ID: 240-35833-3

Matrix: Water Lab File ID: UXM4765.D

Analysis Method: 8260C Date Collected: 04/04/2014 10:40

Sample wt/vol: 10(mL) Date Analyzed: 04/14/2014 14:25

Soil Aliquot Vol: Dilution Factor: 6.67

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126387 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		74-120
1868-53-7	Dibromofluoromethane (Surr)	91		75-121
460-00-4	4-Bromofluorobenzene (Surr)	83		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW41I-040414 Lab Sample ID: 240-35833-3

Matrix: Water Lab File ID: UXM4765.D

Analysis Method: 8260C Date Collected: 04/04/2014 10:40

Sample wt/vol: 10(mL) Date Analyzed: 04/14/2014 14:25

Soil Aliquot Vol: Dilution Factor: 6.67

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126387 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW41S-040414 | Lab Sample ID: 240-35833-2

Matrix: Water | Lab File ID: UXM4766.D

Analysis Method: 8260C | Date Collected: 04/04/2014 09:40

Sample wt/vol: 10(mL) | Date Analyzed: 04/14/2014 14:47

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126387 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	12	U	50	12
71-55-6	1,1,1-Trichloroethane	11	U	50	11
79-34-5	1,1,2,2-Tetrachloroethane	9.0	U	50	9.0
76-13-1	1,1,2-Trichlorotrifluoroethane	14	U	50	14
75-34-3	1,1-Dichloroethane	7.5	U	50	7.5
75-35-4	1,1-Dichloroethene	9.5	U	50	9.5
563-58-6	1,1-Dichloropropene	6.5	U	50	6.5
87-61-6	1,2,3-Trichlorobenzene	8.5	U	50	8.5
96-18-4	1,2,3-Trichloropropane	22	U	50	22
526-73-8	1,2,3-Trimethylbenzene	0.30	U	250	0.30
120-82-1	1,2,4-Trichlorobenzene	7.5	U	50	7.5
95-63-6	1,2,4-Trimethylbenzene	6.0	U	50	6.0
96-12-8	1,2-Dibromo-3-Chloropropane	34	U	100	34
95-50-1	1,2-Dichlorobenzene	6.5	U	50	6.5
107-06-2	1,2-Dichloroethane	55		50	11
78-87-5	1,2-Dichloropropane	9.0	U	50	9.0
541-73-1	1,3-Dichlorobenzene	7.0	U	50	7.0
142-28-9	1,3-Dichloropropane	8.0	U	50	8.0
106-46-7	1,4-Dichlorobenzene	6.5	U	50	6.5
594-20-7	2,2-Dichloropropane	6.5	U	50	6.5
78-93-3	2-Butanone (MEK)	29	U	500	29
110-75-8	2-Chloroethyl vinyl ether	50	U	500	50
95-49-8	2-Chlorotoluene	5.5	U	50	5.5
591-78-6	2-Hexanone	21	U	500	21
106-43-4	4-Chlorotoluene	9.0	U	50	9.0
99-87-6	4-Isopropyltoluene	6.0	U	50	6.0
108-10-1	4-Methyl-2-pentanone (MIBK)	16	U	500	16
67-64-1	Acetone	89	J B	500	55
71-43-2	Benzene	26	J	50	6.5
108-86-1	Bromobenzene	6.5	U	50	6.5
75-25-2	Bromoform	32	U	50	32
74-83-9	Bromomethane	21	U	50	21
75-15-0	Carbon disulfide	6.6	J B	50	6.5
56-23-5	Carbon tetrachloride	6.5	U	50	6.5
108-90-7	Chlorobenzene	7.5	U	50	7.5
124-48-1	Chlorodibromomethane	9.0	U	50	9.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW41S-040414 | Lab Sample ID: 240-35833-2

Matrix: Water | Lab File ID: UXM4766.D

Analysis Method: 8260C | Date Collected: 04/04/2014 09:40

Sample wt/vol: 10(mL) | Date Analyzed: 04/14/2014 14:47

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126387 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	15	U	50	15
67-66-3	Chloroform	8.0	U	50	8.0
74-87-3	Chloromethane	15	U	50	15
156-59-2	cis-1,2-Dichloroethene	1100		50	8.5
10061-01-5	cis-1,3-Dichloropropene	7.0	U	50	7.0
74-95-3	Dibromomethane	14	U	50	14
74-97-5	Bromochloromethane	15	U	50	15
75-71-8	Dichlorodifluoromethane	16	U	50	16
75-27-4	Bromodichloromethane	7.5	U	50	7.5
75-65-0	tert-Butyl alcohol	200	U	2500	200
100-41-4	Ethylbenzene	8.5	U	50	8.5
87-68-3	Hexachlorobutadiene	15	U	50	15
108-20-3	Diisopropyl ether	75	U	500	75
98-82-8	Isopropylbenzene	6.5	U	50	6.5
1634-04-4	Methyl tert-butyl ether	8.5	U	50	8.5
75-09-2	Methylene Chloride	220		50	17
179601-23-1	m-Xylene & p-Xylene	12	U	100	12
91-20-3	Naphthalene	12	U	50	12
104-51-8	n-Butylbenzene	6.0	U	50	6.0
103-65-1	N-Propylbenzene	7.0	U	50	7.0
95-47-6	o-Xylene	7.0	U	50	7.0
135-98-8	sec-Butylbenzene	6.5	U	50	6.5
100-42-5	Styrene	5.5	U	50	5.5
994-05-8	Tert-amyl methyl ether	3.4	U	250	3.4
637-92-3	Ethyl tert-butyl ether	5.5	U	250	5.5
127-18-4	Tetrachloroethene	15	U	50	15
108-88-3	Toluene	6.5	U	50	6.5
156-60-5	trans-1,2-Dichloroethene	9.5	U	50	9.5
10061-02-6	trans-1,3-Dichloropropene	9.5	U	50	9.5
79-01-6	Trichloroethene	3000		50	8.5
75-69-4	Trichlorofluoromethane	11	U	50	11
108-05-4	Vinyl acetate	9.5	U	100	9.5
75-01-4	Vinyl chloride	890		50	11
1330-20-7	Xylenes, Total	7.0	U	100	7.0
98-06-6	tert-Butylbenzene	6.5	U	50	6.5
106-93-4	1,2-Dibromoethane	12	U	50	12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW41S-040414 | Lab Sample ID: 240-35833-2

Matrix: Water | Lab File ID: UXM4766.D

Analysis Method: 8260C | Date Collected: 04/04/2014 09:40

Sample wt/vol: 10(mL) | Date Analyzed: 04/14/2014 14:47

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126387 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		74-120
1868-53-7	Dibromofluoromethane (Surr)	92		75-121
460-00-4	4-Bromofluorobenzene (Surr)	84		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW41S-040414 | Lab Sample ID: 240-35833-2

Matrix: Water | Lab File ID: UXM4766.D

Analysis Method: 8260C | Date Collected: 04/04/2014 09:40

Sample wt/vol: 10(mL) | Date Analyzed: 04/14/2014 14:47

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126387 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW42I-040214 | Lab Sample ID: 240-35791-3

Matrix: Water | Lab File ID: U1236906.D

Analysis Method: 8260C | Date Collected: 04/02/2014 11:10

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 16:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.34	J	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.83	J	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW42I-040214 Lab Sample ID: 240-35791-3

Matrix: Water Lab File ID: U1236906.D

Analysis Method: 8260C Date Collected: 04/02/2014 11:10

Sample wt/vol: 5(mL) Date Analyzed: 04/09/2014 16:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125779 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	25		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U *	50	3.9
100-41-4	Ethylbenzene	0.31	J	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	16		2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	1.6		1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.62	J	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.23	J	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	2.4		1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	13		1.0	0.22
1330-20-7	Xylenes, Total	18		2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW42I-040214 | Lab Sample ID: 240-35791-3

Matrix: Water | Lab File ID: U1236906.D

Analysis Method: 8260C | Date Collected: 04/02/2014 11:10

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 16:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	108		74-120
1868-53-7	Dibromofluoromethane (Surr)	103		75-121
460-00-4	4-Bromofluorobenzene (Surr)	96		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW42I-040214 | Lab Sample ID: 240-35791-3

Matrix: Water | Lab File ID: U1236906.D

Analysis Method: 8260C | Date Collected: 04/02/2014 11:10

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 16:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW42S-040214 | Lab Sample ID: 240-35791-2

Matrix: Water | Lab File ID: U1236898.D

Analysis Method: 8260C | Date Collected: 04/02/2014 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 13:15

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	23	U	100	23
71-55-6	1,1,1-Trichloroethane	22	U	100	22
79-34-5	1,1,2,2-Tetrachloroethane	18	U	100	18
76-13-1	1,1,2-Trichlorotrifluoroethane	28	U	100	28
75-34-3	1,1-Dichloroethane	15	U	100	15
75-35-4	1,1-Dichloroethene	19	U	100	19
563-58-6	1,1-Dichloropropene	13	U	100	13
87-61-6	1,2,3-Trichlorobenzene	17	U	100	17
96-18-4	1,2,3-Trichloropropane	43	U	100	43
526-73-8	1,2,3-Trimethylbenzene	41	J	500	0.59
120-82-1	1,2,4-Trichlorobenzene	15	U	100	15
95-63-6	1,2,4-Trimethylbenzene	98	J	100	12
96-12-8	1,2-Dibromo-3-Chloropropane	67	U	200	67
95-50-1	1,2-Dichlorobenzene	13	U	100	13
107-06-2	1,2-Dichloroethane	22	U	100	22
78-87-5	1,2-Dichloropropane	18	U	100	18
541-73-1	1,3-Dichlorobenzene	14	U	100	14
142-28-9	1,3-Dichloropropane	16	U	100	16
106-46-7	1,4-Dichlorobenzene	13	U	100	13
594-20-7	2,2-Dichloropropane	13	U	100	13
78-93-3	2-Butanone (MEK)	57	U	1000	57
110-75-8	2-Chloroethyl vinyl ether	99	U	1000	99
95-49-8	2-Chlorotoluene	11	U	100	11
591-78-6	2-Hexanone	41	U	1000	41
106-43-4	4-Chlorotoluene	18	U	100	18
99-87-6	4-Isopropyltoluene	12	U	100	12
108-10-1	4-Methyl-2-pentanone (MIBK)	32	U	1000	32
67-64-1	Acetone	110	U	1000	110
71-43-2	Benzene	19	J	100	13
108-86-1	Bromobenzene	13	U	100	13
75-25-2	Bromoform	64	U	100	64
74-83-9	Bromomethane	41	U	100	41
75-15-0	Carbon disulfide	13	U	100	13
56-23-5	Carbon tetrachloride	13	U	100	13
108-90-7	Chlorobenzene	15	U	100	15
124-48-1	Chlorodibromomethane	18	U	100	18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW42S-040214 | Lab Sample ID: 240-35791-2

Matrix: Water | Lab File ID: U1236898.D

Analysis Method: 8260C | Date Collected: 04/02/2014 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 13:15

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	29	U	100	29
67-66-3	Chloroform	16	U	100	16
74-87-3	Chloromethane	30	U	100	30
156-59-2	cis-1,2-Dichloroethene	880		100	17
10061-01-5	cis-1,3-Dichloropropene	14	U	100	14
74-95-3	Dibromomethane	28	U	100	28
74-97-5	Bromochloromethane	29	U	100	29
75-71-8	Dichlorodifluoromethane	31	U	100	31
75-27-4	Bromodichloromethane	15	U	100	15
75-65-0	tert-Butyl alcohol	390	U *	5000	390
100-41-4	Ethylbenzene	420		100	17
87-68-3	Hexachlorobutadiene	30	U	100	30
108-20-3	Diisopropyl ether	150	U	1000	150
98-82-8	Isopropylbenzene	13	U	100	13
1634-04-4	Methyl tert-butyl ether	17	U	100	17
75-09-2	Methylene Chloride	33	U	100	33
179601-23-1	m-Xylene & p-Xylene	7500		200	24
91-20-3	Naphthalene	24	U	100	24
104-51-8	n-Butylbenzene	12	U	100	12
103-65-1	N-Propylbenzene	14	U	100	14
95-47-6	o-Xylene	380		100	14
135-98-8	sec-Butylbenzene	13	U	100	13
100-42-5	Styrene	11	U	100	11
994-05-8	Tert-amyl methyl ether	6.7	U	500	6.7
637-92-3	Ethyl tert-butyl ether	11	U	500	11
127-18-4	Tetrachloroethene	29	U	100	29
108-88-3	Toluene	250		100	13
156-60-5	trans-1,2-Dichloroethene	19	U	100	19
10061-02-6	trans-1,3-Dichloropropene	19	U	100	19
79-01-6	Trichloroethene	17	U	100	17
75-69-4	Trichlorofluoromethane	21	U	100	21
108-05-4	Vinyl acetate	19	U	200	19
75-01-4	Vinyl chloride	970		100	22
1330-20-7	Xylenes, Total	7900		200	14
98-06-6	tert-Butylbenzene	13	U	100	13
106-93-4	1,2-Dibromoethane	24	U	100	24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW42S-040214 | Lab Sample ID: 240-35791-2

Matrix: Water | Lab File ID: U1236898.D

Analysis Method: 8260C | Date Collected: 04/02/2014 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 13:15

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	105		74-120
1868-53-7	Dibromofluoromethane (Surr)	96		75-121
460-00-4	4-Bromofluorobenzene (Surr)	96		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW42S-040214 | Lab Sample ID: 240-35791-2

Matrix: Water | Lab File ID: U1236898.D

Analysis Method: 8260C | Date Collected: 04/02/2014 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 13:15

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW45S-040414 | Lab Sample ID: 240-35833-4

Matrix: Water | Lab File ID: UXM4797.D

Analysis Method: 8260C | Date Collected: 04/04/2014 11:55

Sample wt/vol: 10(mL) | Date Analyzed: 04/15/2014 15:13

Soil Aliquot Vol: | Dilution Factor: 833.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	190	U	830	190
71-55-6	1,1,1-Trichloroethane	180	U	830	180
79-34-5	1,1,2,2-Tetrachloroethane	150	U	830	150
76-13-1	1,1,2-Trichlorotrifluoroethane	230	U	830	230
75-34-3	1,1-Dichloroethane	120	U	830	120
75-35-4	1,1-Dichloroethene	190	J	830	160
563-58-6	1,1-Dichloropropene	110	U	830	110
87-61-6	1,2,3-Trichlorobenzene	140	U	830	140
96-18-4	1,2,3-Trichloropropane	360	U	830	360
526-73-8	1,2,3-Trimethylbenzene	4.9	U	4200	4.9
120-82-1	1,2,4-Trichlorobenzene	740	J	830	120
95-63-6	1,2,4-Trimethylbenzene	100	U	830	100
96-12-8	1,2-Dibromo-3-Chloropropane	560	U	1700	560
95-50-1	1,2-Dichlorobenzene	110	U	830	110
107-06-2	1,2-Dichloroethane	430	J	830	180
78-87-5	1,2-Dichloropropane	150	U	830	150
541-73-1	1,3-Dichlorobenzene	170	J	830	120
142-28-9	1,3-Dichloropropane	130	U	830	130
106-46-7	1,4-Dichlorobenzene	110	U	830	110
594-20-7	2,2-Dichloropropane	110	U	830	110
78-93-3	2-Butanone (MEK)	470	U	8300	470
110-75-8	2-Chloroethyl vinyl ether	820	U	8300	820
95-49-8	2-Chlorotoluene	92	U	830	92
591-78-6	2-Hexanone	340	U	8300	340
106-43-4	4-Chlorotoluene	150	U	830	150
99-87-6	4-Isopropyltoluene	100	U	830	100
108-10-1	4-Methyl-2-pentanone (MIBK)	270	U	8300	270
67-64-1	Acetone	920	U	8300	920
71-43-2	Benzene	120	J	830	110
108-86-1	Bromobenzene	110	U	830	110
75-25-2	Bromoform	530	U	830	530
74-83-9	Bromomethane	340	U	830	340
75-15-0	Carbon disulfide	110	U	830	110
56-23-5	Carbon tetrachloride	110	U	830	110
108-90-7	Chlorobenzene	120	U	830	120
124-48-1	Chlorodibromomethane	150	U	830	150

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW45S-040414 | Lab Sample ID: 240-35833-4

Matrix: Water | Lab File ID: UXM4797.D

Analysis Method: 8260C | Date Collected: 04/04/2014 11:55

Sample wt/vol: 10(mL) | Date Analyzed: 04/15/2014 15:13

Soil Aliquot Vol: | Dilution Factor: 833.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	240	U	830	240
67-66-3	Chloroform	130	U	830	130
74-87-3	Chloromethane	250	U	830	250
156-59-2	cis-1,2-Dichloroethene	37000		830	140
10061-01-5	cis-1,3-Dichloropropene	120	U	830	120
74-95-3	Dibromomethane	230	U	830	230
74-97-5	Bromochloromethane	240	U	830	240
75-71-8	Dichlorodifluoromethane	260	U	830	260
75-27-4	Bromodichloromethane	120	U	830	120
75-65-0	tert-Butyl alcohol	3200	U	42000	3200
100-41-4	Ethylbenzene	140	U	830	140
87-68-3	Hexachlorobutadiene	250	U	830	250
108-20-3	Diisopropyl ether	1200	U	8300	1200
98-82-8	Isopropylbenzene	110	U	830	110
1634-04-4	Methyl tert-butyl ether	140	U	830	140
75-09-2	Methylene Chloride	3000	B	830	270
179601-23-1	m-Xylene & p-Xylene	200	U	1700	200
91-20-3	Naphthalene	200	U	830	200
104-51-8	n-Butylbenzene	100	U	830	100
103-65-1	N-Propylbenzene	120	U	830	120
95-47-6	o-Xylene	120	U	830	120
135-98-8	sec-Butylbenzene	110	U	830	110
100-42-5	Styrene	92	U	830	92
994-05-8	Tert-amyl methyl ether	56	U	4200	56
637-92-3	Ethyl tert-butyl ether	92	U	4200	92
127-18-4	Tetrachloroethene	240	U	830	240
108-88-3	Toluene	2000		830	110
156-60-5	trans-1,2-Dichloroethene	160	J	830	160
10061-02-6	trans-1,3-Dichloropropene	160	U	830	160
79-01-6	Trichloroethene	50000		830	140
75-69-4	Trichlorofluoromethane	170	U	830	170
108-05-4	Vinyl acetate	160	U	1700	160
75-01-4	Vinyl chloride	17000		830	180
1330-20-7	Xylenes, Total	120	U	1700	120
98-06-6	tert-Butylbenzene	110	U	830	110
106-93-4	1,2-Dibromoethane	200	U	830	200

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW45S-040414 | Lab Sample ID: 240-35833-4

Matrix: Water | Lab File ID: UXM4797.D

Analysis Method: 8260C | Date Collected: 04/04/2014 11:55

Sample wt/vol: 10(mL) | Date Analyzed: 04/15/2014 15:13

Soil Aliquot Vol: | Dilution Factor: 833.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126549 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		74-120
1868-53-7	Dibromofluoromethane (Surr)	90		75-121
460-00-4	4-Bromofluorobenzene (Surr)	84		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	84		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW45S-040414 | Lab Sample ID: 240-35833-4

Matrix: Water | Lab File ID: UXM4797.D

Analysis Method: 8260C | Date Collected: 04/04/2014 11:55

Sample wt/vol: 10(mL) | Date Analyzed: 04/15/2014 15:13

Soil Aliquot Vol: | Dilution Factor: 833.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126549 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46D-040214 | Lab Sample ID: 240-35791-6

Matrix: Water | Lab File ID: U1236908.D

Analysis Method: 8260C | Date Collected: 04/02/2014 14:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 17:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.7	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46D-040214 | Lab Sample ID: 240-35791-6

Matrix: Water | Lab File ID: U1236908.D

Analysis Method: 8260C | Date Collected: 04/02/2014 14:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 17:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	3.7		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U *	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	12		1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46D-040214 | Lab Sample ID: 240-35791-6

Matrix: Water | Lab File ID: U1236908.D

Analysis Method: 8260C | Date Collected: 04/02/2014 14:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 17:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	107		74-120
1868-53-7	Dibromofluoromethane (Surr)	105		75-121
460-00-4	4-Bromofluorobenzene (Surr)	94		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46D-040214 | Lab Sample ID: 240-35791-6

Matrix: Water | Lab File ID: U1236908.D

Analysis Method: 8260C | Date Collected: 04/02/2014 14:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 17:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46I-040214 | Lab Sample ID: 240-35791-5

Matrix: Water | Lab File ID: U1236897.D

Analysis Method: 8260C | Date Collected: 04/02/2014 13:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 12:50

Soil Aliquot Vol: | Dilution Factor: 3.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.77	U	3.3	0.77
71-55-6	1,1,1-Trichloroethane	0.73	U	3.3	0.73
79-34-5	1,1,2,2-Tetrachloroethane	0.60	U	3.3	0.60
76-13-1	1,1,2-Trichlorotrifluoroethane	0.93	U	3.3	0.93
75-34-3	1,1-Dichloroethane	0.50	U	3.3	0.50
75-35-4	1,1-Dichloroethene	1.7	J	3.3	0.63
563-58-6	1,1-Dichloropropene	0.43	U	3.3	0.43
87-61-6	1,2,3-Trichlorobenzene	0.57	U	3.3	0.57
96-18-4	1,2,3-Trichloropropane	1.4	U	3.3	1.4
526-73-8	1,2,3-Trimethylbenzene	0.020	U	17	0.020
120-82-1	1,2,4-Trichlorobenzene	0.50	U	3.3	0.50
95-63-6	1,2,4-Trimethylbenzene	0.40	U	3.3	0.40
96-12-8	1,2-Dibromo-3-Chloropropane	2.2	U	6.7	2.2
95-50-1	1,2-Dichlorobenzene	0.43	U	3.3	0.43
107-06-2	1,2-Dichloroethane	12		3.3	0.73
78-87-5	1,2-Dichloropropane	0.60	U	3.3	0.60
541-73-1	1,3-Dichlorobenzene	0.47	U	3.3	0.47
142-28-9	1,3-Dichloropropane	0.53	U	3.3	0.53
106-46-7	1,4-Dichlorobenzene	0.43	U	3.3	0.43
594-20-7	2,2-Dichloropropane	0.43	U	3.3	0.43
78-93-3	2-Butanone (MEK)	1.9	U	33	1.9
110-75-8	2-Chloroethyl vinyl ether	3.3	U	33	3.3
95-49-8	2-Chlorotoluene	0.37	U	3.3	0.37
591-78-6	2-Hexanone	1.4	U	33	1.4
106-43-4	4-Chlorotoluene	0.60	U	3.3	0.60
99-87-6	4-Isopropyltoluene	0.40	U	3.3	0.40
108-10-1	4-Methyl-2-pentanone (MIBK)	1.1	U	33	1.1
67-64-1	Acetone	3.7	U	33	3.7
71-43-2	Benzene	1.8	J	3.3	0.43
108-86-1	Bromobenzene	0.43	U	3.3	0.43
75-25-2	Bromoform	2.1	U	3.3	2.1
74-83-9	Bromomethane	1.4	U	3.3	1.4
75-15-0	Carbon disulfide	0.43	U	3.3	0.43
56-23-5	Carbon tetrachloride	0.43	U	3.3	0.43
108-90-7	Chlorobenzene	33		3.3	0.50
124-48-1	Chlorodibromomethane	0.60	U	3.3	0.60

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46I-040214 | Lab Sample ID: 240-35791-5

Matrix: Water | Lab File ID: U1236897.D

Analysis Method: 8260C | Date Collected: 04/02/2014 13:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 12:50

Soil Aliquot Vol: | Dilution Factor: 3.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.97	U	3.3	0.97
67-66-3	Chloroform	1.5	J	3.3	0.53
74-87-3	Chloromethane	1.0	U	3.3	1.0
156-59-2	cis-1,2-Dichloroethene	100		3.3	0.57
10061-01-5	cis-1,3-Dichloropropene	0.47	U	3.3	0.47
74-95-3	Dibromomethane	0.93	U	3.3	0.93
74-97-5	Bromochloromethane	0.97	U	3.3	0.97
75-71-8	Dichlorodifluoromethane	1.0	U	3.3	1.0
75-27-4	Bromodichloromethane	0.50	U	3.3	0.50
75-65-0	tert-Butyl alcohol	13	U *	170	13
100-41-4	Ethylbenzene	0.57	U	3.3	0.57
87-68-3	Hexachlorobutadiene	1.0	U	3.3	1.0
108-20-3	Diisopropyl ether	5.0	U	33	5.0
98-82-8	Isopropylbenzene	0.43	U	3.3	0.43
1634-04-4	Methyl tert-butyl ether	0.57	U	3.3	0.57
75-09-2	Methylene Chloride	1.1	U	3.3	1.1
179601-23-1	m-Xylene & p-Xylene	0.80	U	6.7	0.80
91-20-3	Naphthalene	0.80	U	3.3	0.80
104-51-8	n-Butylbenzene	0.40	U	3.3	0.40
103-65-1	N-Propylbenzene	0.47	U	3.3	0.47
95-47-6	o-Xylene	0.47	U	3.3	0.47
135-98-8	sec-Butylbenzene	0.43	U	3.3	0.43
100-42-5	Styrene	0.37	U	3.3	0.37
994-05-8	Tert-amyl methyl ether	0.22	U	17	0.22
637-92-3	Ethyl tert-butyl ether	0.37	U	17	0.37
127-18-4	Tetrachloroethene	0.97	U	3.3	0.97
108-88-3	Toluene	0.43	U	3.3	0.43
156-60-5	trans-1,2-Dichloroethene	1.1	J	3.3	0.63
10061-02-6	trans-1,3-Dichloropropene	0.63	U	3.3	0.63
79-01-6	Trichloroethene	200		3.3	0.57
75-69-4	Trichlorofluoromethane	0.70	U	3.3	0.70
108-05-4	Vinyl acetate	0.63	U	6.7	0.63
75-01-4	Vinyl chloride	90		3.3	0.73
1330-20-7	Xylenes, Total	0.47	U	6.7	0.47
98-06-6	tert-Butylbenzene	0.43	U	3.3	0.43
106-93-4	1,2-Dibromoethane	0.80	U	3.3	0.80

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46I-040214 | Lab Sample ID: 240-35791-5

Matrix: Water | Lab File ID: U1236897.D

Analysis Method: 8260C | Date Collected: 04/02/2014 13:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 12:50

Soil Aliquot Vol: | Dilution Factor: 3.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	105		74-120
1868-53-7	Dibromofluoromethane (Surr)	95		75-121
460-00-4	4-Bromofluorobenzene (Surr)	92		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46I-040214 | Lab Sample ID: 240-35791-5

Matrix: Water | Lab File ID: U1236897.D

Analysis Method: 8260C | Date Collected: 04/02/2014 13:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 12:50

Soil Aliquot Vol: | Dilution Factor: 3.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46S-040214 | Lab Sample ID: 240-35791-4

Matrix: Water | Lab File ID: U1236907.D

Analysis Method: 8260C | Date Collected: 04/02/2014 12:10

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 16:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.3		1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.27	J	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46S-040214 Lab Sample ID: 240-35791-4

Matrix: Water Lab File ID: U1236907.D

Analysis Method: 8260C Date Collected: 04/02/2014 12:10

Sample wt/vol: 5(mL) Date Analyzed: 04/09/2014 16:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125779 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.52	J	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U *	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.95	J	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46S-040214 | Lab Sample ID: 240-35791-4

Matrix: Water | Lab File ID: U1236907.D

Analysis Method: 8260C | Date Collected: 04/02/2014 12:10

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 16:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		74-120
1868-53-7	Dibromofluoromethane (Surr)	96		75-121
460-00-4	4-Bromofluorobenzene (Surr)	92		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46S-040214 Lab Sample ID: 240-35791-4

Matrix: Water Lab File ID: U1236907.D

Analysis Method: 8260C Date Collected: 04/02/2014 12:10

Sample wt/vol: 5(mL) Date Analyzed: 04/09/2014 16:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125779 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040114 | Lab Sample ID: 240-35725-1

Matrix: Water | Lab File ID: U1236899.D

Analysis Method: 8260C | Date Collected: 04/01/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 13:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040114 Lab Sample ID: 240-35725-1

Matrix: Water Lab File ID: U1236899.D

Analysis Method: 8260C Date Collected: 04/01/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/09/2014 13:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125779 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U *	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.55	J	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040114 | Lab Sample ID: 240-35725-1

Matrix: Water | Lab File ID: U1236899.D

Analysis Method: 8260C | Date Collected: 04/01/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 13:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		74-120
1868-53-7	Dibromofluoromethane (Surr)	94		75-121
460-00-4	4-Bromofluorobenzene (Surr)	88		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040114 Lab Sample ID: 240-35725-1

Matrix: Water Lab File ID: U1236899.D

Analysis Method: 8260C Date Collected: 04/01/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/09/2014 13:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125779 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040214 | Lab Sample ID: 240-35791-1

Matrix: Water | Lab File ID: U1236905.D

Analysis Method: 8260C | Date Collected: 04/02/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 16:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040214 | Lab Sample ID: 240-35791-1

Matrix: Water | Lab File ID: U1236905.D

Analysis Method: 8260C | Date Collected: 04/02/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 16:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U *	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.49	J	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040214 | Lab Sample ID: 240-35791-1

Matrix: Water | Lab File ID: U1236905.D

Analysis Method: 8260C | Date Collected: 04/02/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 16:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		74-120
1868-53-7	Dibromofluoromethane (Surr)	97		75-121
460-00-4	4-Bromofluorobenzene (Surr)	91		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040214 Lab Sample ID: 240-35791-1

Matrix: Water Lab File ID: U1236905.D

Analysis Method: 8260C Date Collected: 04/02/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/09/2014 16:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125779 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040314 | Lab Sample ID: 240-35834-1

Matrix: Water | Lab File ID: U1237002.D

Analysis Method: 8260C | Date Collected: 04/03/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 17:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040314 | Lab Sample ID: 240-35834-1

Matrix: Water | Lab File ID: U1237002.D

Analysis Method: 8260C | Date Collected: 04/03/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 17:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.55	J	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040314 | Lab Sample ID: 240-35834-1

Matrix: Water | Lab File ID: U1237002.D

Analysis Method: 8260C | Date Collected: 04/03/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 17:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		74-120
1868-53-7	Dibromofluoromethane (Surr)	101		75-121
460-00-4	4-Bromofluorobenzene (Surr)	89		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040314 | Lab Sample ID: 240-35834-1

Matrix: Water | Lab File ID: U1237002.D

Analysis Method: 8260C | Date Collected: 04/03/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 17:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040414 | Lab Sample ID: 240-35833-1

Matrix: Water | Lab File ID: U1237001.D

Analysis Method: 8260C | Date Collected: 04/04/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 16:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040414 | Lab Sample ID: 240-35833-1

Matrix: Water | Lab File ID: U1237001.D

Analysis Method: 8260C | Date Collected: 04/04/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 16:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.48	J	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040414 | Lab Sample ID: 240-35833-1

Matrix: Water | Lab File ID: U1237001.D

Analysis Method: 8260C | Date Collected: 04/04/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 16:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	96		75-121
460-00-4	4-Bromofluorobenzene (Surr)	84		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: TB-040414 | Lab Sample ID: 240-35833-1

Matrix: Water | Lab File ID: U1237001.D

Analysis Method: 8260C | Date Collected: 04/04/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 16:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW47I-040314 | Lab Sample ID: 240-35834-5

Matrix: Water | Lab File ID: U1236892.D

Analysis Method: 8260C | Date Collected: 04/03/2014 14:10

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 10:46

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	12	U	50	12
71-55-6	1,1,1-Trichloroethane	11	U	50	11
79-34-5	1,1,2,2-Tetrachloroethane	9.0	U	50	9.0
76-13-1	1,1,2-Trichlorotrifluoroethane	14	U	50	14
75-34-3	1,1-Dichloroethane	7.5	U	50	7.5
75-35-4	1,1-Dichloroethene	9.5	U	50	9.5
563-58-6	1,1-Dichloropropene	6.5	U	50	6.5
87-61-6	1,2,3-Trichlorobenzene	8.5	U	50	8.5
96-18-4	1,2,3-Trichloropropane	22	U	50	22
526-73-8	1,2,3-Trimethylbenzene	0.30	U	250	0.30
120-82-1	1,2,4-Trichlorobenzene	19	J	50	7.5
95-63-6	1,2,4-Trimethylbenzene	6.0	U	50	6.0
96-12-8	1,2-Dibromo-3-Chloropropane	34	U	100	34
95-50-1	1,2-Dichlorobenzene	6.5	U	50	6.5
107-06-2	1,2-Dichloroethane	50		50	11
78-87-5	1,2-Dichloropropane	9.0	U	50	9.0
541-73-1	1,3-Dichlorobenzene	7.0	U	50	7.0
142-28-9	1,3-Dichloropropane	8.0	U	50	8.0
106-46-7	1,4-Dichlorobenzene	6.5	U	50	6.5
594-20-7	2,2-Dichloropropane	6.5	U	50	6.5
78-93-3	2-Butanone (MEK)	29	U	500	29
110-75-8	2-Chloroethyl vinyl ether	50	U	500	50
95-49-8	2-Chlorotoluene	5.5	U	50	5.5
591-78-6	2-Hexanone	21	U	500	21
106-43-4	4-Chlorotoluene	9.0	U	50	9.0
99-87-6	4-Isopropyltoluene	6.0	U	50	6.0
108-10-1	4-Methyl-2-pentanone (MIBK)	16	U	500	16
67-64-1	Acetone	55	U	500	55
71-43-2	Benzene	6.5	U	50	6.5
108-86-1	Bromobenzene	6.5	U	50	6.5
75-25-2	Bromoform	32	U	50	32
74-83-9	Bromomethane	21	U	50	21
75-15-0	Carbon disulfide	6.5	U	50	6.5
56-23-5	Carbon tetrachloride	8.7	J	50	6.5
108-90-7	Chlorobenzene	42	J	50	7.5
124-48-1	Chlorodibromomethane	9.0	U	50	9.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW47I-040314 | Lab Sample ID: 240-35834-5

Matrix: Water | Lab File ID: U1236892.D

Analysis Method: 8260C | Date Collected: 04/03/2014 14:10

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 10:46

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	15	U	50	15
67-66-3	Chloroform	27	J	50	8.0
74-87-3	Chloromethane	15	U	50	15
156-59-2	cis-1,2-Dichloroethene	490		50	8.5
10061-01-5	cis-1,3-Dichloropropene	7.0	U	50	7.0
74-95-3	Dibromomethane	14	U	50	14
74-97-5	Bromochloromethane	15	U	50	15
75-71-8	Dichlorodifluoromethane	16	U	50	16
75-27-4	Bromodichloromethane	7.5	U	50	7.5
75-65-0	tert-Butyl alcohol	200	U *	2500	200
100-41-4	Ethylbenzene	8.5	U	50	8.5
87-68-3	Hexachlorobutadiene	15	U	50	15
108-20-3	Diisopropyl ether	75	U	500	75
98-82-8	Isopropylbenzene	6.5	U	50	6.5
1634-04-4	Methyl tert-butyl ether	8.5	U	50	8.5
75-09-2	Methylene Chloride	47	J	50	17
179601-23-1	m-Xylene & p-Xylene	12	U	100	12
91-20-3	Naphthalene	12	U	50	12
104-51-8	n-Butylbenzene	6.0	U	50	6.0
103-65-1	N-Propylbenzene	7.0	U	50	7.0
95-47-6	o-Xylene	7.0	U	50	7.0
135-98-8	sec-Butylbenzene	6.5	U	50	6.5
100-42-5	Styrene	5.5	U	50	5.5
994-05-8	Tert-amyl methyl ether	3.4	U	250	3.4
637-92-3	Ethyl tert-butyl ether	5.5	U	250	5.5
127-18-4	Tetrachloroethene	15	U	50	15
108-88-3	Toluene	6.5	U	50	6.5
156-60-5	trans-1,2-Dichloroethene	9.5	U	50	9.5
10061-02-6	trans-1,3-Dichloropropene	9.5	U	50	9.5
79-01-6	Trichloroethene	3400		50	8.5
75-69-4	Trichlorofluoromethane	11	U	50	11
108-05-4	Vinyl acetate	9.5	U	100	9.5
75-01-4	Vinyl chloride	410		50	11
1330-20-7	Xylenes, Total	7.0	U	100	7.0
98-06-6	tert-Butylbenzene	6.5	U	50	6.5
106-93-4	1,2-Dibromoethane	12	U	50	12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW47I-040314 | Lab Sample ID: 240-35834-5

Matrix: Water | Lab File ID: U1236892.D

Analysis Method: 8260C | Date Collected: 04/03/2014 14:10

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 10:46

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		74-120
1868-53-7	Dibromofluoromethane (Surr)	93		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW47I-040314 Lab Sample ID: 240-35834-5

Matrix: Water Lab File ID: U1236892.D

Analysis Method: 8260C Date Collected: 04/03/2014 14:10

Sample wt/vol: 5(mL) Date Analyzed: 04/09/2014 10:46

Soil Aliquot Vol: Dilution Factor: 50

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125779 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW47S-040314 | Lab Sample ID: 240-35834-4

Matrix: Water | Lab File ID: U1237005.D

Analysis Method: 8260C | Date Collected: 04/03/2014 12:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 18:18

Soil Aliquot Vol: | Dilution Factor: 5.71

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.3	U	5.7	1.3
71-55-6	1,1,1-Trichloroethane	1.3	U	5.7	1.3
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	5.7	1.0
76-13-1	1,1,2-Trichlorotrifluoroethane	1.6	U	5.7	1.6
75-34-3	1,1-Dichloroethane	0.86	U	5.7	0.86
75-35-4	1,1-Dichloroethene	1.3	J	5.7	1.1
563-58-6	1,1-Dichloropropene	0.74	U	5.7	0.74
87-61-6	1,2,3-Trichlorobenzene	0.97	U	5.7	0.97
96-18-4	1,2,3-Trichloropropane	2.5	U	5.7	2.5
526-73-8	1,2,3-Trimethylbenzene	0.034	U	29	0.034
120-82-1	1,2,4-Trichlorobenzene	1.8	J	5.7	0.86
95-63-6	1,2,4-Trimethylbenzene	0.69	U	5.7	0.69
96-12-8	1,2-Dibromo-3-Chloropropane	3.8	U	11	3.8
95-50-1	1,2-Dichlorobenzene	0.74	U	5.7	0.74
107-06-2	1,2-Dichloroethane	5.6	J	5.7	1.3
78-87-5	1,2-Dichloropropane	1.0	U	5.7	1.0
541-73-1	1,3-Dichlorobenzene	0.80	U	5.7	0.80
142-28-9	1,3-Dichloropropane	0.91	U	5.7	0.91
106-46-7	1,4-Dichlorobenzene	0.74	U	5.7	0.74
594-20-7	2,2-Dichloropropane	0.74	U	5.7	0.74
78-93-3	2-Butanone (MEK)	3.3	U	57	3.3
110-75-8	2-Chloroethyl vinyl ether	5.7	U	57	5.7
95-49-8	2-Chlorotoluene	0.63	U	5.7	0.63
591-78-6	2-Hexanone	2.3	U	57	2.3
106-43-4	4-Chlorotoluene	1.0	U	5.7	1.0
99-87-6	4-Isopropyltoluene	0.69	U	5.7	0.69
108-10-1	4-Methyl-2-pentanone (MIBK)	1.8	U	57	1.8
67-64-1	Acetone	6.3	U	57	6.3
71-43-2	Benzene	1.5	J	5.7	0.74
108-86-1	Bromobenzene	0.74	U	5.7	0.74
75-25-2	Bromoform	3.7	U	5.7	3.7
74-83-9	Bromomethane	2.3	U	5.7	2.3
75-15-0	Carbon disulfide	0.74	U	5.7	0.74
56-23-5	Carbon tetrachloride	1.4	J	5.7	0.74
108-90-7	Chlorobenzene	5.9		5.7	0.86
124-48-1	Chlorodibromomethane	1.0	U	5.7	1.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW47S-040314 | Lab Sample ID: 240-35834-4

Matrix: Water | Lab File ID: U1237005.D

Analysis Method: 8260C | Date Collected: 04/03/2014 12:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 18:18

Soil Aliquot Vol: | Dilution Factor: 5.71

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	1.7	U	5.7	1.7
67-66-3	Chloroform	3.0	J	5.7	0.91
74-87-3	Chloromethane	1.7	U	5.7	1.7
156-59-2	cis-1,2-Dichloroethene	64		5.7	0.97
10061-01-5	cis-1,3-Dichloropropene	0.80	U	5.7	0.80
74-95-3	Dibromomethane	1.6	U *	5.7	1.6
74-97-5	Bromochloromethane	1.7	U	5.7	1.7
75-71-8	Dichlorodifluoromethane	1.8	U	5.7	1.8
75-27-4	Bromodichloromethane	0.86	U	5.7	0.86
75-65-0	tert-Butyl alcohol	22	U	290	22
100-41-4	Ethylbenzene	0.97	U	5.7	0.97
87-68-3	Hexachlorobutadiene	1.7	U	5.7	1.7
108-20-3	Diisopropyl ether	8.6	U	57	8.6
98-82-8	Isopropylbenzene	0.74	U	5.7	0.74
1634-04-4	Methyl tert-butyl ether	0.97	U	5.7	0.97
75-09-2	Methylene Chloride	4.2	J	5.7	1.9
179601-23-1	m-Xylene & p-Xylene	1.4	U	11	1.4
91-20-3	Naphthalene	1.4	U	5.7	1.4
104-51-8	n-Butylbenzene	0.69	U	5.7	0.69
103-65-1	N-Propylbenzene	0.80	U	5.7	0.80
95-47-6	o-Xylene	0.80	U	5.7	0.80
135-98-8	sec-Butylbenzene	0.74	U	5.7	0.74
100-42-5	Styrene	0.63	U	5.7	0.63
994-05-8	Tert-amyl methyl ether	0.38	U	29	0.38
637-92-3	Ethyl tert-butyl ether	0.63	U	29	0.63
127-18-4	Tetrachloroethene	1.7	U	5.7	1.7
108-88-3	Toluene	0.74	U	5.7	0.74
156-60-5	trans-1,2-Dichloroethene	1.1	U	5.7	1.1
10061-02-6	trans-1,3-Dichloropropene	1.1	U	5.7	1.1
79-01-6	Trichloroethene	440		5.7	0.97
75-69-4	Trichlorofluoromethane	1.2	U	5.7	1.2
108-05-4	Vinyl acetate	1.1	U	11	1.1
75-01-4	Vinyl chloride	50		5.7	1.3
1330-20-7	Xylenes, Total	0.80	U	11	0.80
98-06-6	tert-Butylbenzene	0.74	U	5.7	0.74
106-93-4	1,2-Dibromoethane	1.4	U	5.7	1.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW47S-040314 | Lab Sample ID: 240-35834-4

Matrix: Water | Lab File ID: U1237005.D

Analysis Method: 8260C | Date Collected: 04/03/2014 12:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 18:18

Soil Aliquot Vol: | Dilution Factor: 5.71

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		74-120
1868-53-7	Dibromofluoromethane (Surr)	97		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW47S-040314 Lab Sample ID: 240-35834-4

Matrix: Water Lab File ID: U1237005.D

Analysis Method: 8260C Date Collected: 04/03/2014 12:05

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 18:18

Soil Aliquot Vol: Dilution Factor: 5.71

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW16I-040314 | Lab Sample ID: 240-35834-3

Matrix: Water | Lab File ID: 0410020.D

Analysis Method: 8270C | Date Collected: 04/03/2014 10:45

Extract. Method: 3510C | Date Extracted: 04/07/2014 10:03

Sample wt/vol: 250(mL) | Date Analyzed: 04/10/2014 14:24

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 125924 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.43	J	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	46		29-110
367-12-4	2-Fluorophenol (Surr)	55		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	46		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	48		31-110
4165-62-2	Phenol-d5 (Surr)	48		10-110
1718-51-0	Terphenyl-d14 (Surr)	55		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW16S-040314 | Lab Sample ID: 240-35834-2

Matrix: Water | Lab File ID: 0411022.D

Analysis Method: 8270C | Date Collected: 04/03/2014 09:40

Extract. Method: 3510C | Date Extracted: 04/07/2014 10:03

Sample wt/vol: 250(mL) | Date Analyzed: 04/11/2014 15:57

Con. Extract Vol.: 5(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	240		10	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	80		29-110
367-12-4	2-Fluorophenol (Surr)	74		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	90		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	81		31-110
4165-62-2	Phenol-d5 (Surr)	57		10-110
1718-51-0	Terphenyl-d14 (Surr)	114		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW18I-040114 | Lab Sample ID: 240-35725-3

Matrix: Water | Lab File ID: 0411021.D

Analysis Method: 8270C | Date Collected: 04/01/2014 13:40

Extract. Method: 3510C | Date Extracted: 04/07/2014 10:03

Sample wt/vol: 270(mL) | Date Analyzed: 04/11/2014 15:35

Con. Extract Vol.: 5(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	190		4.6	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	84		29-110
367-12-4	2-Fluorophenol (Surr)	70		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	93		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	83		31-110
4165-62-2	Phenol-d5 (Surr)	53		10-110
1718-51-0	Terphenyl-d14 (Surr)	104		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW18S-040114 | Lab Sample ID: 240-35725-2

Matrix: Water | Lab File ID: 0410017.D

Analysis Method: 8270C | Date Collected: 04/01/2014 11:15

Extract. Method: 3510C | Date Extracted: 04/07/2014 10:03

Sample wt/vol: 270(mL) | Date Analyzed: 04/10/2014 13:15

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 125924 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	33		0.93	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	75		29-110
367-12-4	2-Fluorophenol (Surr)	71		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	88		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	78		31-110
4165-62-2	Phenol-d5 (Surr)	55		10-110
1718-51-0	Terphenyl-d14 (Surr)	83		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW41I-040414 | Lab Sample ID: 240-35833-3

Matrix: Water | Lab File ID: 0411010.D

Analysis Method: 8270C | Date Collected: 04/04/2014 10:40

Extract. Method: 3510C | Date Extracted: 04/08/2014 09:53

Sample wt/vol: 250(mL) | Date Analyzed: 04/11/2014 11:14

Con. Extract Vol.: 5(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup: (Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	110		5.0	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	70		29-110
367-12-4	2-Fluorophenol (Surr)	60		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	82		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	72		31-110
4165-62-2	Phenol-d5 (Surr)	45		10-110
1718-51-0	Terphenyl-d14 (Surr)	84		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW41S-040414 | Lab Sample ID: 240-35833-2

Matrix: Water | Lab File ID: 0411009.D

Analysis Method: 8270C | Date Collected: 04/04/2014 09:40

Extract. Method: 3510C | Date Extracted: 04/08/2014 09:53

Sample wt/vol: 265(mL) | Date Analyzed: 04/11/2014 10:51

Con. Extract Vol.: 5(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	210		9.4	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	71		29-110
367-12-4	2-Fluorophenol (Surr)	60		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	81		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	71		31-110
4165-62-2	Phenol-d5 (Surr)	45		10-110
1718-51-0	Terphenyl-d14 (Surr)	96		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW42I-040214 | Lab Sample ID: 240-35791-3

Matrix: Water | Lab File ID: 0411025.D

Analysis Method: 8270C | Date Collected: 04/02/2014 11:10

Extract. Method: 3510C | Date Extracted: 04/07/2014 10:03

Sample wt/vol: 250(mL) | Date Analyzed: 04/11/2014 17:06

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	19		1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	74		29-110
367-12-4	2-Fluorophenol (Surr)	69		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	86		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	77		31-110
4165-62-2	Phenol-d5 (Surr)	56		10-110
1718-51-0	Terphenyl-d14 (Surr)	85		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW42S-040214 | Lab Sample ID: 240-35791-2

Matrix: Water | Lab File ID: 0411024.D

Analysis Method: 8270C | Date Collected: 04/02/2014 10:00

Extract. Method: 3510C | Date Extracted: 04/07/2014 10:03

Sample wt/vol: 250(mL) | Date Analyzed: 04/11/2014 16:43

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.1		1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	80		29-110
367-12-4	2-Fluorophenol (Surr)	47		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	98		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	82		31-110
4165-62-2	Phenol-d5 (Surr)	60		10-110
1718-51-0	Terphenyl-d14 (Surr)	95		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW45S-040414 | Lab Sample ID: 240-35833-4

Matrix: Water | Lab File ID: 0411029.D

Analysis Method: 8270C | Date Collected: 04/04/2014 11:55

Extract. Method: 3510C | Date Extracted: 04/08/2014 09:53

Sample wt/vol: 250(mL) | Date Analyzed: 04/11/2014 18:38

Con. Extract Vol.: 5(mL) | Dilution Factor: 50

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1000		50	13

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	92		29-110
367-12-4	2-Fluorophenol (Surr)	74		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	111		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	84		31-110
4165-62-2	Phenol-d5 (Surr)	65		10-110
1718-51-0	Terphenyl-d14 (Surr)	140	X	31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46D-040214 | Lab Sample ID: 240-35791-6

Matrix: Water | Lab File ID: 0411028.D

Analysis Method: 8270C | Date Collected: 04/02/2014 14:40

Extract. Method: 3510C | Date Extracted: 04/07/2014 10:03

Sample wt/vol: 250(mL) | Date Analyzed: 04/11/2014 18:15

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	75		29-110
367-12-4	2-Fluorophenol (Surr)	70		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	87		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	78		31-110
4165-62-2	Phenol-d5 (Surr)	53		10-110
1718-51-0	Terphenyl-d14 (Surr)	94		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46I-040214 | Lab Sample ID: 240-35791-5

Matrix: Water | Lab File ID: 0411027.D

Analysis Method: 8270C | Date Collected: 04/02/2014 13:50

Extract. Method: 3510C | Date Extracted: 04/07/2014 10:03

Sample wt/vol: 250(mL) | Date Analyzed: 04/11/2014 17:52

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	25		1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	79		29-110
367-12-4	2-Fluorophenol (Surr)	67		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	92		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	79		31-110
4165-62-2	Phenol-d5 (Surr)	51		10-110
1718-51-0	Terphenyl-d14 (Surr)	84		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46S-040214 | Lab Sample ID: 240-35791-4

Matrix: Water | Lab File ID: 0411026.D

Analysis Method: 8270C | Date Collected: 04/02/2014 12:10

Extract. Method: 3510C | Date Extracted: 04/07/2014 10:03

Sample wt/vol: 240(mL) | Date Analyzed: 04/11/2014 17:29

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	2.1		1.0	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	71		29-110
367-12-4	2-Fluorophenol (Surr)	64		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	87		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	74		31-110
4165-62-2	Phenol-d5 (Surr)	48		10-110
1718-51-0	Terphenyl-d14 (Surr)	86		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW47I-040314 | Lab Sample ID: 240-35834-5

Matrix: Water | Lab File ID: 0411023.D

Analysis Method: 8270C | Date Collected: 04/03/2014 14:10

Extract. Method: 3510C | Date Extracted: 04/07/2014 10:03

Sample wt/vol: 230(mL) | Date Analyzed: 04/11/2014 16:20

Con. Extract Vol.: 5(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	120		5.4	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	67		29-110
367-12-4	2-Fluorophenol (Surr)	61		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	84		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	68		31-110
4165-62-2	Phenol-d5 (Surr)	50		10-110
1718-51-0	Terphenyl-d14 (Surr)	82		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW47S-040314 | Lab Sample ID: 240-35834-4

Matrix: Water | Lab File ID: 0410021.D

Analysis Method: 8270C | Date Collected: 04/03/2014 12:05

Extract. Method: 3510C | Date Extracted: 04/07/2014 10:03

Sample wt/vol: 250(mL) | Date Analyzed: 04/10/2014 14:47

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 125924 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	40		1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	73		29-110
367-12-4	2-Fluorophenol (Surr)	71		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	90		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	76		31-110
4165-62-2	Phenol-d5 (Surr)	56		10-110
1718-51-0	Terphenyl-d14 (Surr)	84		31-115

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW16S-040314 | Lab Sample ID: 240-35834-2

Matrix: Water | Lab File ID: YF041511.D

Analysis Method: 8015B | Date Collected: 04/03/2014 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/16/2014 16:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126686 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	100		100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	78		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW18S-040114 | Lab Sample ID: 240-35725-2

Matrix: Water | Lab File ID: YF040824.D

Analysis Method: 8015B | Date Collected: 04/01/2014 11:15

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 00:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125623 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	690		100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	95		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW41S-040414 | Lab Sample ID: 240-35833-2

Matrix: Water | Lab File ID: YF041513.D

Analysis Method: 8015B | Date Collected: 04/04/2014 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/16/2014 17:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126686 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	1400		100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	106		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW42S-040214 | Lab Sample ID: 240-35791-2

Matrix: Water | Lab File ID: YF040858.D

Analysis Method: 8015B | Date Collected: 04/02/2014 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 22:08

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125897 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	16000		2000	500

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	73		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW45S-040414 Lab Sample ID: 240-35833-4

Matrix: Water Lab File ID: YF041514.D

Analysis Method: 8015B Date Collected: 04/04/2014 11:55

Sample wt/vol: 5(mL) Date Analyzed: 04/16/2014 18:09

Soil Aliquot Vol: Dilution Factor: 50

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126686 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	38000		5000	1300

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	83		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46S-040214 Lab Sample ID: 240-35791-4

Matrix: Water Lab File ID: YF040857.D

Analysis Method: 8015B Date Collected: 04/02/2014 12:10

Sample wt/vol: 5(mL) Date Analyzed: 04/09/2014 21:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125897 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	25	U	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	80		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW47S-040314 | Lab Sample ID: 240-35834-4

Matrix: Water | Lab File ID: YF041512.D

Analysis Method: 8015B | Date Collected: 04/03/2014 12:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/16/2014 16:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126686 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	220		100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	79		40-133

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW18I-040114 Lab Sample ID: 240-35725-3

Matrix: Water Lab File ID: Z0040908.D

Analysis Method: RSK-175 Date Collected: 04/01/2014 13:40

Sample wt/vol: 17(mL) Date Analyzed: 04/09/2014 12:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ID:

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125787 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	560		0.10	0.070
74-84-0	Ethane	7.0		0.26	0.19
74-85-1	Ethylene	60		0.31	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	96		66-132

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW18S-040114 Lab Sample ID: 240-35725-2

Matrix: Water Lab File ID: Z0040907.D

Analysis Method: RSK-175 Date Collected: 04/01/2014 11:15

Sample wt/vol: 17(mL) Date Analyzed: 04/09/2014 11:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ID:

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125787 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	190		0.10	0.070
74-84-0	Ethane	1.2		0.26	0.19
74-85-1	Ethene	6.4		0.31	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	97		66-132

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW16S-040314 | Lab Sample ID: 240-35834-2

Matrix: Water | Lab File ID: P14F040828.D

Analysis Method: 8015B | Date Collected: 04/03/2014 09:40

Extraction Method: 3510C | Date Extracted: 04/07/2014 10:07

Sample wt/vol: 250(mL) | Date Analyzed: 04/09/2014 05:30

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 125264 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	81		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW18S-040114 | Lab Sample ID: 240-35725-2

Matrix: Water | Lab File ID: P14F040819.D

Analysis Method: 8015B | Date Collected: 04/01/2014 11:15

Extraction Method: 3510C | Date Extracted: 04/04/2014 11:40

Sample wt/vol: 280(mL) | Date Analyzed: 04/09/2014 02:23

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 125264 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	210	U	450	210

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	83		40-160

FORM I

DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW41S-040414 | Lab Sample ID: 240-35833-2

Matrix: Water | Lab File ID: P14F040825.D

Analysis Method: 8015B | Date Collected: 04/04/2014 09:40

Extraction Method: 3510C | Date Extracted: 04/07/2014 10:07

Sample wt/vol: 240(mL) | Date Analyzed: 04/09/2014 04:28

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 125264 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	750		520	250

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	84		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW42S-040214 | Lab Sample ID: 240-35791-2

Matrix: Water | Lab File ID: P14F040830.D

Analysis Method: 8015B | Date Collected: 04/02/2014 10:00

Extraction Method: 3510C | Date Extracted: 04/07/2014 10:07

Sample wt/vol: 270(mL) | Date Analyzed: 04/09/2014 06:12

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 125264 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	1300		460	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	72		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW45S-040414 | Lab Sample ID: 240-35833-4

Matrix: Water | Lab File ID: P14F040826.D

Analysis Method: 8015B | Date Collected: 04/04/2014 11:55

Extraction Method: 3510C | Date Extracted: 04/07/2014 10:07

Sample wt/vol: 220(mL) | Date Analyzed: 04/09/2014 04:49

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 125264 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	2200		570	270

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	81		40-160

FORM I

DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46S-040214 | Lab Sample ID: 240-35791-4

Matrix: Water | Lab File ID: P14F040831.D

Analysis Method: 8015B | Date Collected: 04/02/2014 12:10

Extraction Method: 3510C | Date Extracted: 04/07/2014 10:07

Sample wt/vol: 240(mL) | Date Analyzed: 04/09/2014 06:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 125264 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	250	U	520	250

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	84		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW47S-040314 Lab Sample ID: 240-35834-4

Matrix: Water Lab File ID: P14F040829.D

Analysis Method: 8015B Date Collected: 04/03/2014 12:05

Extraction Method: 3510C Date Extracted: 04/07/2014 10:07

Sample wt/vol: 270(mL) Date Analyzed: 04/09/2014 05:51

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 125264 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	700		460	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	83		40-160

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW18I-040114 Lab Sample ID: 240-35725-3

Matrix: Water Lab File ID: 10APR14-Per-035.d

Analysis Method: 6850 Date Collected: 04/01/2014 13:40

Extraction Method: Filtration Date Extracted: 04/09/2014 15:27

Sample wt/vol: 4.00(mL) Date Analyzed: 04/10/2014 23:26

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40216 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46D-040214 Lab Sample ID: 240-35791-6

Matrix: Water Lab File ID: 10APR14-Per-038.d

Analysis Method: 6850 Date Collected: 04/02/2014 14:40

Extraction Method: Filtration Date Extracted: 04/09/2014 15:27

Sample wt/vol: 4.00(mL) Date Analyzed: 04/11/2014 00:16

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40216 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.10	J	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46I-040214 Lab Sample ID: 240-35791-5

Matrix: Water Lab File ID: 10APR14-Per-037.d

Analysis Method: 6850 Date Collected: 04/02/2014 13:50

Extraction Method: Filtration Date Extracted: 04/09/2014 15:27

Sample wt/vol: 4.00(mL) Date Analyzed: 04/10/2014 23:59

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40216 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW46S-040214 Lab Sample ID: 240-35791-4

Matrix: Water Lab File ID: 10APR14-Per-036.d

Analysis Method: 6850 Date Collected: 04/02/2014 12:10

Extraction Method: Filtration Date Extracted: 04/09/2014 15:27

Sample wt/vol: 4.00(mL) Date Analyzed: 04/10/2014 23:43

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40216 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW47I-040314 Lab Sample ID: 240-35834-5

Matrix: Water Lab File ID: 10APR14-Per-041.d

Analysis Method: 6850 Date Collected: 04/03/2014 14:10

Extraction Method: Filtration Date Extracted: 04/09/2014 15:27

Sample wt/vol: 4.00(mL) Date Analyzed: 04/11/2014 01:05

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40216 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.086	J	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Client Sample ID: MSA-MW47S-040314 Lab Sample ID: 240-35834-4

Matrix: Water Lab File ID: 10APR14-Per-040.d

Analysis Method: 6850 Date Collected: 04/03/2014 12:05

Extraction Method: Filtration Date Extracted: 04/09/2014 15:27

Sample wt/vol: 4.00(mL) Date Analyzed: 04/11/2014 00:49

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40216 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

APPENDIX C

SUPPORT DOCUMENTATION

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

1.4

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 4/1/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No. 112IC06183
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below 1 DAY			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Groundwater Sampling	☐ 1 week			Sampler:
Site: MSA, Middle River MD	☐ 2 days			
PO#	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs	Total Metals	Dissolved Metals	TPH-GRO	TPH-DRO	1,4-Dioxane	Perchlorate	Dissolved Gasses	Ammonia	Dissolved Organic Carbon	Alkalinity, TDS, and Anions	Methane, Ethane, and Ethene.	Sample Specific Notes:
TB-040114	–	–	TB	AQ	2		2												
MSA-MW18S-040114	4/1/14	1115	GW	AQ	20		3	1	1	2	2	2		2	1	2	1	3	
MSA-MW18I-040114	4/1/14	1340	GW	AQ	17		3	1	1			2	1	2	1	2	1	3	

Page 2713 of 2732

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments: **DISSOLVED METALS FILTERED IN FIELD**

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	4/2/14/1210	[signature]	TestAmerica	4/2/14 / 1210
[signature]	TestAmerica	4/2/14/1615	[signature]	TA	4/3/14 0930

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

TestAmerica Canton Sample Receipt Form/Narrative Login # : 35725
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: Dennis Burns

Cooler Received on 4/3/14 Opened on 4/3/14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # CANTON Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp. 1.4 °C	Corrected Cooler Temp. 1.4 °C	☐ See Multiple Cooler Form
IR GUN# 4	(CF -1 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? ~~Yes~~ (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW18S-040114	240-35725-M-2	Plastic 250ml - with Sulfuric Acid	<2		
MSA-MW18S-040114	240-35725-R-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW18S-040114	240-35725-S-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW18I-040114	240-35725-L-3	Plastic 250ml - with Sulfuric Acid	<2		
MSA-MW18I-040114	240-35725-Q-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW18I-040114	240-35725-R-3	Plastic 500ml - with Nitric Acid	<2		

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

0.0

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 4/2/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No. 112IC06183
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			
(301) 528-3021 Phone	TAT if different from Below 1 DAY			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Groundwater Sampling	☐ 1 week			Sampler:
Site: MSA, Middle River MD	☐ 2 days			
PO#	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs	Total Metals	Dissolved Metals	TPH-GRO	TPH-DRO	1,4-Dioxane	Perchlorate	Sample Specific Notes:
TB-040214	–	–	TB	AQ	2		2							
MSA-MW42S-040214	4/2/14	1000	GW	AQ	11		3	1	1	2	2	2		
MSA-MW42I-040214	4/2/14	1110	GW	AQ	7		3	1	1			2		
MSA-MW46S-040214	4/2/14	1210	GW	AQ	12		3	1	1	2	2	2	1	
MSA-MW46I-040214	4/2/14	1350	GW	AQ	8		3	1	1			2	1	
MSA-MW46D-040214	4/2/14	1440	GW	AQ	8		3	1	1			2	1	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments: **DISSOLVED METALS FILTERED IN FIELD**

	Company:	Date/Time:		Company:	Date/Time:
Relinquished by:	Tetra Tech	4-2-14 / 1630	Received by:	TestAmerica	4/3/14 / 1245
Relinquished by:	TestAmerica	4/3/14 / 1705	Received by:		
Relinquished by:			Received by:	TML	4-4-14 / 1100

TestAmerica Canton Sample Receipt Form/Narrative Login # : _____
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 4-4-14 Opened on 4-4-14

FedEx: 1st Grd ~~Exp~~ UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box ~~Client Cooler~~ Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C) Observed Cooler Temp. 0.8 °C	Corrected Cooler Temp. 0.8 °C	☐ See Multiple Cooler Form
IR GUN# 4	(CF -1 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 5	(CF +1 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 8	(CF +1 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 ~~Yes~~ No
   -Were custody seals on the outside of the cooler(s) signed & dated? ~~Yes~~ No NA
   -Were custody seals on the bottle(s)? Yes ~~No~~
3. Shippers' packing slip attached to the cooler(s)? ~~Yes~~ No
4. Did custody papers accompany the sample(s)? ~~Yes~~ No
5. Were the custody papers relinquished & signed in the appropriate place? ~~Yes~~ No
6. Did all bottles arrive in good condition (Unbroken)? ~~Yes~~ No
7. Could all bottle labels be reconciled with the COC? ~~Yes~~ No
8. Were correct bottle(s) used for the test(s) indicated? ~~Yes~~ No
9. Sufficient quantity received to perform indicated analyses? ~~Yes~~ No
10. Were sample(s) at the correct pH upon receipt? ~~Yes~~ No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? ~~Yes~~ No
12. Were air bubbles >6 mm in any VOA vials? Yes ~~No~~ NA
13. Was a trip blank present in the cooler(s)? ~~Yes~~ No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW42S-040214	240-35791-J-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW42S-040214	240-35791-K-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW42I-040214	240-35791-F-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW42I-040214	240-35791-G-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW46S-040214	240-35791-K-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW46S-040214	240-35791-L-4	Plastic 500ml - with Nitric Acid	<2		
MSA-MW46I-040214	240-35791-G-5	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW46I-040214	240-35791-H-5	Plastic 500ml - with Nitric Acid	<2		
MSA-MW46D-040214	240-35791-G-6	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW46D-040214	240-35791-H-6	Plastic 500ml - with Nitric Acid	<2		

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

1.2, 1.0

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 4/4/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No. 112IC06183
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: 21 DAY			
(301) 528-3000 FAX	☐ 2 weeks			SDG No.
Project Name: MSA Groundwater Sampling	☐ 1 week			
Site: MSA, Middle River MD	☐ 2 days			Sampler:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample:	VOCs	Total Metals	Dissolved Metals	TPH-GRO	TPH-DRO	1,4-Dioxane	Sample Specific Notes:
TB-040414	–	–	TB	AQ	2		2						
MSA-MW41S-040414	4/4/14	940	GW	AQ	11		3	1	1	2	2	2	
MSA-MW41I-040414	4/4/14	1040	GW	AQ	7		3	1	1			2	MS/MSD
MSA-MW45S-040414	4/4/14	1155	GW	AQ	11		3	1	1	2	2	2	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments: DISSOLVED METALS FILTERED IN FIELD

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	4/4/14/1330	[signature]	4/4/14/1330	TestAmerica
Relinquished by: [signature]	Company: TestAmerica	Date/Time: 4/4/14/1610	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TAL Canton	Date/Time: 4/5/14 9:30am

TestAmerica Canton Sample Receipt Form/Narrative Login # : 35833
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 4/5/14 Opened on 4/5/14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C) Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	
IR GUN# 4	(CF -1 °C) Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	(See Multiple Cooler Form)
IR GUN# 5	(CF +1 °C) Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	
IR GUN# 8	(CF +1 °C) Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? Yes (No)
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. ~~Were correct bottle(s) used for the test(s) indicated?~~ (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM JWM Date 4/5/14 by JM via Verbal (Voice Mail) Other
Concerning #15

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: JM

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) 1X250 MW-6S 1X250 MW-4S were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative Login # : 35833
Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client	A	1.2	1.2	ICE
1	1	1.0	1.0	1

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW41S-040414	240-35833-J-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW41S-040414	240-35833-K-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW41I-040414	240-35833-P-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW41I-040414	240-35833-Q-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW41I-040414	240-35833-R-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW41I-040414	240-35833-S-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW41I-040414	240-35833-T-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW41I-040414	240-35833-U-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW45S-040414	240-35833-J-4	Plastic 500ml - with Nitric Acid	<2		
MSA-MW45S-040414	240-35833-K-4	Plastic 500ml - w/ Nitric - Dis.	<2		

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

1.2, 1.0

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 4/3/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	**Analysis Turnaround Time**			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			112IC06183
(301) 528-3021 Phone	TAT if different from Below: 21 DAY			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Groundwater Sampling	☐ 1 week			
Site: MSA, Middle River MD	☐ 2 days			Sampler:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs	Total Metals	Dissolved Metals	TPH-GRO	TPH-DRO	1,4-Dioxane	Perchlorate	Radium 224, 226, 228	Sample Specific Notes:
TB-040314	–	–	TB	AQ	2		2								
MSA-MW16S-040314	4/3/14	940	GW	AQ	13		3	1	1	2	2	2		2	
MSA-MW16I-040314	4/3/14	1045	GW	AQ	9		3	1	1			2		2	
MSA-MW47S-040314	4/3/14	1205	GW	AQ	12		3	1	1	2	2	2	1		
MSA-MW47I-040314	4/3/14	1410	GW	AQ	8		3	1	1			2	1		

Page 2726 of 2732

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments: DISSOLVED METALS FILTERED IN FIELD

Relinquished by:	Company: Tetra Tech	Date/Time: 4-4-14 / 1330	Received by:	Company: TestAmerica	Date/Time: 4/4/14 / 1350
Relinquished by:	Company: TestAmerica	Date/Time: 4/4/14/1610	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company: TAKanton	Date/Time: 4/5/14 9:30

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

TestAmerica Canton Sample Receipt Form/Narrative — Login # : 35834
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: JWM

Cooler Received on 4/5/14 Opened on 4/5/14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +0 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C

IR GUN# 4 (CF -1 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C

IR GUN# 5 (CF +1 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C

IR GUN# 8 (CF +1 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C

☐ See Multiple Cooler Form

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? Yes (No)
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM JWM Date 4/5/14 by JWM via Verbal (Voice Mail) Other

Concerning #15

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: JWM

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) 1X250 MW-16S 1X250 MW-47S were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative
Canton Facility

Login # : 35834

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client	A	1.2	1.2	ICE
1	1	1.0	1.0	1

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW16S-040314	240-35834-I-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW16S-040314	240-35834-J-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW16S-040314	240-35834-K-2	Plastic 1 liter - Nitric Acid	<2		
MSA-MW16S-040314	240-35834-L-2	Plastic 1 liter - Nitric Acid	<2		
MSA-MW16I-040314	240-35834-F-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW16I-040314	240-35834-G-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW16I-040314	240-35834-H-3	Plastic 1 liter - Nitric Acid	<2		
MSA-MW16I-040314	240-35834-I-3	Plastic 1 liter - Nitric Acid	<2		
MSA-MW47S-040314	240-35834-J-4	Plastic 500ml - with Nitric Acid	<2		
MSA-MW47S-040314	240-35834-K-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW47I-040314	240-35834-G-5	Plastic 500ml - with Nitric Acid	<2		
MSA-MW47I-040314	240-35834-H-5	Plastic 500ml - w/ Nitric - Dis.	<2		

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-35725-1

Login Number: 35725
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 04/04/14 01:33 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-35725-1

Login Number: 35791
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 04/05/14 12:04 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-35725-1

Login Number: 35834
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 04/08/14 01:52 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	NTA	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2
240-35725-1	NTI	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/04/2014	04/04/2014	3	0	3
240-35725-1	NTI	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/04/2014	3	0	3
240-35913-1	NTI	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2
240-35913-1	NTI	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2
240-35725-1	OPO4	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35725-1	OPO4	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35913-1	OPO4	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2
240-35913-1	OPO4	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2
240-35725-1	PCL	UG/L	MSA-MW46D-040214	240-35791-6	NM	04/02/2014	04/09/2014	04/11/2014	7	2	9
240-35725-1	PCL	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/09/2014	04/10/2014	7	1	8
240-35725-1	PCL	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/09/2014	04/11/2014	6	2	8
240-35725-1	PCL	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/09/2014	04/11/2014	6	2	8
240-35725-1	PCL	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/09/2014	04/10/2014	7	1	8
240-35725-1	PCL	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/09/2014	04/10/2014	8	1	9
240-35913-1	PCL	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	PCL	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	PCL	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/15/2014	04/16/2014	7	1	8
240-35913-1	PCL	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/15/2014	04/16/2014	7	1	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	SO4	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/16/2014	04/16/2014	15	0	15
240-35725-1	SO4	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/15/2014	04/15/2014	14	0	14
240-35913-1	SO4	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	SO4	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35725-1	TDS	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/04/2014	3	0	3
240-35725-1	TDS	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/04/2014	04/04/2014	3	0	3
240-35913-1	TDS	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35913-1	TDS	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35725-1	OS	UG/L	MSA-MW42I-040214	240-35791-3	NM	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW42S-040214	240-35791-2	SUR	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/07/2014	04/10/2014	6	3	9
240-35725-1	OS	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/07/2014	04/11/2014	6	4	10
240-35725-1	OS	UG/L	MSA-MW41I-040414	240-35833-3	SUR	04/04/2014	04/08/2014	04/11/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW18S-040114	240-35725-2	SUR	04/01/2014	04/07/2014	04/10/2014	6	3	9
240-35725-1	OS	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/08/2014	04/11/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW42I-040214	240-35791-3	SUR	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW45S-040414	240-35833-4	SUR	04/04/2014	04/08/2014	04/11/2014	4	3	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	OS	UG/L	MSA-MW46I-040214	240-35791-5	SUR	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW46D-040214	240-35791-6	NM	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW47I-040314	240-35834-5	SUR	04/03/2014	04/07/2014	04/11/2014	4	4	8
240-35725-1	OS	UG/L	MSA-MW46S-040214	240-35791-4	SUR	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW41S-040414	240-35833-2	SUR	04/04/2014	04/08/2014	04/11/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW18I-040114	240-35725-3	SUR	04/01/2014	04/07/2014	04/11/2014	6	4	10
240-35725-1	OS	UG/L	MSA-MW46D-040214	240-35791-6	SUR	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW41I-040414	240-35833-3	NM	04/04/2014	04/08/2014	04/11/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/08/2014	04/11/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW47S-040314	240-35834-4	SUR	04/03/2014	04/07/2014	04/10/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW16I-040314	240-35834-3	NM	04/03/2014	04/07/2014	04/10/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW16S-040314	240-35834-2	SUR	04/03/2014	04/07/2014	04/11/2014	4	4	8
240-35725-1	OS	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/07/2014	04/11/2014	4	4	8
240-35725-1	OS	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/07/2014	04/11/2014	4	4	8
240-35725-1	OS	UG/L	MSA-MW16I-040314	240-35834-3	SUR	04/03/2014	04/07/2014	04/10/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/07/2014	04/10/2014	4	3	7
240-35913-1	OS	UG/L	MSA-MW-14D-040914	240-36043-2	SUR	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	OS	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	OS	UG/L	MSA-DMW7S-040714	240-35913-2	SUR	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW17I-040814	240-36010-3	SUR	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW-48D-040914	240-36043-4	SUR	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	OS	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW-14I-040914	240-36043-1	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	OS	UG/L	MSA-MW-14I-040914	240-36043-1	SUR	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	OS	UG/L	MSA-MW17D-040814	240-36010-4	NM	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW17D-040814	240-36010-4	SUR	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW-14D-040914	240-36043-2	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	OS	UG/L	MSA-MW47D-040814	240-36010-5	SUR	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW17S-040814	240-36010-2	SUR	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW5-040714	240-35913-3	SUR	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35725-1	OV	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	OV	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/15/2014	04/15/2014	11	0	11
240-35725-1	OV	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	OV	UG/L	MSA-MW18S-040114	240-35725-2	SUR	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	OV	UG/L	MSA-MW47I-040314	240-35834-5	SUR	04/03/2014	04/09/2014	04/09/2014	6	0	6
240-35725-1	OV	UG/L	MSA-MW42I-040214	240-35791-3	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW42I-040214	240-35791-3	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW47S-040314	240-35834-4	SUR	04/03/2014	04/14/2014	04/14/2014	11	0	11
240-35725-1	OV	UG/L	MSA-MW16I-040314	240-35834-3	SUR	04/03/2014	04/15/2014	04/15/2014	12	0	12
240-35725-1	OV	UG/L	MSA-MW41I-040414	240-35833-3	SUR	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW16I-040314	240-35834-3	NM	04/03/2014	04/15/2014	04/15/2014	12	0	12
240-35725-1	OV	UG/L	MSA-MW41S-040414	240-35833-2	SUR	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW41I-040414	240-35833-3	NM	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35725-1	OV	UG/L	MSA-MW46I-040214	240-35791-5	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	TB-040414	240-35833-1	SUR	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW46D-040214	240-35791-6	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	TB-040114	240-35725-1	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	OV	UG/L	TB-040114	240-35725-1	SUR	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	OV	UG/L	TB-040214	240-35791-1	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	OV	UG/L	TB-040214	240-35791-1	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	TB-040314	240-35834-1	NM	04/03/2014	04/14/2014	04/14/2014	11	0	11
240-35725-1	OV	UG/L	TB-040314	240-35834-1	SUR	04/03/2014	04/14/2014	04/14/2014	11	0	11
240-35725-1	OV	UG/L	TB-040414	240-35833-1	NM	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW45S-040414	240-35833-4	SUR	04/04/2014	04/15/2014	04/15/2014	11	0	11
240-35725-1	OV	UG/L	MSA-MW46D-040214	240-35791-6	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW46S-040214	240-35791-4	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW18I-040114	240-35725-3	SUR	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35725-1	OV	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/09/2014	04/09/2014	6	0	6
240-35725-1	OV	UG/L	MSA-MW16S-040314	240-35834-2	SUR	04/03/2014	04/15/2014	04/15/2014	12	0	12
240-35725-1	OV	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/15/2014	04/15/2014	12	0	12
240-35725-1	OV	UG/L	MSA-MW42S-040214	240-35791-2	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/14/2014	04/14/2014	11	0	11
240-35913-1	OV	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	TB-040714	240-35913-1	NM	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	TB-040714	240-35913-1	SUR	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	MSA-MW-48I-040914	240-36043-3	SUR	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	TB-040814	240-36010-1	NM	04/08/2014	04/14/2014	04/14/2014	6	0	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	OV	UG/L	TB-040814	240-36010-1	SUR	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW5-040714	240-35913-3	SUR	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	MSA-DMW7S-040714	240-35913-2	SUR	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW47D-040814	240-36010-5	SUR	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW17S-040814	240-36010-2	SUR	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	TB-040914	240-36043-5	SUR	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	TB-040914	240-36043-5	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW17I-040814	240-36010-3	SUR	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW-14D-040914	240-36043-2	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW-14D-040914	240-36043-2	SUR	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW-48D-040914	240-36043-4	SUR	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW-14I-040914	240-36043-1	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW-14I-040914	240-36043-1	SUR	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW17D-040814	240-36010-4	NM	04/08/2014	04/14/2014	04/14/2014	6	0	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	OV	UG/L	MSA-MW17D-040814	240-36010-4	SUR	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35725-1	ETHA	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	ETHA	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35913-1	ETHA	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35913-1	ETHA	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35725-1	ETHE	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	ETHE	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35913-1	ETHE	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35913-1	ETHE	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35725-1	METH	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	METH	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35913-1	METH	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35913-1	METH	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35725-1	OVG	UG/L	MSA-MW18S-040114	240-35725-2	SUR	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	OVG	UG/L	MSA-MW18I-040114	240-35725-3	SUR	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35913-1	OVG	UG/L	MSA-MW-48I-040914	240-36043-3	SUR	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35913-1	OVG	UG/L	MSA-MW-48D-040914	240-36043-4	SUR	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35725-1	DRO	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/07/2014	04/09/2014	4	2	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	DRO	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/07/2014	04/09/2014	3	2	5
240-35725-1	DRO	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/07/2014	04/09/2014	4	2	6
240-35725-1	DRO	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/09/2014	3	5	8
240-35725-1	DRO	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35725-1	DRO	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/07/2014	04/09/2014	3	2	5
240-35725-1	DRO	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35913-1	DRO	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/14/2014	04/15/2014	7	1	8
240-35913-1	DRO	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/11/2014	04/15/2014	3	4	7
240-35913-1	DRO	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/14/2014	04/15/2014	7	1	8
240-35725-1	GRO	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	GRO	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/16/2014	04/16/2014	13	0	13
240-35725-1	GRO	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/16/2014	04/16/2014	13	0	13
240-35725-1	GRO	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	GRO	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/16/2014	04/16/2014	12	0	12
240-35725-1	GRO	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/16/2014	04/16/2014	12	0	12
240-35725-1	GRO	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35913-1	GRO	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/11/2014	04/11/2014	4	0	4
240-35913-1	GRO	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/19/2014	04/19/2014	12	0	12
240-35913-1	GRO	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/17/2014	04/17/2014	9	0	9

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	TPH	UG/L	MSA-MW42S-040214	240-35791-2	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	TPH	UG/L	MSA-MW47S-040314	240-35834-4	SUR	04/03/2014	04/16/2014	04/16/2014	13	0	13
240-35725-1	TPH	UG/L	MSA-MW47S-040314	240-35834-4	SUR	04/03/2014	04/07/2014	04/09/2014	4	2	6
240-35725-1	TPH	UG/L	MSA-MW46S-040214	240-35791-4	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	TPH	UG/L	MSA-MW46S-040214	240-35791-4	SUR	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35725-1	TPH	UG/L	MSA-MW45S-040414	240-35833-4	SUR	04/04/2014	04/07/2014	04/09/2014	3	2	5
240-35725-1	TPH	UG/L	MSA-MW45S-040414	240-35833-4	SUR	04/04/2014	04/16/2014	04/16/2014	12	0	12
240-35725-1	TPH	UG/L	MSA-MW42S-040214	240-35791-2	SUR	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35725-1	TPH	UG/L	MSA-MW41S-040414	240-35833-2	SUR	04/04/2014	04/16/2014	04/16/2014	12	0	12
240-35725-1	TPH	UG/L	MSA-MW41S-040414	240-35833-2	SUR	04/04/2014	04/07/2014	04/09/2014	3	2	5
240-35725-1	TPH	UG/L	MSA-MW18S-040114	240-35725-2	SUR	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	TPH	UG/L	MSA-MW18S-040114	240-35725-2	SUR	04/01/2014	04/04/2014	04/09/2014	3	5	8
240-35725-1	TPH	UG/L	MSA-MW16S-040314	240-35834-2	SUR	04/03/2014	04/16/2014	04/16/2014	13	0	13
240-35725-1	TPH	UG/L	MSA-MW16S-040314	240-35834-2	SUR	04/03/2014	04/07/2014	04/09/2014	4	2	6
240-35913-1	TPH	UG/L	MSA-MW5-040714	240-35913-3	SUR	04/07/2014	04/14/2014	04/15/2014	7	1	8
240-35913-1	TPH	UG/L	MSA-MW5-040714	240-35913-3	SUR	04/07/2014	04/11/2014	04/11/2014	4	0	4
240-35913-1	TPH	UG/L	MSA-MW17S-040814	240-36010-2	SUR	04/08/2014	04/11/2014	04/15/2014	3	4	7
240-35913-1	TPH	UG/L	MSA-DMW7S-040714	240-35913-2	SUR	04/07/2014	04/14/2014	04/15/2014	7	1	8
240-35913-1	TPH	UG/L	MSA-DMW7S-040714	240-35913-2	SUR	04/07/2014	04/19/2014	04/19/2014	12	0	12

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	TPH	UG/L	MSA-MW17S-040814	240-36010-2	SUR	04/08/2014	04/17/2014	04/17/2014	9	0	9

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA Groundwater Sampling

Report Number: 240-35725-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 6850 Perchlorate analysis was performed at the TestAmerica Sacramento Laboratory. The Radiological analysis was performed at the TestAmerica Richland Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 4/3/2014 9:30 AM, 4/4/2014 11:00 AM and 4/5/2014 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 0.8° C, 1.0° C, 1.0° C, 1.2° C, 1.2° C and 1.4° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-040114 (240-35725-1), TB-040214 (240-35791-1), TB-040414 (240-35833-1), TB-040314 (240-35834-1), MSA-MW18S-040114 (240-35725-2), MSA-MW42S-040214 (240-35791-2), MSA-MW41S-040414 (240-35833-2), MSA-MW16S-040314 (240-35834-2), MSA-MW18I-040114 (240-35725-3), MSA-MW42I-040214 (240-35791-3), MSA-MW41I-040414 (240-35833-3), MSA-MW16I-040314 (240-35834-3), MSA-MW46S-040214 (240-35791-4), MSA-MW45S-040414 (240-35833-4), MSA-MW47S-040314 (240-35834-4), MSA-MW46I-040214 (240-35791-5), MSA-MW47I-040314 (240-35834-5) and MSA-MW46D-040214 (240-35791-6) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 04/07/2014, 04/09/2014, 04/14/2014 and 04/15/2014.

Acetone was detected in method blank MB 240-126387/6 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Carbon disulfide was detected in method blank MB 240-126387/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Carbon disulfide was detected in method blank MB 240-126549/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Methylene Chloride was detected in method blank MB 240-126549/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

tert-Butyl alcohol failed the recovery criteria high for LCS 240-125779/4. Dibromomethane failed the recovery criteria high for LCS 240-126390/4.

Samples MSA-MW42S-040214 (240-35725-2)[100X], MSA-MW16S-040314 (240-35725-2)[2.86X], MSA-MW18S-040114 (240-35725-2)

[25X], MSA-MW41S-040414 (240-35725-2)[50X], MSA-MW16I-040314 (240-35725-3)[14.29X], MSA-MW18I-040114 (240-35725-3) [250X], MSA-MW41I-040414 (240-35725-3)[6.67X], MSA-MW47S-040314 (240-35725-4)[5.71X], MSA-MW45S-040414 (240-35725-4) [833.33X], MSA-MW46I-040214 (240-35725-5)[3.33X] and MSA-MW47I-040314 (240-35725-5)[50X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The pH of the following samples was greater than 2.MSA-MW18I-040114 (240-35725-3)(pH of 3) and MSA-MW47I-040314 (240-35834-5)(pH of 4)

The continuing calibration verification (CCV) for analytical batch 125779 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The laboratory control sample (LCS) for batch 125779 recovered outside control limits for 2-Methyl-2-propanol. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

The laboratory control sample (LCS) for batch 126390 recovered outside control limits for the following analytes: Dibromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) associated with batch 126390 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The continuing calibration verification (CCV) for analytical batch 126390 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The continuing calibration verification (CCV) associated with batch 126387 recovered above the upper control limit for tert-Butyl ethyl ether. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The continuing calibration verification (CCV) for analytical batch 126387 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The method blank for preparation batch 126549 contained Carbon Disulfide above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

The continuing calibration verification (CCV) for analytical batch 126549 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The continuing calibration verification (CCV) associated with batch 126549 recovered above the upper control limit for tert-Butyl ethyl ether. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

No other difficulties were encountered during the VOCs analysis. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-MW18S-040114 (240-35725-2), MSA-MW42S-040214 (240-35791-2), MSA-MW41S-040414 (240-35833-2), MSA-MW16S-040314 (240-35834-2), MSA-MW18I-040114 (240-35725-3), MSA-MW42I-040214 (240-35791-3), MSA-MW41I-040414 (240-35833-3), MSA-MW16I-040314 (240-35834-3), MSA-MW46S-040214 (240-35791-4), MSA-MW45S-040414 (240-35833-4), MSA-MW47S-040314 (240-35834-4), MSA-MW46I-040214 (240-35791-5), MSA-MW47I-040314 (240-35834-5) and MSA-MW46D-040214 (240-35791-6) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 04/07/2014 and 04/08/2014 and analyzed on 04/10/2014 and 04/11/2014.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Terphenyl-d14 (Surr) failed the surrogate recovery criteria high for MSA-MW45S-040414 (240-35833-4).

Samples MSA-MW41S-040414 (240-35725-2)[10X], MSA-MW16S-040314 (240-35725-2)[10X], MSA-MW18I-040114 (240-35725-3)[5X], MSA-MW41I-040414 (240-35725-3)[5X], MSA-MW45S-040414 (240-35725-4)[50X] and MSA-MW47I-040314 (240-35725-5)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the SVOCs analysis. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)

Samples MSA-MW18S-040114 (240-35725-2), MSA-MW42S-040214 (240-35791-2), MSA-MW41S-040414 (240-35833-2), MSA-MW16S-040314 (240-35834-2), MSA-MW46S-040214 (240-35791-4), MSA-MW45S-040414 (240-35833-4) and MSA-MW47S-040314 (240-35834-4) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/09/2014 and 04/16/2014.

Samples MSA-MW42S-040214 (240-35725-2)[20X] and MSA-MW45S-040414 (240-35725-4)[50X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Batch 125897 is reported without a matrix spike/matrix spike duplicate (MS/MSD). The batch MS/MSD was originally performed on another client's sample, for method 8015c. This MS/MSD result does not have immediate bearing on any samples except for the actual sample spiked. The associated laboratory control sample (LCS) met acceptance criteria and provides long-term precision and accuracy for this batch.

The following volatile samples was analyzed with headspace in the sample vials due to multiple injections and/or limited volume: MSA-MW16S-040314 (240-35834-2), MSA-MW41S-040414 (240-35833-2), MSA-MW45S-040414 (240-35833-4), MSA-MW47S-040314 (240-35834-4).

Batch is reported without a matrix spike/matrix spike duplicate (MS/MSD). The batch MS/MSD was originally performed on another client's sample, for method 8015c. This MS/MSD result does not have immediate bearing on any samples except for the actual sample spiked. The associated laboratory control sample (LCS) met acceptance criteria and provides long-term precision and accuracy for this batch.

No other difficulties were encountered during the GRO analysis. All quality control parameters were within the acceptance limits.

DISSOLVED GASES

Samples MSA-MW18S-040114 (240-35725-2) and MSA-MW18I-040114 (240-35725-3) were analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 04/09/2014.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate(MS/MSD) associated with batch 125787.

No other difficulties were encountered during the dissolved gases analysis. All quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples MSA-MW18S-040114 (240-35725-2), MSA-MW42S-040214 (240-35791-2), MSA-MW41S-040414 (240-35833-2), MSA-MW16S-040314 (240-35834-2), MSA-MW46S-040214 (240-35791-4), MSA-MW45S-040414 (240-35833-4) and MSA-MW47S-040314 (240-35834-4) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 04/04/2014 and 04/07/2014 and analyzed on 04/09/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 125302.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 125491, 8015.

No other difficulties were encountered during the DRO analysis. All quality control parameters were within the acceptance limits.

PERCHLORATE

Samples MSA-MW18I-040114 (240-35725-3), MSA-MW46S-040214 (240-35791-4), MSA-MW47S-040314 (240-35834-4), MSA-MW46I-040214 (240-35791-5), MSA-MW47I-040314 (240-35834-5) and MSA-MW46D-040214 (240-35791-6) were analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 04/09/2014 and analyzed on 04/10/2014 and 04/11/2014.

No difficulties were encountered during the perchlorate analysis. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Samples MSA-MW18S-040114 (240-35725-2) and MSA-MW18I-040114 (240-35725-3) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/14/2014 and analyzed on 04/15/2014.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)

Samples MSA-MW18S-040114 (240-35725-2), MSA-MW42S-040214 (240-35791-2), MSA-MW41S-040414 (240-35833-2), MSA-MW16S-040314 (240-35834-2), MSA-MW18I-040114 (240-35725-3), MSA-MW42I-040214 (240-35791-3), MSA-MW41I-040414 (240-35833-3), MSA-MW16I-040314 (240-35834-3), MSA-MW46S-040214 (240-35791-4), MSA-MW45S-040414 (240-35833-4), MSA-MW47S-040314 (240-35834-4), MSA-MW46I-040214 (240-35791-5), MSA-MW47I-040314 (240-35834-5) and

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Groundwater Sampling

TestAmerica Job ID: 240-35725-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015B	Gasoline Range Organics - (GC)	SW846	TAL CAN
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CAN
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
2340B-1997	Total Hardness (as CaCO3) by calculation	SM	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
160.1	Solids, Total Dissolved (TDS)	MCAWW	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
310.1	Alkalinity	MCAWW	TAL CAN
350.3	Nitrogen, Ammonia	MCAWW	TAL CAN
9060	Organic Carbon, Dissolved (DOC)	SW846	TAL CAN
Radium-Richland 903.0/904.0	Total Radium	NONE	TAL RCH

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

NONE = NONE

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Groundwater Sampling

TestAmerica Job ID: 240-35725-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-35725-1	TB-040114	Water	04/01/14 00:00	04/03/14 09:30
240-35725-2	MSA-MW18S-040114	Water	04/01/14 11:15	04/03/14 09:30
240-35725-3	MSA-MW18I-040114	Water	04/01/14 13:40	04/03/14 09:30
240-35791-1	TB-040214	Water	04/02/14 00:00	04/04/14 11:00
240-35791-2	MSA-MW42S-040214	Water	04/02/14 10:00	04/04/14 11:00
240-35791-3	MSA-MW42I-040214	Water	04/02/14 11:10	04/04/14 11:00
240-35791-4	MSA-MW46S-040214	Water	04/02/14 12:10	04/04/14 11:00
240-35791-5	MSA-MW46I-040214	Water	04/02/14 13:50	04/04/14 11:00
240-35791-6	MSA-MW46D-040214	Water	04/02/14 14:40	04/04/14 11:00
240-35833-1	TB-040414	Water	04/04/14 00:00	04/05/14 09:30
240-35833-2	MSA-MW41S-040414	Water	04/04/14 09:40	04/05/14 09:30
240-35833-3	MSA-MW41I-040414	Water	04/04/14 10:40	04/05/14 09:30
240-35833-4	MSA-MW45S-040414	Water	04/04/14 11:55	04/05/14 09:30
240-35834-1	TB-040314	Water	04/03/14 00:00	04/05/14 09:30
240-35834-2	MSA-MW16S-040314	Water	04/03/14 09:40	04/05/14 09:30
240-35834-3	MSA-MW16I-040314	Water	04/03/14 10:45	04/05/14 09:30
240-35834-4	MSA-MW47S-040314	Water	04/03/14 12:05	04/05/14 09:30
240-35834-5	MSA-MW47I-040314	Water	04/03/14 14:10	04/05/14 09:30

Detection Limit Exceptions Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Groundwater Sampling

TestAmerica Job ID: 240-35725-1

The requested project specific reporting limits listed below were less than laboratory standard quantitation limits (PQL) but greater than or equal to the laboratory method detection limits (MDL). It must be noted that results reported below lab standard quantitation limits may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Matrix	Analyte	Units	Client RL	Lab PQL
RSK-175	Water	Ethane	ug/L	0.26	0.5
RSK-175	Water	Ethene	ug/L	0.31	0.5
RSK-175	Water	Ethylene	ug/L	0.31	0.5
RSK-175	Water	Methane	ug/L	0.10	0.5

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD Recovery exceeds the control limits
L	A negative instrument reading had an absolute value greater than the reporting limit

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
U	Indicates the analyte was analyzed for but not detected.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
B	Compound was found in the blank and sample.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: BFB2547.D BFB Injection Date: 03/18/2014

Instrument ID: A3UX12 BFB Injection Time: 17:23

Analysis Batch No.: 123039

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.5	
75	30.0 - 60.0 % of mass 95	51.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	69.3	
175	5.0 - 9.0 % of mass 174	5.6	(8.0)1
176	95.0 - 101.0 % of mass 174	66.4	(95.8)1
177	5.0 - 9.0 % of mass 176	4.5	(6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-123039/3	U1236334.D	03/18/2014	17:53
	STD8260 240-123039/4	U1236335.D	03/18/2014	18:18
	STD8260 240-123039/5	U1236336.D	03/18/2014	18:42
	STD8260 240-123039/6	U1236337.D	03/18/2014	19:07
	STD8260 240-123039/7	U1236338.D	03/18/2014	19:31
	STD8260 240-123039/8	U1236339.D	03/18/2014	19:56
	ICV 240-123039/9	U1236340.D	03/18/2014	20:20
	STD 240-123039/13	U1236344.D	03/18/2014	21:56
	STD 240-123039/14	U1236345.D	03/18/2014	22:21
	STD 240-123039/15	U1236346.D	03/18/2014	22:44
	STD 240-123039/16	U1236347.D	03/18/2014	23:09
	STD 240-123039/17	U1236348.D	03/18/2014	23:33
	STD 240-123039/18	U1236349.D	03/18/2014	23:58
	ICV 240-123039/19	U1236350.D	03/19/2014	00:23

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-123039/8	U1236339.D
Level 2	STD8260 240-123039/7	U1236338.D
Level 3	STD8260 240-123039/6	U1236337.D
Level 4	STD8260 240-123039/5	U1236336.D
Level 5	STD8260 240-123039/4	U1236335.D
Level 6	STD8260 240-123039/3	U1236334.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.5344 0.5037	0.5482	0.4736	0.4481	0.4847	Ave		0.4988			0.1000	7.6		15.0			
Chloromethane	0.5548 0.5203	0.4941	0.4787	0.5026	0.4615	Ave		0.5020			0.1000	6.5		15.0			
Vinyl chloride	0.6018 0.5213	0.4945	0.4958	0.4867	0.4761	Ave		0.5127			0.1000	9.0		15.0			
Bromomethane	0.2193 0.2899	0.2045	0.2459	0.2648	0.2544	Ave		0.2464			0.0500	13.0		15.0			
Chloroethane	0.3033 0.3389	0.2806	0.2921	0.3217	0.3071	Ave		0.3073				6.8		15.0			
Dichlorofluoromethane	0.5609 0.7093	0.5861	0.6018	0.6515	0.6113	Ave		0.6201				8.5		15.0			
Trichlorofluoromethane	+++++ 0.5269	0.2817	0.4322	0.4446	0.4751	Lin1	-0.305	0.5045			0.1000				0.9960		0.9900
Ethyl ether	0.3032 0.2882	0.2907	0.2519	0.2786	0.2610	Ave		0.2789				6.9		15.0			
Acrolein	0.0515 0.0491	0.0375	0.0429	0.0480	0.0456	Ave		0.0458				11.0		15.0			
1,1,2-Trichlorotrifluoroethane	0.3320 0.3359	0.3222	0.3336	0.3136	0.3318	Ave		0.3282			0.0500	2.6		15.0			
1,1-Dichloroethene	0.7910 0.6719	0.6581	0.6096	0.6244	0.6161	Ave		0.6619			0.1000	10.0		15.0			
Acetone	+++++ 0.1001	0.2185	0.1045	0.0981	0.0901	Lin1	0.2349	0.0943			0.0500				0.9970		0.9900
Iodomethane	0.4769 0.4952	0.4880	0.4499	0.4888	0.4663	Ave		0.4775				3.5		15.0			
Carbon disulfide	1.1951 1.3615	1.1225	1.2245	1.2583	1.2782	Ave		1.2400			0.1000	6.5		15.0			
3-Chloro-1-propene	+++++ 0.2030	0.2178	0.1733	0.1834	0.1773	Ave		0.1910				9.9		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl acetate	0.3031 0.2545	0.2745	0.2318	0.2393	0.2392	Ave		0.2571			0.1000	11.0		15.0			
Methylene Chloride	0.6765 0.5132	0.5933	0.4925	0.5139	0.4835	Ave		0.5455			0.1000	14.0		15.0			
tert-Butyl alcohol	0.0202 0.0257	0.0324	0.0268	0.0282	0.0278	Ave		0.0269				15.0		15.0			
Acrylonitrile	0.1341 0.1327	0.1320	0.1163	0.1261	0.1281	Ave		0.1282				5.1		15.0			
Methyl tert-butyl ether	1.0062 0.9932	0.9235	0.9091	0.9545	0.9132	Ave		0.9500			0.1000	4.4		15.0			
trans-1,2-Dichloroethene	0.5271 0.5012	0.4980	0.4592	0.4640	0.4537	Ave		0.4839			0.1000	6.0		15.0			
Hexane	+++++ 0.2954	0.4135	0.3254	0.2694	0.3140	Lin1	0.1168	0.2958							0.9970		0.9900
1,1-Dichloroethane	0.6779 0.6169	0.4973	0.5423	0.5740	0.5766	Ave		0.5808			0.1000	11.0		15.0			
Vinyl acetate	+++++ 0.4525	0.4327	0.3948	0.4055	0.4261	Ave		0.4223				5.4		15.0			
cis-1,2-Dichloroethene	0.4179 0.4827	0.4437	0.4224	0.4587	0.4536	Ave		0.4465			0.1000	5.4		15.0			
2-Butanone (MEK)	0.2587 0.1551	0.1857	0.1436	0.1418	0.1443	Lin1	0.0864	0.1486			0.0500				0.9980		0.9900
2,2-Dichloropropane	0.2676 0.2152	0.1894	0.2086	0.2096	0.2130	Ave		0.2172				12.0		15.0			
Bromochloromethane	0.2758 0.2868	0.2301	0.2520	0.2560	0.2586	Ave		0.2599				7.6		15.0			
Tetrahydrofuran	+++++ 0.0953	0.1822	0.0998	0.0931	0.0901	Lin1	0.1722	0.0916							0.9990		0.9900
Chloroform	0.6928 0.5875	0.5420	0.5287	0.5342	0.5248	Ave		0.5683				11.0		15.0			
1,1,1-Trichloroethane	0.2746 0.3435	0.3102	0.3127	0.3304	0.3187	Ave		0.3150			0.1000	7.4		15.0			
Cyclohexane	0.4181 0.4385	0.4958	0.4312	0.4020	0.4233	Ave		0.4348			0.1000	7.4		15.0			
1,1-Dichloropropene	0.4031 0.4327	0.3936	0.4016	0.3893	0.4041	Ave		0.4041				3.8		15.0			
Carbon tetrachloride	0.1984 0.2686	0.2307	0.2255	0.2395	0.2486	Ave		0.2352			0.1000	10.0		15.0			
Isobutyl alcohol	0.0045 0.0054	0.0057	0.0046	0.0053	0.0056	Ave		0.0052				10.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzene	1.2944 1.4547	1.2963	1.2921	1.3280	1.3370	Ave		1.3337			0.5000	4.7		15.0			
1,2-Dichloroethane	0.4248 0.4542	0.4749	0.4145	0.4376	0.4186	Ave		0.4374			0.1000	5.3		15.0			
n-Heptane	+++++ 0.0662	0.1969	0.0896	0.0818	0.0795	Lin1	0.1399	0.0696							0.9920		0.9900
Trichloroethene	0.3045 0.3247	0.3258	0.3052	0.3092	0.3076	Ave		0.3128			0.2000	3.1		15.0			
Methylcyclohexane	0.4881 0.3641	0.4436	0.3691	0.3342	0.3743	Ave		0.3956			0.1000	15.0		15.0			
1,2-Dichloropropane	0.3334 0.3447	0.3482	0.3093	0.3256	0.3132	Ave		0.3291			0.1000	4.9		15.0			
Dibromomethane	0.1765 0.1949	0.1618	0.1583	0.1793	0.1739	Ave		0.1741				7.6		15.0			
1,4-Dioxane	+++++ 0.0038	0.0041	0.0041	0.0035	0.0039	Ave		0.0039				6.5		15.0			
Bromodichloromethane	0.3572 0.4374	0.3124	0.3800	0.4088	0.4032	Ave		0.3832			0.1000	11.0		15.0			
2-Chloroethyl vinyl ether	0.2301 0.2460	0.2276	0.2192	0.2322	0.2293	Ave		0.2307				3.8		15.0			
cis-1,3-Dichloropropene	0.4629 0.5280	0.4272	0.4389	0.4776	0.4865	Ave		0.4702			0.1500	7.7		15.0			
4-Methyl-2-pentanone (MIBK)	0.3482 0.3206	0.3018	0.2959	0.2975	0.3034	Ave		0.3112			0.0500	6.5		15.0			
Toluene	1.9139 2.0526	1.8706	1.7880	1.9419	1.8871	Ave		1.9090			0.4000	4.6		15.0			
trans-1,3-Dichloropropene	0.4264 0.5793	0.3714	0.4536	0.5264	0.5367	Lin1	-0.140	0.5564			0.1000				0.9960		0.9900
Ethyl methacrylate	0.5082 0.5962	0.4790	0.4960	0.5638	0.5701	Ave		0.5356				8.8		15.0			
1,1,2-Trichloroethane	0.4068 0.4106	0.4633	0.3730	0.3988	0.3856	Ave		0.4064			0.1000	7.7		15.0			
Tetrachloroethene	0.4136 0.3782	0.3907	0.3287	0.3598	0.3525	Ave		0.3706			0.2000	8.1		15.0			
1,3-Dichloropropane	0.8469 0.7831	0.7392	0.7278	0.7778	0.7406	Ave		0.7692				5.7		15.0			
2-Hexanone	0.3156 0.3048	0.3117	0.2900	0.2927	0.2889	Ave		0.3006			0.0500	3.9		15.0			
Chlorodibromomethane	0.2944 0.3839	0.2962	0.3175	0.3459	0.3528	Ave		0.3318				11.0		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI

GC/MS VOA INITIAL CALIBRATION DATA

INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dibromoethane	0.3244 0.4134	0.3551	0.3575	0.3902	0.3885	Ave		0.3715				8.6		15.0			
Chlorobenzene	1.2565 1.2815	1.1770	1.1292	1.2390	1.1758	Ave		1.2098			0.3000	4.8		15.0			
1,1,1,2-Tetrachloroethane	0.2981 0.3700	0.3435	0.3033	0.3406	0.3344	Ave		0.3316				8.1		15.0			
Ethylbenzene	0.5132 0.6643	0.6084	0.5658	0.6503	0.6141	Ave		0.6027				9.3		15.0			
m-Xylene & p-Xylene	0.7032 0.8380	0.7202	0.7202	0.8049	0.7681	Ave		0.7591				7.1		15.0			
o-Xylene	0.6982 0.8523	0.6109	0.7218	0.8168	0.7765	Ave		0.7461				12.0		15.0			
Styrene	1.3247 1.5928	1.2622	1.2631	1.4995	1.4228	Ave		1.3942			0.3000	9.7		15.0			
Bromoform	+++++ 0.2322	0.1706	0.1834	0.2065	0.2183	Ave		0.2022			0.1000	12.0		15.0			
Isopropylbenzene	1.6638 1.9849	1.7715	1.6596	1.8529	1.7872	Ave		1.7867			0.1000	6.9		15.0			
1,1,2,2-Tetrachloroethane	1.2337 1.1786	1.2869	1.1354	1.1574	1.1978	Ave		1.1983			0.3000	4.6		15.0			
Bromobenzene	1.0408 0.9784	0.9261	0.9050	0.9222	0.9629	Ave		0.9559				5.2		15.0			
1,2,3-Trichloropropane	0.4346 0.3752	0.3379	0.3702	0.3656	0.4000	Ave		0.3806				8.7		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.3290	0.2219	0.3251	0.2995	0.3428	Lin1	-0.118	0.3317							0.9980		0.9900
N-Propylbenzene	0.9948 0.9153	0.9570	0.8646	0.8716	0.9092	Ave		0.9188				5.4		15.0			
2-Chlorotoluene	0.9043 0.8650	0.9134	0.7867	0.8180	0.8665	Ave		0.8590				5.7		15.0			
1,3,5-Trimethylbenzene	2.9225 2.9576	2.9760	2.8291	2.8643	2.9472	Ave		2.9161				2.0		15.0			
4-Chlorotoluene	0.9026 0.9528	0.9436	0.8795	0.9312	0.9220	Ave		0.9220				2.9		15.0			
tert-Butylbenzene	2.2905 2.3478	2.5249	2.1963	2.2569	2.4046	Ave		2.3368				5.0		15.0			
1,2,4-Trimethylbenzene	3.3154 3.2157	3.1289	2.9041	3.0536	3.1626	Ave		3.1300				4.5		15.0			
sec-Butylbenzene	3.6452 3.3155	3.5969	3.1772	3.2733	3.3970	Ave		3.4008				5.4		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	1.7868 1.7316	1.9264	1.6377	1.6501	1.7030	Ave		1.7393			0.6000	6.1		15.0			
4-Isopropyltoluene	3.0928 2.8938	3.2329	2.7355	2.7788	2.9119	Ave		2.9410				6.4		15.0			
1,4-Dichlorobenzene	2.5229 1.8330	1.9959	1.7496	1.7493	1.7858	Ave		1.9394			0.5000	15.0		15.0			
n-Butylbenzene	3.0017 2.5834	2.9769	2.4071	2.5189	2.6067	Ave		2.6825				9.2		15.0			
1,2-Dichlorobenzene	1.9814 1.7212	1.7245	1.6875	1.6633	1.7263	Ave		1.7507			0.4000	6.6		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1943	0.1038	0.1650	0.1665	0.1956	Lin1	-0.114	0.1922			0.0500				0.9970		0.9900
1,2,4-Trichlorobenzene	1.2300 0.8935	1.2187	0.9363	0.9162	0.9077	Lin1	0.2252	0.8974			0.2000				1.0000		0.9900
Hexachlorobutadiene	0.9001 0.3264	0.9868	0.4256	0.3916	0.3694	Lin1	0.4220	0.3425							0.9900		0.9900
Naphthalene	3.0738 3.1787	3.7993	3.0910	3.0797	3.2159	Ave		3.2397				8.7		15.0			
1,2,3-Trichlorobenzene	1.3764 0.8208	1.1441	0.8784	0.8429	0.8752	Lin1	0.2925	0.8342							0.9990		0.9900
Dibromofluoromethane (Surr)	+++++ 0.2732	0.2622	0.2400	0.2643	0.2584	Ave		0.2596				4.7		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3571	0.3041	0.3481	0.3572	0.3335	Ave		0.3400				6.6		15.0			
Toluene-d8 (Surr)	+++++ 1.5610	1.4174	1.3869	1.4974	1.4676	Ave		1.4661				4.7		15.0			
4-Bromofluorobenzene (Surr)	+++++ 0.6491	0.6096	0.5569	0.6072	0.5858	Ave		0.6017				5.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 21:56 Calibration End Date: 03/18/2014 23:58 Calibration ID: 21227

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-123039/18	U1236349.D
Level 2	STD 240-123039/17	U1236348.D
Level 3	STD 240-123039/16	U1236347.D
Level 4	STD 240-123039/15	U1236346.D
Level 5	STD 240-123039/14	U1236345.D
Level 6	STD 240-123039/13	U1236344.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0592 0.0472	0.0446	0.0487	0.0407	0.0439	Ave		0.0474				14.0		15.0			
Diisopropyl ether	+++++ 0.2622	0.2492	0.2676	0.3004	0.2624	Ave		0.2684				7.1		15.0			
2-Chloro-1,3-butadiene	0.4604 0.4608	0.5033	0.4658	0.4744	0.4645	Ave		0.4715				3.5		15.0			
Ethyl tert-butyl ether	1.0262 0.9257	0.9913	0.9547	0.9862	0.9131	Ave		0.9662				4.4		15.0			
Ethyl acetate	0.2147 0.1938	0.2302	0.1962	0.1996	0.1918	Ave		0.2044				7.4		15.0			
Propionitrile	0.0585 0.0486	0.0469	0.0464	0.0449	0.0476	Ave		0.0488				10.0		15.0			
Methacrylonitrile	0.2151 0.2129	0.2165	0.2035	0.2053	0.2044	Ave		0.2096				2.8		15.0			
Tert-amyl methyl ether	0.9067 0.9000	0.9204	0.9043	0.9438	0.8652	Ave		0.9067				2.9		15.0			
n-Butanol	+++++ 0.0051	0.0036	0.0039	0.0041	0.0047	Ave		0.0043				15.0		15.0			
Ethyl acrylate	0.3625 0.3819	0.3734	0.3632	0.3770	0.3774	Ave		0.3726				2.1		15.0			
Methyl methacrylate	0.2500 0.2863	0.2273	0.2635	0.2724	0.2703	Ave		0.2616				7.9		15.0			
2-Nitropropane	+++++ 0.0322	0.0246	0.0274	0.0297	0.0312	Ave		0.0291				11.0		15.0			
1-Chlorohexane	0.5509 0.4531	0.5751	0.4340	0.4167	0.4562	Ave		0.4810				14.0		15.0			
Cyclohexanone	0.0144 0.0169	0.0183	0.0144	0.0147	0.0155	Ave		0.0157				10.0		15.0			
1,2,3-Trimethylbenzene	3.5667 3.3327	3.4143	3.0988	3.2900	3.2610	Ave		3.3273				4.7		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 21:56 Calibration End Date: 03/18/2014 23:58 Calibration ID: 21227

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3,5-Trichlorobenzene	1.4560 0.9277	1.2303	0.9863	0.9772	0.9452	Lin1	0.2861	0.9351							1.0000		0.9900
2-Methylnaphthalene	2.1272 1.5052	2.3901	1.5625	1.5493	1.6024	Lin1	0.9808	1.5289							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: BFB2570.D BFB Injection Date: 04/09/2014

Instrument ID: A3UX12 BFB Injection Time: 08:15

Analysis Batch No.: 125779

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.4	
75	30.0 - 60.0 % of mass 95	49.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.2	(0.3)1
174	50.0 - 120.00 % of mass 95	72.2	
175	5.0 - 9.0 % of mass 174	5.4	(7.5)1
176	95.0 - 101.0 % of mass 174	70.3	(97.5)1
177	5.0 - 9.0 % of mass 176	4.4	(6.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-125779/2	U1236887.D	04/09/2014	08:43
	CCV 240-125779/3	U1236888.D	04/09/2014	09:07
	LCS 240-125779/4	U1236889.D	04/09/2014	09:32
	MB 240-125779/6	U1236891.D	04/09/2014	10:21
MSA-MW47I-040314	240-35834-5	U1236892.D	04/09/2014	10:46
MSA-MW18S-040114	240-35725-2	U1236893.D	04/09/2014	11:11
MSA-MW46I-040214	240-35791-5	U1236897.D	04/09/2014	12:50
MSA-MW42S-040214	240-35791-2	U1236898.D	04/09/2014	13:15
TB-040114	240-35725-1	U1236899.D	04/09/2014	13:39
TB-040214	240-35791-1	U1236905.D	04/09/2014	16:06
MSA-MW42I-040214	240-35791-3	U1236906.D	04/09/2014	16:31
MSA-MW46S-040214	240-35791-4	U1236907.D	04/09/2014	16:54
MSA-MW46D-040214	240-35791-6	U1236908.D	04/09/2014	17:19

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: STD8260 240-125779/2 Calibration Date: 04/09/2014 08:43

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1236887.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4988	0.4433	0.1000	0.310	0.0200	-11.1	20.0
Chloromethane	Ave	0.5020	0.6176	0.1000	0.300	0.0200	23.0*	20.0
Vinyl chloride	Ave	0.5127	0.5857	0.1000	0.220	0.0200	14.2	20.0
Bromomethane	Ave	0.2464	0.3195	0.0500	0.410	0.0200	29.6*	20.0
Chloroethane	Ave	0.3073	0.3557	0.0500	0.290	0.0200	15.7	20.0
Dichlorofluoromethane	Ave	0.6201	0.7053		0.420	0.0200	13.7	20.0
Trichlorofluoromethane	Lin1		0.5448	0.1000	0.210	0.0200	11.0	20.0
Ethyl ether	Ave	0.2789	0.3271		0.310	0.0200	17.3	20.0
Acrolein	Ave	0.0458	0.0379		2.20	0.100	-17.1	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3282	0.3555	0.0500	0.280	0.0200	8.3	20.0
1,1-Dichloroethene	Ave	0.6619	0.7567	0.1000	0.190	0.0200	14.3	20.0
Acetone	Lin1		0.1143	0.0500	1.10	0.0400	14.9	20.0
Iodomethane	Ave	0.4775	0.5883		0.180	0.0200	23.2*	20.0
Carbon disulfide	Ave	1.240	1.548	0.1000	0.130	0.0200	24.8*	20.0
3-Chloro-1-propene	Ave	0.1910	0.2704		0.350	0.0200	41.6*	20.0
Methyl acetate	Ave	0.2571	0.2919	0.1000	0.380	0.100	13.6	20.0
Methylene Chloride	Ave	0.5455	0.6056	0.1000	0.330	0.0200	11.0	20.0
tert-Butyl alcohol	Ave	0.0269	0.0366		3.90	0.200	36.3*	20.0
Acrylonitrile	Ave	0.1282	0.1525		2.00	0.200	19.0	20.0
Methyl tert-butyl ether	Ave	0.9500	1.049	0.1000	0.170	0.0200	10.5	20.0
trans-1,2-Dichloroethene	Ave	0.4839	0.5189	0.1000	0.190	0.0200	7.2	20.0
Hexane	Lin1		0.2650		0.260	0.0200	-12.4	20.0
1,1-Dichloroethane	Ave	0.5808	0.5674	0.1000	0.150	0.0200	-2.3	20.0
Vinyl acetate	Ave	0.4223	0.3659		0.190	0.0192	-13.4	20.0
2,2-Dichloropropane	Ave	0.2172	0.2230		0.130	0.0200	2.6	20.0
2-Butanone (MEK)	Lin1		0.1592	0.0500	0.570	0.0400	5.7	20.0
cis-1,2-Dichloroethene	Ave	0.4465	0.4642	0.1000	0.170	0.0200	4.0	20.0
Bromochloromethane	Ave	0.2599	0.2687		0.290	0.0200	3.4	20.0
Tetrahydrofuran	Lin1		0.1023		0.420	0.0400	6.9	20.0
Chloroform	Ave	0.5683	0.5400	0.2000	0.160	0.0200	-5.0	20.0
1,1,1-Trichloroethane	Ave	0.3150	0.3114	0.1000	0.220	0.0200	-1.1	20.0
Cyclohexane	Ave	0.4348	0.3149	0.1000	0.120	0.0200	-27.6*	20.0
1,1-Dichloropropene	Ave	0.4041	0.3956		0.130	0.0200	-2.1	20.0
Carbon tetrachloride	Ave	0.2352	0.2226	0.1000	0.130	0.0200	-5.4	20.0
Isobutyl alcohol	Ave	0.0052	0.0065		8.20	0.500	24.7*	20.0
1,2-Dichloroethane	Ave	0.4374	0.4157	0.1000	0.220	0.0200	-5.0	20.0
Benzene	Ave	1.334	1.422	0.5000	0.130	0.0200	6.6	20.0
n-Heptane	Lin1		0.0593		0.180	0.0200	-24.8*	20.0
Trichloroethene	Ave	0.3128	0.3342	0.2000	0.170	0.0200	6.8	20.0
Methylcyclohexane	Ave	0.3956	0.2978	0.1000	0.130	0.0200	-24.7*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: STD8260 240-125779/2 Calibration Date: 04/09/2014 08:43

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1236887.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3291	0.3370	0.1000	0.180	0.0200	2.4	20.0
1,4-Dioxane	Ave	0.0039	0.0039		19.0	0.400	0.9	20.0
Dibromomethane	Ave	0.1741	0.1936		0.280	0.0200	11.2	20.0
Bromodichloromethane	Ave	0.3832	0.3468	0.1000	0.150	0.0200	-9.5	20.0
2-Chloroethyl vinyl ether	Ave	0.2307	0.2285		0.990	0.0400	-1.0	20.0
cis-1,3-Dichloropropene	Ave	0.4702	0.4414	0.1500	0.140	0.0200	-6.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3112	0.3118	0.0500	0.320	0.0400	0.2	20.0
Toluene	Ave	1.909	1.930	0.4000	0.130	0.0200	1.1	20.0
trans-1,3-Dichloropropene	Lin1		0.4548	0.1000	0.190	0.0200	-17.0	20.0
Ethyl methacrylate	Ave	0.5356	0.5441		0.140	0.0200	1.6	20.0
1,1,2-Trichloroethane	Ave	0.4064	0.3999	0.1000	0.270	0.0200	-1.6	20.0
Tetrachloroethene	Ave	0.3706	0.3873	0.2000	0.290	0.0200	4.5	20.0
1,3-Dichloropropane	Ave	0.7692	0.7524		0.160	0.0200	-2.2	20.0
2-Hexanone	Ave	0.3006	0.3069	0.0500	0.410	0.0400	2.1	20.0
Chlorodibromomethane	Ave	0.3318	0.2739		0.180	0.0200	-17.5	20.0
1,2-Dibromoethane	Ave	0.3715	0.3767		0.240	0.0200	1.4	20.0
Chlorobenzene	Ave	1.210	1.254	0.3000	0.150	0.0200	3.7	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3316	0.2703		0.230	0.0200	-18.5	20.0
Ethylbenzene	Ave	0.6027	0.6303		0.170	0.0200	4.6	20.0
m-Xylene & p-Xylene	Ave	0.7591	0.7872		0.240	0.0200	3.7	20.0
o-Xylene	Ave	0.7461	0.7691		0.140	0.0200	3.1	20.0
Styrene	Ave	1.394	1.424	0.3000	0.110	0.0200	2.1	20.0
Bromoform	Ave	0.2022	0.1342	0.1000	0.640	0.0200	-33.6*	20.0
Isopropylbenzene	Ave	1.787	1.710	0.1000	0.130	0.0200	-4.3	20.0
1,1,2,2-Tetrachloroethane	Ave	1.198	1.085	0.3000	0.180	0.0200	-9.5	20.0
Bromobenzene	Ave	0.9559	0.9770		0.130	0.0200	2.2	20.0
1,2,3-Trichloropropane	Ave	0.3806	0.3617		0.430	0.0200	-5.0	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.1791		0.150	0.0200	-44.2*	20.0
N-Propylbenzene	Ave	0.9188	0.8545		0.140	0.0200	-7.0	20.0
2-Chlorotoluene	Ave	0.8590	0.8074		0.110	0.0200	-6.0	20.0
1,3,5-Trimethylbenzene	Ave	2.916	2.663		0.0960	0.0200	-8.7	20.0
4-Chlorotoluene	Ave	0.9220	0.8886		0.180	0.0200	-3.6	20.0
tert-Butylbenzene	Ave	2.337	2.143		0.130	0.0200	-8.3	20.0
1,2,4-Trimethylbenzene	Ave	3.130	2.900		0.120	0.0200	-7.3	20.0
sec-Butylbenzene	Ave	3.401	2.893		0.130	0.0200	-14.9	20.0
1,3-Dichlorobenzene	Ave	1.739	1.717	0.6000	0.140	0.0200	-1.3	20.0
4-Isopropyltoluene	Ave	2.941	2.571		0.0175	0.0200	-12.6	20.0
1,4-Dichlorobenzene	Ave	1.939	1.755	0.5000	0.130	0.0200	-9.5	20.0
n-Butylbenzene	Ave	2.682	2.201		0.120	0.0200	-17.9	20.0
1,2-Dichlorobenzene	Ave	1.751	1.714	0.4000	0.130	0.0200	-2.1	20.0
1,2-Dibromo-3-Chloropropane	Lin1		0.1312	0.0500	0.670	0.0200	-28.8*	20.0

FORM VII 8260C

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: STD8260 240-125779/2 Calibration Date: 04/09/2014 08:43

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1236887.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Linl		0.8953	0.2000	0.150	0.0200	-1.5	20.0
Hexachlorobutadiene	Linl		0.2974		0.300	0.0200	-19.3	20.0
Naphthalene	Ave	3.240	2.850		0.240	0.0200	-12.0	20.0
1,2,3-Trichlorobenzene	Linl		0.8021		0.170	0.0200	-5.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2596	0.2651		0.0169	0.0165	2.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3400	0.3164		0.0154	0.0165	-6.9	20.0
Toluene-d8 (Surr)	Ave	1.466	1.566		0.0176	0.0165	6.8	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6017	0.5762		0.0158	0.0165	-4.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125779/3 Calibration Date: 04/09/2014 09:07

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 21:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 23:58

Lab File ID: U1236888.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0474	0.0572		3.50	0.200	20.7*	20.0
Diisopropyl ether	Ave	0.2684	0.3000		1.50	0.0200	11.8	20.0
2-Chloro-1,3-butadiene	Ave	0.4715	0.4766		0.290	0.0200	1.1	20.0
Ethyl tert-butyl ether	Ave	0.9662	1.024		0.110	0.0200	6.0	20.0
Ethyl acetate	Ave	0.2044	0.2119		0.500	0.0400	3.7	20.0
Propionitrile	Ave	0.0488	0.0531		1.20	0.200	8.8	20.0
Methacrylonitrile	Ave	0.2096	0.2153		0.510	0.200	2.7	20.0
Tert-amyl methyl ether	Ave	0.9067	0.9694		0.0670	0.0200	6.9	20.0
n-Butanol	Ave	0.0043	0.0046		7.30	0.500	7.6	20.0
Ethyl acrylate	Ave	0.3726	0.3828		0.250	0.0200	2.7	20.0
Methyl methacrylate	Ave	0.2616	0.2741		0.490	0.0400	4.8	20.0
2-Nitropropane	Ave	0.0291	0.0278		0.700	0.0400	-4.2	20.0
Cyclohexanone	Ave	0.0157	0.0183		5.80	0.200	16.2	20.0
1,2,3-Trimethylbenzene	Ave	3.327	2.908		0.0175	0.0200	-12.6	20.0
1,3,5-Trichlorobenzene	Lin1		0.8893		0.110	0.0200	-6.4	20.0
2-Methylnaphthalene	Lin1		0.8365		0.470	0.0400	-46.9*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: BFB2574.D BFB Injection Date: 04/14/2014

Instrument ID: A3UX12 BFB Injection Time: 11:52

Analysis Batch No.: 126390

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.8	
75	30.0 - 60.0 % of mass 95	47.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.1	
173	Less than 2.0 % of mass 174	0.3	(0.4)1
174	50.0 - 120.00 % of mass 95	82.9	
175	5.0 - 9.0 % of mass 174	6.1	(7.4)1
176	95.0 - 101.0 % of mass 174	80.5	(97.1)1
177	5.0 - 9.0 % of mass 176	5.3	(6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-126390/2	U1236990.D	04/14/2014	12:16
	CCV 240-126390/3	U1236991.D	04/14/2014	12:39
	LCS 240-126390/4	U1236992.D	04/14/2014	13:03
	MB 240-126390/6	U1236994.D	04/14/2014	13:51
TB-040414	240-35833-1	U1237001.D	04/14/2014	16:43
TB-040314	240-35834-1	U1237002.D	04/14/2014	17:07
MSA-MW47S-040314	240-35834-4	U1237005.D	04/14/2014	18:18

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: STD8260 240-126390/2 Calibration Date: 04/14/2014 12:16

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1236990.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4988	0.4927	0.1000	0.310	0.0200	-1.2	20.0
Chloromethane	Ave	0.5020	0.6015	0.1000	0.300	0.0200	19.8	20.0
Vinyl chloride	Ave	0.5127	0.6056	0.1000	0.220	0.0200	18.1	20.0
Bromomethane	Ave	0.2464	0.3137	0.0500	0.410	0.0200	27.3*	20.0
Chloroethane	Ave	0.3073	0.3612	0.0500	0.290	0.0200	17.5	20.0
Dichlorofluoromethane	Ave	0.6201	0.6926		0.420	0.0200	11.7	20.0
Trichlorofluoromethane	Lin1		0.5982	0.1000	0.210	0.0200	21.6*	20.0
Ethyl ether	Ave	0.2789	0.2949		0.310	0.0200	5.7	20.0
Acrolein	Ave	0.0458	0.0362		2.20	0.100	-20.9*	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3282	0.3345	0.0500	0.280	0.0200	1.9	20.0
1,1-Dichloroethene	Ave	0.6619	0.7066	0.1000	0.190	0.0200	6.8	20.0
Acetone	Lin1		0.1043	0.0500	1.10	0.0400	4.3	20.0
Iodomethane	Ave	0.4775	0.5772		0.180	0.0200	20.9*	20.0
Carbon disulfide	Ave	1.240	1.482	0.1000	0.130	0.0200	19.5	20.0
3-Chloro-1-propene	Ave	0.1910	0.1988		0.350	0.0200	4.1	20.0
Methyl acetate	Ave	0.2571	0.2715	0.1000	0.380	0.100	5.6	20.0
Methylene Chloride	Ave	0.5455	0.5727	0.1000	0.330	0.0200	5.0	20.0
tert-Butyl alcohol	Ave	0.0269	0.0361		3.90	0.200	34.5*	20.0
Acrylonitrile	Ave	0.1282	0.1498		2.00	0.200	16.8	20.0
Methyl tert-butyl ether	Ave	0.9500	0.9401	0.1000	0.170	0.0200	-1.0	20.0
trans-1,2-Dichloroethene	Ave	0.4839	0.5049	0.1000	0.190	0.0200	4.3	20.0
Hexane	Lin1		0.2968		0.260	0.0200	-1.6	20.0
1,1-Dichloroethane	Ave	0.5808	0.5717	0.1000	0.150	0.0200	-1.6	20.0
Vinyl acetate	Ave	0.4223	0.3770		0.190	0.0192	-10.7	20.0
2,2-Dichloropropane	Ave	0.2172	0.2055		0.130	0.0200	-5.4	20.0
2-Butanone (MEK)	Lin1		0.1606	0.0500	0.570	0.0400	6.7	20.0
cis-1,2-Dichloroethene	Ave	0.4465	0.4622	0.1000	0.170	0.0200	3.5	20.0
Bromochloromethane	Ave	0.2599	0.2746		0.290	0.0200	5.7	20.0
Tetrahydrofuran	Lin1		0.1018		0.420	0.0400	6.4	20.0
Chloroform	Ave	0.5683	0.5095	0.2000	0.160	0.0200	-10.3	20.0
1,1,1-Trichloroethane	Ave	0.3150	0.2998	0.1000	0.220	0.0200	-4.8	20.0
Cyclohexane	Ave	0.4348	0.2989	0.1000	0.120	0.0200	-31.3*	20.0
1,1-Dichloropropene	Ave	0.4041	0.4041		0.130	0.0200	0.0	20.0
Carbon tetrachloride	Ave	0.2352	0.2489	0.1000	0.130	0.0200	5.8	20.0
Isobutyl alcohol	Ave	0.0052	0.0073		8.20	0.500	40.1*	20.0
1,2-Dichloroethane	Ave	0.4374	0.4020	0.1000	0.220	0.0200	-8.1	20.0
Benzene	Ave	1.334	1.350	0.5000	0.130	0.0200	1.2	20.0
n-Heptane	Lin1		0.0628		0.180	0.0200	-19.8	20.0
Trichloroethene	Ave	0.3128	0.3294	0.2000	0.170	0.0200	5.3	20.0
Methylcyclohexane	Ave	0.3956	0.2893	0.1000	0.130	0.0200	-26.9*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: STD8260 240-126390/2 Calibration Date: 04/14/2014 12:16

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1236990.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3291	0.3513	0.1000	0.180	0.0200	6.8	20.0
1,4-Dioxane	Ave	0.0039	0.0032		19.0	0.400	-17.5	20.0
Dibromomethane	Ave	0.1741	0.2124		0.280	0.0200	-22.0*	20.0
Bromodichloromethane	Ave	0.3832	0.3896	0.1000	0.150	0.0200	1.7	20.0
2-Chloroethyl vinyl ether	Ave	0.2307	0.2164		0.990	0.0400	-6.2	20.0
cis-1,3-Dichloropropene	Ave	0.4702	0.4521	0.1500	0.140	0.0200	-3.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3112	0.3139	0.0500	0.320	0.0400	0.9	20.0
Toluene	Ave	1.909	1.818	0.4000	0.130	0.0200	-4.7	20.0
trans-1,3-Dichloropropene	Lin1		0.4696	0.1000	0.190	0.0200	-14.3	20.0
Ethyl methacrylate	Ave	0.5356	0.4963		0.140	0.0200	-7.3	20.0
1,1,2-Trichloroethane	Ave	0.4064	0.3776	0.1000	0.270	0.0200	-7.1	20.0
Tetrachloroethene	Ave	0.3706	0.4033	0.2000	0.290	0.0200	8.8	20.0
1,3-Dichloropropane	Ave	0.7692	0.7524		0.160	0.0200	-2.2	20.0
2-Hexanone	Ave	0.3006	0.3043	0.0500	0.410	0.0400	1.2	20.0
Chlorodibromomethane	Ave	0.3318	0.3223		0.180	0.0200	-2.9	20.0
1,2-Dibromoethane	Ave	0.3715	0.3767		0.240	0.0200	1.4	20.0
Chlorobenzene	Ave	1.210	1.213	0.3000	0.150	0.0200	0.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3316	0.3333		0.230	0.0200	0.5	20.0
Ethylbenzene	Ave	0.6027	0.6205		0.170	0.0200	3.0	20.0
m-Xylene & p-Xylene	Ave	0.7591	0.7472		0.240	0.0200	-1.6	20.0
o-Xylene	Ave	0.7461	0.7621		0.140	0.0200	2.1	20.0
Styrene	Ave	1.394	1.365	0.3000	0.110	0.0200	-2.1	20.0
Bromoform	Ave	0.2022	0.1881	0.1000	0.640	0.0200	-6.9	20.0
Isopropylbenzene	Ave	1.787	1.670	0.1000	0.130	0.0200	-6.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.198	1.042	0.3000	0.180	0.0200	-13.0	20.0
Bromobenzene	Ave	0.9559	0.9216		0.130	0.0200	-3.6	20.0
1,2,3-Trichloropropane	Ave	0.3806	0.3284		0.430	0.0200	-13.7	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.1498		0.150	0.0200	-33.1*	20.0
N-Propylbenzene	Ave	0.9188	0.7820		0.140	0.0200	-14.9	20.0
2-Chlorotoluene	Ave	0.8590	0.7556		0.110	0.0200	-12.0	20.0
1,3,5-Trimethylbenzene	Ave	2.916	2.369		0.0960	0.0200	-18.8	20.0
4-Chlorotoluene	Ave	0.9220	0.8455		0.180	0.0200	-8.3	20.0
tert-Butylbenzene	Ave	2.337	1.987		0.130	0.0200	-15.0	20.0
1,2,4-Trimethylbenzene	Ave	3.130	2.570		0.120	0.0200	-17.9	20.0
sec-Butylbenzene	Ave	3.401	2.663		0.130	0.0200	-21.7*	20.0
1,3-Dichlorobenzene	Ave	1.739	1.679	0.6000	0.140	0.0200	-3.5	20.0
4-Isopropyltoluene	Ave	2.941	2.406		0.0164	0.0200	-18.2	20.0
1,4-Dichlorobenzene	Ave	1.939	1.683	0.5000	0.130	0.0200	-13.2	20.0
n-Butylbenzene	Ave	2.682	1.982		0.120	0.0200	-26.1*	20.0
1,2-Dichlorobenzene	Ave	1.751	1.621	0.4000	0.130	0.0200	-7.4	20.0
1,2-Dibromo-3-Chloropropane	Lin1		0.1640	0.0500	0.670	0.0200	-11.7	20.0

FORM VII 8260C

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: STD8260 240-126390/2 Calibration Date: 04/14/2014 12:16

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1236990.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Lin1		0.8907	0.2000	0.150	0.0200	-2.0	20.0
Hexachlorobutadiene	Lin1		0.3235		0.300	0.0200	-11.7	20.0
Naphthalene	Ave	3.240	2.779		0.240	0.0200	-14.2	20.0
1,2,3-Trichlorobenzene	Lin1		0.8239		0.170	0.0200	-3.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2596	0.2510		0.0160	0.0165	-3.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3400	0.3386		0.0165	0.0165	-0.4	20.0
Toluene-d8 (Surr)	Ave	1.466	1.498		0.0169	0.0165	2.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6017	0.5401		0.0148	0.0165	-10.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-126390/3 Calibration Date: 04/14/2014 12:39

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 21:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 23:58

Lab File ID: U1236991.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0474	0.0553		3.50	0.200	16.7	20.0
Diisopropyl ether	Ave	0.2684	0.2887		1.50	0.0200	7.6	20.0
2-Chloro-1,3-butadiene	Ave	0.4715	0.4639		0.290	0.0200	-1.6	20.0
Ethyl tert-butyl ether	Ave	0.9662	0.9833		0.110	0.0200	1.8	20.0
Ethyl acetate	Ave	0.2044	0.2071		0.500	0.0400	1.3	20.0
Propionitrile	Ave	0.0488	0.0542		1.20	0.200	11.0	20.0
Methacrylonitrile	Ave	0.2096	0.2209		0.510	0.200	5.4	20.0
Tert-amyl methyl ether	Ave	0.9067	0.9219		0.0670	0.0200	1.7	20.0
n-Butanol	Ave	0.0043	0.0047		7.30	0.500	10.6	20.0
Ethyl acrylate	Ave	0.3726	0.3705		0.250	0.0200	-0.6	20.0
Methyl methacrylate	Ave	0.2616	0.2752		0.490	0.0400	5.2	20.0
2-Nitropropane	Ave	0.0291	0.0355		0.700	0.0400	22.2*	20.0
Cyclohexanone	Ave	0.0157	0.0156		5.80	0.200	-0.6	20.0
1,2,3-Trimethylbenzene	Ave	3.327	2.721		0.0164	0.0200	-18.2	20.0
1,3,5-Trichlorobenzene	Lin1		0.9239		0.110	0.0200	-2.7	20.0
2-Methylnaphthalene	Lin1		1.004		0.470	0.0400	-35.9*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: BFB3716.D BFB Injection Date: 02/19/2014

Instrument ID: A3UX16 BFB Injection Time: 12:53

Analysis Batch No.: 120094

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.2	
75	30.0 - 60.0 % of mass 95	52.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.3	(0.3)1
174	50.0 - 120.00 % of mass 95	80.4	
175	5.0 - 9.0 % of mass 174	5.8	(7.2)1
176	95.0 - 101.0 % of mass 174	77.8	(96.7)1
177	5.0 - 9.0 % of mass 176	5.0	(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STDA9 240-120094/9	UXM3688.D	02/19/2014	15:57
	STDA9 240-120094/10	UXM3689.D	02/19/2014	16:20
	STDA9 240-120094/11	UXM3690.D	02/19/2014	16:42
	STDA9 240-120094/12	UXM3691.D	02/19/2014	17:05
	STDA9 240-120094/13	UXM3692.D	02/19/2014	17:27
	STDA9 240-120094/14	UXM3693.D	02/19/2014	17:49
	ICV 240-120094/16	UXM3695.D	02/19/2014	18:34

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 120094

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/19/2014 15:57 Calibration End Date: 02/19/2014 17:49 Calibration ID: 20840

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-120094/14	UXM3693.D
Level 2	STDA9 240-120094/13	UXM3692.D
Level 3	STDA9 240-120094/12	UXM3691.D
Level 4	STDA9 240-120094/11	UXM3690.D
Level 5	STDA9 240-120094/10	UXM3689.D
Level 6	STDA9 240-120094/9	UXM3688.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0191 0.0202	0.0195	0.0174	0.0198	0.0194	Ave		0.0192				5.0		15.0			
Diisopropyl ether	0.1949 0.2492	0.2069	0.2158	0.2323	0.2477	Ave		0.2245				9.9		15.0			
2-Chloro-1,3-butadiene	0.3210 0.4544	0.3600	0.3838	0.4091	0.4602	Ave		0.3981				14.0		15.0			
Ethyl tert-butyl ether	0.6246 0.7813	0.6208	0.6460	0.7056	0.7487	Ave		0.6878				9.9		15.0			
Propionitrile	0.0202 0.0233	0.0212	0.0222	0.0237	0.0230	Ave		0.0223				6.1		15.0			
Ethyl acetate	0.1242 0.1243	0.1137	0.1178	0.1234	0.1203	Ave		0.1206				3.5		15.0			
Methacrylonitrile	0.1165 0.1250	0.1109	0.1132	0.1207	0.1200	Ave		0.1177				4.4		15.0			
Tert-amyl methyl ether	0.5221 0.6380	0.4590	0.5013	0.5638	0.6063	Ave		0.5484				12.0		15.0			
n-Butanol	0.0033 0.0042	0.0033	0.0036	0.0041	0.0042	Ave		0.0038				11.0		15.0			
Ethyl acrylate	0.1837 0.2183	0.1589	0.1773	0.1943	0.2076	Ave		0.1900				11.0		15.0			
Methyl methacrylate	0.1598 0.1865	0.1379	0.1537	0.1681	0.1776	Ave		0.1639				11.0		15.0			
2-Nitropropane	0.0345 0.0446	0.0272	0.0281	0.0341	0.0384	Qua	-0.037	0.0321	0.0001						1.0000		0.9900
Cyclohexanone	0.0078 0.0114	0.0099	0.0094	0.0110	0.0115	Ave		0.0102				14.0		15.0			
1,2,3-Trimethylbenzene	2.5683 3.3621	2.6171	2.7419	2.9169	3.3189	Ave		2.9209				12.0		15.0			
1,3,5-Trichlorobenzene	0.9676 1.2007	1.0824	0.9962	1.0805	1.2225	Ave		1.0916				9.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI

GC/MS VOA INITIAL CALIBRATION DATA

INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 120094

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/19/2014 15:57 Calibration End Date: 02/19/2014 17:49 Calibration ID: 20840

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Methylnaphthalene	0.7208 1.2877	0.8153	0.9841	1.2478	1.3350	Lin1	-1.669	1.2974							0.9970		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: BFB3758.D BFB Injection Date: 04/10/2014

Instrument ID: A3UX16 BFB Injection Time: 13:42

Analysis Batch No.: 126034

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.6	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	71.8	
175	5.0 - 9.0 % of mass 174	5.5	(7.6)1
176	95.0 - 101.0 % of mass 174	69.7	(97.0)1
177	5.0 - 9.0 % of mass 176	4.9	(7.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-126034/2	UXM4676.D	04/10/2014	14:13
	STD8260 240-126034/3	UXM4677.D	04/10/2014	14:35
	STD8260 240-126034/4	UXM4678.D	04/10/2014	14:58
	STD8260 240-126034/5	UXM4679.D	04/10/2014	15:20
	STD8260 240-126034/6	UXM4680.D	04/10/2014	15:43
	STD8260 240-126034/7	UXM4681.D	04/10/2014	16:05
	STD8260 240-126034/8	UXM4682.D	04/10/2014	16:27
	ICV 240-126034/9	UXM4683.D	04/10/2014	16:49

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 126034

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/10/2014 14:13 Calibration End Date: 04/10/2014 16:27 Calibration ID: 21660

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-126034/8	UXM4682.D
Level 2	STD8260 240-126034/7	UXM4681.D
Level 3	STD8260 240-126034/6	UXM4680.D
Level 4	STD8260 240-126034/5	UXM4679.D
Level 5	STD8260 240-126034/4	UXM4678.D
Level 6	STD8260 240-126034/3	UXM4677.D
Level 7	STD8260 240-126034/2	UXM4676.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2830 0.3105	0.2400 0.3123	0.3019	0.3179	0.3452	Ave		0.3016			0.1000	11.0		15.0			
Chloromethane	0.4487 0.4919	0.4546 0.4982	0.4956	0.4767	0.5090	Ave		0.4821			0.1000	4.8		15.0			
Vinyl chloride	0.3186 0.3892	0.3002 0.3869	0.3854	0.3751	0.4056	Ave		0.3659			0.1000	11.0		15.0			
Bromomethane	0.1834 0.1759	0.1856 0.1583	0.1878	0.1762	0.1884	Ave		0.1794			0.0500	5.9		15.0			
Chloroethane	0.2007 0.2167	0.1927 0.2044	0.2229	0.2151	0.2297	Ave		0.2118				6.2		15.0			
Dichlorofluoromethane	0.3686 0.4430	0.3917 0.4419	0.4384	0.4278	0.4642	Ave		0.4251				7.8		15.0			
Trichlorofluoromethane	0.2614 0.3379	0.2358 0.3387	0.3105	0.3270	0.3681	Ave		0.3113			0.1000	15.0		15.0			
Ethyl ether	0.2478 0.2484	0.2472 0.2740	0.2588	0.2647	0.2665	Ave		0.2582				4.1		15.0			
Acrolein	0.0261 0.0277	0.0252 0.0317	0.0276	0.0294	0.0304	Ave		0.0283				8.2		15.0			
1,1-Dichloroethene	0.1573 0.2560	0.2605 0.2655	0.2680	0.2504	0.2688	Lin1	-0.035	0.2637			0.1000				0.9990		0.9900
1,1,2-Trichlorotrifluoroethane	0.0319 0.1870	0.2113 0.1963	0.2158	0.1842	0.2108	Lin1	-0.042	0.1968			0.0500				0.9970		0.9900
Acetone	0.2007 0.0631	0.1498 0.0753	0.0845	0.0825	0.0762	Lin1	0.1394	0.0710			0.0500				0.9930		0.9900
Iodomethane	0.3604 0.3823	0.4003 0.3978	0.3967	0.3826	0.4008	Ave		0.3887				3.8		15.0			
Carbon disulfide	0.5778 0.8640	0.8246 0.8951	0.8215	0.8171	0.8646	Ave		0.8092			0.1000	13.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 126034

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/10/2014 14:13 Calibration End Date: 04/10/2014 16:27 Calibration ID: 21660

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.1246 0.1689	0.1325 0.1764	0.1555	0.1581	0.1693	Ave		0.1551				13.0		15.0			
Methyl acetate	0.1942 0.1803	0.1817 0.2179	0.1952	0.1995	0.2010	Ave		0.1957			0.1000	6.5		15.0			
Methylene Chloride	0.4216 0.2754	0.3689 0.2897	0.3083	0.2974	0.2904	Lin1	0.0763	0.2849			0.1000				0.9990		0.9900
tert-Butyl alcohol	0.0175 0.0166	0.0194 0.0210	0.0200	0.0199	0.0187	Ave		0.0190				8.0		15.0			
Acrylonitrile	0.0863 0.0820	0.0831 0.0977	0.0885	0.0895	0.0908	Ave		0.0883				6.0		15.0			
trans-1,2-Dichloroethene	0.2690 0.2877	0.3016 0.2981	0.3067	0.2889	0.3006	Ave		0.2932			0.1000	4.3		15.0			
Methyl tert-butyl ether	0.5638 0.6350	0.5798 0.7250	0.6382	0.6568	0.6783	Ave		0.6395			0.1000	8.7		15.0			
Hexane	0.0279 0.0787	0.0937 0.0841	0.0895	0.0758	0.0876	Lin1	-0.013	0.0832							0.9970		0.9900
1,1-Dichloroethane	0.5088 0.5619	0.5660 0.5872	0.5765	0.5621	0.5764	Ave		0.5627			0.1000	4.5		15.0			
Vinyl acetate	0.3075 0.3790	0.3003 0.4565	0.3430	0.3642	0.3934	Ave		0.3634				15.0		15.0			
cis-1,2-Dichloroethene	0.2758 0.2982	0.3165 0.3167	0.3135	0.3039	0.3153	Ave		0.3057			0.1000	4.9		15.0			
2-Butanone (MEK)	0.1005 0.1003	0.1124 0.1272	0.1111	0.1158	0.1135	Ave		0.1115			0.0500	8.3		15.0			
2,2-Dichloropropane	0.1850 0.2771	0.2754 0.2781	0.2764	0.2600	0.2914	Ave		0.2633				14.0		15.0			
Bromochloromethane	0.1052 0.1166	0.1190 0.1282	0.1221	0.1213	0.1244	Ave		0.1195				6.1		15.0			
Tetrahydrofuran	0.0647 0.0689	0.0575 0.0894	0.0709	0.0752	0.0772	Ave		0.0720				14.0		15.0			
Chloroform	0.4814 0.4608	0.4696 0.4938	0.4873	0.4676	0.4796	Ave		0.4772				2.4		15.0			
1,1,1-Trichloroethane	0.2514 0.3823	0.3434 0.4047	0.3878	0.3646	0.3971	Ave		0.3616			0.1000	15.0		15.0			
Cyclohexane	0.1822 0.6450	0.6233 0.6824	0.7229	0.6221	0.7147	Lin1	-0.167	0.6792			0.1000				0.9980		0.9900
1,1-Dichloropropene	0.2260 0.3575	0.3443 0.3865	0.3779	0.3490	0.3800	Lin1	-0.066	0.3777							0.9990		0.9900
Carbon tetrachloride	0.1378 0.3236	0.2774 0.3465	0.3007	0.2943	0.3332	Lin1	-0.104	0.3378			0.1000				0.9980		0.9900

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 126034

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/10/2014 14:13 Calibration End Date: 04/10/2014 16:27 Calibration ID: 21660

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0066 0.0081	0.0090 0.0107	0.0094	0.0096	0.0095	Ave		0.0090				15.0		15.0			
1,2-Dichloroethane	0.3395 0.3383	0.3550 0.3813	0.3495	0.3504	0.3617	Ave		0.3537			0.1000	4.2		15.0			
Benzene	1.1110 1.1908	1.2072 1.2797	1.2231	1.1814	1.2252	Ave		1.2026			0.5000	4.3		15.0			
n-Heptane	+++++ 0.0879	0.0915 0.0965	0.0925	0.0813	0.0957	Ave		0.0909				6.2		15.0			
Trichloroethene	0.2635 0.2729	0.2887 0.2940	0.2819	0.2740	0.2849	Ave		0.2800			0.2000	3.7		15.0			
Methylcyclohexane	0.1303 0.4998	0.5084 0.5338	0.5413	0.4773	0.5507	Lin1	-0.135	0.5281			0.1000				0.9980		0.9900
1,2-Dichloropropane	0.2774 0.2940	0.2876 0.3187	0.2941	0.2944	0.3053	Ave		0.2959			0.1000	4.4		15.0			
Dibromomethane	0.1101 0.1148	0.1098 0.1331	0.1251	0.1193	0.1232	Ave		0.1193				7.1		15.0			
1,4-Dioxane	+++++ 0.0016	0.0008 0.0019	0.0014	0.0016	0.0017	Lin1	-0.024	0.0018							0.9950		0.9900
Bromodichloromethane	0.2423 0.3114	0.2501 0.3539	0.2807	0.2869	0.3171	Ave		0.2918			0.1000	13.0		15.0			
2-Chloroethyl vinyl ether	0.0733 0.1054	0.0645 0.1316	0.0890	0.0993	0.1093	Qua	0.0731	0.0865	0.0002						0.9990		0.9900
cis-1,3-Dichloropropene	0.2389 0.3653	0.2610 0.4237	0.3109	0.3305	0.3669	Lin1	-0.143	0.3971			0.1500				0.9930		0.9900
4-Methyl-2-pentanone (MIBK)	0.2021 0.2220	0.1920 0.2831	0.2232	0.2379	0.2489	Ave		0.2299			0.0500	13.0		15.0			
Toluene	1.6420 1.7538	1.7518 1.8542	1.8275	1.7740	1.7941	Ave		1.7711			0.4000	3.9		15.0			
trans-1,3-Dichloropropene	0.2459 0.4149	0.2778 0.4762	0.3348	0.3772	0.4144	Lin1	-0.177	0.4481			0.1000				0.9940		0.9900
Ethyl methacrylate	0.2379 0.3661	0.2731 0.4318	0.3356	0.3736	0.3933	Lin1	-0.131	0.4075							0.9950		0.9900
1,1,2-Trichloroethane	0.2548 0.2566	0.2486 0.2864	0.2644	0.2743	0.2677	Ave		0.2647			0.1000	4.9		15.0			
1,3-Dichloropropane	0.4588 0.4654	0.4882 0.5211	0.4744	0.4912	0.4908	Ave		0.4843				4.3		15.0			
Tetrachloroethene	0.2124 0.3079	0.3197 0.3259	0.3377	0.3016	0.3225	Ave		0.3040			0.2000	14.0		15.0			
2-Hexanone	0.1948 0.2218	0.2071 0.2681	0.2474	0.2716	0.2554	Ave		0.2380			0.0500	13.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 126034

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/10/2014 14:13 Calibration End Date: 04/10/2014 16:27 Calibration ID: 21660

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2030 0.2678	0.1701 0.3126	0.2231	0.2415	0.2710	Lin1	-0.106	0.2923							0.9930		0.9900
1,2-Dibromoethane	0.2192 0.2323	0.2156 0.2649	0.2306	0.2403	0.2483	Ave		0.2359				7.2		15.0			
Chlorobenzene	1.2064 1.0588	1.1728 1.1286	1.1328	1.0863	1.0938	Ave		1.1256			0.3000	4.6		15.0			
1,1,1,2-Tetrachloroethane	0.2492 0.3513	0.3160 0.3778	0.3190	0.3335	0.3603	Ave		0.3296				13.0		15.0			
Ethylbenzene	0.5522 0.6072	0.6355 0.6455	0.6272	0.6012	0.6207	Ave		0.6128				5.0		15.0			
m-Xylene & p-Xylene	0.6090 0.7555	0.7664 0.8016	0.7798	0.7355	0.7742	Ave		0.7460				8.6		15.0			
o-Xylene	0.6339 0.7410	0.7161 0.7647	0.7635	0.7355	0.7651	Ave		0.7314				6.4		15.0			
Styrene	0.9474 1.2194	1.0593 1.2940	1.1928	1.2060	1.2395	Ave		1.1655			0.3000	10.0		15.0			
Bromoform	0.0593 0.1327	0.0855 0.1634	0.1094	0.1161	0.1314	Qua	0.0127	0.1084	0.0005		0.1000				1.0000		0.9900
Isopropylbenzene	1.3461 1.9811	1.8171 2.1000	2.0931	1.9131	2.0507	Ave		1.9002			0.1000	14.0		15.0			
1,1,2,2-Tetrachloroethane	0.5550 0.6270	0.5924 0.6975	0.7245	0.7013	0.6869	Ave		0.6549			0.3000	9.8		15.0			
Bromobenzene	0.8103 0.8448	0.8432 0.8874	0.8671	0.8533	0.8731	Ave		0.8542				2.9		15.0			
1,2,3-Trichloropropane	0.1845 0.1875	0.1895 0.2109	0.2051	0.2077	0.2040	Ave		0.1985				5.5		15.0			
trans-1,4-Dichloro-2-butene	0.1325 0.2113	0.1586 0.2522	0.2089	0.2122	0.2262	Lin1	-0.076	0.2369							0.9940		0.9900
N-Propylbenzene	0.7596 1.0643	1.0845 1.1149	1.1363	1.0140	1.1265	Ave		1.0429				13.0		15.0			
2-Chlorotoluene	0.7196 0.8886	0.9029 0.9255	0.9186	0.8840	0.9189	Ave		0.8797				8.2		15.0			
1,3,5-Trimethylbenzene	2.3949 3.3052	3.0010 3.5006	3.4931	3.2407	3.4813	Ave		3.2024				12.0		15.0			
4-Chlorotoluene	0.8322 0.9135	0.9697 0.9595	1.0008	0.9278	0.9651	Ave		0.9384				5.8		15.0			
tert-Butylbenzene	1.9306 3.0021	2.8222 3.1109	3.0596	2.8453	3.1412	Ave		2.8446				15.0		15.0			
1,2,4-Trimethylbenzene	2.6189 3.3798	3.2511 3.5721	3.6484	3.3884	3.5789	Ave		3.3482				10.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 126034

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/10/2014 14:13 Calibration End Date: 04/10/2014 16:27 Calibration ID: 21660

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.6516 4.2649	4.1560 4.4917	4.6459	4.0465	4.5772	Lin1	-0.672	4.4424							0.9990		0.9900
1,3-Dichlorobenzene	1.8198 1.7420	2.0076 1.8160	1.9241	1.7982	1.8380	Ave		1.8494			0.6000	4.8		15.0			
4-Isopropyltoluene	2.3580 3.7001	3.5878 3.9075	4.0366	3.5372	3.9661	Lin1	-0.572	3.8602							0.9990		0.9900
1,4-Dichlorobenzene	2.0661 1.7506	2.2037 1.8320	1.9542	1.8333	1.8640	Ave		1.9291			0.5000	8.2		15.0			
n-Butylbenzene	2.3586 3.3033	3.3262 3.4364	3.6614	3.1495	3.5842	Ave		3.2599				13.0		15.0			
1,2-Dichlorobenzene	1.6241 1.5868	1.7980 1.6441	1.8419	1.6892	1.6987	Ave		1.6975			0.4000	5.5		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.0834	0.0415 0.1045	0.0839	0.0841	0.0899	Lin1	-0.071	0.0974			0.0500				0.9900		0.9900
1,2,4-Trichlorobenzene	1.0420 0.9541	1.0610 1.0094	1.1195	0.9816	1.0815	Ave		1.0356			0.2000	5.6		15.0			
Hexachlorobutadiene	0.3744 0.5102	0.5674 0.5180	0.6519	0.4912	0.5963	Lin1	0.0039	0.5280							0.9950		0.9900
Naphthalene	1.7250 1.9220	1.7281 2.1174	2.1781	2.0780	2.1888	Ave		1.9910				10.0		15.0			
1,2,3-Trichlorobenzene	0.8635 0.8093	1.0048 0.8488	0.9974	0.8851	0.9511	Ave		0.9086				8.4		15.0			
Dibromofluoromethane (Surr)	0.2295 0.2302	0.2038 0.2308	0.2170	0.2160	0.2194	Ave		0.2210				4.5		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3103 0.2665	0.2644 0.2836	0.2606	0.2666	0.2656	Ave		0.2739				6.4		15.0			
Toluene-d8 (Surr)	1.4591 1.4807	1.3047 1.4595	1.3997	1.4069	1.3953	Ave		1.4151				4.2		15.0			
4-Bromofluorobenzene (Surr)	0.6573 0.5250	0.5316 0.5103	0.6258	0.5254	0.5043	Ave		0.5542				11.0		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: BFB3761.D BFB Injection Date: 04/14/2014

Instrument ID: A3UX16 BFB Injection Time: 11:35

Analysis Batch No.: 126387

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.0	
75	30.0 - 60.0 % of mass 95	48.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.3	(0.4)1
174	50.0 - 120.00 % of mass 95	73.8	
175	5.0 - 9.0 % of mass 174	5.5	(7.4)1
176	95.0 - 101.0 % of mass 174	72.1	(97.7)1
177	5.0 - 9.0 % of mass 176	4.9	(6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-126387/2	UXM4759.D	04/14/2014	12:04
	CCV 240-126387/3	UXM4760.D	04/14/2014	12:27
	LCS 240-126387/4	UXM4761.D	04/14/2014	12:49
	MB 240-126387/6	UXM4763.D	04/14/2014	13:35
MSA-MW41I-040414	240-35833-3	UXM4765.D	04/14/2014	14:25
MSA-MW41S-040414	240-35833-2	UXM4766.D	04/14/2014	14:47
MSA-MW41I-040414 MS	240-35833-3 MS	UXM4770.D	04/14/2014	16:17
MSA-MW41I-040414 MSD	240-35833-3 MSD	UXM4771.D	04/14/2014	16:39

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVIS 240-126387/2 Calibration Date: 04/14/2014 12:04

Instrument ID: A3UX16 Calib Start Date: 04/10/2014 14:13

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/10/2014 16:27

Lab File ID: UXM4759.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3016	0.3392	0.1000	0.310	0.0250	12.5	20.0
Chloromethane	Ave	0.4821	0.4990	0.1000	0.300	0.0250	3.5	20.0
Vinyl chloride	Ave	0.3659	0.3993	0.1000	0.220	0.0250	9.1	20.0
Bromomethane	Ave	0.1794	0.1797	0.0500	0.410	0.0250	0.2	20.0
Chloroethane	Ave	0.2118	0.2265	0.0500	0.290	0.0250	7.0	20.0
Dichlorofluoromethane	Ave	0.4251	0.4644		0.420	0.0250	9.2	20.0
Trichlorofluoromethane	Ave	0.3113	0.3805	0.1000	0.210	0.0250	22.2*	20.0
Ethyl ether	Ave	0.2582	0.2382		0.310	0.0250	-7.7	20.0
Acrolein	Ave	0.0283	0.0199		2.20	0.125	-29.7*	20.0
1,1-Dichloroethene	Lin1		0.2604	0.1000	0.190	0.0250	-0.7	20.0
1,1,2-Trichlorotrifluoroethane	Lin1		0.2086	0.0500	0.280	0.0250	6.8	20.0
Acetone	Lin1		0.0674	0.0500	1.10	0.0500	-9.0	20.0
Iodomethane	Ave	0.3887	0.3888		0.180	0.0250	0.0	20.0
Carbon disulfide	Ave	0.8092	0.8463	0.1000	0.130	0.0250	4.6	20.0
3-Chloro-1-propene	Ave	0.1551	0.1675		0.350	0.0250	8.0	20.0
Methyl acetate	Ave	0.1957	0.1806	0.1000	0.380	0.125	-7.7	20.0
Methylene Chloride	Lin1		0.2698	0.1000	0.330	0.0250	-6.4	20.0
tert-Butyl alcohol	Ave	0.0190	0.0148		3.90	0.250	-22.0*	20.0
Acrylonitrile	Ave	0.0883	0.0810		2.00	0.250	-8.3	20.0
Methyl tert-butyl ether	Ave	0.6395	0.6015	0.1000	0.170	0.0250	-6.0	20.0
trans-1,2-Dichloroethene	Ave	0.2932	0.2916	0.1000	0.190	0.0250	-0.6	20.0
Hexane	Lin1		0.0860		0.260	0.0250	4.0	20.0
1,1-Dichloroethane	Ave	0.5627	0.5545	0.1000	0.150	0.0250	-1.5	20.0
Vinyl acetate	Ave	0.3634	0.3272		0.190	0.0240	-10.0	20.0
2-Butanone (MEK)	Ave	0.1115	0.1021	0.0500	0.570	0.0500	-8.5	20.0
cis-1,2-Dichloroethene	Ave	0.3057	0.2952	0.1000	0.170	0.0250	-3.4	20.0
2,2-Dichloropropane	Ave	0.2633	0.2955		0.130	0.0250	12.2	20.0
Bromochloromethane	Ave	0.1195	0.1159		0.290	0.0250	-3.1	20.0
Tetrahydrofuran	Ave	0.0720	0.0669		0.420	0.0500	-7.0	20.0
Chloroform	Ave	0.4772	0.4541	0.2000	0.160	0.0250	-4.8	20.0
1,1,1-Trichloroethane	Ave	0.3616	0.3908	0.1000	0.220	0.0250	8.1	20.0
Cyclohexane	Lin1		0.6857	0.1000	0.120	0.0250	1.9	20.0
1,1-Dichloropropene	Lin1		0.3641		0.130	0.0250	-2.9	20.0
Carbon tetrachloride	Lin1		0.3349	0.1000	0.130	0.0250	0.4	20.0
Isobutyl alcohol	Ave	0.0090	0.0072		8.20	0.625	-19.8	20.0
1,2-Dichloroethane	Ave	0.3537	0.3301	0.1000	0.220	0.0250	-6.7	20.0
Benzene	Ave	1.203	1.151	0.5000	0.130	0.0250	-4.3	20.0
n-Heptane	Ave	0.0909	0.0968		0.180	0.0250	6.5	20.0
Trichloroethene	Ave	0.2800	0.2775	0.2000	0.170	0.0250	-0.9	20.0
Methylcyclohexane	Lin1		0.5377	0.1000	0.130	0.0250	2.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVIS 240-126387/2 Calibration Date: 04/14/2014 12:04

Instrument ID: A3UX16 Calib Start Date: 04/10/2014 14:13

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/10/2014 16:27

Lab File ID: UXM4759.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2959	0.2773	0.1000	0.180	0.0250	-6.3	20.0
Dibromomethane	Ave	0.1193	0.1097		0.280	0.0250	-8.0	20.0
1,4-Dioxane	Lin1		0.0014		19.0	0.500	-18.4	20.0
Bromodichloromethane	Ave	0.2918	0.2829	0.1000	0.150	0.0250	-3.0	20.0
2-Chloroethyl vinyl ether	Qua		0.0945		0.990	0.0500	-4.2	20.0
cis-1,3-Dichloropropene	Lin1		0.3282	0.1500	0.140	0.0250	-15.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2299	0.2073	0.0500	0.320	0.0500	-9.8	20.0
Toluene	Ave	1.771	1.713	0.4000	0.130	0.0250	-3.3	20.0
trans-1,3-Dichloropropene	Lin1		0.3784	0.1000	0.190	0.0250	-14.0	20.0
Ethyl methacrylate	Lin1		0.3330		0.140	0.0250	-17.0	20.0
1,1,2-Trichloroethane	Ave	0.2647	0.2425	0.1000	0.270	0.0250	-8.4	20.0
1,3-Dichloropropane	Ave	0.4843	0.4404		0.160	0.0250	-9.0	20.0
Tetrachloroethene	Ave	0.3040	0.3213	0.2000	0.290	0.0250	5.7	20.0
2-Hexanone	Ave	0.2380	0.2112	0.0500	0.410	0.0500	-11.3	20.0
Chlorodibromomethane	Lin1		0.2500		0.180	0.0250	-13.0	20.0
1,2-Dibromoethane	Ave	0.2359	0.2175		0.240	0.0250	-7.8	20.0
Chlorobenzene	Ave	1.126	1.033	0.3000	0.150	0.0250	-8.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3296	0.3310		0.230	0.0250	0.4	20.0
Ethylbenzene	Ave	0.6128	0.5944		0.170	0.0250	-3.0	20.0
m-Xylene & p-Xylene	Ave	0.7460	0.7291		0.240	0.0250	-2.3	20.0
o-Xylene	Ave	0.7314	0.7118		0.140	0.0250	-2.7	20.0
Styrene	Ave	1.165	1.137	0.3000	0.110	0.0250	-2.5	20.0
Bromoform	Qua		0.1203	0.1000	0.640	0.0250	-1.7	20.0
Isopropylbenzene	Ave	1.900	1.971	0.1000	0.130	0.0250	3.7	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6549	0.5617	0.3000	0.180	0.0250	-14.2	20.0
Bromobenzene	Ave	0.8542	0.7767		0.130	0.0250	-9.1	20.0
1,2,3-Trichloropropane	Ave	0.1985	0.1726		0.430	0.0250	-13.0	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.1809		0.150	0.0250	-22.3*	20.0
N-Propylbenzene	Ave	1.043	1.050		0.140	0.0250	0.7	20.0
2-Chlorotoluene	Ave	0.8797	0.8438		0.110	0.0250	-4.1	20.0
1,3,5-Trimethylbenzene	Ave	3.202	3.187		0.0960	0.0250	-0.5	20.0
4-Chlorotoluene	Ave	0.9384	0.8648		0.180	0.0250	-7.8	20.0
tert-Butylbenzene	Ave	2.845	2.893		0.130	0.0250	1.7	20.0
1,2,4-Trimethylbenzene	Ave	3.348	3.208		0.120	0.0250	-4.2	20.0
sec-Butylbenzene	Lin1		4.179		0.130	0.0250	-5.3	20.0
1,3-Dichlorobenzene	Ave	1.849	1.636	0.6000	0.140	0.0250	-11.5	20.0
4-Isopropyltoluene	Lin1		3.638		0.0237	0.0250	-5.2	20.0
1,4-Dichlorobenzene	Ave	1.929	1.640	0.5000	0.130	0.0250	-15.0	20.0
n-Butylbenzene	Ave	3.260	3.215		0.120	0.0250	-1.4	20.0
1,2-Dichlorobenzene	Ave	1.698	1.454	0.4000	0.130	0.0250	-14.3	20.0
1,2-Dibromo-3-Chloropropane	Lin1		0.0716	0.0500	0.670	0.0250	-23.6*	20.0

FORM VII 8260C

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVIS 240-126387/2 Calibration Date: 04/14/2014 12:04

Instrument ID: A3UX16 Calib Start Date: 04/10/2014 14:13

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/10/2014 16:27

Lab File ID: UXM4759.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Ave	1.036	0.8731	0.2000	0.150	0.0250	-15.7	20.0
Hexachlorobutadiene	Linl		0.5282		0.300	0.0250	0.0	20.0
Naphthalene	Ave	1.991	1.553		0.240	0.0250	-22.0*	20.0
1,2,3-Trichlorobenzene	Ave	0.9086	0.7486		0.170	0.0250	-17.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2210	0.1993		0.0257	0.0285	-9.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2739	0.2306		0.0240	0.0285	-15.8	20.0
Toluene-d8 (Surr)	Ave	1.415	1.327		0.0267	0.0285	-6.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5542	0.4503		0.0232	0.0285	-18.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-126387/3 Calibration Date: 04/14/2014 12:27

Instrument ID: A3UX16 Calib Start Date: 02/19/2014 15:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 02/19/2014 17:49

Lab File ID: UXM4760.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0192	0.0314		3.50	0.250	63.4*	20.0
Diisopropyl ether	Ave	0.2245	0.2457		1.50	0.0250	9.5	20.0
2-Chloro-1,3-butadiene	Ave	0.3981	0.5449		0.290	0.0250	36.9*	20.0
Ethyl tert-butyl ether	Ave	0.6878	0.8914		0.110	0.0250	29.6*	20.0
Propionitrile	Ave	0.0223	0.0313		1.20	0.250	40.7*	20.0
Ethyl acetate	Ave	0.1206	0.1593		0.500	0.0500	32.1*	20.0
Methacrylonitrile	Ave	0.1177	0.1582		0.510	0.250	34.4*	20.0
Tert-amyl methyl ether	Ave	0.5484	0.5887		0.0670	0.0250	7.3	20.0
n-Butanol	Ave	0.0038	0.0049		7.30	0.625	29.4*	20.0
Ethyl acrylate	Ave	0.1900	0.2378		0.250	0.0250	25.1*	20.0
Methyl methacrylate	Ave	0.1639	0.2063		0.490	0.0500	25.8*	20.0
2-Nitropropane	Qua		0.0392		0.700	0.0500	12.1	20.0
Cyclohexanone	Ave	0.0102	0.0141		5.80	0.250	39.0*	20.0
1,2,3-Trimethylbenzene	Ave	2.921	3.017		0.0258	0.0250	3.3	20.0
1,3,5-Trichlorobenzene	Ave	1.092	1.078		0.110	0.0250	-1.3	20.0
2-Methylnaphthalene	Lin1		0.7922		0.470	0.0500	-36.4*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-126387/3 Calibration Date: 04/14/2014 12:27

Instrument ID: A3UX16 Calib Start Date: 04/10/2014 14:13

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/10/2014 16:27

Lab File ID: UXM4760.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2210	0.2053		0.0265	0.0285	-7.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2739	0.2476		0.0258	0.0285	-9.6	20.0
Toluene-d8 (Surr)	Ave	1.415	1.322		0.0266	0.0285	-6.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5542	0.4810		0.0247	0.0285	-13.2	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: BFB3762.D BFB Injection Date: 04/15/2014

Instrument ID: A3UX16 BFB Injection Time: 12:27

Analysis Batch No.: 126549

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.5	
75	30.0 - 60.0 % of mass 95	50.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.3	(0.4)1
174	50.0 - 120.00 % of mass 95	75.0	
175	5.0 - 9.0 % of mass 174	6.0	(8.0)1
176	95.0 - 101.0 % of mass 174	72.2	(96.1)1
177	5.0 - 9.0 % of mass 176	4.9	(6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-126549/2	UXM4791.D	04/15/2014	12:58
	CCV 240-126549/3	UXM4792.D	04/15/2014	13:20
	LCS 240-126549/4	UXM4793.D	04/15/2014	13:43
	CCV 240-126549/6	UXM4795.D	04/15/2014	14:28
	MB 240-126549/7	UXM4796.D	04/15/2014	14:50
MSA-MW45S-040414	240-35833-4	UXM4797.D	04/15/2014	15:13
MSA-MW16S-040314	240-35834-2	UXM4798.D	04/15/2014	15:35
MSA-MW16I-040314	240-35834-3	UXM4799.D	04/15/2014	15:58

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVIS 240-126549/2 Calibration Date: 04/15/2014 12:58

Instrument ID: A3UX16 Calib Start Date: 04/10/2014 14:13

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/10/2014 16:27

Lab File ID: UXM4791.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3016	0.3109	0.1000	0.310	0.0250	3.1	20.0
Chloromethane	Ave	0.4821	0.4805	0.1000	0.300	0.0250	-0.3	20.0
Vinyl chloride	Ave	0.3659	0.3833	0.1000	0.220	0.0250	4.8	20.0
Bromomethane	Ave	0.1794	0.1833	0.0500	0.410	0.0250	2.2	20.0
Chloroethane	Ave	0.2118	0.2224	0.0500	0.290	0.0250	5.0	20.0
Dichlorofluoromethane	Ave	0.4251	0.4573		0.420	0.0250	7.6	20.0
Trichlorofluoromethane	Ave	0.3113	0.3595	0.1000	0.210	0.0250	15.5	20.0
Ethyl ether	Ave	0.2582	0.2354		0.310	0.0250	-8.8	20.0
Acrolein	Ave	0.0283	0.0153		2.20	0.125	-46.0*	20.0
1,1-Dichloroethene	Lin1		0.2378	0.1000	0.190	0.0250	-9.3	20.0
1,1,2-Trichlorotrifluoroethane	Lin1		0.1842	0.0500	0.280	0.0250	-5.5	20.0
Acetone	Lin1		0.0638	0.0500	1.10	0.0500	-14.0	20.0
Iodomethane	Ave	0.3887	0.3707		0.180	0.0250	-4.6	20.0
Carbon disulfide	Ave	0.8092	0.7362	0.1000	0.130	0.0250	-9.0	20.0
3-Chloro-1-propene	Ave	0.1551	0.1638		0.350	0.0250	5.6	20.0
Methyl acetate	Ave	0.1957	0.1713	0.1000	0.380	0.125	-12.5	20.0
Methylene Chloride	Lin1		0.2785	0.1000	0.330	0.0250	-3.3	20.0
tert-Butyl alcohol	Ave	0.0190	0.0145		3.90	0.250	-24.0*	20.0
Acrylonitrile	Ave	0.0883	0.0785		2.00	0.250	-11.0	20.0
Methyl tert-butyl ether	Ave	0.6395	0.5994	0.1000	0.170	0.0250	-6.3	20.0
trans-1,2-Dichloroethene	Ave	0.2932	0.2819	0.1000	0.190	0.0250	-3.9	20.0
Hexane	Lin1		0.0730		0.260	0.0250	-11.6	20.0
1,1-Dichloroethane	Ave	0.5627	0.5528	0.1000	0.150	0.0250	-1.8	20.0
Vinyl acetate	Ave	0.3634	0.3307		0.190	0.0240	-9.0	20.0
2-Butanone (MEK)	Ave	0.1115	0.0987	0.0500	0.570	0.0500	-11.5	20.0
cis-1,2-Dichloroethene	Ave	0.3057	0.2985	0.1000	0.170	0.0250	-2.4	20.0
2,2-Dichloropropane	Ave	0.2633	0.2890		0.130	0.0250	9.7	20.0
Bromochloromethane	Ave	0.1195	0.1188		0.290	0.0250	-0.6	20.0
Tetrahydrofuran	Ave	0.0720	0.0664		0.420	0.0500	-7.8	20.0
Chloroform	Ave	0.4772	0.4543	0.2000	0.160	0.0250	-4.8	20.0
1,1,1-Trichloroethane	Ave	0.3616	0.3807	0.1000	0.220	0.0250	5.3	20.0
Cyclohexane	Lin1		0.6109	0.1000	0.120	0.0250	-9.1	20.0
1,1-Dichloropropene	Lin1		0.3462		0.130	0.0250	-7.6	20.0
Carbon tetrachloride	Lin1		0.3156	0.1000	0.130	0.0250	-5.3	20.0
Isobutyl alcohol	Ave	0.0090	0.0069		8.20	0.625	-23.8*	20.0
1,2-Dichloroethane	Ave	0.3537	0.3361	0.1000	0.220	0.0250	-5.0	20.0
Benzene	Ave	1.203	1.153	0.5000	0.130	0.0250	-4.1	20.0
n-Heptane	Ave	0.0909	0.0874		0.180	0.0250	-3.9	20.0
Trichloroethene	Ave	0.2800	0.2772	0.2000	0.170	0.0250	-1.0	20.0
Methylcyclohexane	Lin1		0.4924	0.1000	0.130	0.0250	-5.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVIS 240-126549/2 Calibration Date: 04/15/2014 12:58

Instrument ID: A3UX16 Calib Start Date: 04/10/2014 14:13

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/10/2014 16:27

Lab File ID: UXM4791.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2959	0.2856	0.1000	0.180	0.0250	-3.5	20.0
Dibromomethane	Ave	0.1193	0.1144		0.280	0.0250	-4.2	20.0
1,4-Dioxane	Lin1		0.0014		19.0	0.500	-19.5	20.0
Bromodichloromethane	Ave	0.2918	0.3013	0.1000	0.150	0.0250	3.3	20.0
2-Chloroethyl vinyl ether	Qua		0.0964		0.990	0.0500	-2.5	20.0
cis-1,3-Dichloropropene	Lin1		0.3476	0.1500	0.140	0.0250	-11.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2299	0.2016	0.0500	0.320	0.0500	-12.3	20.0
Toluene	Ave	1.771	1.701	0.4000	0.130	0.0250	-3.9	20.0
trans-1,3-Dichloropropene	Lin1		0.3860	0.1000	0.190	0.0250	-12.3	20.0
Ethyl methacrylate	Lin1		0.3288		0.140	0.0250	-18.0	20.0
1,1,2-Trichloroethane	Ave	0.2647	0.2424	0.1000	0.270	0.0250	-8.4	20.0
1,3-Dichloropropane	Ave	0.4843	0.4442		0.160	0.0250	-8.3	20.0
Tetrachloroethene	Ave	0.3040	0.3057	0.2000	0.290	0.0250	0.6	20.0
2-Hexanone	Ave	0.2380	0.2029	0.0500	0.410	0.0500	-14.8	20.0
Chlorodibromomethane	Lin1		0.2545		0.180	0.0250	-11.5	20.0
1,2-Dibromoethane	Ave	0.2359	0.2199		0.240	0.0250	-6.8	20.0
Chlorobenzene	Ave	1.126	1.042	0.3000	0.150	0.0250	-7.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3296	0.3392		0.230	0.0250	2.9	20.0
Ethylbenzene	Ave	0.6128	0.5982		0.170	0.0250	-2.4	20.0
m-Xylene & p-Xylene	Ave	0.7460	0.7367		0.240	0.0250	-1.2	20.0
o-Xylene	Ave	0.7314	0.7233		0.140	0.0250	-1.1	20.0
Styrene	Ave	1.165	1.174	0.3000	0.110	0.0250	0.7	20.0
Bromoform	Qua		0.1219	0.1000	0.640	0.0250	-0.5	20.0
Isopropylbenzene	Ave	1.900	1.938	0.1000	0.130	0.0250	2.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6549	0.5561	0.3000	0.180	0.0250	-15.1	20.0
Bromobenzene	Ave	0.8542	0.7854		0.130	0.0250	-8.1	20.0
1,2,3-Trichloropropane	Ave	0.1985	0.1653		0.430	0.0250	-16.7	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.1747		0.150	0.0250	-25.8*	20.0
N-Propylbenzene	Ave	1.043	1.022		0.140	0.0250	-2.0	20.0
2-Chlorotoluene	Ave	0.8797	0.8447		0.110	0.0250	-4.0	20.0
1,3,5-Trimethylbenzene	Ave	3.202	3.150		0.0960	0.0250	-1.6	20.0
4-Chlorotoluene	Ave	0.9384	0.8629		0.180	0.0250	-8.0	20.0
tert-Butylbenzene	Ave	2.845	2.856		0.130	0.0250	0.4	20.0
1,2,4-Trimethylbenzene	Ave	3.348	3.192		0.120	0.0250	-4.7	20.0
sec-Butylbenzene	Lin1		4.057		0.130	0.0250	-8.1	20.0
1,3-Dichlorobenzene	Ave	1.849	1.656	0.6000	0.140	0.0250	-10.5	20.0
4-Isopropyltoluene	Lin1		3.551		0.0231	0.0250	-7.4	20.0
1,4-Dichlorobenzene	Ave	1.929	1.660	0.5000	0.130	0.0250	-13.9	20.0
n-Butylbenzene	Ave	3.260	3.087		0.120	0.0250	-5.3	20.0
1,2-Dichlorobenzene	Ave	1.698	1.493	0.4000	0.130	0.0250	-12.1	20.0
1,2-Dibromo-3-Chloropropane	Lin1		0.0750	0.0500	0.670	0.0250	-20.1*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVIS 240-126549/2 Calibration Date: 04/15/2014 12:58

Instrument ID: A3UX16 Calib Start Date: 04/10/2014 14:13

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/10/2014 16:27

Lab File ID: UXM4791.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Ave	1.036	0.9025	0.2000	0.150	0.0250	-12.9	20.0
Hexachlorobutadiene	Lin1		0.5103		0.300	0.0250	-3.4	20.0
Naphthalene	Ave	1.991	1.548		0.240	0.0250	-22.2*	20.0
1,2,3-Trichlorobenzene	Ave	0.9086	0.7566		0.170	0.0250	-16.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2210	0.2001		0.0258	0.0285	-9.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2739	0.2271		0.0236	0.0285	-17.1	20.0
Toluene-d8 (Surr)	Ave	1.415	1.305		0.0263	0.0285	-7.8	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5542	0.4497		0.0231	0.0285	-18.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-126549/3 Calibration Date: 04/15/2014 13:20

Instrument ID: A3UX16 Calib Start Date: 02/19/2014 15:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 02/19/2014 17:49

Lab File ID: UXM4792.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0192	0.0306		3.50	0.250	59.1*	20.0
Diisopropyl ether	Ave	0.2245	0.2541		1.50	0.0250	13.2	20.0
2-Chloro-1,3-butadiene	Ave	0.3981	0.5768		0.290	0.0250	44.9*	20.0
Ethyl tert-butyl ether	Ave	0.6878	0.9314		0.110	0.0250	35.4*	20.0
Propionitrile	Ave	0.0223	0.0315		1.20	0.250	41.6*	20.0
Ethyl acetate	Ave	0.1206	0.1649		0.500	0.0500	36.7*	20.0
Methacrylonitrile	Ave	0.1177	0.1593		0.510	0.250	35.3*	20.0
Tert-amyl methyl ether	Ave	0.5484	0.6104		0.0670	0.0250	11.3	20.0
n-Butanol	Ave	0.0038	0.0051		7.30	0.625	33.8*	20.0
Ethyl acrylate	Ave	0.1900	0.2446		0.250	0.0250	28.7*	20.0
Methyl methacrylate	Ave	0.1639	0.2122		0.490	0.0500	29.4*	20.0
2-Nitropropane	Qua		0.0386		0.700	0.0500	10.5	20.0
Cyclohexanone	Ave	0.0102	0.0147		5.80	0.250	44.4*	20.0
1,2,3-Trimethylbenzene	Ave	2.921	3.073		0.0263	0.0250	5.2	20.0
1,3,5-Trichlorobenzene	Ave	1.092	1.134		0.110	0.0250	3.9	20.0
2-Methylnaphthalene	Lin1		0.9147		0.470	0.0500	-26.9*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: BFB2636.D BFB Injection Date: 04/03/2014

Instrument ID: A3UX9 BFB Injection Time: 17:08

Analysis Batch No.: 125196

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.7	
75	30.0 - 60.0 % of mass 95	48.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.0	
173	Less than 2.0 % of mass 174	0.6	(0.8)1
174	50.0 - 120.00 % of mass 95	81.1	
175	5.0 - 9.0 % of mass 174	6.1	(7.5)1
176	95.0 - 101.0 % of mass 174	78.1	(96.3)1
177	5.0 - 9.0 % of mass 176	4.4	(5.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-125196/3	UX942598.D	04/03/2014	17:33
	STD8260 240-125196/4	UX942599.D	04/03/2014	17:56
	STD8260 240-125196/5	UX942600.D	04/03/2014	18:18
	STD8260 240-125196/6	UX942601.D	04/03/2014	18:41
	STD8260 240-125196/7	UX942602.D	04/03/2014	19:04
	STD8260 240-125196/8	UX942603.D	04/03/2014	19:27
	STD 240-125196/9	UX942604.D	04/03/2014	19:50
	STD 240-125196/10	UX942605.D	04/03/2014	20:13
	STD 240-125196/11	UX942606.D	04/03/2014	20:35
	STD 240-125196/12	UX942607.D	04/03/2014	20:58
	STD 240-125196/13	UX942608.D	04/03/2014	21:20
	STD 240-125196/14	UX942609.D	04/03/2014	21:41
	ICV 240-125196/15	UX942610.D	04/03/2014	22:04
	ICV 240-125196/16	UX942611.D	04/03/2014	22:27

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 125196

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/03/2014 17:33 Calibration End Date: 04/03/2014 19:27 Calibration ID: 21587

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-125196/8	UX942603.D
Level 2	STD8260 240-125196/7	UX942602.D
Level 3	STD8260 240-125196/6	UX942601.D
Level 4	STD8260 240-125196/5	UX942600.D
Level 5	STD8260 240-125196/4	UX942599.D
Level 6	STD8260 240-125196/3	UX942598.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2917 0.5137	0.4285	0.5306	0.4575	0.5415	Lin1	-0.107	0.5177			0.1000				0.9970		0.9900
Chloromethane	0.5788 0.4163	0.4259	0.4795	0.4608	0.4367	Ave		0.4663			0.1000	13.0		15.0			
Vinyl chloride	0.5271 0.4629	0.5347	0.4768	0.4549	0.4738	Ave		0.4884			0.1000	7.0		15.0			
Bromomethane	+++++ 0.3327	0.1839	0.2929	0.2971	0.2933	Lin1	-0.166	0.3194			0.0500				0.9970		0.9900
Chloroethane	0.2138 0.3216	0.2545	0.3083	0.3235	0.3079	Ave		0.2883				15.0		15.0			
Dichlorofluoromethane	+++++ 0.6289	0.6860	0.6659	0.6840	0.6506	Ave		0.6631				3.6		15.0			
Trichlorofluoromethane	+++++ 0.6768	0.4022	0.6285	0.5780	0.6716	Lin1	-0.322	0.6680			0.1000				0.9980		0.9900
Ethyl ether	0.3256 0.2769	0.2970	0.2848	0.2951	0.2912	Ave		0.2951				5.6		15.0			
Acrolein	0.0481 0.0398	0.0503	0.0373	0.0428	0.0412	Ave		0.0433				12.0		15.0			
Acetone	+++++ 0.0902	0.1524	0.0884	0.0938	0.0972	Lin1	0.1134	0.0909			0.0500				0.9980		0.9900
1,1,2-Trichlorotrifluoroethane	0.1270 0.3814	0.1273	0.3617	0.3079	0.4002	Lin1	-0.180	0.3800			0.0500				0.9940		0.9900
1,1-Dichloroethene	0.5715 0.7132	0.6511	0.7170	0.6589	0.7445	Ave		0.6760			0.1000	9.3		15.0			
Iodomethane	0.4145 0.5690	0.4417	0.5778	0.6180	0.6214	Lin1	-0.098	0.5924							0.9980		0.9900
Carbon disulfide	0.7948 1.3579	1.4612	1.3808	1.3399	1.4451	Lin1	-0.167	1.3855			0.1000				0.9990		0.9900
3-Chloro-1-propene	0.3519 0.1315	0.2388	0.2775	0.1838	0.1863	Qua	0.1092	0.2284	-0.001						0.9930		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 125196

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/03/2014 17:33 Calibration End Date: 04/03/2014 19:27 Calibration ID: 21587

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl acetate	0.2482 0.2097	0.2433	0.2157	0.2229	0.2229	Ave		0.2271			0.1000	6.8		15.0			
Methylene Chloride	+++++ 0.4694	0.5799	0.5239	0.5303	0.5063	Ave		0.5219			0.1000	7.7		15.0			
tert-Butyl alcohol	0.0232 0.0301	0.0291	0.0270	0.0302	0.0303	Ave		0.0283				9.8		15.0			
Acrylonitrile	0.1316 0.1097	0.1158	0.1116	0.1166	0.1173	Ave		0.1171				6.6		15.0			
Methyl tert-butyl ether	1.0183 1.0091	1.1236	1.0125	1.0388	1.0739	Ave		1.0460			0.1000	4.3		15.0			
trans-1,2-Dichloroethene	0.2631 0.5203	0.2862	0.5121	0.5328	0.5412	Lin1	-0.167	0.5311			0.1000				0.9990		0.9900
Hexane	0.5913 0.3604	0.5427	0.3893	0.3252	0.4010	Lin1	0.1315	0.3651							0.9950		0.9900
1,1-Dichloroethane	0.5189 0.5728	0.5498	0.5381	0.6026	0.5954	Ave		0.5629			0.1000	5.9		15.0			
Vinyl acetate	+++++ 0.4619	0.4384	0.4308	0.4675	0.4685	Ave		0.4534				3.9		15.0			
cis-1,2-Dichloroethene	0.5236 0.4969	0.4962	0.4929	0.5150	0.5201	Ave		0.5075			0.1000	2.7		15.0			
2,2-Dichloropropane	0.2270 0.2938	0.3041	0.3042	0.3002	0.3175	Ave		0.2911				11.0		15.0			
2-Butanone (MEK)	0.1610 0.1314	0.1392	0.1201	0.1332	0.1331	Ave		0.1363			0.0500	10.0		15.0			
Bromochloromethane	0.3099 0.2708	0.2736	0.2719	0.2850	0.3053	Ave		0.2861				6.1		15.0			
Tetrahydrofuran	+++++ 0.0873	0.0929	0.0824	0.0878	0.0866	Ave		0.0874				4.3		15.0			
Chloroform	0.6480 0.6137	0.7331	0.6113	0.6474	0.6409	Ave		0.6491				6.8		15.0			
1,1,1-Trichloroethane	0.5054 0.4315	0.4229	0.4340	0.4214	0.4522	Ave		0.4446			0.1000	7.2		15.0			
Cyclohexane	0.3515 0.3221	0.3083	0.3294	0.2979	0.3442	Ave		0.3256			0.1000	6.3		15.0			
1,1-Dichloropropene	0.5462 0.4553	0.4700	0.4699	0.4286	0.4839	Ave		0.4756				8.3		15.0			
Carbon tetrachloride	0.3446 0.4338	0.3439	0.4063	0.3757	0.4413	Ave		0.3909			0.1000	11.0		15.0			
Isobutyl alcohol	0.0121 0.0116	0.0130	0.0113	0.0100	0.0104	Ave		0.0114				9.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 125196

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/03/2014 17:33 Calibration End Date: 04/03/2014 19:27 Calibration ID: 21587

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzene	1.5196 1.3495	1.4168	1.4862	1.4752	1.4662	Ave		1.4522			0.5000	4.2		15.0			
1,2-Dichloroethane	0.5228 0.4800	0.4733	0.4989	0.5122	0.5022	Ave		0.4982			0.1000	3.8		15.0			
n-Heptane	0.8961 0.2410	0.9131	0.3494	0.3147	0.3245	Qua	0.1938	0.3706	-0.002						0.9970		0.9900
Trichloroethene	0.4480 0.4212	0.4295	0.4250	0.4098	0.4378	Ave		0.4285			0.2000	3.1		15.0			
Methylcyclohexane	0.6048 0.4409	0.7605	0.4525	0.4279	0.5111	Lin1	0.1461	0.4554			0.1000				0.9930		0.9900
1,2-Dichloropropane	0.3709 0.3419	0.3487	0.3241	0.3576	0.3542	Ave		0.3496			0.1000	4.5		15.0			
1,4-Dioxane	+++++ 0.0044	0.0036	0.0029	0.0043	0.0044	Lin1	-0.037	0.0044							0.9930		0.9900
Dibromomethane	0.2158 0.2645	0.2732	0.2705	0.2787	0.2635	Ave		0.2610				8.8		15.0			
Bromodichloromethane	0.5116 0.5298	0.5042	0.4818	0.5315	0.5428	Ave		0.5169			0.1000	4.3		15.0			
2-Chloroethyl vinyl ether	0.1737 0.2101	0.1884	0.2047	0.2160	0.2142	Ave		0.2012				8.3		15.0			
cis-1,3-Dichloropropene	0.4799 0.5946	0.5469	0.5661	0.6147	0.6221	Ave		0.5707			0.1500	9.3		15.0			
4-Methyl-2-pentanone (MIBK)	0.2844 0.2758	0.3221	0.2782	0.2961	0.2910	Ave		0.2913			0.0500	5.8		15.0			
Toluene	2.1229 1.8072	2.0847	1.9740	1.9800	1.9923	Ave		1.9935			0.4000	5.5		15.0			
trans-1,3-Dichloropropene	0.5338 0.6647	0.5253	0.6223	0.6492	0.6599	Ave		0.6092			0.1000	10.0		15.0			
Ethyl methacrylate	0.5471 0.5749	0.5195	0.5423	0.5677	0.5677	Ave		0.5532				3.8		15.0			
1,1,2-Trichloroethane	0.4357 0.4175	0.4541	0.4046	0.4147	0.4169	Ave		0.4239			0.1000	4.2		15.0			
Tetrachloroethene	0.3768 0.4787	0.4718	0.4555	0.4396	0.4885	Ave		0.4518			0.2000	9.0		15.0			
1,3-Dichloropropane	0.6791 0.7192	0.7919	0.7300	0.7205	0.7327	Ave		0.7289				5.0		15.0			
2-Hexanone	0.2627 0.2353	0.2306	0.2353	0.2385	0.2469	Ave		0.2415			0.0500	4.8		15.0			
Chlorodibromomethane	0.4545 0.4990	0.4101	0.4218	0.4774	0.4895	Ave		0.4587				8.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 125196

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/03/2014 17:33 Calibration End Date: 04/03/2014 19:27 Calibration ID: 21587

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dibromoethane	0.3783 0.4291	0.3966	0.4185	0.4290	0.4322	Ave		0.4139				5.3		15.0			
Chlorobenzene	1.5043 1.2996	1.4604	1.3639	1.4062	1.3628	Ave		1.3995			0.3000	5.3		15.0			
1,1,1,2-Tetrachloroethane	0.4342 0.5078	0.4577	0.4734	0.4860	0.5040	Ave		0.4772				5.9		15.0			
Ethylbenzene	0.7320 0.7190	0.6779	0.7166	0.6919	0.7367	Ave		0.7123				3.2		15.0			
m-Xylene & p-Xylene	0.8344 0.8774	0.8584	0.8410	0.8419	0.8910	Ave		0.8574				2.6		15.0			
o-Xylene	1.0275 0.8600	0.9311	0.8494	0.8574	0.8933	Ave		0.9031				7.5		15.0			
Styrene	1.2021 1.4454	1.3905	1.4512	1.4890	1.5419	Ave		1.4200			0.3000	8.3		15.0			
Bromoform	+++++ 0.3454	0.2626	0.2792	0.3036	0.3208	Ave		0.3023			0.1000	11.0		15.0			
Isopropylbenzene	2.1000 1.7772	2.1363	2.0130	1.9200	1.9941	Ave		1.9901			0.1000	6.5		15.0			
1,1,2,2-Tetrachloroethane	1.0340 0.9890	1.0364	1.0175	1.0277	1.0114	Ave		1.0193			0.3000	1.7		15.0			
Bromobenzene	1.3459 1.1584	1.2067	1.1705	1.1931	1.2063	Ave		1.2135				5.6		15.0			
1,2,3-Trichloropropane	0.4347 0.3898	0.3516	0.3644	0.4102	0.4113	Ave		0.3937				8.0		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.3000	0.1757	0.2299	0.2660	0.2871	Lin1	-0.171	0.2923							0.9970		0.9900
N-Propylbenzene	1.0552 1.1353	1.1369	1.0917	1.0749	1.1830	Ave		1.1128				4.3		15.0			
2-Chlorotoluene	1.2763 1.0065	1.0806	1.0182	1.0327	1.0143	Ave		1.0715				9.7		15.0			
1,3,5-Trimethylbenzene	3.3028 2.9802	3.5347	3.1501	3.2246	3.2497	Ave		3.2403				5.6		15.0			
4-Chlorotoluene	1.2702 1.0832	1.0722	1.1112	1.0990	1.1119	Ave		1.1246				6.5		15.0			
tert-Butylbenzene	3.6629 2.6355	3.8814	2.9893	2.8740	2.9008	Lin1	0.7838	2.7410							0.9970		0.9900
1,2,4-Trimethylbenzene	3.5953 3.1226	3.9970	3.4034	3.5345	3.4193	Ave		3.5120				8.2		15.0			
sec-Butylbenzene	5.3559 3.4328	5.4432	4.1875	3.8731	4.0130	Lin1	1.3642	3.6595							0.9940		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 125196

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/03/2014 17:33 Calibration End Date: 04/03/2014 19:27 Calibration ID: 21587

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	2.0862 1.9922	2.3475	2.0849	2.1382	2.0831	Ave		2.1220			0.6000	5.7		15.0			
4-Isopropyltoluene	4.1583 3.2128	4.8702	3.6282	3.6162	3.6272	Ave		3.8521				15.0		15.0			
1,4-Dichlorobenzene	2.7089 2.0799	2.4555	2.1940	2.2256	2.1510	Ave		2.3025			0.5000	10.0		15.0			
n-Butylbenzene	4.5824 2.7416	4.5422	3.1481	3.0822	3.0615	Lin1	1.2418	2.8667							0.9970		0.9900
1,2-Dichlorobenzene	2.4737 1.9909	2.3531	2.0254	2.0752	2.0376	Ave		2.1593			0.4000	9.4		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.2304	0.2037	0.1969	0.2152	0.2289	Ave		0.2150			0.0500	6.9		15.0			
1,2,4-Trichlorobenzene	1.6907 1.1627	1.9839	1.3100	1.3438	1.2957	Lin1	0.4593	1.2204			0.2000				0.9960		0.9900
Hexachlorobutadiene	1.6778 0.5700	1.3411	0.6619	0.6373	0.6264	Lin1	0.6316	0.5835							0.9980		0.9900
Naphthalene	3.0796 2.4950	4.0597	2.9357	2.9858	2.8464	Lin1	0.7589	2.6638							0.9930		0.9900
1,2,3-Trichlorobenzene	+++++ 0.9192	1.8165	1.2015	1.1489	1.0786	Lin1	1.0591	0.9814							0.9910		0.9900
Dibromofluoromethane (Surr)	+++++ 0.3386	0.3198	0.3503	0.3560	0.3471	Ave		0.3424				4.1		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3897	0.4131	0.4228	0.4410	0.4020	Ave		0.4137				4.7		15.0			
Toluene-d8 (Surr)	+++++ 1.5688	1.7400	1.6962	1.7274	1.6942	Ave		1.6853				4.0		15.0			
4-Bromofluorobenzene (Surr)	+++++ 0.6443	0.7232	0.6694	0.6683	0.6517	Ave		0.6714				4.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 125196

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/03/2014 19:50 Calibration End Date: 04/03/2014 21:41 Calibration ID: 21590

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-125196/14	UX942609.D
Level 2	STD 240-125196/13	UX942608.D
Level 3	STD 240-125196/12	UX942607.D
Level 4	STD 240-125196/11	UX942606.D
Level 5	STD 240-125196/10	UX942605.D
Level 6	STD 240-125196/9	UX942604.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0413 0.0396	0.0484	0.0321	0.0369	0.0388	Ave		0.0395				14.0		15.0			
Diisopropyl ether	0.3519 0.3386	0.3156	0.3543	0.3586	0.3349	Ave		0.3423				4.7		15.0			
2-Chloro-1,3-butadiene	0.4991 0.5270	0.5044	0.5331	0.5693	0.5303	Ave		0.5272				4.7		15.0			
Ethyl tert-butyl ether	1.1383 1.0221	1.1792	1.0391	1.0716	1.0766	Ave		1.0878				5.5		15.0			
Ethyl acetate	0.2595 0.1983	0.2147	0.2090	0.2095	0.2050	Ave		0.2160				10.0		15.0			
Propionitrile	0.0454 0.0438	0.0490	0.0418	0.0455	0.0445	Ave		0.0450				5.3		15.0			
Methacrylonitrile	0.2005 0.1751	0.2170	0.1929	0.1982	0.1932	Ave		0.1962				6.9		15.0			
Tert-amyl methyl ether	1.1174 1.0027	1.1609	1.0205	1.0675	1.0443	Ave		1.0689				5.6		15.0			
n-Butanol	0.0074 0.0090	0.0100	0.0079	0.0091	0.0089	Ave		0.0087				11.0		15.0			
Ethyl acrylate	0.3679 0.4011	0.4138	0.3805	0.4049	0.4043	Ave		0.3954				4.4		15.0			
Methyl methacrylate	0.2813 0.2882	0.3253	0.2887	0.3039	0.2975	Ave		0.2975				5.3		15.0			
2-Nitropropane	+++++ 0.0844	0.0942	0.0756	0.0757	0.0811	Ave		0.0822				9.3		15.0			
1-Chlorohexane	0.6364 0.5325	0.6543	0.5382	0.5328	0.4481	Ave		0.5570				14.0		15.0			
Cyclohexanone	+++++ 0.0269	0.0375	0.0288	0.0276	0.0276	Ave		0.0297				15.0		15.0			
1,2,3-Trimethylbenzene	3.9994 3.2747	3.9190	3.5328	3.6948	3.6657	Ave		3.6811				7.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 125196

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/03/2014 19:50 Calibration End Date: 04/03/2014 21:41 Calibration ID: 21590

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3,5-Trichlorobenzene	2.4673 1.3663	2.4038	1.5538	1.5774	1.5121	Lin1	0.7280	1.4267							0.9960		0.9900
2-Methylnaphthalene	3.1742 +++++	5.2680	1.7402	1.7408	1.5334	Lin	5.5341	1.4906							0.9950		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: BFB2639.D BFB Injection Date: 04/07/2014

Instrument ID: A3UX9 BFB Injection Time: 08:02

Analysis Batch No.: 125439

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.3	
75	30.0 - 60.0 % of mass 95	48.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	88.2	
175	5.0 - 9.0 % of mass 174	6.9	(7.8)1
176	95.0 - 101.0 % of mass 174	87.8	(99.5)1
177	5.0 - 9.0 % of mass 176	5.7	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-125439/2	UX942677.D	04/07/2014	08:24
	CCV 240-125439/3	UX942678.D	04/07/2014	08:46
	LCS 240-125439/4	UX942679.D	04/07/2014	09:08
	MB 240-125439/6	UX942681.D	04/07/2014	09:53
MSA-MW18I-040114	240-35725-3	UX942699.D	04/07/2014	16:33

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVIS 240-125439/2 Calibration Date: 04/07/2014 08:24

Instrument ID: A3UX9 Calib Start Date: 04/03/2014 17:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/03/2014 19:27

Lab File ID: UX942677.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.4894	0.1000	0.310	0.0200	-4.4	20.0
Chloromethane	Ave	0.4663	0.3980	0.1000	0.300	0.0200	-14.7	20.0
Vinyl chloride	Ave	0.4884	0.4286	0.1000	0.220	0.0200	-12.2	20.0
Bromomethane	Lin1		0.2669	0.0500	0.410	0.0200	-13.8	20.0
Chloroethane	Ave	0.2883	0.2876	0.0500	0.290	0.0200	-0.2	20.0
Dichlorofluoromethane	Ave	0.6631	0.5886		0.420	0.0200	-11.2	20.0
Trichlorofluoromethane	Lin1		0.6201	0.1000	0.210	0.0200	-4.8	20.0
Ethyl ether	Ave	0.2951	0.2602		0.310	0.0200	-11.8	20.0
Acrolein	Ave	0.0433	0.0298		2.20	0.100	-31.2*	20.0
1,1,2-Trichlorotrifluoroethane	Lin1		0.3571	0.0500	0.280	0.0200	-3.6	20.0
1,1-Dichloroethene	Ave	0.6760	0.6646	0.1000	0.190	0.0200	-1.7	20.0
Acetone	Lin1		0.0829	0.0500	1.10	0.0400	-12.0	20.0
Iodomethane	Lin1		0.5587		0.180	0.0200	-4.9	20.0
Carbon disulfide	Lin1		1.325	0.1000	0.130	0.0200	-3.8	20.0
3-Chloro-1-propene	Qua		0.1299		0.350	0.0200	-41.9*	20.0
Methyl acetate	Ave	0.2271	0.2061	0.1000	0.380	0.100	-9.3	20.0
Methylene Chloride	Ave	0.5219	0.4820	0.1000	0.330	0.0200	-7.6	20.0
tert-Butyl alcohol	Ave	0.0283	0.0267		3.90	0.200	-5.7	20.0
Acrylonitrile	Ave	0.1171	0.1086		2.00	0.200	-7.3	20.0
Methyl tert-butyl ether	Ave	1.046	0.9808	0.1000	0.170	0.0200	-6.2	20.0
trans-1,2-Dichloroethene	Lin1		0.4839	0.1000	0.190	0.0200	-7.3	20.0
Hexane	Lin1		0.3123		0.260	0.0200	-16.3	20.0
1,1-Dichloroethane	Ave	0.5629	0.5466	0.1000	0.150	0.0200	-2.9	20.0
Vinyl acetate	Ave	0.4534	0.3984		0.190	0.0192	-12.1	20.0
2,2-Dichloropropane	Ave	0.2911	0.2799		0.130	0.0200	-3.8	20.0
2-Butanone (MEK)	Ave	0.1363	0.1190	0.0500	0.570	0.0400	-12.7	20.0
cis-1,2-Dichloroethene	Ave	0.5075	0.4761	0.1000	0.170	0.0200	-6.2	20.0
Bromochloromethane	Ave	0.2861	0.2504		0.290	0.0200	-12.5	20.0
Tetrahydrofuran	Ave	0.0874	0.0797		0.420	0.0400	-8.8	20.0
Chloroform	Ave	0.6491	0.5983	0.2000	0.160	0.0200	-7.8	20.0
1,1,1-Trichloroethane	Ave	0.4446	0.4232	0.1000	0.220	0.0200	-4.8	20.0
Cyclohexane	Ave	0.3256	0.3044	0.1000	0.120	0.0200	-6.5	20.0
1,1-Dichloropropene	Ave	0.4756	0.4346		0.130	0.0200	-8.6	20.0
Carbon tetrachloride	Ave	0.3909	0.4089	0.1000	0.130	0.0200	4.6	20.0
Isobutyl alcohol	Ave	0.0114	0.0093		8.20	0.500	-18.2	20.0
Benzene	Ave	1.452	1.423	0.5000	0.130	0.0200	-2.0	20.0
1,2-Dichloroethane	Ave	0.4982	0.4624	0.1000	0.220	0.0200	-7.2	20.0
n-Heptane	Qua		0.2247		0.180	0.0200	-38.7*	20.0
Trichloroethene	Ave	0.4285	0.4094	0.2000	0.170	0.0200	-4.5	20.0
Methylcyclohexane	Lin1		0.3860	0.1000	0.130	0.0200	-16.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVIS 240-125439/2 Calibration Date: 04/07/2014 08:24

Instrument ID: A3UX9 Calib Start Date: 04/03/2014 17:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/03/2014 19:27

Lab File ID: UX942677.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3496	0.3234	0.1000	0.180	0.0200	-7.5	20.0
1,4-Dioxane	Lin1		0.0033		19.0	0.400	-22.4*	20.0
Dibromomethane	Ave	0.2610	0.2592		0.280	0.0200	-0.7	20.0
Bromodichloromethane	Ave	0.5169	0.4839	0.1000	0.150	0.0200	-6.4	20.0
2-Chloroethyl vinyl ether	Ave	0.2012	0.1952		0.990	0.0400	-3.0	20.0
cis-1,3-Dichloropropene	Ave	0.5707	0.5706	0.1500	0.140	0.0200	-0.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2913	0.2544	0.0500	0.320	0.0400	-12.7	20.0
Toluene	Ave	1.994	1.903	0.4000	0.130	0.0200	-4.6	20.0
trans-1,3-Dichloropropene	Ave	0.6092	0.6116	0.1000	0.190	0.0200	0.4	20.0
Ethyl methacrylate	Ave	0.5532	0.5057		0.140	0.0200	-8.6	20.0
1,1,2-Trichloroethane	Ave	0.4239	0.3965	0.1000	0.270	0.0200	-6.5	20.0
1,3-Dichloropropane	Ave	0.7289	0.6802		0.160	0.0200	-6.7	20.0
Tetrachloroethene	Ave	0.4518	0.4560	0.2000	0.290	0.0200	0.9	20.0
2-Hexanone	Ave	0.2415	0.2103	0.0500	0.410	0.0400	-12.9	20.0
Chlorodibromomethane	Ave	0.4587	0.4530		0.180	0.0200	-1.2	20.0
1,2-Dibromoethane	Ave	0.4139	0.4053		0.240	0.0200	-2.1	20.0
Chlorobenzene	Ave	1.400	1.321	0.3000	0.150	0.0200	-5.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.4772	0.4751		0.230	0.0200	-0.4	20.0
Ethylbenzene	Ave	0.7123	0.6713		0.170	0.0200	-5.8	20.0
m-Xylene & p-Xylene	Ave	0.8574	0.8365		0.240	0.0200	-2.4	20.0
o-Xylene	Ave	0.9031	0.8508		0.140	0.0200	-5.8	20.0
Styrene	Ave	1.420	1.437	0.3000	0.110	0.0200	1.2	20.0
Bromoform	Ave	0.3023	0.3030	0.1000	0.640	0.0200	0.2	20.0
Isopropylbenzene	Ave	1.990	1.849	0.1000	0.130	0.0200	-7.1	20.0
1,1,2,2-Tetrachloroethane	Ave	1.019	0.9798	0.3000	0.180	0.0200	-3.9	20.0
Bromobenzene	Ave	1.213	1.162		0.130	0.0200	-4.2	20.0
1,2,3-Trichloropropane	Ave	0.3937	0.3842		0.430	0.0200	-2.4	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.2508		0.150	0.0200	-11.3	20.0
N-Propylbenzene	Ave	1.113	1.063		0.140	0.0200	-4.4	20.0
2-Chlorotoluene	Ave	1.071	0.9734		0.110	0.0200	-9.2	20.0
1,3,5-Trimethylbenzene	Ave	3.240	3.089		0.0960	0.0200	-4.7	20.0
4-Chlorotoluene	Ave	1.125	1.052		0.180	0.0200	-6.4	20.0
tert-Butylbenzene	Lin1		2.664		0.130	0.0200	-4.2	20.0
1,2,4-Trimethylbenzene	Ave	3.512	3.150		0.120	0.0200	-10.3	20.0
sec-Butylbenzene	Lin1		3.670		0.130	0.0200	-1.6	20.0
1,3-Dichlorobenzene	Ave	2.122	1.930	0.6000	0.140	0.0200	-9.1	20.0
4-Isopropyltoluene	Ave	3.852	3.301		0.0171	0.0200	-14.3	20.0
1,4-Dichlorobenzene	Ave	2.302	2.041	0.5000	0.130	0.0200	-11.4	20.0
n-Butylbenzene	Lin1		2.661		0.120	0.0200	-9.4	20.0
1,2-Dichlorobenzene	Ave	2.159	1.968	0.4000	0.130	0.0200	-8.8	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.2150	0.2120	0.0500	0.670	0.0200	-1.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVIS 240-125439/2 Calibration Date: 04/07/2014 08:24

Instrument ID: A3UX9 Calib Start Date: 04/03/2014 17:33

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/03/2014 19:27

Lab File ID: UX942677.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Lin1		1.179	0.2000	0.150	0.0200	-5.3	20.0
Hexachlorobutadiene	Lin1		0.5800		0.300	0.0200	-6.0	20.0
Naphthalene	Lin1		2.608		0.240	0.0200	-3.5	20.0
1,2,3-Trichlorobenzene	Lin1		0.9398		0.170	0.0200	-9.6	20.0
Dibromofluoromethane (Surr)	Ave	0.3424	0.3267		0.0147	0.0154	-4.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.4137	0.3523		0.0131	0.0154	-14.9	20.0
Toluene-d8 (Surr)	Ave	1.685	1.610		0.0147	0.0154	-4.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6714	0.6083		0.0140	0.0154	-9.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125439/3 Calibration Date: 04/07/2014 08:46

Instrument ID: A3UX9 Calib Start Date: 04/03/2014 19:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/03/2014 21:41

Lab File ID: UX942678.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0395	0.0349		3.50	0.200	-11.6	20.0
Diisopropyl ether	Ave	0.3423	0.3298		1.50	0.0200	-3.7	20.0
2-Chloro-1,3-butadiene	Ave	0.5272	0.4846		0.290	0.0200	-8.1	20.0
Ethyl tert-butyl ether	Ave	1.088	1.014		0.110	0.0200	-6.8	20.0
Ethyl acetate	Ave	0.2160	0.1823		0.500	0.0400	-15.6	20.0
Propionitrile	Ave	0.0450	0.0400		1.20	0.200	-11.1	20.0
Methacrylonitrile	Ave	0.1962	0.1783		0.510	0.200	-9.1	20.0
Tert-amyl methyl ether	Ave	1.069	0.9658		0.0670	0.0200	-9.6	20.0
n-Butanol	Ave	0.0087	0.0077		7.30	0.500	-11.7	20.0
Ethyl acrylate	Ave	0.3954	0.3521		0.250	0.0200	-11.0	20.0
Methyl methacrylate	Ave	0.2975	0.2657		0.490	0.0400	-10.7	20.0
2-Nitropropane	Ave	0.0822	0.0736		0.700	0.0400	-10.5	20.0
Cyclohexanone	Ave	0.0297	0.0227		5.80	0.200	-23.7*	20.0
1,2,3-Trimethylbenzene	Ave	3.681	3.273		0.0178	0.0200	-11.1	20.0
1,3,5-Trichlorobenzene	Lin1		1.314		0.110	0.0200	-10.4	20.0
2-Methylnaphthalene	Lin		0.7606		0.470	0.0400	-58.3*	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: UX942681.D Lab Sample ID: MB 240-125439/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 04/07/2014 09:53

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-125439/4	UX942679.D	04/07/2014 09:08
MSA-MW18I-040114	240-35725-3	UX942699.D	04/07/2014 16:33

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-125439/6

Matrix: Water | Lab File ID: UX942681.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2014 09:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125439 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-125439/6

Matrix: Water | Lab File ID: UX942681.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2014 09:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125439 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-125439/6

Matrix: Water Lab File ID: UX942681.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/07/2014 09:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125439 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		74-120
1868-53-7	Dibromofluoromethane (Surr)	94		75-121
460-00-4	4-Bromofluorobenzene (Surr)	89		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-125439/6

Matrix: Water | Lab File ID: UX942681.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2014 09:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125439 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 0.234

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
142-82-5	n-Heptane	5.28	0.234	J

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX942679.D

Lab ID: LCS 240-125439/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	20.5	102	72-120	
1,1,1-Trichloroethane	20.0	20.1	100	74-120	
1,1,2,2-Tetrachloroethane	20.0	18.8	94	68-120	
1,1,2-Trichlorotrifluoroethane	20.0	18.6	93	74-151	
1,1-Dichloroethane	20.0	20.5	103	80-120	
1,1-Dichloroethene	20.0	20.1	101	78-131	
1,1-Dichloropropene	20.0	20.7	103	80-120	
1,2,3-Trichlorobenzene	20.0	18.4	92	54-126	
1,2,3-Trichloropropane	20.0	19.2	96	73-129	
1,2,4-Trichlorobenzene	20.0	19.0	95	48-135	
1,2,4-Trimethylbenzene	20.0	18.4	92	76-120	
1,2-Dibromo-3-Chloropropane	20.0	20.3	102	42-136	
1,2-Dichlorobenzene	20.0	18.3	91	80-120	
1,2-Dichloroethane	20.0	19.3	96	71-127	
1,2-Dichloropropane	20.0	19.2	96	80-120	
1,3-Dichlorobenzene	20.0	18.6	93	80-120	
1,3-Dichloropropane	20.0	19.3	96	79-120	
1,4-Dichlorobenzene	20.0	18.6	93	80-120	
2,2-Dichloropropane	20.0	19.6	98	50-129	
2-Butanone (MEK)	40.0	36.4	91	60-126	
2-Chloroethyl vinyl ether	24.0	23.9	100	52-131	
2-Chlorotoluene	20.0	18.2	91	76-120	
2-Hexanone	40.0	33.6	84	55-133	
4-Chlorotoluene	20.0	18.4	92	77-120	
4-Isopropyltoluene	20.0	17.3	87	74-120	
4-Methyl-2-pentanone (MIBK)	40.0	36.5	91	63-128	
Acetone	40.0	35.6	89	43-136	
Benzene	20.0	20.7	103	80-120	
Bromobenzene	20.0	19.0	95	76-120	
Bromoform	20.0	18.8	94	40-131	
Bromomethane	20.0	18.9	95	11-185	
Carbon disulfide	20.0	20.3	102	62-142	
Carbon tetrachloride	20.0	21.8	109	66-128	
Chlorobenzene	20.0	19.1	96	80-120	
Chlorodibromomethane	20.0	19.8	99	64-120	
Chloroethane	20.0	20.9	104	25-153	
Chloroform	20.0	19.4	97	79-120	
Chloromethane	20.0	16.7	84	44-126	
cis-1,2-Dichloroethene	20.0	18.9	95	80-120	
cis-1,3-Dichloropropene	20.0	20.9	105	61-120	
Dibromomethane	20.0	20.7	104	80-120	
Bromochloromethane	20.0	18.0	90	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX942679.D

Lab ID: LCS 240-125439/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	16.8	84	19-129	
Bromodichloromethane	20.0	18.9	95	72-121	
tert-Butyl alcohol	200	198	99	70-130	
Ethylbenzene	20.0	19.7	99	80-120	
Hexachlorobutadiene	20.0	18.4	92	36-134	
Isopropylbenzene	20.0	19.7	99	75-120	
Methyl tert-butyl ether	20.0	19.9	100	52-144	
Methylene Chloride	20.0	19.3	97	66-131	
m-Xylene & p-Xylene	20.0	20.5	103	80-120	
Naphthalene	20.0	19.5	97	32-141	
n-Butylbenzene	20.0	18.7	93	66-125	
N-Propylbenzene	20.0	18.9	94	74-121	
o-Xylene	20.0	19.1	95	80-120	
sec-Butylbenzene	20.0	19.8	99	70-120	
Styrene	20.0	20.0	100	79-120	
Tetrachloroethene	20.0	20.6	103	79-120	
Toluene	20.0	19.8	99	80-120	
trans-1,2-Dichloroethene	20.0	20.2	101	80-120	
trans-1,3-Dichloropropene	20.0	21.0	105	58-120	
Trichloroethene	20.0	20.5	103	76-120	
Trichlorofluoromethane	20.0	20.2	101	49-157	
Vinyl acetate	16.0	20.1	125	46-161	
Vinyl chloride	20.0	18.2	91	53-127	
Xylenes, Total	40.0	39.6	99	80-120	
tert-Butylbenzene	20.0	19.3	96	71-120	
1,2-Dibromoethane	20.0	20.4	102	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: U1236891.D Lab Sample ID: MB 240-125779/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 04/09/2014 10:21

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-125779/4	U1236889.D	04/09/2014 09:32
MSA-MW47I-040314	240-35834-5	U1236892.D	04/09/2014 10:46
MSA-MW18S-040114	240-35725-2	U1236893.D	04/09/2014 11:11
MSA-MW46I-040214	240-35791-5	U1236897.D	04/09/2014 12:50
MSA-MW42S-040214	240-35791-2	U1236898.D	04/09/2014 13:15
TB-040114	240-35725-1	U1236899.D	04/09/2014 13:39
TB-040214	240-35791-1	U1236905.D	04/09/2014 16:06
MSA-MW42I-040214	240-35791-3	U1236906.D	04/09/2014 16:31
MSA-MW46S-040214	240-35791-4	U1236907.D	04/09/2014 16:54
MSA-MW46D-040214	240-35791-6	U1236908.D	04/09/2014 17:19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-125779/6

Matrix: Water | Lab File ID: U1236891.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 10:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-125779/6

Matrix: Water | Lab File ID: U1236891.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 10:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-125779/6

Matrix: Water Lab File ID: U1236891.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/09/2014 10:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125779 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		74-120
1868-53-7	Dibromofluoromethane (Surr)	99		75-121
460-00-4	4-Bromofluorobenzene (Surr)	92		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-125779/6

Matrix: Water | Lab File ID: U1236891.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/09/2014 10:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125779 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1236889.D

Lab ID: LCS 240-125779/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	17.3	87	72-120	
1,1,1-Trichloroethane	20.0	19.8	99	74-120	
1,1,2,2-Tetrachloroethane	20.0	19.0	95	68-120	
1,1,2-Trichlorotrifluoroethane	20.0	20.0	100	74-151	
1,1-Dichloroethane	20.0	20.9	104	80-120	
1,1-Dichloroethene	20.0	22.4	112	78-131	
1,1-Dichloropropene	20.0	22.1	110	80-120	
1,2,3-Trichlorobenzene	20.0	18.7	94	54-126	
1,2,3-Trichloropropane	20.0	20.3	101	73-129	
1,2,4-Trichlorobenzene	20.0	19.8	99	48-135	
1,2,4-Trimethylbenzene	20.0	18.5	92	76-120	
1,2-Dibromo-3-Chloropropane	20.0	16.0	80	42-136	
1,2-Dichlorobenzene	20.0	20.5	102	80-120	
1,2-Dichloroethane	20.0	19.0	95	71-127	
1,2-Dichloropropane	20.0	20.9	104	80-120	
1,3-Dichlorobenzene	20.0	20.0	100	80-120	
1,3-Dichloropropane	20.0	20.0	100	79-120	
1,4-Dichlorobenzene	20.0	19.3	96	80-120	
2,2-Dichloropropane	20.0	20.2	101	50-129	
2-Butanone (MEK)	40.0	45.7	114	60-126	
2-Chloroethyl vinyl ether	24.0	23.8	99	52-131	
2-Chlorotoluene	20.0	20.3	102	76-120	
2-Hexanone	40.0	43.1	108	55-133	
4-Chlorotoluene	20.0	19.5	97	77-120	
4-Isopropyltoluene	20.0	17.5	88	74-120	
4-Methyl-2-pentanone (MIBK)	40.0	40.7	102	63-128	
Acetone	40.0	50.9	127	43-136	
Benzene	20.0	21.4	107	80-120	
Bromobenzene	20.0	21.0	105	76-120	
Bromoform	20.0	13.7	69	40-131	
Bromomethane	20.0	24.6	123	11-185	
Carbon disulfide	20.0	25.3	127	62-142	
Carbon tetrachloride	20.0	21.0	105	66-128	
Chlorobenzene	20.0	21.2	106	80-120	
Chlorodibromomethane	20.0	16.8	84	64-120	
Chloroethane	20.0	23.7	119	25-153	
Chloroform	20.0	19.0	95	79-120	
Chloromethane	20.0	23.9	120	44-126	
cis-1,2-Dichloroethene	20.0	21.7	108	80-120	
cis-1,3-Dichloropropene	20.0	19.4	97	61-120	
Dibromomethane	20.0	23.0	115	80-120	
Bromochloromethane	20.0	20.5	103	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1236889.D

Lab ID: LCS 240-125779/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	16.8	84	19-129	
Bromodichloromethane	20.0	18.5	93	72-121	
tert-Butyl alcohol	200	276	138	70-130	*
Ethylbenzene	20.0	21.5	108	80-120	
Hexachlorobutadiene	20.0	17.4	87	36-134	
Isopropylbenzene	20.0	19.9	100	75-120	
Methyl tert-butyl ether	20.0	23.3	117	52-144	
Methylene Chloride	20.0	22.5	113	66-131	
m-Xylene & p-Xylene	20.0	20.9	104	80-120	
Naphthalene	20.0	18.1	90	32-141	
n-Butylbenzene	20.0	16.6	83	66-125	
N-Propylbenzene	20.0	18.4	92	74-121	
o-Xylene	20.0	21.7	109	80-120	
sec-Butylbenzene	20.0	17.3	87	70-120	
Styrene	20.0	20.2	101	79-120	
Tetrachloroethene	20.0	21.7	108	79-120	
Toluene	20.0	21.1	105	80-120	
trans-1,2-Dichloroethene	20.0	23.0	115	80-120	
trans-1,3-Dichloropropene	20.0	19.4	97	58-120	
Trichloroethene	20.0	21.6	108	76-120	
Trichlorofluoromethane	20.0	22.8	114	49-157	
Vinyl acetate	16.0	22.4	140	46-161	
Vinyl chloride	20.0	22.8	114	53-127	
Xylenes, Total	40.0	42.6	107	80-120	
tert-Butylbenzene	20.0	19.2	96	71-120	
1,2-Dibromoethane	20.0	21.6	108	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: UXM4763.D Lab Sample ID: MB 240-126387/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 04/14/2014 13:35

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-126387/4	UXM4761.D	04/14/2014 12:49
MSA-MW41I-040414	240-35833-3	UXM4765.D	04/14/2014 14:25
MSA-MW41S-040414	240-35833-2	UXM4766.D	04/14/2014 14:47
MSA-MW41I-040414 MS	240-35833-3 MS	UXM4770.D	04/14/2014 16:17
MSA-MW41I-040414 MSD	240-35833-3 MSD	UXM4771.D	04/14/2014 16:39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-126387/6

Matrix: Water Lab File ID: UXM4763.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 10(mL) Date Analyzed: 04/14/2014 13:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126387 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	2.75	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.355	J	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126387/6

Matrix: Water | Lab File ID: UXM4763.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 04/14/2014 13:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126387 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-126387/6

Matrix: Water Lab File ID: UXM4763.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 10(mL) Date Analyzed: 04/14/2014 13:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126387 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		74-120
1868-53-7	Dibromofluoromethane (Surr)	89		75-121
460-00-4	4-Bromofluorobenzene (Surr)	83		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126387/6

Matrix: Water | Lab File ID: UXM4763.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 04/14/2014 13:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126387 | Units: ug/L

Number TICs Found: 2 | TIC Result Total: 2.072

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
110-54-3	Hexane	3.98	0.682	J
91-57-6	2-Methylnaphthalene	14.11	1.39	J

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4761.D

Lab ID: LCS 240-126387/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	25.0	26.2	105	72-120	
1,1,1-Trichloroethane	25.0	27.6	111	74-120	
1,1,2,2-Tetrachloroethane	25.0	21.9	88	68-120	
1,1,2-Trichlorotrifluoroethane	25.0	26.2	105	74-151	
1,1-Dichloroethane	25.0	26.0	104	80-120	
1,1-Dichloroethene	25.0	25.9	104	78-131	
1,1-Dichloropropene	25.0	26.6	106	80-120	
1,2,3-Trichlorobenzene	25.0	20.4	82	54-126	
1,2,3-Trichloropropane	25.0	22.9	91	73-129	
1,2,4-Trichlorobenzene	25.0	21.0	84	48-135	
1,2,4-Trimethylbenzene	25.0	24.1	96	76-120	
1,2-Dibromo-3-Chloropropane	25.0	20.1	80	42-136	
1,2-Dichlorobenzene	25.0	22.0	88	80-120	
1,2-Dichloroethane	25.0	24.8	99	71-127	
1,2-Dichloropropane	25.0	24.7	99	80-120	
1,3-Dichlorobenzene	25.0	22.4	90	80-120	
1,3-Dichloropropane	25.0	23.2	93	79-120	
1,4-Dichlorobenzene	25.0	21.5	86	80-120	
2,2-Dichloropropane	25.0	28.1	112	50-129	
2-Butanone (MEK)	50.0	48.6	97	60-126	
2-Chloroethyl vinyl ether	30.0	30.3	101	52-131	
2-Chlorotoluene	25.0	24.8	99	76-120	
2-Hexanone	50.0	44.7	89	55-133	
4-Chlorotoluene	25.0	23.2	93	77-120	
4-Isopropyltoluene	25.0	23.5	94	74-120	
4-Methyl-2-pentanone (MIBK)	50.0	46.5	93	63-128	
Acetone	50.0	49.2	98	43-136	
Benzene	25.0	25.0	100	80-120	
Bromobenzene	25.0	23.6	94	76-120	
Bromoform	25.0	24.3	97	40-131	
Bromomethane	25.0	22.0	88	11-185	
Carbon disulfide	25.0	27.5	110	62-142	
Carbon tetrachloride	25.0	25.9	104	66-128	
Chlorobenzene	25.0	23.3	93	80-120	
Chlorodibromomethane	25.0	22.5	90	64-120	
Chloroethane	25.0	23.7	95	25-153	
Chloroform	25.0	24.7	99	79-120	
Chloromethane	25.0	20.2	81	44-126	
cis-1,2-Dichloroethene	25.0	25.1	100	80-120	
cis-1,3-Dichloropropene	25.0	22.4	90	61-120	
Dibromomethane	25.0	24.9	100	80-120	
Bromochloromethane	25.0	25.2	101	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4761.D

Lab ID: LCS 240-126387/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	25.0	16.2	65	19-129	
Bromodichloromethane	25.0	25.4	102	72-121	
tert-Butyl alcohol	250	200	80	70-130	
Ethylbenzene	25.0	24.3	97	80-120	
Hexachlorobutadiene	25.0	24.7	99	36-134	
Isopropylbenzene	25.0	25.9	104	75-120	
Methyl tert-butyl ether	25.0	24.9	100	52-144	
Methylene Chloride	25.0	24.9	99	66-131	
m-Xylene & p-Xylene	25.0	24.6	99	80-120	
Naphthalene	25.0	20.0	80	32-141	
n-Butylbenzene	25.0	24.1	96	66-125	
N-Propylbenzene	25.0	24.9	100	74-121	
o-Xylene	25.0	24.9	99	80-120	
sec-Butylbenzene	25.0	23.9	95	70-120	
Styrene	25.0	24.0	96	79-120	
Tetrachloroethene	25.0	26.3	105	79-120	
Toluene	25.0	24.9	100	80-120	
trans-1,2-Dichloroethene	25.0	25.9	104	80-120	
trans-1,3-Dichloropropene	25.0	24.0	96	58-120	
Trichloroethene	25.0	25.8	103	76-120	
Trichlorofluoromethane	25.0	26.9	108	49-157	
Vinyl acetate	20.0	28.5	142	46-161	
Vinyl chloride	25.0	22.8	91	53-127	
Xylenes, Total	50.0	49.5	99	80-120	
tert-Butylbenzene	25.0	25.7	103	71-120	
1,2-Dibromoethane	25.0	24.5	98	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: U1236994.D Lab Sample ID: MB 240-126390/6

Matrix: Water Heated Purge: (Y/N) N

Instrument ID: A3UX12 Date Analyzed: 04/14/2014 13:51

GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-126390/4	U1236992.D	04/14/2014 13:03
TB-040414	240-35833-1	U1237001.D	04/14/2014 16:43
TB-040314	240-35834-1	U1237002.D	04/14/2014 17:07
MSA-MW47S-040314	240-35834-4	U1237005.D	04/14/2014 18:18

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126390/6

Matrix: Water | Lab File ID: U1236994.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 13:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126390/6

Matrix: Water | Lab File ID: U1236994.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 13:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126390/6

Matrix: Water | Lab File ID: U1236994.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 13:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	94		75-121
460-00-4	4-Bromofluorobenzene (Surr)	85		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126390/6

Matrix: Water | Lab File ID: U1236994.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 13:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1236992.D

Lab ID: LCS 240-126390/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	20.3	102	72-120	
1,1,1-Trichloroethane	20.0	20.3	101	74-120	
1,1,2,2-Tetrachloroethane	20.0	17.9	89	68-120	
1,1,2-Trichlorotrifluoroethane	20.0	21.5	107	74-151	
1,1-Dichloroethane	20.0	20.7	104	80-120	
1,1-Dichloroethene	20.0	23.1	115	78-131	
1,1-Dichloropropene	20.0	21.9	109	80-120	
1,2,3-Trichlorobenzene	20.0	19.5	98	54-126	
1,2,3-Trichloropropane	20.0	18.3	92	73-129	
1,2,4-Trichlorobenzene	20.0	20.6	103	48-135	
1,2,4-Trimethylbenzene	20.0	16.5	83	76-120	
1,2-Dibromo-3-Chloropropane	20.0	19.7	99	42-136	
1,2-Dichlorobenzene	20.0	19.0	95	80-120	
1,2-Dichloroethane	20.0	18.7	94	71-127	
1,2-Dichloropropane	20.0	21.1	105	80-120	
1,3-Dichlorobenzene	20.0	19.7	98	80-120	
1,3-Dichloropropane	20.0	19.6	98	79-120	
1,4-Dichlorobenzene	20.0	18.3	91	80-120	
2,2-Dichloropropane	20.0	19.2	96	50-129	
2-Butanone (MEK)	40.0	43.9	110	60-126	
2-Chloroethyl vinyl ether	24.0	22.9	95	52-131	
2-Chlorotoluene	20.0	17.9	89	76-120	
2-Hexanone	40.0	42.2	106	55-133	
4-Chlorotoluene	20.0	18.7	93	77-120	
4-Isopropyltoluene	20.0	16.4	82	74-120	
4-Methyl-2-pentanone (MIBK)	40.0	42.7	107	63-128	
Acetone	40.0	41.6	104	43-136	
Benzene	20.0	20.6	103	80-120	
Bromobenzene	20.0	19.9	99	76-120	
Bromoform	20.0	17.2	86	40-131	
Bromomethane	20.0	24.7	124	11-185	
Carbon disulfide	20.0	25.9	129	62-142	
Carbon tetrachloride	20.0	22.6	113	66-128	
Chlorobenzene	20.0	20.9	104	80-120	
Chlorodibromomethane	20.0	19.2	96	64-120	
Chloroethane	20.0	22.9	115	25-153	
Chloroform	20.0	18.7	94	79-120	
Chloromethane	20.0	20.1	101	44-126	
cis-1,2-Dichloroethene	20.0	21.0	105	80-120	
cis-1,3-Dichloropropene	20.0	20.1	101	61-120	
Dibromomethane	20.0	26.0	130	80-120	*
Bromochloromethane	20.0	22.2	111	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1236992.D

Lab ID: LCS 240-126390/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	11.4	57	19-129	
Bromodichloromethane	20.0	20.3	101	72-121	
tert-Butyl alcohol	200	198	99	70-130	
Ethylbenzene	20.0	20.9	105	80-120	
Hexachlorobutadiene	20.0	16.7	84	36-134	
Isopropylbenzene	20.0	19.4	97	75-120	
Methyl tert-butyl ether	20.0	21.2	106	52-144	
Methylene Chloride	20.0	22.4	112	66-131	
m-Xylene & p-Xylene	20.0	20.4	102	80-120	
Naphthalene	20.0	17.4	87	32-141	
n-Butylbenzene	20.0	14.6	73	66-125	
N-Propylbenzene	20.0	16.9	84	74-121	
o-Xylene	20.0	21.2	106	80-120	
sec-Butylbenzene	20.0	15.8	79	70-120	
Styrene	20.0	19.3	97	79-120	
Tetrachloroethene	20.0	22.8	114	79-120	
Toluene	20.0	20.2	101	80-120	
trans-1,2-Dichloroethene	20.0	22.4	112	80-120	
trans-1,3-Dichloropropene	20.0	19.3	97	58-120	
Trichloroethene	20.0	21.9	110	76-120	
Trichlorofluoromethane	20.0	22.2	111	49-157	
Vinyl acetate	16.0	22.4	140	46-161	
Vinyl chloride	20.0	20.5	102	53-127	
Xylenes, Total	40.0	41.6	104	80-120	
tert-Butylbenzene	20.0	17.0	85	71-120	
1,2-Dibromoethane	20.0	21.0	105	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: UXM4796.D Lab Sample ID: MB 240-126549/7

Matrix: Water Heated Purge: (Y/N) N

Instrument ID: A3UX16 Date Analyzed: 04/15/2014 14:50

GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-126549/4	UXM4793.D	04/15/2014 13:43
MSA-MW45S-040414	240-35833-4	UXM4797.D	04/15/2014 15:13
MSA-MW16S-040314	240-35834-2	UXM4798.D	04/15/2014 15:35
MSA-MW16I-040314	240-35834-3	UXM4799.D	04/15/2014 15:58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-126549/7

Matrix: Water Lab File ID: UXM4796.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 10(mL) Date Analyzed: 04/15/2014 14:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126549 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	1.07		1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126549/7

Matrix: Water | Lab File ID: UXM4796.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 04/15/2014 14:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126549 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.982	J	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126549/7

Matrix: Water | Lab File ID: UXM4796.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 04/15/2014 14:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126549 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	83		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126549/7

Matrix: Water | Lab File ID: UXM4796.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 04/15/2014 14:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126549 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4793.D

Lab ID: LCS 240-126549/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	25.0	25.7	103	72-120	
1,1,1-Trichloroethane	25.0	27.2	109	74-120	
1,1,2,2-Tetrachloroethane	25.0	21.2	85	68-120	
1,1,2-Trichlorotrifluoroethane	25.0	24.6	98	74-151	
1,1-Dichloroethane	25.0	25.7	103	80-120	
1,1-Dichloroethene	25.0	24.6	99	78-131	
1,1-Dichloropropene	25.0	26.0	104	80-120	
1,2,3-Trichlorobenzene	25.0	20.8	83	54-126	
1,2,3-Trichloropropane	25.0	21.8	87	73-129	
1,2,4-Trichlorobenzene	25.0	21.3	85	48-135	
1,2,4-Trimethylbenzene	25.0	23.2	93	76-120	
1,2-Dibromo-3-Chloropropane	25.0	20.0	80	42-136	
1,2-Dichlorobenzene	25.0	21.7	87	80-120	
1,2-Dichloroethane	25.0	24.5	98	71-127	
1,2-Dichloropropane	25.0	24.7	99	80-120	
1,3-Dichlorobenzene	25.0	22.1	88	80-120	
1,3-Dichloropropane	25.0	23.0	92	79-120	
1,4-Dichlorobenzene	25.0	21.2	85	80-120	
2,2-Dichloropropane	25.0	28.8	115	50-129	
2-Butanone (MEK)	50.0	46.8	94	60-126	
2-Chloroethyl vinyl ether	30.0	31.1	104	52-131	
2-Chlorotoluene	25.0	23.9	96	76-120	
2-Hexanone	50.0	44.6	89	55-133	
4-Chlorotoluene	25.0	22.7	91	77-120	
4-Isopropyltoluene	25.0	22.5	90	74-120	
4-Methyl-2-pentanone (MIBK)	50.0	46.7	93	63-128	
Acetone	50.0	46.4	93	43-136	
Benzene	25.0	24.8	99	80-120	
Bromobenzene	25.0	23.1	92	76-120	
Bromoform	25.0	23.9	96	40-131	
Bromomethane	25.0	22.8	91	11-185	
Carbon disulfide	25.0	27.3	109	62-142	
Carbon tetrachloride	25.0	25.0	100	66-128	
Chlorobenzene	25.0	23.3	93	80-120	
Chlorodibromomethane	25.0	22.2	89	64-120	
Chloroethane	25.0	23.7	95	25-153	
Chloroform	25.0	24.4	98	79-120	
Chloromethane	25.0	20.7	83	44-126	
cis-1,2-Dichloroethene	25.0	25.2	101	80-120	
cis-1,3-Dichloropropene	25.0	23.3	93	61-120	
Dibromomethane	25.0	24.3	97	80-120	
Bromochloromethane	25.0	25.2	101	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4793.D

Lab ID: LCS 240-126549/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	25.0	16.8	67	19-129	
Bromodichloromethane	25.0	25.7	103	72-121	
tert-Butyl alcohol	250	209	84	70-130	
Ethylbenzene	25.0	24.4	98	80-120	
Hexachlorobutadiene	25.0	24.0	96	36-134	
Isopropylbenzene	25.0	25.6	102	75-120	
Methyl tert-butyl ether	25.0	25.0	100	52-144	
Methylene Chloride	25.0	25.2	101	66-131	
m-Xylene & p-Xylene	25.0	24.8	99	80-120	
Naphthalene	25.0	20.2	81	32-141	
n-Butylbenzene	25.0	23.3	93	66-125	
N-Propylbenzene	25.0	24.2	97	74-121	
o-Xylene	25.0	24.7	99	80-120	
sec-Butylbenzene	25.0	22.7	91	70-120	
Styrene	25.0	23.8	95	79-120	
Tetrachloroethene	25.0	25.5	102	79-120	
Toluene	25.0	24.2	97	80-120	
trans-1,2-Dichloroethene	25.0	25.8	103	80-120	
trans-1,3-Dichloropropene	25.0	24.0	96	58-120	
Trichloroethene	25.0	25.7	103	76-120	
Trichlorofluoromethane	25.0	27.0	108	49-157	
Vinyl acetate	20.0	29.1	146	46-161	
Vinyl chloride	25.0	22.4	90	53-127	
Xylenes, Total	50.0	49.5	99	80-120	
tert-Butylbenzene	25.0	24.3	97	71-120	
1,2-Dibromoethane	25.0	23.5	94	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4770.D

Lab ID: 240-35833-3 MS Client ID: MSA-MW41I-040414 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	167	1.5 U	164	98	64-120	
1,1,1-Trichloroethane	167	1.5 U	172	103	68-121	
1,1,2,2-Tetrachloroethane	167	1.2 U	140	84	63-122	
1,1,2-Trichlorotrifluoroethane	167	1.9 U	165	99	70-152	
1,1-Dichloroethane	167	1.0 U	167	100	79-120	
1,1-Dichloroethene	167	4.4 J	164	96	74-135	
1,1-Dichloropropene	167	0.87 U	167	100	80-120	
1,2,3-Trichlorobenzene	167	1.1 U	138	83	45-129	
1,2,3-Trichloropropane	167	2.9 U	142	85	67-132	
1,2,4-Trichlorobenzene	167	3.4 J	143	84	38-138	
1,2,4-Trimethylbenzene	167	0.80 U	153	92	67-124	
1,2-Dibromo-3-Chloropropane	167	4.5 U	121	73	32-139	
1,2-Dichlorobenzene	167	0.87 U	143	86	75-120	
1,2-Dichloroethane	167	14	169	93	68-129	
1,2-Dichloropropane	167	1.2 U	157	94	78-120	
1,3-Dichlorobenzene	167	1.4 J	147	87	73-120	
1,3-Dichloropropane	167	1.1 U	146	88	74-120	
1,4-Dichlorobenzene	167	0.87 U	142	85	75-120	
2,2-Dichloropropane	167	0.87 U	173	104	38-127	
2-Butanone (MEK)	334	3.8 U	287	86	54-129	
2-Chloroethyl vinyl ether	200	6.6 U	35.0 J	18	10-150	
2-Chlorotoluene	167	0.73 U	154	92	69-120	
2-Hexanone	334	2.7 U	273	82	47-139	
4-Chlorotoluene	167	1.2 U	150	90	71-120	
4-Isopropyltoluene	167	0.80 U	147	88	64-122	
4-Methyl-2-pentanone (MIBK)	334	2.1 U	292	88	56-131	
Acetone	334	11 J	284	82	33-145	
Benzene	167	8.2	166	94	72-121	
Bromobenzene	167	0.87 U	151	91	71-120	
Bromoform	167	4.3 U	149	90	32-128	
Bromomethane	167	2.7 U	144	86	10-186	
Carbon disulfide	167	0.87 U	174	104	57-147	
Carbon tetrachloride	167	0.87 U	163	98	59-129	
Chlorobenzene	167	24	172	89	80-120	
Chlorodibromomethane	167	1.2 U	138	83	56-120	
Chloroethane	167	10	164	92	21-165	
Chloroform	167	1.1 U	159	95	76-120	
Chloromethane	167	2.0 U	132	79	33-132	
cis-1,2-Dichloroethene	167	410	543	78	70-120	
cis-1,3-Dichloropropene	167	0.93 U	146	87	51-120	
Dibromomethane	167	1.9 U	154	92	77-121	
Bromochloromethane	167	1.9 U	161	97	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4770.D

Lab ID: 240-35833-3 MS Client ID: MSA-MW41I-040414 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	167	2.1 U	103	62	17-128	
Bromodichloromethane	167	1.0 U	161	96	67-120	
tert-Butyl alcohol	1670	52 J	1350	78	70-130	
Ethylbenzene	167	1.1 U	155	93	75-120	
Hexachlorobutadiene	167	2.0 U	158	95	27-132	
Isopropylbenzene	167	0.87 U	164	98	68-120	
Methyl tert-butyl ether	167	1.1 U	158	95	46-144	
Methylene Chloride	167	2.2 U	159	95	63-128	
m-Xylene & p-Xylene	167	1.6 U	158	95	75-120	
Naphthalene	167	1.6 U	131	79	15-158	
n-Butylbenzene	167	0.80 U	154	92	56-127	
N-Propylbenzene	167	0.93 U	158	94	64-124	
o-Xylene	167	0.93 U	159	95	76-120	
sec-Butylbenzene	167	0.87 U	148	89	60-120	
Styrene	167	0.73 U	156	94	71-120	
Tetrachloroethene	167	1.9 U	161	97	70-120	
Toluene	167	0.87 U	154	92	78-120	
trans-1,2-Dichloroethene	167	3.5 J	168	99	80-120	
trans-1,3-Dichloropropene	167	1.3 U	150	90	46-120	
Trichloroethene	167	99	255	93	66-120	
Trichlorofluoromethane	167	1.4 U	168	101	46-157	
Vinyl acetate	133	1.3 U	176	132	43-157	
Vinyl chloride	167	510	572	38	49-130	F1
Xylenes, Total	334	0.93 U	317	95	76-120	
tert-Butylbenzene	167	0.87 U	159	96	61-120	
1,2-Dibromoethane	167	1.6 U	150	90	74-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4771.D

Lab ID: 240-35833-3 MSD Client ID: MSA-MW41I-040414 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	167	164	98	0	30	64-120	
1,1,1-Trichloroethane	167	180	108	5	30	68-121	
1,1,2,2-Tetrachloroethane	167	143	86	2	30	63-122	
1,1,2-Trichlorotrifluoroethane	167	173	104	5	30	70-152	
1,1-Dichloroethane	167	168	101	1	30	79-120	
1,1-Dichloroethene	167	166	97	1	30	74-135	
1,1-Dichloropropene	167	172	103	3	30	80-120	
1,2,3-Trichlorobenzene	167	140	84	1	30	45-129	
1,2,3-Trichloropropane	167	149	89	5	30	67-132	
1,2,4-Trichlorobenzene	167	147	86	2	30	38-138	
1,2,4-Trimethylbenzene	167	153	92	0	30	67-124	
1,2-Dibromo-3-Chloropropane	167	126	75	4	30	32-139	
1,2-Dichlorobenzene	167	144	86	1	30	75-120	
1,2-Dichloroethane	167	174	96	3	30	68-129	
1,2-Dichloropropane	167	164	98	4	30	78-120	
1,3-Dichlorobenzene	167	147	87	0	30	73-120	
1,3-Dichloropropane	167	153	92	5	30	74-120	
1,4-Dichlorobenzene	167	141	84	1	30	75-120	
2,2-Dichloropropane	167	185	111	7	30	38-127	
2-Butanone (MEK)	334	303	91	6	30	54-129	
2-Chloroethyl vinyl ether	200	25.2 J	13	33	30	10-150	F2
2-Chlorotoluene	167	155	93	1	30	69-120	
2-Hexanone	334	298	89	9	30	47-139	
4-Chlorotoluene	167	153	92	2	30	71-120	
4-Isopropyltoluene	167	150	90	2	30	64-122	
4-Methyl-2-pentanone (MIBK)	334	315	94	8	30	56-131	
Acetone	334	297	86	5	30	33-145	
Benzene	167	169	97	2	30	72-121	
Bromobenzene	167	154	92	2	30	71-120	
Bromoform	167	154	92	3	30	32-128	
Bromomethane	167	158	95	9	30	10-186	
Carbon disulfide	167	176	106	1	30	57-147	
Carbon tetrachloride	167	166	100	2	30	59-129	
Chlorobenzene	167	174	90	1	30	80-120	
Chlorodibromomethane	167	141	85	2	30	56-120	
Chloroethane	167	171	96	4	30	21-165	
Chloroform	167	160	96	1	30	76-120	
Chloromethane	167	137	82	4	30	33-132	
cis-1,2-Dichloroethene	167	563	90	4	30	70-120	
cis-1,3-Dichloropropene	167	149	89	2	30	51-120	
Dibromomethane	167	161	97	5	30	77-121	
Bromochloromethane	167	165	99	2	30	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM4771.D

Lab ID: 240-35833-3 MSD Client ID: MSA-MW41I-040414 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	167	108	65	6	30	17-128	
Bromodichloromethane	167	167	100	4	30	67-120	
tert-Butyl alcohol	1670	1490	86	10	30	70-130	
Ethylbenzene	167	158	95	1	30	75-120	
Hexachlorobutadiene	167	162	97	2	30	27-132	
Isopropylbenzene	167	164	99	0	30	68-120	
Methyl tert-butyl ether	167	163	98	3	30	46-144	
Methylene Chloride	167	163	98	3	30	63-128	
m-Xylene & p-Xylene	167	162	97	2	30	75-120	
Naphthalene	167	136	82	4	30	15-158	
n-Butylbenzene	167	156	93	1	30	56-127	
N-Propylbenzene	167	163	97	3	30	64-124	
o-Xylene	167	161	97	1	30	76-120	
sec-Butylbenzene	167	152	91	3	30	60-120	
Styrene	167	157	94	1	30	71-120	
Tetrachloroethene	167	167	100	3	30	70-120	
Toluene	167	157	94	2	30	78-120	
trans-1,2-Dichloroethene	167	171	100	2	30	80-120	
trans-1,3-Dichloropropene	167	156	93	4	30	46-120	
Trichloroethene	167	261	97	3	30	66-120	
Trichlorofluoromethane	167	183	109	8	30	46-157	
Vinyl acetate	133	185	138	5	30	43-157	
Vinyl chloride	167	595	51	4	30	49-130	
Xylenes, Total	334	323	97	2	30	76-120	
tert-Butylbenzene	167	163	98	3	30	61-120	
1,2-Dibromoethane	167	158	95	5	30	74-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-040114	240-35725-1	94	89	102	88
MSA-MW18S-040114	240-35725-2	95	91	99	87
MSA-MW18I-040114	240-35725-3	95	92	93	90
TB-040214	240-35791-1	97	98	104	91
MSA-MW42S-040214	240-35791-2	96	92	105	96
MSA-MW42I-040214	240-35791-3	103	96	108	96
MSA-MW46S-040214	240-35791-4	96	92	101	92
MSA-MW46I-040214	240-35791-5	95	99	105	92
MSA-MW46D-040214	240-35791-6	105	93	107	94
TB-040414	240-35833-1	96	91	97	84
MSA-MW41S-040414	240-35833-2	92	91	94	84
MSA-MW41I-040414	240-35833-3	91	88	91	83
MSA-MW45S-040414	240-35833-4	90	84	91	84
TB-040314	240-35834-1	101	93	102	89
MSA-MW16S-040314	240-35834-2	89	83	91	83
MSA-MW16I-040314	240-35834-3	89	85	92	83
MSA-MW47S-040314	240-35834-4	97	93	101	87
MSA-MW47I-040314	240-35834-5	93	92	102	87
	MB 240-125439/6	94	88	94	89
	MB 240-125779/6	99	94	106	92
	MB 240-126387/6	89	89	91	83
	MB 240-126390/6	94	91	97	85
	MB 240-126549/7	88	85	90	83
	LCS 240-125439/4	94	91	96	93
	LCS 240-125779/4	99	102	108	97
	LCS 240-126387/4	92	85	95	84
	LCS 240-126390/4	97	90	99	87
	LCS 240-126549/4	91	84	93	82
MSA-MW41I-040414 MS	240-35833-3 MS	91	84	92	84
MSA-MW41I-040414 MSD	240-35833-3 MSD	94	87	94	85

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-120
BFB = 4-Bromofluorobenzene (Surr)	66-120

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: STD8260 240-123039/5 Date Analyzed: 03/18/2014 18:42

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1236336.D Heated Purge: (Y/N) N

Calibration ID: 21224

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1086536	5.40	799126	8.22	433029	10.61
UPPER LIMIT		2173072	5.90	1598252	8.72	866058	11.11
LOWER LIMIT		543268	4.90	399563	7.72	216515	10.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-123039/9		1055888	5.40	791274	8.22	396841	10.61
ICV 240-123039/19		1016952	5.40	744314	8.22	380732	10.61
STD8260 240-125779/2 CCVIS		1095450	5.40	801477	8.22	422040	10.61
STD8260 240-126390/2 CCVIS		1040225	5.40	775617	8.22	454450	10.61

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: STD8260 240-125779/2 Date Analyzed: 04/09/2014 08:43

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1236887.D Heated Purge: (Y/N) N

Calibration ID: 21227

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1095450	5.40	801477	8.22	422040	10.61
UPPER LIMIT		2190900	5.90	1602954	8.72	844080	11.11
LOWER LIMIT		547725	4.90	400739	7.72	211020	10.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-125779/3		1066104	5.40	768394	8.22	424303	10.61
LCS 240-125779/4		1078855	5.40	773064	8.22	413116	10.61
MB 240-125779/6		1063995	5.40	790091	8.22	403580	10.61
240-35834-5	MSA-MW47I-040314	1073540	5.40	784208	8.22	416455	10.61
240-35725-2	MSA-MW18S-040114	1104382	5.40	819211	8.22	436558	10.61
240-35791-5	MSA-MW46I-040214	1099848	5.40	807829	8.22	415112	10.61
240-35791-2	MSA-MW42S-040214	1098724	5.40	789756	8.22	428673	10.61
240-35725-1	TB-040114	1100095	5.40	792897	8.22	425433	10.61
240-35791-1	TB-040214	1079957	5.40	787574	8.22	424037	10.61
240-35791-3	MSA-MW42I-040214	1040059	5.40	752744	8.22	394042	10.61
240-35791-4	MSA-MW46S-040214	1059024	5.40	793831	8.22	417949	10.61
240-35791-6	MSA-MW46D-040214	991084	5.40	728126	8.22	390241	10.61

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: STD8260 240-126390/2 Date Analyzed: 04/14/2014 12:16

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1236990.D Heated Purge: (Y/N) N

Calibration ID: 21227

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1040225	5.40	775617	8.22	454450	10.61
UPPER LIMIT		2080450	5.90	1551234	8.72	908900	11.11
LOWER LIMIT		520113	4.90	387809	7.72	227225	10.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-126390/3		1032772	5.40	792195	8.22	447520	10.61
LCS 240-126390/4		1022243	5.40	763704	8.22	448054	10.61
MB 240-126390/6		1028289	5.42	780395	8.22	426068	10.61
240-35833-1	TB-040414	1062756	5.40	801679	8.22	444523	10.61
240-35834-1	TB-040314	1031661	5.42	779641	8.22	453194	10.61
240-35834-4	MSA-MW47S-040314	1036957	5.40	782507	8.22	450145	10.61

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: STD8260 240-126034/4 Date Analyzed: 04/10/2014 14:58

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM4678.D Heated Purge: (Y/N) N

Calibration ID: 21660

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1804339	5.60	1202449	8.29	599422	10.53
UPPER LIMIT		3608678	6.10	2404898	8.79	1198844	11.03
LOWER LIMIT		902170	5.10	601225	7.79	299711	10.03
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-126034/9		1822711	5.59	1196077	8.29	603837	10.53
CCVIS 240-126387/2		1841700	5.60	1186097	8.29	605298	10.53
CCVIS 240-126549/2		1856886	5.60	1235752	8.29	635390	10.53

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: CCVIS 240-126387/2 Date Analyzed: 04/14/2014 12:04

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM4759.D Heated Purge: (Y/N) N

Calibration ID: 21660

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1841700	5.60	1186097	8.29	605298	10.53
UPPER LIMIT		3683400	6.10	2372194	8.79	1210596	11.03
LOWER LIMIT		920850	5.10	593049	7.79	302649	10.03
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-126387/3		1695561	5.60	1110597	8.30	571290	10.53
LCS 240-126387/4		1746006	5.60	1135302	8.30	575301	10.53
MB 240-126387/6		1660375	5.60	1104010	8.30	552728	10.53
240-35833-3	MSA-MW41I-040414	1691583	5.60	1106712	8.30	544741	10.53
240-35833-2	MSA-MW41S-040414	1635820	5.60	1076815	8.30	529062	10.53
240-35833-3 MS	MSA-MW41I-040414 MS	1695379	5.59	1153198	8.30	588644	10.53
240-35833-3 MSD	MSA-MW41I-040414 MSD	1594087	5.60	1096514	8.29	558649	10.53

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: CCVIS 240-126549/2 Date Analyzed: 04/15/2014 12:58

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM4791.D Heated Purge: (Y/N) N

Calibration ID: 21660

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1856886	5.60	1235752	8.29	635390	10.53
UPPER LIMIT		3713772	6.10	2471504	8.79	1270780	11.03
LOWER LIMIT		928443	5.10	617876	7.79	317695	10.03
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-126549/3		1757214	5.60	1182626	8.29	604230	10.53
LCS 240-126549/4		1745194	5.59	1186257	8.29	615501	10.53
CCV 240-126549/6		1668974	5.60	1131420	8.30	563080	10.53
MB 240-126549/7		1664211	5.60	1123302	8.30	552225	10.53
240-35833-4	MSA-MW45S-040414	1661217	5.60	1126133	8.29	555193	10.53
240-35834-2	MSA-MW16S-040314	1694879	5.60	1133541	8.30	559429	10.53
240-35834-3	MSA-MW16I-040314	1685756	5.59	1122284	8.29	555216	10.53

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: STD8260 240-125196/5 Date Analyzed: 04/03/2014 18:18

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX942600.D Heated Purge: (Y/N) N

Calibration ID: 21587

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1136383	5.31	964077	7.96	501447	10.20
UPPER LIMIT		2272766	5.81	1928154	8.46	1002894	10.70
LOWER LIMIT		568192	4.81	482039	7.46	250724	9.70
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-125196/15		1162382	5.31	979501	7.96	501429	10.19
ICV 240-125196/16		1125609	5.31	944345	7.96	477518	10.20
CCVIS 240-125439/2		1270719	5.31	1074843	7.96	545018	10.19

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: CCVIS 240-125439/2 Date Analyzed: 04/07/2014 08:24

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX942677.D Heated Purge: (Y/N) N

Calibration ID: 21590

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1270719	5.31	1074843	7.96	545018	10.19
UPPER LIMIT		2541438	5.81	2149686	8.46	1090036	10.69
LOWER LIMIT		635360	4.81	537422	7.46	272509	9.69
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-125439/3		1208682	5.31	1024950	7.96	512186	10.19
LCS 240-125439/4		1182534	5.31	1010046	7.96	537939	10.19
MB 240-125439/6		1130632	5.31	974393	7.96	498845	10.19
240-35725-3	MSA-MW18I-040114	1088330	5.31	943612	7.97	481821	10.19

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

Method 8270C

Semivolatile Organic Compounds (GC/MS) by Method 8270C

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: 0404001.D DFTPP Injection Date: 04/04/2014

Instrument ID: A4AG2 DFTPP Injection Time: 14:47

Analysis Batch No.: 125316

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	60.6	
68	Less than 2.0% of mass 69	0.1	(0.1)1
69	Mass 69 relative abundance	59.1	
70	Less than 2.0% of mass 69	0.1	(0.2)1
127	25.0 - 75.0% of mass 198	67.2	
197	Less than 1.0% of mass 198	0.4	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	19.2	
365	Greater than 0.75% of mass 198	2.1	
441	Present, but less than mass 443	8.9	
442	40.0 - 110.0% of mass 198	63.1	
443	15.0 - 24.0% of mass 442	11.5	(18.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-125316/2	0404002.D	04/04/2014	15:04
	STD8 240-125316/3	0404003.D	04/04/2014	15:27
	STD7 240-125316/4	0404004.D	04/04/2014	15:51
	STD6 240-125316/5	0404005.D	04/04/2014	16:14
	STD5 240-125316/6	0404006.D	04/04/2014	16:37
	STD4 240-125316/7	0404007.D	04/04/2014	17:01
	STD3 240-125316/8	0404008.D	04/04/2014	17:24
	STD2 240-125316/9	0404009.D	04/04/2014	17:48
	STD1 240-125316/10	0404010.D	04/04/2014	18:11
	ICV 240-125316/11	0404011.D	04/04/2014	18:34

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 125316

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/04/2014 15:04 Calibration End Date: 04/04/2014 18:11 Calibration ID: 21592

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-125316/10	0404010.D
Level 2	STD2 240-125316/9	0404009.D
Level 3	STD3 240-125316/8	0404008.D
Level 4	STD4 240-125316/7	0404007.D
Level 5	STD5 240-125316/6	0404006.D
Level 6	STD6 240-125316/5	0404005.D
Level 7	STD7 240-125316/4	0404004.D
Level 8	STD8 240-125316/3	0404003.D
Level 9	STD9 240-125316/2	0404002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.6573	0.6619 0.6104	0.6103 0.6270	0.6276 0.6193	0.6426	Ave		0.6321				3.2		15.0			
N-Nitrosodimethylamine	0.7452	+++++ 0.8168	0.3012 0.8234	0.5034 0.8535	0.6711	Lin1	-65.11	0.8555							0.9980		0.9900
Pyridine	1.5281	1.2597 1.4066	1.3142 1.4957	1.3268 1.4333	1.3831	Ave		1.3935				6.6		15.0			
Benzaldehyde	0.8068	1.2776 0.6856	1.1886 0.6722	0.7716 0.6021	0.7735	Qua	24.602	0.8552	0						0.9970		0.9900
Phenol	2.0484	2.0042 1.9234	1.8042 1.9570	1.6150 1.9558	1.8987	Ave		1.9008				7.2		15.0			
Aniline	1.4904	1.2511 1.3351	1.2723 1.2928	0.9752 1.2617	1.3485	Ave		1.2784				11.0		15.0			
Bis(2-chloroethyl)ether	1.5715	1.5093 1.4979	1.5507 1.5601	1.4830 1.5579	1.4564	Ave		1.5233				2.8		15.0			
2-Chlorophenol	1.4460	1.4197 1.3523	1.3599 1.4056	1.2924 1.4031	1.4085	Ave		1.3860				3.5		15.0			
n-Decane	1.8131	1.8330 1.7341	1.8508 1.7790	1.7632 1.7668	1.7894	Ave		1.7912				2.2		15.0			
1,3-Dichlorobenzene	1.5101	1.4783 1.4052	1.4744 1.4565	1.4872 1.4545	1.4674	Ave		1.4667				2.1		15.0			
1,4-Dichlorobenzene	1.5241	1.5019 1.4436	1.5336 1.4841	1.5097 1.4637	1.4955	Ave		1.4945				2.0		15.0			
Benzyl alcohol	0.9879	0.8154 0.9397	0.7593 0.9798	0.6369 0.9842	0.8688	Ave		0.8715				15.0		15.0			
1,2-Dichlorobenzene	1.4316	1.3613 1.3769	1.4603 1.4098	1.4317 1.4099	1.4043	Ave		1.4107				2.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICV 240-125316/11 Calibration Date: 04/04/2014 18:34

Instrument ID: A4AG2 Calib Start Date: 04/04/2014 15:04

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/04/2014 18:11

Lab File ID: 0404011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6321	0.6490		1.03	1.00	2.7	50.0
N-Nitrosodimethylamine	Lin1		0.7663		0.972	1.00	-2.8	50.0
Pyridine	Ave	1.393	1.544		1.11	1.00	10.8	50.0
Benzaldehyde	Qua		0.6798		1.74	2.00	-12.9	50.0
Phenol	Ave	1.901	2.035		1.07	1.00	7.1	20.0
Aniline	Ave	1.278	1.514		1.18	1.00	18.4	50.0
Bis(2-chloroethyl)ether	Ave	1.523	1.531		1.01	1.00	0.5	50.0
2-Chlorophenol	Ave	1.386	1.449		1.05	1.00	4.5	50.0
n-Decane	Ave	1.791	1.781		0.995	1.00	-0.5	50.0
1,3-Dichlorobenzene	Ave	1.467	1.486		1.01	1.00	1.3	50.0
1,4-Dichlorobenzene	Ave	1.495	1.522		1.02	1.00	1.8	20.0
Benzyl alcohol	Ave	0.8715	0.9787		1.12	1.00	12.3	50.0
1,2-Dichlorobenzene	Ave	1.411	1.447		1.03	1.00	2.6	50.0
2-Methylphenol	Ave	1.257	1.396		1.11	1.00	11.1	50.0
bis (2-chloroisopropyl) ether	Ave	2.152	2.295		0.768	0.720	6.6	50.0
Indene	Ave	2.607	2.688		2.06	2.00	3.1	50.0
3 & 4 Methylphenol	Ave	1.320	1.431		1.08	1.00	8.4	50.0
N-Nitrosodi-n-propylamine	Ave	1.085	1.179	0.0500	1.09	1.00	8.7	50.0
Acetophenone	Ave	2.006	2.118		1.06	1.00	5.6	50.0
Hexachloroethane	Ave	0.6271	0.6661		1.06	1.00	6.2	50.0
Nitrobenzene	Ave	0.4106	0.4256		1.04	1.00	3.7	50.0
Isophorone	Ave	0.6810	0.7547		1.11	1.00	10.8	50.0
2-Nitrophenol	Ave	0.1566	0.1694		1.08	1.00	8.2	20.0
2,4-Dimethylphenol	Ave	0.2084	0.2158		1.04	1.00	3.5	50.0
Benzoic acid	Ave	0.1893	0.1715		1.81	2.00	-9.4	50.0
Bis(2-chloroethoxy)methane	Ave	0.4189	0.4234		1.01	1.00	1.1	50.0
2,4-Dichlorophenol	Ave	0.2241	0.2432		1.09	1.00	8.5	20.0
1,2,4-Trichlorobenzene	Ave	0.2478	0.2564		1.03	1.00	3.5	50.0
Naphthalene	Ave	0.998	1.001		1.00	1.00	0.3	50.0
4-Chloroaniline	Ave	0.1968	0.1335		0.679	1.00	-32.1	50.0
Hexachlorobutadiene	Ave	0.1228	0.1254		1.02	1.00	2.1	20.0
Caprolactam	Lin1		0.0830		1.63	2.00	-18.7	50.0
4-Chloro-3-methylphenol	Ave	0.2742	0.2965		1.08	1.00	8.1	20.0
2-Methylnaphthalene	Ave	0.6622	0.6449		0.974	1.00	-2.6	50.0
1-Methylnaphthalene	Ave	0.6193	0.6040		0.975	1.00	-2.5	50.0
Hexachlorocyclopentadiene	Ave	0.2100	0.2285	0.0500	1.09	1.00	8.8	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3828	0.4051		1.06	1.00	5.8	50.0
2,4,6-Trichlorophenol	Ave	0.2726	0.2882		1.06	1.00	5.7	20.0
2,4,5-Trichlorophenol	Ave	0.3036	0.3192		1.05	1.00	5.1	50.0
1,1'-Biphenyl	Ave	1.411	1.458		1.03	1.00	3.3	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: 0410001.D DFTPP Injection Date: 04/10/2014

Instrument ID: A4AG2 DFTPP Injection Time: 07:10

Analysis Batch No.: 125924

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	51.9	
68	Less than 2.0% of mass 69	0.8	(1.4)1
69	Mass 69 relative abundance	53.6	
70	Less than 2.0% of mass 69	0.3	(0.5)1
127	25.0 - 75.0% of mass 198	63.0	
197	Less than 1.0% of mass 198	0.4	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	21.2	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	10.8	
442	40.0 - 110.0% of mass 198	73.3	
443	15.0 - 24.0% of mass 442	13.9	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-125924/2	0410002.D	04/10/2014	07:26
	MB 240-125490/17-A	0410005.D	04/10/2014	08:39
	LCS 240-125490/18-A	0410006.D	04/10/2014	09:02
MSA-MW18S-040114	240-35725-2	0410017.D	04/10/2014	13:15
MSA-MW16I-040314	240-35834-3	0410020.D	04/10/2014	14:24
MSA-MW47S-040314	240-35834-4	0410021.D	04/10/2014	14:47

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: STD6 240-125924/2 Calibration Date: 04/10/2014 07:26

Instrument ID: A4AG2 Calib Start Date: 04/04/2014 15:04

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/04/2014 18:11

Lab File ID: 0410002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6321	0.6564		1.04	1.00	3.8	50.0
N-Nitrosodimethylamine	Lin1		0.8910		1.12	1.00	11.8	50.0
Pyridine	Ave	1.393	1.484		1.06	1.00	6.5	50.0
Benzaldehyde	Qua		0.7610		1.99	2.00	-0.7	50.0
Phenol	Ave	1.901	1.977		1.04	1.00	4.0	20.0
Aniline	Ave	1.278	1.576		1.23	1.00	23.3	50.0
Bis(2-chloroethyl)ether	Ave	1.523	1.507		0.990	1.00	-1.0	50.0
2-Chlorophenol	Ave	1.386	1.438		1.04	1.00	3.8	50.0
n-Decane	Ave	1.791	1.737		0.970	1.00	-3.0	50.0
1,3-Dichlorobenzene	Ave	1.467	1.504		1.03	1.00	2.6	50.0
1,4-Dichlorobenzene	Ave	1.495	1.511		1.01	1.00	1.1	20.0
Benzyl alcohol	Ave	0.8715	0.9645		1.11	1.00	10.7	50.0
1,2-Dichlorobenzene	Ave	1.411	1.459		1.03	1.00	3.4	50.0
2-Methylphenol	Ave	1.257	1.344		1.07	1.00	6.9	50.0
bis (2-chloroisopropyl) ether	Ave	2.152	2.084		0.969	1.00	-3.1	50.0
Indene	Ave	2.607	2.633		2.02	2.00	1.0	50.0
3 & 4 Methylphenol	Ave	1.320	1.399		1.06	1.00	5.9	50.0
N-Nitrosodi-n-propylamine	Ave	1.085	1.162	0.0500	1.07	1.00	7.1	50.0
Acetophenone	Ave	2.006	2.068		1.03	1.00	3.1	50.0
Hexachloroethane	Ave	0.6271	0.6396		1.02	1.00	2.0	50.0
Nitrobenzene	Ave	0.4106	0.4191		1.02	1.00	2.1	50.0
Isophorone	Ave	0.6810	0.7246		1.06	1.00	6.4	50.0
2-Nitrophenol	Ave	0.1566	0.1776		1.13	1.00	13.4	20.0
2,4-Dimethylphenol	Ave	0.2084	0.2038		0.978	1.00	-2.2	50.0
Benzoic acid	Ave	0.1893	0.1854		1.96	2.00	-2.0	50.0
Bis(2-chloroethoxy)methane	Ave	0.4189	0.4351		1.04	1.00	3.9	50.0
2,4-Dichlorophenol	Ave	0.2241	0.2496		1.11	1.00	11.4	20.0
1,2,4-Trichlorobenzene	Ave	0.2478	0.2599		1.05	1.00	4.9	50.0
Naphthalene	Ave	0.998	1.021		1.02	1.00	2.2	50.0
4-Chloroaniline	Ave	0.1968	0.2242		1.14	1.00	13.9	50.0
Hexachlorobutadiene	Ave	0.1228	0.1326		1.08	1.00	8.0	20.0
Caprolactam	Lin1		0.1016		1.98	2.00	-1.2	50.0
4-Chloro-3-methylphenol	Ave	0.2742	0.2957		1.08	1.00	7.8	20.0
2-Methylnaphthalene	Ave	0.6622	0.6507		0.983	1.00	-1.7	50.0
1-Methylnaphthalene	Ave	0.6193	0.6095		0.984	1.00	-1.6	50.0
Hexachlorocyclopentadiene	Ave	0.2100	0.2337	0.0500	1.11	1.00	11.3	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3828	0.3994		1.04	1.00	4.3	50.0
2,4,6-Trichlorophenol	Ave	0.2726	0.2827		1.04	1.00	3.7	20.0
2,4,5-Trichlorophenol	Ave	0.3036	0.3078		1.01	1.00	1.4	50.0
1,1'-Biphenyl	Ave	1.411	1.425		1.01	1.00	1.0	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: 0411001.D DFTPP Injection Date: 04/11/2014

Instrument ID: A4AG2 DFTPP Injection Time: 07:54

Analysis Batch No.: 126084

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	56.2	
68	Less than 2.0% of mass 69	0.6	(1.0)1
69	Mass 69 relative abundance	58.3	
70	Less than 2.0% of mass 69	0.4	(0.6)1
127	25.0 - 75.0% of mass 198	66.6	
197	Less than 1.0% of mass 198	0.3	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	20.6	
365	Greater than 0.75% of mass 198	2.3	
441	Present, but less than mass 443	9.4	
442	40.0 - 110.0% of mass 198	64.0	
443	15.0 - 24.0% of mass 442	12.7	(19.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-126084/2	0411002.D	04/11/2014	08:11
	MB 240-125652/6-A	0411003.D	04/11/2014	08:34
	LCS 240-125652/7-A	0411004.D	04/11/2014	08:57
MSA-MW41S-040414	240-35833-2	0411009.D	04/11/2014	10:51
MSA-MW41I-040414	240-35833-3	0411010.D	04/11/2014	11:14
MSA-MW41I-040414 MS	240-35833-3 MS	0411011.D	04/11/2014	11:37
MSA-MW41I-040414 MSD	240-35833-3 MSD	0411012.D	04/11/2014	12:00
MSA-MW18I-040114	240-35725-3	0411021.D	04/11/2014	15:35
MSA-MW16S-040314	240-35834-2	0411022.D	04/11/2014	15:57
MSA-MW47I-040314	240-35834-5	0411023.D	04/11/2014	16:20
MSA-MW42S-040214	240-35791-2	0411024.D	04/11/2014	16:43
MSA-MW42I-040214	240-35791-3	0411025.D	04/11/2014	17:06
MSA-MW46S-040214	240-35791-4	0411026.D	04/11/2014	17:29
MSA-MW46I-040214	240-35791-5	0411027.D	04/11/2014	17:52
MSA-MW46D-040214	240-35791-6	0411028.D	04/11/2014	18:15
MSA-MW45S-040414	240-35833-4	0411029.D	04/11/2014	18:38

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: STD6 240-126084/2 Calibration Date: 04/11/2014 08:11

Instrument ID: A4AG2 Calib Start Date: 04/04/2014 15:04

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/04/2014 18:11

Lab File ID: 0411002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6321	0.6533		1.03	1.00	3.4	50.0
N-Nitrosodimethylamine	Lin1		0.9219		1.15	1.00	15.4	50.0
Pyridine	Ave	1.393	1.625		1.17	1.00	16.6	50.0
Benzaldehyde	Qua		0.8190		2.17	2.00	8.3	50.0
Phenol	Ave	1.901	2.048		1.08	1.00	7.7	20.0
Aniline	Ave	1.278	1.631		1.28	1.00	27.6	50.0
Bis(2-chloroethyl)ether	Ave	1.523	1.534		1.01	1.00	0.7	50.0
2-Chlorophenol	Ave	1.386	1.449		1.05	1.00	4.5	50.0
n-Decane	Ave	1.791	1.758		0.981	1.00	-1.9	50.0
1,3-Dichlorobenzene	Ave	1.467	1.533		1.05	1.00	4.5	50.0
1,4-Dichlorobenzene	Ave	1.495	1.565		1.05	1.00	4.7	20.0
Benzyl alcohol	Ave	0.8715	0.9786		1.12	1.00	12.3	50.0
1,2-Dichlorobenzene	Ave	1.411	1.485		1.05	1.00	5.3	50.0
2-Methylphenol	Ave	1.257	1.364		1.08	1.00	8.5	50.0
bis (2-chloroisopropyl) ether	Ave	2.152	2.039		0.948	1.00	-5.2	50.0
Indene	Ave	2.607	2.708		2.08	2.00	3.9	50.0
3 & 4 Methylphenol	Ave	1.320	1.424		1.08	1.00	7.8	50.0
N-Nitrosodi-n-propylamine	Ave	1.085	1.155	0.0500	1.06	1.00	6.4	50.0
Acetophenone	Ave	2.006	2.111		1.05	1.00	5.2	50.0
Hexachloroethane	Ave	0.6271	0.6387		1.02	1.00	1.9	50.0
Nitrobenzene	Ave	0.4106	0.4194		1.02	1.00	2.2	50.0
Isophorone	Ave	0.6810	0.6586		0.967	1.00	-3.3	50.0
2-Nitrophenol	Ave	0.1566	0.1794		1.15	1.00	14.5	20.0
2,4-Dimethylphenol	Ave	0.2084	0.1972		0.946	1.00	-5.4	50.0
Benzoic acid	Ave	0.1893	0.1926		2.04	2.00	1.8	50.0
Bis(2-chloroethoxy)methane	Ave	0.4189	0.4297		1.03	1.00	2.6	50.0
2,4-Dichlorophenol	Ave	0.2241	0.2441		1.09	1.00	8.9	20.0
1,2,4-Trichlorobenzene	Ave	0.2478	0.2579		1.04	1.00	4.1	50.0
Naphthalene	Ave	0.998	1.009		1.01	1.00	1.1	50.0
4-Chloroaniline	Ave	0.1968	0.1979		1.01	1.00	0.5	50.0
Hexachlorobutadiene	Ave	0.1228	0.1264		1.03	1.00	2.9	20.0
Caprolactam	Lin1		0.1148		2.22	2.00	11.2	50.0
4-Chloro-3-methylphenol	Ave	0.2742	0.3022		1.10	1.00	10.2	20.0
2-Methylnaphthalene	Ave	0.6622	0.6526		0.985	1.00	-1.5	50.0
1-Methylnaphthalene	Ave	0.6193	0.6064		0.979	1.00	-2.1	50.0
Hexachlorocyclopentadiene	Ave	0.2100	0.2472	0.0500	1.18	1.00	17.7	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3828	0.4100		1.07	1.00	7.1	50.0
2,4,6-Trichlorophenol	Ave	0.2726	0.2999		1.10	1.00	10.0	20.0
2,4,5-Trichlorophenol	Ave	0.3036	0.3140		1.03	1.00	3.4	50.0
1,1'-Biphenyl	Ave	1.411	1.465		1.04	1.00	3.9	50.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: 0410005.D Lab Sample ID: MB 240-125490/17-A

Matrix: Water Date Extracted: 04/07/2014 10:03

Instrument ID: A4AG2 Date Analyzed: 04/10/2014 08:39

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-125490/18-A	0410006.D	04/10/2014 09:02
MSA-MW18S-040114	240-35725-2	0410017.D	04/10/2014 13:15
MSA-MW16I-040314	240-35834-3	0410020.D	04/10/2014 14:24
MSA-MW47S-040314	240-35834-4	0410021.D	04/10/2014 14:47
MSA-MW18I-040114	240-35725-3	0411021.D	04/11/2014 15:35
MSA-MW16S-040314	240-35834-2	0411022.D	04/11/2014 15:57
MSA-MW47I-040314	240-35834-5	0411023.D	04/11/2014 16:20
MSA-MW42S-040214	240-35791-2	0411024.D	04/11/2014 16:43
MSA-MW42I-040214	240-35791-3	0411025.D	04/11/2014 17:06
MSA-MW46S-040214	240-35791-4	0411026.D	04/11/2014 17:29
MSA-MW46I-040214	240-35791-5	0411027.D	04/11/2014 17:52
MSA-MW46D-040214	240-35791-6	0411028.D	04/11/2014 18:15

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-125490/17-A

Matrix: Water | Lab File ID: 0410005.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 04/07/2014 10:03

Sample wt/vol: 250(mL) | Date Analyzed: 04/10/2014 08:39

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 125924 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	71		29-110
367-12-4	2-Fluorophenol (Surr)	65		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	72		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	72		31-110
4165-62-2	Phenol-d5 (Surr)	51		10-110
1718-51-0	Terphenyl-d14 (Surr)	84		31-115

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0410006.D

Lab ID: LCS 240-125490/18-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	40.0	23.2	58	40-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab File ID: 0411003.D Lab Sample ID: MB 240-125652/6-A

Matrix: Water Date Extracted: 04/08/2014 09:53

Instrument ID: A4AG2 Date Analyzed: 04/11/2014 08:34

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-125652/7-A	0411004.D	04/11/2014 08:57
MSA-MW41S-040414	240-35833-2	0411009.D	04/11/2014 10:51
MSA-MW41I-040414	240-35833-3	0411010.D	04/11/2014 11:14
MSA-MW41I-040414 MS	240-35833-3 MS	0411011.D	04/11/2014 11:37
MSA-MW41I-040414 MSD	240-35833-3 MSD	0411012.D	04/11/2014 12:00
MSA-MW45S-040414	240-35833-4	0411029.D	04/11/2014 18:38

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-125652/6-A

Matrix: Water | Lab File ID: 0411003.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 04/08/2014 09:53

Sample wt/vol: 250(mL) | Date Analyzed: 04/11/2014 08:34

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	72		29-110
367-12-4	2-Fluorophenol (Surr)	57		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	78		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	73		31-110
4165-62-2	Phenol-d5 (Surr)	41		10-110
1718-51-0	Terphenyl-d14 (Surr)	92		31-115

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0411004.D

Lab ID: LCS 240-125652/7-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	40.0	18.5	46	40-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0411011.D

Lab ID: 240-35833-3 MS Client ID: MSA-MW41I-040414 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	38.5	110	137	74	10-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0411012.D

Lab ID: 240-35833-3 MSD Client ID: MSA-MW41I-040414 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	37.0	114	14	19	30	10-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM II

GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #	
MSA-MW18S-040114	240-35725-2	71	55	78	75	88	83	
MSA-MW18I-040114	240-35725-3	70	53	83	84	93	104	5X
MSA-MW42S-040214	240-35791-2	47	60	82	80	98	95	
MSA-MW42I-040214	240-35791-3	69	56	77	74	86	85	
MSA-MW46S-040214	240-35791-4	64	48	74	71	87	86	
MSA-MW46I-040214	240-35791-5	67	51	79	79	92	84	
MSA-MW46D-040214	240-35791-6	70	53	78	75	87	94	
MSA-MW41S-040414	240-35833-2	60	45	71	71	81	96	10X
MSA-MW41I-040414	240-35833-3	60	45	72	70	82	84	5X
MSA-MW45S-040414	240-35833-4	74	65	84	92	111	140 X	50X
MSA-MW16S-040314	240-35834-2	74	57	81	80	90	114	10X
MSA-MW16I-040314	240-35834-3	55	48	48	46	46	55	
MSA-MW47S-040314	240-35834-4	71	56	76	73	90	84	
MSA-MW47I-040314	240-35834-5	61	50	68	67	84	82	5X
	MB 240-125490/17-A	65	51	72	71	72	84	
	MB 240-125652/6-A	57	41	73	72	78	92	
	LCS 240-125490/18-A	73	61	83	82	91	88	
	LCS 240-125652/7-A	63	48	76	79	91	92	
MSA-MW41I-040414 MS	240-35833-3 MS	61	47	71	71	86	84	
MSA-MW41I-040414 MSD	240-35833-3 MSD	53	41	68	68	85	84	

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	15-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	31-110
FBP = 2-Fluorobiphenyl (Surr)	29-110
TBP = 2,4,6-Tribromophenol (Surr)	21-128
TPH = Terphenyl-d14 (Surr)	31-115

Column to be used to flag recovery values

FORM II 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: STD6 240-125316/5 Date Analyzed: 04/04/2014 16:14

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0404005.D Heated Purge: (Y/N) N

Calibration ID: 21592

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		160340	6.25	692797	7.31	377054	8.79
UPPER LIMIT		320680	6.75	1385594	7.81	754108	9.29
LOWER LIMIT		80170	5.75	346399	6.81	188527	8.29
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-125316/11		172253	6.25	732915	7.31	387202	8.79
STD6 240-125924/2 CCVIS		205250	6.22	850036	7.27	464198	8.76
STD6 240-126084/2 CCVIS		194684	6.21	830022	7.28	446555	8.76

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: STD6 240-125316/5 Date Analyzed: 04/04/2014 16:14

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0404005.D Heated Purge: (Y/N) N

Calibration ID: 21592

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		568554	10.06	529016	12.66	413811	14.77
UPPER LIMIT		1137108	10.56	1058032	13.16	827622	15.27
LOWER LIMIT		284277	9.56	264508	12.16	206906	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-125316/11		594400	10.06	545063	12.66	405490	14.77
STD6 240-125924/2 CCVIS		693850	10.02	600279	12.61	482928	14.70
STD6 240-126084/2 CCVIS		687723	10.02	612436	12.60	490992	14.69

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: STD6 240-125924/2 Date Analyzed: 04/10/2014 07:26

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0410002.D Heated Purge: (Y/N) N

Calibration ID: 21592

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		205250	6.22	850036	7.27	464198	8.76
UPPER LIMIT		410500	6.72	1700072	7.77	928396	9.26
LOWER LIMIT		102625	5.72	425018	6.77	232099	8.26
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-125490/17-A		203725	6.22	839680	7.27	461627	8.76
LCS 240-125490/18-A		191097	6.22	796423	7.27	436625	8.76
240-35725-2	MSA-MW18S-040114	194906	6.22	821723	7.27	458904	8.76
240-35834-3	MSA-MW16I-040314	200774	6.22	800866	7.27	451286	8.76
240-35834-4	MSA-MW47S-040314	207942	6.22	867589	7.27	483709	8.76

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: STD6 240-125924/2 Date Analyzed: 04/10/2014 07:26

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0410002.D Heated Purge: (Y/N) N

Calibration ID: 21592

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		693850	10.02	600279	12.61	482928	14.70
UPPER LIMIT		1387700	10.52	1200558	13.11	965856	15.20
LOWER LIMIT		346925	9.52	300140	12.11	241464	14.20
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-125490/17-A		756865	10.02	655985	12.60	526689	14.69
LCS 240-125490/18-A		715406	10.02	648252	12.60	512830	14.69
240-35725-2	MSA-MW18S-040114	760654	10.02	650399	12.60	529125	14.69
240-35834-3	MSA-MW16I-040314	736615	10.02	626859	12.60	499538	14.69
240-35834-4	MSA-MW47S-040314	790795	10.02	713600	12.60	571351	14.69

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: STD6 240-126084/2 Date Analyzed: 04/11/2014 08:11

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0411002.D Heated Purge: (Y/N) N

Calibration ID: 21592

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		194684	6.21	830022	7.28	446555	8.76
UPPER LIMIT		389368	6.71	1660044	7.78	893110	9.26
LOWER LIMIT		97342	5.71	415011	6.78	223278	8.26
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-125652/6-A		175862	6.21	713137	7.27	397614	8.76
LCS 240-125652/7-A		169808	6.21	727095	7.27	390304	8.76
240-35833-2	MSA-MW41S-040414	177056	6.21	728310	7.27	393564	8.76
240-35833-3	MSA-MW41I-040414	168869	6.21	686946	7.27	363138	8.76
240-35833-3 MS	MSA-MW41I-040414 MS	182767	6.21	747290	7.27	406714	8.76
240-35833-3 MSD	MSA-MW41I-040414 MSD	177933	6.21	734559	7.27	396091	8.76
240-35725-3	MSA-MW18I-040114	189983	6.21	780632	7.27	408554	8.76
240-35834-2	MSA-MW16S-040314	194592	6.21	807754	7.27	433202	8.76
240-35834-5	MSA-MW47I-040314	212696	6.21	868040	7.27	462672	8.76
240-35791-2	MSA-MW42S-040214	178724	6.21	744723	7.27	409784	8.76
240-35791-3	MSA-MW42I-040214	183224	6.21	764180	7.27	415740	8.76
240-35791-4	MSA-MW46S-040214	200503	6.21	823297	7.27	446691	8.76
240-35791-5	MSA-MW46I-040214	197916	6.21	809239	7.27	435119	8.76
240-35791-6	MSA-MW46D-040214	190847	6.21	799619	7.27	437228	8.76
240-35833-4	MSA-MW45S-040414	176393	6.21	737647	7.27	391762	8.76

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: STD6 240-126084/2 Date Analyzed: 04/11/2014 08:11

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0411002.D Heated Purge: (Y/N) N

Calibration ID: 21592

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		687723	10.02	612436	12.60	490992	14.69
UPPER LIMIT		1375446	10.52	1224872	13.10	981984	15.19
LOWER LIMIT		343862	9.52	306218	12.10	245496	14.19
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-125652/6-A		636350	10.02	556632	12.60	448189	14.69
LCS 240-125652/7-A		600978	10.02	552510	12.60	442075	14.69
240-35833-2	MSA-MW41S-040414	648570	10.02	551452	12.60	439035	14.68
240-35833-3	MSA-MW41I-040414	606165	10.02	536668	12.60	420197	14.68
240-35833-3 MS	MSA-MW41I-040414 MS	647882	10.02	578789	12.60	442401	14.69
240-35833-3 MSD	MSA-MW41I-040414 MSD	637880	10.02	564603	12.60	442660	14.69
240-35725-3	MSA-MW18I-040114	653207	10.02	564280	12.60	432385	14.68
240-35834-2	MSA-MW16S-040314	686355	10.02	596584	12.60	452912	14.69
240-35834-5	MSA-MW47I-040314	743787	10.02	660156	12.59	508635	14.68
240-35791-2	MSA-MW42S-040214	634167	10.02	567487	12.60	453374	14.69
240-35791-3	MSA-MW42I-040214	669449	10.02	583786	12.59	452854	14.68
240-35791-4	MSA-MW46S-040214	719571	10.02	629234	12.59	494644	14.68
240-35791-5	MSA-MW46I-040214	711268	10.02	615869	12.59	488437	14.68
240-35791-6	MSA-MW46D-040214	699860	10.02	597452	12.59	463945	14.69
240-35833-4	MSA-MW45S-040414	643907	10.02	570963	12.59	427422	14.68

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

Method 8015B - GRO

Gasoline Range Organics (GC) by Method 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: YPID Start Date: 04/01/2014 13:08

Analysis Batch Number: 124780 End Date: 04/01/2014 17:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-124780/4 IC		04/01/2014 13:08	1	YF040104.D	RTX-VRX 0.45(mm)
STD2 240-124780/5 IC		04/01/2014 13:46	1	YF040105.D	RTX-VRX 0.45(mm)
STD3 240-124780/6 IC		04/01/2014 14:25	1	YF040106.D	RTX-VRX 0.45(mm)
STD4 240-124780/7 ICRT		04/01/2014 15:04	1	YF040107.D	RTX-VRX 0.45(mm)
STD5 240-124780/8 IC		04/01/2014 15:43	1	YF040108.D	RTX-VRX 0.45(mm)
STD6 240-124780/9 IC		04/01/2014 16:22	1	YF040109.D	RTX-VRX 0.45(mm)
ICV 240-124780/10		04/01/2014 17:01	1	YF040110.D	RTX-VRX 0.45(mm)

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Gasoline Range Organics [C6 - C10]	204584 184488	200740 176831	187062	178295	Ave		188666.715				6.1		20.0			
C6-C12	235895 200911	223834 193438	204656	194539	Ave		208878.888				8.2		20.0			
Trifluorotoluene (Surr)	256304 194760	219953 178223	216487	201472	Ave		211199.772				13.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI

GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Gasoline Range Organics [C6 - C10]	11.937	11.937	11.937	11.937	11.937	11.937					5.000 - 18.927	11.937
C6-C12	13.475	13.475	13.475	13.475	13.475	13.475					5.000 - 22.005	13.475
Trifluorotoluene (Surr)	9.775	9.786	9.784	9.782	9.784	9.783					9.532 - 10.032	9.782

FORM VI

GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Gasoline Range Organics [C6 - C10]	Ave	20458395 282929804	40148085	74824833	142635995	221385250	100 1600	200	400	800	1200
C6-C12	Ave	23589536 309501068	44766859	81862354	155631080	241092921	100 1600	200	400	800	1200
Trifluorotoluene (Surr)	Ave	256304 8911159	439906	1082433	2014719	3895199	1.00 50.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICV 240-124780/10 Calibration Date: 04/01/2014 17:01

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF040110.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	185962		789	800	-1.4	20.0
C6-C12	Ave	208879	209349		802	800	0.2	20.0
Trifluorotoluene (Surr)	Ave	211200	222713		10.5	10.0	5.5	20.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICV 240-124780/10 Calibration Date: 04/01/2014 17:01

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF040110.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.96	5.00	18.93
C6-C12	13.50	5.00	22.01
Trifluorotoluene (Surr)	9.79	9.53	10.03

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: YPID Start Date: 04/08/2014 10:59

Analysis Batch Number: 125623 End Date: 04/09/2014 15:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-125623/4		04/08/2014 10:59	1	YF040804.D	RTX-VRX 0.45(mm)
MB 240-125623/5		04/08/2014 11:37	1	YF040805.D	RTX-VRX 0.45(mm)
LCS 240-125623/6		04/08/2014 12:16	1	YF040806.D	RTX-VRX 0.45(mm)
ZZZZZ		04/08/2014 12:55	1		RTX-VRX 0.45(mm)
ZZZZZ		04/08/2014 13:34	1		RTX-VRX 0.45(mm)
ZZZZZ		04/08/2014 14:12	1		RTX-VRX 0.45(mm)
ZZZZZ		04/08/2014 14:51	1		RTX-VRX 0.45(mm)
ZZZZZ		04/08/2014 15:31	1		RTX-VRX 0.45(mm)
ZZZZZ		04/08/2014 16:31	1		RTX-VRX 0.45(mm)
ZZZZZ		04/08/2014 17:10	1		RTX-VRX 0.45(mm)
ZZZZZ		04/08/2014 17:49	1		RTX-VRX 0.45(mm)
CCV 240-125623/15		04/08/2014 18:28	1	YF040815.D	RTX-VRX 0.45(mm)
ZZZZZ		04/08/2014 20:24	1		RTX-VRX 0.45(mm)
ZZZZZ		04/08/2014 21:03	1		RTX-VRX 0.45(mm)
ZZZZZ		04/08/2014 21:41	1		RTX-VRX 0.45(mm)
ZZZZZ		04/08/2014 22:20	1		RTX-VRX 0.45(mm)
ZZZZZ		04/08/2014 23:39	1		RTX-VRX 0.45(mm)
240-35725-2	MSA-MW18S-040114	04/09/2014 00:18	1	YF040824.D	RTX-VRX 0.45(mm)
CCV 240-125623/26		04/09/2014 01:35	1	YF040826.D	RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 02:52	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 03:31	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 04:10	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 04:48	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 05:26	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 06:05	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 06:43	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 07:21	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 07:59	1		RTX-VRX 0.45(mm)
CCV 240-125623/37		04/09/2014 08:37	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 09:15	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 09:53	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 10:31	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 11:10	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 11:48	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 12:27	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 13:06	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 13:45	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 14:23	1		RTX-VRX 0.45(mm)
ZZZZZ		04/09/2014 15:02	1		RTX-VRX 0.45(mm)
CCV 240-125623/48		04/09/2014 15:41	1		RTX-VRX 0.45(mm)

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVRT 240-125623/4 Calibration Date: 04/08/2014 10:59

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF040804.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	182539		774	800	-3.2	15.0
C6-C12	Ave	208879	201801		773	800	-3.4	15.0
Trifluorotoluene (Surr)	Ave	211200	170276		8.06	10.0	-19.4*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVRT 240-125623/4 Calibration Date: 04/08/2014 10:59

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF040804.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.93	5.00	18.87
C6-C12	13.59	5.00	22.18
Trifluorotoluene (Surr)	9.79	9.54	10.04

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125623/15 Calibration Date: 04/08/2014 18:28

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF040815.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	166835		707	800	-11.6	15.0
C6-C12	Ave	208879	183742		704	800	-12.0	15.0
Trifluorotoluene (Surr)	Ave	211200	169872		8.04	10.0	-19.6*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125623/15 Calibration Date: 04/08/2014 18:28

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF040815.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.93	5.00	18.87
C6-C12	13.59	5.00	22.18
Trifluorotoluene (Surr)	9.79	9.54	10.04

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125623/26 Calibration Date: 04/09/2014 01:35

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF040826.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	172527		732	800	-8.6	15.0
C6-C12	Ave	208879	189032		724	800	-9.5	15.0
Trifluorotoluene (Surr)	Ave	211200	177519		8.41	10.0	-15.9*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125623/26 Calibration Date: 04/09/2014 01:35

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF040826.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.93	5.00	18.87
C6-C12	13.59	5.00	22.18
Trifluorotoluene (Surr)	9.79	9.54	10.04

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: YPID Start Date: 04/09/2014 16:59

Analysis Batch Number: 125897 End Date: 04/09/2014 22:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-125897/2		04/09/2014 16:59	1	YF040850.D	RTX-VRX 0.45(mm)
MB 240-125897/3		04/09/2014 17:39	1	YF040851.D	RTX-VRX 0.45(mm)
LCS 240-125897/4		04/09/2014 18:18	1	YF040852.D	RTX-VRX 0.45(mm)
240-35791-4	MSA-MW46S-040214	04/09/2014 21:30	1	YF040857.D	RTX-VRX 0.45(mm)
240-35791-2	MSA-MW42S-040214	04/09/2014 22:08	20	YF040858.D	RTX-VRX 0.45(mm)
CCV 240-125897/11		04/09/2014 22:46	1	YF040859.D	RTX-VRX 0.45(mm)

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVRT 240-125897/2 Calibration Date: 04/09/2014 16:59

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF040850.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	182167		772	800	-3.4	15.0
C6-C12	Ave	208879	201518		772	800	-3.5	15.0
Trifluorotoluene (Surr)	Ave	211200	178838		8.47	10.0	-15.3*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVRT 240-125897/2 Calibration Date: 04/09/2014 16:59

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF040850.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.94	4.95	18.92
C6-C12	13.50	4.95	22.04
Trifluorotoluene (Surr)	9.79	9.54	10.04

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125897/11 Calibration Date: 04/09/2014 22:46

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF040859.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	193822		822	800	2.7	15.0
C6-C12	Ave	208879	211334		809	800	1.2	15.0
Trifluorotoluene (Surr)	Ave	211200	178630		8.46	10.0	-15.4*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125897/11 Calibration Date: 04/09/2014 22:46

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF040859.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.94	4.95	18.92
C6-C12	13.50	4.95	22.04
Trifluorotoluene (Surr)	9.79	9.54	10.04

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: YPID Start Date: 04/16/2014 14:20

Analysis Batch Number: 126686 End Date: 04/17/2014 17:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-126686/4		04/16/2014 14:20	1	YF041508.D	RTX-VRX 0.45(mm)
MB 240-126686/5		04/16/2014 14:58	1	YF041509.D	RTX-VRX 0.45(mm)
LCS 240-126686/6		04/16/2014 15:36	1	YF041510.D	RTX-VRX 0.45(mm)
240-35834-2	MSA-MW16S-040314	04/16/2014 16:15	1	YF041511.D	RTX-VRX 0.45(mm)
240-35834-4	MSA-MW47S-040314	04/16/2014 16:53	1	YF041512.D	RTX-VRX 0.45(mm)
240-35833-2	MSA-MW41S-040414	04/16/2014 17:32	1	YF041513.D	RTX-VRX 0.45(mm)
240-35833-4	MSA-MW45S-040414	04/16/2014 18:09	50	YF041514.D	RTX-VRX 0.45(mm)
ZZZZZ		04/16/2014 18:48	20		RTX-VRX 0.45(mm)
ZZZZZ		04/16/2014 19:26	1		RTX-VRX 0.45(mm)
CCV 240-126686/14		04/16/2014 20:42	1	YF041518.D	RTX-VRX 0.45(mm)
ZZZZZ		04/16/2014 23:14	1		RTX-VRX 0.45(mm)
ZZZZZ		04/16/2014 23:53	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 00:31	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 01:09	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 01:46	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 02:24	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 03:02	1		RTX-VRX 0.45(mm)
CCV 240-126686/25		04/17/2014 03:40	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 04:18	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 04:56	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 05:34	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 06:12	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 06:51	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 07:29	1		RTX-VRX 0.45(mm)
MB 240-126686/32		04/17/2014 08:07	1	YF041536.D	RTX-VRX 0.45(mm)
LCS 240-126686/33		04/17/2014 08:45	1	YF041537.D	RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 09:24	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 10:02	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 10:40	1		RTX-VRX 0.45(mm)
CCV 240-126686/37		04/17/2014 11:19	1	YF041541.D	RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 11:58	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 12:36	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 13:15	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 15:10	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 15:48	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 16:27	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 17:05	1		RTX-VRX 0.45(mm)
CCV 240-126686/47		04/17/2014 17:43	1		RTX-VRX 0.45(mm)

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVRT 240-126686/4 Calibration Date: 04/16/2014 14:20

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041508.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	180834		767	800	-4.2	15.0
C6-C12	Ave	208879	221179		847	800	5.9	15.0
Trifluorotoluene (Surr)	Ave	211200	179828		8.51	10.0	-14.9	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVRT 240-126686/4 Calibration Date: 04/16/2014 14:20

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041508.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	5.05	18.91
C6-C12	13.51	5.05	21.96
Trifluorotoluene (Surr)	9.79	9.54	10.04

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-126686/14 Calibration Date: 04/16/2014 20:42

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041518.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	169986		721	800	-9.9	15.0
C6-C12	Ave	208879	201362		771	800	-3.6	15.0
Trifluorotoluene (Surr)	Ave	211200	173456		8.21	10.0	-17.9*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-126686/14 Calibration Date: 04/16/2014 20:42

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041518.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	5.05	18.91
C6-C12	13.51	5.05	21.96
Trifluorotoluene (Surr)	9.79	9.54	10.04

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-126686/37 Calibration Date: 04/17/2014 11:19

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041541.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	176892		750	800	-6.2	15.0
C6-C12	Ave	208879	215001		823	800	2.9	15.0
Trifluorotoluene (Surr)	Ave	211200	182288		8.63	10.0	-13.7	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-126686/37 Calibration Date: 04/17/2014 11:19

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041541.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	5.05	18.91
C6-C12	13.51	5.05	21.96
Trifluorotoluene (Surr)	9.79	9.54	10.04

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: MB 240-125623/5

Matrix: Water Date Extracted: 04/08/2014 11:37

Lab File ID:(1) YF040805.D Lab File ID:(2)

Date Analyzed:(1) 04/08/2014 11:37 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-125623/6	04/08/2014 12:16	
MSA-MW18S-040114	240-35725-2	04/09/2014 00:18	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-125623/5

Matrix: Water | Lab File ID: YF040805.D

Analysis Method: 8015B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/08/2014 11:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125623 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	25	U	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	76		40-133

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF040806.D

Lab ID: LCS 240-125623/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	824	103	67-132	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: MB 240-125897/3

Matrix: Water Date Extracted: 04/09/2014 17:39

Lab File ID:(1) YF040851.D Lab File ID:(2)

Date Analyzed:(1) 04/09/2014 17:39 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-125897/4	04/09/2014 18:18	
MSA-MW46S-040214	240-35791-4	04/09/2014 21:30	
MSA-MW42S-040214	240-35791-2	04/09/2014 22:08	

FORM I

GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-125897/3

Matrix: Water Lab File ID: YF040851.D

Analysis Method: 8015B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/09/2014 17:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125897 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	25	U	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	70		40-133

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF040852.D

Lab ID: LCS 240-125897/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	811	101	67-132	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: MB 240-126686/5

Matrix: Water Date Extracted: 04/16/2014 14:58

Lab File ID:(1) YF041509.D Lab File ID:(2)

Date Analyzed:(1) 04/16/2014 14:58 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-126686/6	04/16/2014 15:36	
MSA-MW16S-040314	240-35834-2	04/16/2014 16:15	
MSA-MW47S-040314	240-35834-4	04/16/2014 16:53	
MSA-MW41S-040414	240-35833-2	04/16/2014 17:32	
MSA-MW45S-040414	240-35833-4	04/16/2014 18:09	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-126686/5

Matrix: Water Lab File ID: YF041509.D

Analysis Method: 8015B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/16/2014 14:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126686 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	25	U	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	75		40-133

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF041510.D

Lab ID: LCS 240-126686/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	748	93	67-132	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: MB 240-126686/32

Matrix: Water Date Extracted: 04/17/2014 08:07

Lab File ID:(1) YF041536.D Lab File ID:(2)

Date Analyzed:(1) 04/17/2014 08:07 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-126686/33	04/17/2014 08:45	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126686/32

Matrix: Water | Lab File ID: YF041536.D

Analysis Method: 8015B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2014 08:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126686 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	25	U	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	72		40-133

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF041537.D

Lab ID: LCS 240-126686/33 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	687	86	67-132	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM II

GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1 #
MSA-MW18S-040114	240-35725-2	95
MSA-MW42S-040214	240-35791-2	73
MSA-MW46S-040214	240-35791-4	80
MSA-MW41S-040414	240-35833-2	106
MSA-MW45S-040414	240-35833-4	83
MSA-MW16S-040314	240-35834-2	78
MSA-MW47S-040314	240-35834-4	79
	MB 240-125623/5	76
	MB 240-125897/3	70
	MB 240-126686/5	75
	MB 240-126686/32	72
	LCS 240-125623/6	84
	LCS 240-125897/4	94
	LCS 240-126686/6	82
	LCS 240-126686/33	81

	QC LIMITS
TFT = Trifluorotoluene (Surr)	40-133

Column to be used to flag recovery values

FORM II 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: STD4 240-124780/7 Date Analyzed: 04/01/2014 15:04

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF040107.D Heated Purge: (Y/N) N

Calibration ID: 21446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
INITIAL CALIBRATION SURROGATE				9.78		
UPPER LIMIT				9.88		
LOWER LIMIT				9.68		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD4 240-124780/7 ICRT		04/01/2014 15:04	YF040107.D	9.78		
ICV 240-124780/10		04/01/2014 17:01	YF040110.D	9.79		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: CCVRT 240-125623/4 Date Analyzed: 04/08/2014 10:59

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF040804.D Heated Purge: (Y/N) N

Calibration ID: 21446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
CONTINUING CALIBRATION SURROGATE				9.79		
UPPER LIMIT				9.89		
LOWER LIMIT				9.69		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-125623/4		04/08/2014 10:59	YF040804.D	9.79		
MB 240-125623/5		04/08/2014 11:37	YF040805.D	9.79		
LCS 240-125623/6		04/08/2014 12:16	YF040806.D	9.79		
CCV 240-125623/15		04/08/2014 18:28	YF040815.D	9.79		
240-35725-2	MSA-MW18S-040114	04/09/2014 00:18	YF040824.D	9.79		
CCV 240-125623/26		04/09/2014 01:35	YF040826.D	9.79		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: CCVRT 240-125897/2 Date Analyzed: 04/09/2014 16:59

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF040850.D Heated Purge: (Y/N) N

Calibration ID: 21446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
CONTINUING CALIBRATION SURROGATE				9.79		
UPPER LIMIT				9.89		
LOWER LIMIT				9.69		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-125897/2		04/09/2014 16:59	YF040850.D	9.79		
MB 240-125897/3		04/09/2014 17:39	YF040851.D	9.78		
LCS 240-125897/4		04/09/2014 18:18	YF040852.D	9.79		
240-35791-4	MSA-MW46S-040214	04/09/2014 21:30	YF040857.D	9.79		
240-35791-2	MSA-MW42S-040214	04/09/2014 22:08	YF040858.D	9.79		
CCV 240-125897/11		04/09/2014 22:46	YF040859.D	9.79		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: CCVRT 240-126686/4 Date Analyzed: 04/16/2014 14:20

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF041508.D Heated Purge: (Y/N) N

Calibration ID: 21446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
CONTINUING CALIBRATION SURROGATE				9.79		
UPPER LIMIT				9.89		
LOWER LIMIT				9.69		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-126686/4		04/16/2014 14:20	YF041508.D	9.79		
MB 240-126686/5		04/16/2014 14:58	YF041509.D	9.79		
LCS 240-126686/6		04/16/2014 15:36	YF041510.D	9.79		
240-35834-2	MSA-MW16S-040314	04/16/2014 16:15	YF041511.D	9.79		
240-35834-4	MSA-MW47S-040314	04/16/2014 16:53	YF041512.D	9.79		
240-35833-2	MSA-MW41S-040414	04/16/2014 17:32	YF041513.D	9.79		
240-35833-4	MSA-MW45S-040414	04/16/2014 18:09	YF041514.D	9.79		
CCV 240-126686/14		04/16/2014 20:42	YF041518.D	9.79		
MB 240-126686/32		04/17/2014 08:07	YF041536.D	9.79		
LCS 240-126686/33		04/17/2014 08:45	YF041537.D	9.79		
CCV 240-126686/37		04/17/2014 11:19	YF041541.D	9.79		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

Method RSK-175

Dissolved Gases (GC) by Method RSK_175

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: ZPID Start Date: 03/17/2014 16:56

Analysis Batch Number: 122842 End Date: 03/17/2014 18:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-122842/3 IC		03/17/2014 16:56	1	Z0031703.D	
STD2 240-122842/4 IC		03/17/2014 17:08	1	Z0031704.D	
STD3 240-122842/5 IC		03/17/2014 17:21	1	Z0031705.D	
STD4 240-122842/6 IC		03/17/2014 17:33	1	Z0031706.D	
STD5 240-122842/7 IC		03/17/2014 17:45	1	Z0031707.D	
STD6 240-122842/8 ICRT		03/17/2014 17:57	1	Z0031708.D	
STD7 240-122842/9 IC		03/17/2014 18:09	1	Z0031709.D	
STD8 240-122842/10 IC		03/17/2014 18:22	1	Z0031710.D	
STD9 240-122842/11 IC		03/17/2014 18:34	1	Z0031711.D	
ICV 240-122842/12		03/17/2014 18:46	1	Z0031712.D	

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 122842

SDG No.:

Instrument ID: ZPID GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/17/2014 16:56 Calibration End Date: 03/17/2014 18:34 Calibration ID: 21168

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-122842/3	Z0031703.D
Level 2	STD2 240-122842/4	Z0031704.D
Level 3	STD3 240-122842/5	Z0031705.D
Level 4	STD4 240-122842/6	Z0031706.D
Level 5	STD5 240-122842/7	Z0031707.D
Level 6	STD6 240-122842/8	Z0031708.D
Level 7	STD8 240-122842/10	Z0031710.D
Level 8	STD7 240-122842/9	Z0031709.D
Level 9	STD9 240-122842/11	Z0031711.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Methane	140266 94273 95615	119991 96410	97680 76535	94339 90154	Ave		100584.625				18.0		30.0			
Ethene	74343 86774 85235	93331 89047	86325 76130	85914 82605	Ave		84411.4212				7.1		30.0			
Acetylene	14277 25400 27066	18994 25975	17915 25275	18719 24776	Ave		22044.2149				21.0		30.0			
Ethane	80140 95545 96236	101495 99453	95171 86844	95069 92052	Ave		93556.1842				7.0		30.0			
Propene	71790 84470 83091	92092 87426	83287 77980	83697 80870	Ave		82744.8531				6.9		30.0			
Propane	82094 98646 100490	103594 104028	97118 94621	97735 96241	Ave		97173.9876				6.7		30.0			
Propane, 2-methyl	92340 101656 103910	102100 107783	100758 99843	102648 99492	Ave		101169.978				4.1		30.0			
1,1,1-Trifluoroethane	45999 37705	41372 37435	38181	36615 34143	Ave		38778.5929				9.9		30.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 122842

SDG No.:

Instrument ID: ZPID GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/17/2014 16:56 Calibration End Date: 03/17/2014 18:34 Calibration ID: 21168

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-122842/3	Z0031703.D
Level 2	STD2 240-122842/4	Z0031704.D
Level 3	STD3 240-122842/5	Z0031705.D
Level 4	STD4 240-122842/6	Z0031706.D
Level 5	STD5 240-122842/7	Z0031707.D
Level 6	STD6 240-122842/8	Z0031708.D
Level 7	STD8 240-122842/10	Z0031710.D
Level 8	STD7 240-122842/9	Z0031709.D
Level 9	STD9 240-122842/11	Z0031711.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Methane	Ave	35182 11157475	115756 59048956	376929 31300270	1092114 147538837	3636709	0.251 116	0.965 772	3.86 347	11.6 1543	38.6
Ethene	Ave	32746 18099589	158113 103159980	584980 50370565	1746571 230996369	5879194	0.440 203	1.69 1355	6.78 610	20.3 2710	67.8
Acetylene	Ave	5819 4884920	29776 31689393	112340 13978522	352133 67869804	1592312	0.408 188	1.57 1254	6.27 564	18.8 2508	62.7
Ethane	Ave	37812 21653831	184184 126056907	690830 60127398	2070274 279378029	6934308	0.472 218	1.81 1452	7.26 653	21.8 2903	72.6
Propene	Ave	47377 26624305	233751 158318654	845611 73883074	2549327 337388038	8574715	0.660 305	2.54 2030	10.2 914	30.5 4060	102
Propane	Ave	56751 33185573	275437 201230778	1032874 92104169	3118306 427426552	10489583	0.691 319	2.66 2127	10.6 957	31.9 4253	106
Propane, 2-methyl	Ave	84100 45297400	357652 279735599	1411792 125438402	4314848 582261536	14240874	0.911 420	3.50 2802	14.0 1261	42.0 5604	140
1,1,1-Trifluoroethane	Ave	3027880 341196118	10474259	38665655 414917057	111238103	229104248	65.8 9114	253	1013 12152	3038	6076

Curve Type Legend:
Ave = Average

FORM VI

GC VOA INITIAL CALIBRATION DATA

EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 122842

SDG No.:

Instrument ID: ZPID GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/17/2014 16:56 Calibration End Date: 03/17/2014 18:34 Calibration ID: 21168

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-122842/3	Z0031703.D
Level 2	STD2 240-122842/4	Z0031704.D
Level 3	STD3 240-122842/5	Z0031705.D
Level 4	STD4 240-122842/6	Z0031706.D
Level 5	STD5 240-122842/7	Z0031707.D
Level 6	STD6 240-122842/8	Z0031708.D
Level 7	STD8 240-122842/10	Z0031710.D
Level 8	STD7 240-122842/9	Z0031709.D
Level 9	STD9 240-122842/11	Z0031711.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
Methane	0.910	0.910	0.910	0.910	0.910	0.910	0.909	0.907	0.907		0.860 - 0.960	0.909
Ethene	1.413	1.410	1.410	1.410	1.410	1.410	1.405	1.407	1.397		1.360 - 1.460	1.408
Acetylene	1.503	1.503	1.500	1.500	1.500	1.500	1.499	1.497	1.494		1.450 - 1.550	1.500
Ethane	1.687	1.687	1.687	1.687	1.683	1.684	1.675	1.680	1.660		1.484 - 1.884	1.681
Propene	3.590	3.590	3.590	3.590	3.587	3.580	3.549	3.567	3.517		3.530 - 3.630	3.573
Propane	3.783	3.783	3.783	3.780	3.777	3.774	3.739	3.757	3.707		3.724 - 3.824	3.765
Propane, 2-methyl	5.420	5.420	5.420	5.417	5.413	5.407	5.362	5.390	5.324		5.307 - 5.507	5.397
1,1,1-Trifluoroethane	2.730	2.727	2.723	2.710	2.693	2.680		2.674			2.580 - 2.780	2.705

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICV 240-122842/12 Calibration Date: 03/17/2014 18:46

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0031712.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	100585	105613		122	116	5.0	30.0
Ethene	Ave	84411	92995		224	203	10.2	30.0
Acetylene	Ave	22044	27897		238	188	26.6	30.0
Ethane	Ave	93556	104041		242	218	11.2	30.0
Propene	Ave	82745	87571		322	305	5.8	30.0
Propane	Ave	97174	105992		347	318	9.1	30.0
Propane, 2-methyl	Ave	101170	105716		439	420	4.5	30.0
1,1,1-Trifluoroethane	Ave	38779	39189		2460	2440	1.1	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICV 240-122842/12 Calibration Date: 03/17/2014 18:46

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0031712.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	0.91	0.86	0.96
Ethene	1.41	1.36	1.46
Acetylene	1.50	1.45	1.55
Ethane	1.68	1.48	1.88
Propene	3.58	3.53	3.63
Propane	3.77	3.72	3.82
Propane, 2-methyl	5.41	5.31	5.51
1,1,1-Trifluoroethane	2.71	2.58	2.78

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: ZPID Start Date: 04/09/2014 11:06

Analysis Batch Number: 125787 End Date: 04/09/2014 12:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-125787/3		04/09/2014 11:06	1	Z0040903.D	
MB 240-125787/4		04/09/2014 11:18	1	Z0040904.D	
LCS 240-125787/5		04/09/2014 11:31	1	Z0040905.D	
ZZZZZ		04/09/2014 11:43	1		
240-35725-2	MSA-MW18S-040114	04/09/2014 11:55	1	Z0040907.D	
240-35725-3	MSA-MW18I-040114	04/09/2014 12:07	1	Z0040908.D	
CCV 240-125787/9		04/09/2014 12:19	1	Z0040909.D	

RSK-175

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVRT 240-125787/3 Calibration Date: 04/09/2014 11:06

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0040903.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	100585	93763		108	116	-6.8	30.0
Ethene	Ave	84411	89055		214	203	5.5	30.0
Acetylene	Ave	22044	26819		229	188	21.7	30.0
Ethane	Ave	93556	96561		225	218	3.2	30.0
Propene	Ave	82745	87210		321	305	5.4	30.0
Propane	Ave	97174	100553		330	319	3.5	30.0
Propane, 2-methyl	Ave	101170	103803		431	420	2.6	30.0
1,1,1-Trifluoroethane	Ave	38779	39975		2510	2440	3.1	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVRT 240-125787/3 Calibration Date: 04/09/2014 11:06

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0040903.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	0.91	0.86	0.96
Ethene	1.41	1.36	1.46
Acetylene	1.50	1.45	1.55
Ethane	1.69	1.49	1.89
Propene	3.59	3.54	3.64
Propane	3.78	3.73	3.83
Propane, 2-methyl	5.41	5.31	5.51
1,1,1-Trifluoroethane	2.72	2.62	2.82

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125787/9 Calibration Date: 04/09/2014 12:19

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0040909.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	100585	96943		112	116	-3.6	30.0
Ethene	Ave	84411	88823		214	203	5.2	30.0
Acetylene	Ave	22044	25934		221	188	17.6	30.0
Ethane	Ave	93556	99596		232	218	6.5	30.0
Propene	Ave	82745	86727		319	305	4.8	30.0
Propane	Ave	97174	104432		343	319	7.5	30.0
Propane, 2-methyl	Ave	101170	108569		451	420	7.3	30.0
1,1,1-Trifluoroethane	Ave	38779	38590		2420	2440	-0.5	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125787/9 Calibration Date: 04/09/2014 12:19

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0040909.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	0.91	0.86	0.96
Ethene	1.41	1.36	1.46
Acetylene	1.50	1.45	1.55
Ethane	1.69	1.49	1.89
Propene	3.58	3.53	3.63
Propane	3.78	3.73	3.83
Propane, 2-methyl	5.41	5.31	5.51
1,1,1-Trifluoroethane	2.71	2.61	2.81

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: MB 240-125787/4

Matrix: Water Date Extracted:

Lab File ID:(1) Z0040904.D Lab File ID:(2)

Date Analyzed:(1) 04/09/2014 11:18 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) ID: GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-125787/5	04/09/2014 11:31	
MSA-MW18S-040114	240-35725-2	04/09/2014 11:55	
MSA-MW18I-040114	240-35725-3	04/09/2014 12:07	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-125787/4

Matrix: Water Lab File ID: Z0040904.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 17(mL) Date Analyzed: 04/09/2014 11:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ID:

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125787 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.070	U	0.10	0.070
74-84-0	Ethane	0.19	U	0.26	0.19
74-85-1	Ethene	0.18	U	0.31	0.18
74-85-1	Ethylene	0.18	U	0.31	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	105		66-132

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z0040905.D

Lab ID: LCS 240-125787/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methane	116	119	103	76-120	
Ethane	218	235	108	80-120	
Ethene	203	226	111	81-120	
Ethylene	203	226	111	81-120	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): ID:

Client Sample ID	Lab Sample ID	TFE1 #
MSA-MW18S-040114	240-35725-2	97
MSA-MW18I-040114	240-35725-3	96
	MB 240-125787/4	105
	LCS 240-125787/5	104

	QC LIMITS
TFE = 1,1,1-Trifluoroethane	66-132

Column to be used to flag recovery values

FORM II RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: STD6 240-122842/8 Date Analyzed: 03/17/2014 17:57

Instrument ID: ZPID GC Column: ID: ()

Lab File ID (Standard): Z0031708.D Heated Purge: (Y/N) N

Calibration ID: 21168

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE RT #		
INITIAL CALIBRATION SURROGATE				2.68		
UPPER LIMIT				2.73		
LOWER LIMIT				2.63		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD6 240-122842/8 ICRT		03/17/2014 17:57	Z0031708.D	2.68		
ICV 240-122842/12		03/17/2014 18:46	Z0031712.D	2.71		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: CCVRT 240-125787/3 Date Analyzed: 04/09/2014 11:06

Instrument ID: ZPID GC Column: ID: ()

Lab File ID (Standard): Z0040903.D Heated Purge: (Y/N) N

Calibration ID: 21168

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				2.72		
UPPER LIMIT				2.77		
LOWER LIMIT				2.67		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-125787/3		04/09/2014 11:06	Z0040903.D	2.72		
MB 240-125787/4		04/09/2014 11:18	Z0040904.D	2.71		
LCS 240-125787/5		04/09/2014 11:31	Z0040905.D	2.71		
240-35725-2	MSA-MW18S-040114	04/09/2014 11:55	Z0040907.D	2.71		
240-35725-3	MSA-MW18I-040114	04/09/2014 12:07	Z0040908.D	2.72		
CCV 240-125787/9		04/09/2014 12:19	Z0040909.D	2.71		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

Method 8015B - DRO

Diesel Range Organics (DRO) (GC) by Method 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: A2HP14F Start Date: 11/25/2013 18:58

Analysis Batch Number: 111340 End Date: 11/25/2013 22:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-111340/8 IC		11/25/2013 18:58	1	P14F112508.D	RTX-5 0.53(mm)
STD2 240-111340/9 IC		11/25/2013 19:19	1	P14F112509.D	RTX-5 0.53(mm)
STD3 240-111340/10 ICRT		11/25/2013 19:40	1	P14F112510.D	RTX-5 0.53(mm)
STD4 240-111340/11 IC		11/25/2013 20:01	1	P14F112511.D	RTX-5 0.53(mm)
STD5 240-111340/12 IC		11/25/2013 20:22	1	P14F112512.D	RTX-5 0.53(mm)
ICV 240-111340/13		11/25/2013 20:42	1	P14F112513.D	RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:03	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:23	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:44	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 22:05	1		RTX-5 0.53(mm)
CCV 240-111340/18		11/25/2013 22:25	1		RTX-5 0.53(mm)

FORM VI

DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	501990 429809	458731	454837	433618	Ave		455796.921				6.3		20.0			
o-Terphenyl (Surr)	553837 517394	508292	537146	516618	Ave		526657.319				3.5		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI

DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel Range Organics [C10 - C28]	Ave	10040851	18351136	45488439	86732601	171941310	20.0	40.0	100	200	400
o-Terphenyl (Surr)	Ave	886139	1626533	4297171	8265892	16556593	1.60	3.20	8.00	16.0	32.0

Curve Type Legend:

Ave = Average

FORM VI

DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel Range Organics [C10 - C28]	5.856	5.856	5.856	5.856	5.856						2.980 - 8.732	5.856
o-Terphenyl (Surr)	6.202	6.199	6.197	6.200	6.209						6.102 - 6.302	6.201

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICV 240-111340/13 Calibration Date: 11/25/2013 20:42

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F112513.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	413207		90.7	100	-9.3	

FORM VII 8015B

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICV 240-111340/13 Calibration Date: 11/25/2013 20:42

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F112513.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.86	2.98	8.73

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: A2HP14F Start Date: 04/08/2014 21:32

Analysis Batch Number: 125264 End Date: 04/09/2014 07:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-125264/5 CCVRT		04/08/2014 21:32	1	P14F040805.D	RTX-5 0.53(mm)
ZZZZZ		04/08/2014 21:52	1		RTX-5 0.53(mm)
ZZZZZ		04/08/2014 22:13	1		RTX-5 0.53(mm)
ZZZZZ		04/08/2014 22:34	1		RTX-5 0.53(mm)
ZZZZZ		04/08/2014 22:55	1		RTX-5 0.53(mm)
ZZZZZ		04/08/2014 23:16	1		RTX-5 0.53(mm)
ZZZZZ		04/08/2014 23:37	1		RTX-5 0.53(mm)
ZZZZZ		04/08/2014 23:57	1		RTX-5 0.53(mm)
CCV 240-125264/16		04/09/2014 01:21	1	P14F040816.D	RTX-5 0.53(mm)
MB 240-125302/4-A		04/09/2014 01:42	1	P14F040817.D	RTX-5 0.53(mm)
LCS 240-125302/5-A		04/09/2014 02:02	1	P14F040818.D	RTX-5 0.53(mm)
240-35725-2	MSA-MW18S-040114	04/09/2014 02:23	1	P14F040819.D	RTX-5 0.53(mm)
MB 240-125491/11-A		04/09/2014 03:26	1	P14F040822.D	RTX-5 0.53(mm)
LCS 240-125491/12-A		04/09/2014 03:47	1	P14F040823.D	RTX-5 0.53(mm)
ZZZZZ		04/09/2014 04:07	1		RTX-5 0.53(mm)
240-35833-2	MSA-MW41S-040414	04/09/2014 04:28	1	P14F040825.D	RTX-5 0.53(mm)
240-35833-4	MSA-MW45S-040414	04/09/2014 04:49	1	P14F040826.D	RTX-5 0.53(mm)
CCV 240-125264/27		04/09/2014 05:10	1	P14F040827.D	RTX-5 0.53(mm)
240-35834-2	MSA-MW16S-040314	04/09/2014 05:30	1	P14F040828.D	RTX-5 0.53(mm)
240-35834-4	MSA-MW47S-040314	04/09/2014 05:51	1	P14F040829.D	RTX-5 0.53(mm)
240-35791-2	MSA-MW42S-040214	04/09/2014 06:12	1	P14F040830.D	RTX-5 0.53(mm)
240-35791-4	MSA-MW46S-040214	04/09/2014 06:33	1	P14F040831.D	RTX-5 0.53(mm)
CCV 240-125264/35		04/09/2014 07:55	1	P14F040835.D	RTX-5 0.53(mm)

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125264/5 Calibration Date: 04/08/2014 21:32

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F040805.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	476554		105	100	4.6	
o-Terphenyl (Surr)	Ave	526657	547.7		8320	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125264/5 Calibration Date: 04/08/2014 21:32

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F040805.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.85	2.98	8.72
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125264/16 Calibration Date: 04/09/2014 01:21

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F040816.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	462187		101	100	1.4	
o-Terphenyl (Surr)	Ave	526657	535.8		8140	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125264/16 Calibration Date: 04/09/2014 01:21

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F040816.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.85	2.98	8.72
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125264/27 Calibration Date: 04/09/2014 05:10

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F040827.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	468534		103	100	2.8	
o-Terphenyl (Surr)	Ave	526657	528.4		8030	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125264/27 Calibration Date: 04/09/2014 05:10

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F040827.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.85	2.98	8.72
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125264/35 Calibration Date: 04/09/2014 07:55

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F040835.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	462215		101	100	1.4	
o-Terphenyl (Surr)	Ave	526657	534.2		8110	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 240-125264/35 Calibration Date: 04/09/2014 07:55

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F040835.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.85	2.98	8.72
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: MB 240-125302/4-A

Matrix: Water Date Extracted: 04/04/2014 11:40

Lab File ID:(1) P14F040817.D Lab File ID:(2)

Date Analyzed:(1) 04/09/2014 01:42 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-125302/5-A	04/09/2014 02:02	
MSA-MW18S-040114	240-35725-2	04/09/2014 02:23	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35725-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-125302/4-A

Matrix: Water | Lab File ID: P14F040817.D

Analysis Method: 8015B | Date Collected:

Extraction Method: 3510C | Date Extracted: 04/04/2014 11:40

Sample wt/vol: 250(mL) | Date Analyzed: 04/09/2014 01:42

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 125264 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	89		40-160

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P14F040818.D

Lab ID: LCS 240-125302/5-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1630	82	40-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: MB 240-125491/11-A

Matrix: Water Date Extracted: 04/07/2014 10:07

Lab File ID:(1) P14F040822.D Lab File ID:(2)

Date Analyzed:(1) 04/09/2014 03:26 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-125491/12-A	04/09/2014 03:47	
MSA-MW41S-040414	240-35833-2	04/09/2014 04:28	
MSA-MW45S-040414	240-35833-4	04/09/2014 04:49	
MSA-MW16S-040314	240-35834-2	04/09/2014 05:30	
MSA-MW47S-040314	240-35834-4	04/09/2014 05:51	
MSA-MW42S-040214	240-35791-2	04/09/2014 06:12	
MSA-MW46S-040214	240-35791-4	04/09/2014 06:33	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-125491/11-A

Matrix: Water Lab File ID: P14F040822.D

Analysis Method: 8015B Date Collected:

Extraction Method: 3510C Date Extracted: 04/07/2014 10:07

Sample wt/vol: 250(mL) Date Analyzed: 04/09/2014 03:26

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 125264 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	86		40-160

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P14F040823.D

Lab ID: LCS 240-125491/12-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	2030	101	40-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	OTPH1 #
MSA-MW18S-040114	240-35725-2	83
MSA-MW42S-040214	240-35791-2	72
MSA-MW46S-040214	240-35791-4	84
MSA-MW41S-040414	240-35833-2	84
MSA-MW45S-040414	240-35833-4	81
MSA-MW16S-040314	240-35834-2	81
MSA-MW47S-040314	240-35834-4	83
	MB 240-125302/4-A	89
	MB 240-125491/11-A	86
	LCS 240-125302/5-A	85
	LCS 240-125491/12-A	97

	QC LIMITS
OTPH = o-Terphenyl (Surr)	40-160

Column to be used to flag recovery values

FORM II 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Sample No.: CCV 240-125264/5 Date Analyzed: 04/08/2014 21:32

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P14F040805.D Heated Purge: (Y/N) N

Calibration ID: 19058

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH RT #		
CONTINUING CALIBRATION SURROGATE				6.19		
UPPER LIMIT						
LOWER LIMIT						
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-125264/5 CCVRT		04/08/2014 21:32	P14F040805.D	6.19		
CCV 240-125264/16		04/09/2014 01:21	P14F040816.D	6.19		
MB 240-125302/4-A		04/09/2014 01:42	P14F040817.D	6.19		
LCS 240-125302/5-A		04/09/2014 02:02	P14F040818.D	6.19		
240-35725-2	MSA-MW18S-040114	04/09/2014 02:23	P14F040819.D	6.19		
MB 240-125491/11-A		04/09/2014 03:26	P14F040822.D	6.19		
LCS 240-125491/12-A		04/09/2014 03:47	P14F040823.D	6.19		
240-35833-2	MSA-MW41S-040414	04/09/2014 04:28	P14F040825.D	6.19		
240-35833-4	MSA-MW45S-040414	04/09/2014 04:49	P14F040826.D	6.19		
CCV 240-125264/27		04/09/2014 05:10	P14F040827.D	6.19		
240-35834-2	MSA-MW16S-040314	04/09/2014 05:30	P14F040828.D	6.19		
240-35834-4	MSA-MW47S-040314	04/09/2014 05:51	P14F040829.D	6.19		
240-35791-2	MSA-MW42S-040214	04/09/2014 06:12	P14F040830.D	6.19		
240-35791-4	MSA-MW46S-040214	04/09/2014 06:33	P14F040831.D	6.19		
CCV 240-125264/35		04/09/2014 07:55	P14F040835.D	6.19		

Column used to flag values outside QC limits

FORM VIII 8015B

6850

Perchlorate by LC/MS or LC/MS/MS

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Instrument ID: A5 Start Date: 04/10/2014 14:53

Analysis Batch Number: 40216 End Date: 04/11/2014 02:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 320-40216/2		04/10/2014 14:53	1	10APR14-Per-004 .d	Anion HR 4.6(mm)
STD01 320-40216/3 IC		04/10/2014 15:10	1	10APR14-Per-005 .d	Anion HR 4.6(mm)
STD02 320-40216/4 IC		04/10/2014 15:26	1	10APR14-Per-006 .d	Anion HR 4.6(mm)
STD03 320-40216/5 IC		04/10/2014 15:43	1	10APR14-Per-007 .d	Anion HR 4.6(mm)
STD04 320-40216/6 ICISAV		04/10/2014 15:59	1	10APR14-Per-008 .d	Anion HR 4.6(mm)
STD05 320-40216/7 IC		04/10/2014 16:16	1	10APR14-Per-009 .d	Anion HR 4.6(mm)
STD06 320-40216/8 IC		04/10/2014 16:32	1	10APR14-Per-010 .d	Anion HR 4.6(mm)
STD07 320-40216/9 IC		04/10/2014 16:49	1	10APR14-Per-011 .d	Anion HR 4.6(mm)
STD08 320-40216/10 IC		04/10/2014 17:05	1	10APR14-Per-012 .d	Anion HR 4.6(mm)
CCB 320-40216/11		04/10/2014 17:22	1		Anion HR 4.6(mm)
ICV 320-40216/12		04/10/2014 17:39	1	10APR14-Per-014 .d	Anion HR 4.6(mm)
CCV 320-40216/13		04/10/2014 17:55	1		Anion HR 4.6(mm)
CCVL 320-40216/14		04/10/2014 18:12	1	10APR14-Per-016 .d	Anion HR 4.6(mm)
CCB 320-40216/16		04/10/2014 18:45	1		Anion HR 4.6(mm)
ZZZZZ		04/10/2014 19:01	1		Anion HR 4.6(mm)
ZZZZZ		04/10/2014 19:18	1		Anion HR 4.6(mm)
ZZZZZ		04/10/2014 19:34	1		Anion HR 4.6(mm)
ZZZZZ		04/10/2014 19:51	1		Anion HR 4.6(mm)
ZZZZZ		04/10/2014 20:07	1		Anion HR 4.6(mm)
CCV 320-40216/22		04/10/2014 20:24	1	10APR14-Per-024 .d	Anion HR 4.6(mm)
CCB 320-40216/23		04/10/2014 20:41	1	10APR14-Per-025 .d	Anion HR 4.6(mm)
MB 320-40142/1-A		04/10/2014 20:57	1	10APR14-Per-026 .d	Anion HR 4.6(mm)
LCS 320-40142/2-A		04/10/2014 21:14	1	10APR14-Per-027 .d	Anion HR 4.6(mm)
INF 320-40142/3-A		04/10/2014 21:30	1	10APR14-Per-028 .d	Anion HR 4.6(mm)
ZZZZZ		04/10/2014 21:47	1		Anion HR 4.6(mm)
ZZZZZ		04/10/2014 22:03	1		Anion HR 4.6(mm)
ZZZZZ		04/10/2014 22:20	1		Anion HR 4.6(mm)
ZZZZZ		04/10/2014 22:36	1		Anion HR 4.6(mm)
ZZZZZ		04/10/2014 22:53	1		Anion HR 4.6(mm)
ZZZZZ		04/10/2014 23:10	1		Anion HR 4.6(mm)
240-35725-3	MSA-MW18I-040114	04/10/2014 23:26	1	10APR14-Per-035 .d	Anion HR 4.6(mm)
240-35791-4	MSA-MW46S-040214	04/10/2014 23:43	1	10APR14-Per-036 .d	Anion HR 4.6(mm)
240-35791-5	MSA-MW46I-040214	04/10/2014 23:59	1	10APR14-Per-037 .d	Anion HR 4.6(mm)
240-35791-6	MSA-MW46D-040214	04/11/2014 00:16	1	10APR14-Per-038 .d	Anion HR 4.6(mm)
CCV 320-40216/37		04/11/2014 00:32	1	10APR14-Per-039 .d	Anion HR 4.6(mm)
240-35834-4	MSA-MW47S-040314	04/11/2014 00:49	1	10APR14-Per-040 .d	Anion HR 4.6(mm)

6850

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Instrument ID: A5 Start Date: 04/10/2014 14:53

Analysis Batch Number: 40216 End Date: 04/11/2014 02:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
240-35834-5	MSA-MW47I-040314	04/11/2014 01:05	1	10APR14-Per-041 .d	Anion HR 4.6(mm)
CCV 320-40216/46		04/11/2014 01:22	1	10APR14-Per-042 .d	Anion HR 4.6(mm)
CCVL 320-40216/52		04/11/2014 01:55	1	10APR14-Per-044 .d	Anion HR 4.6(mm)
CCB 320-40216/53		04/11/2014 02:12	1	10APR14-Per-045 .d	Anion HR 4.6(mm)

6850

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1 Analy Batch No.: 40216

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/10/2014 15:10 Calibration End Date: 04/10/2014 17:05 Calibration ID: 6973

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-40216/3	10APR14-Per-005.d
Level 2	STD02 320-40216/4	10APR14-Per-006.d
Level 3	STD03 320-40216/5	10APR14-Per-007.d
Level 4	STD04 320-40216/6	10APR14-Per-008.d
Level 5	STD05 320-40216/7	10APR14-Per-009.d
Level 6	STD06 320-40216/8	10APR14-Per-010.d
Level 7	STD07 320-40216/9	10APR14-Per-011.d
Level 8	STD08 320-40216/10	10APR14-Per-012.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Perchlorate	0.8170 0.8737	0.7629 0.8856	0.8104 0.9497	0.8374	0.8065	Ave		0.8429				6.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI

LCMS INITIAL CALIBRATION DATA

INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1 Analy Batch No.: 40216

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/10/2014 15:10 Calibration End Date: 04/10/2014 17:05 Calibration ID: 6973

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-40216/3	10APR14-Per-005.d
Level 2	STD02 320-40216/4	10APR14-Per-006.d
Level 3	STD03 320-40216/5	10APR14-Per-007.d
Level 4	STD04 320-40216/6	10APR14-Per-008.d
Level 5	STD05 320-40216/7	10APR14-Per-009.d
Level 6	STD06 320-40216/8	10APR14-Per-010.d
Level 7	STD07 320-40216/9	10APR14-Per-011.d
Level 8	STD08 320-40216/10	10APR14-Per-012.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Perchlorate	18OP	Ave	5691413 202601144	11193428 423031932	19828670 798960817	40610705	73003904	0.150 5.00	0.300 10.0	0.500 20.0	1.00	2.00

Curve Type Legend:

Ave = Average ISTD

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICV 320-40216/12 Calibration Date: 04/10/2014 17:39

Instrument ID: A5 Calib Start Date: 04/10/2014 15:10

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/10/2014 17:05

Lab File ID: 10APR14-Per-014.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8429	0.8739		5.18	5.00	3.7	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVL 320-40216/14 Calibration Date: 04/10/2014 18:12

Instrument ID: A5 Calib Start Date: 04/10/2014 15:10

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/10/2014 17:05

Lab File ID: 10APR14-Per-016.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8429	0.8284		0.491	0.500	-1.7	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 320-40216/22 Calibration Date: 04/10/2014 20:24

Instrument ID: A5 Calib Start Date: 04/10/2014 15:10

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/10/2014 17:05

Lab File ID: 10APR14-Per-024.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8429	0.7989		0.948	1.00	-5.2	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 320-40216/37 Calibration Date: 04/11/2014 00:32

Instrument ID: A5 Calib Start Date: 04/10/2014 15:10

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/10/2014 17:05

Lab File ID: 10APR14-Per-039.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8429	0.8316		1.97	2.00	-1.3	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCV 320-40216/46 Calibration Date: 04/11/2014 01:22

Instrument ID: A5 Calib Start Date: 04/10/2014 15:10

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/10/2014 17:05

Lab File ID: 10APR14-Per-042.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8429	0.8412		0.998	1.00	-0.2	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Lab Sample ID: CCVL 320-40216/52 Calibration Date: 04/11/2014 01:55

Instrument ID: A5 Calib Start Date: 04/10/2014 15:10

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/10/2014 17:05

Lab File ID: 10APR14-Per-044.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8429	0.7694		0.456	0.500	-8.7	50.0

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 10APR14-Per-028.d

Lab ID: INF 320-40142/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	5.19	104	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Client Sample ID: Lab Sample ID: ICB 320-40216/2

Matrix: Water Lab File ID: 10APR14-Per-004.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/10/2014 14:53

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40216 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-40216/23

Matrix: Water Lab File ID: 10APR14-Per-025.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/10/2014 20:41

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40216 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-40216/53

Matrix: Water Lab File ID: 10APR14-Per-045.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/11/2014 02:12

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40216 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Lab File ID: 10APR14-Per-026.d Lab Sample ID: MB 320-40142/1-A

Matrix: Water Date Extracted: 04/09/2014 15:27

Instrument ID: A5 Date Analyzed: 04/10/2014 20:57

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-40142/2-A	10APR14-Per-027.d	04/10/2014 21:14
MSA-MW18I-040114	240-35725-3	10APR14-Per-035.d	04/10/2014 23:26
MSA-MW46S-040214	240-35791-4	10APR14-Per-036.d	04/10/2014 23:43
MSA-MW46I-040214	240-35791-5	10APR14-Per-037.d	04/10/2014 23:59
MSA-MW46D-040214	240-35791-6	10APR14-Per-038.d	04/11/2014 00:16
MSA-MW47S-040314	240-35834-4	10APR14-Per-040.d	04/11/2014 00:49
MSA-MW47I-040314	240-35834-5	10APR14-Per-041.d	04/11/2014 01:05

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-40142/1-A

Matrix: Water Lab File ID: 10APR14-Per-026.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 04/09/2014 15:27

Sample wt/vol: 4.00(mL) Date Analyzed: 04/10/2014 20:57

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40216 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 10APR14-Per-027.d

Lab ID: LCS 320-40142/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.42	108	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-35725-1

SDG No.:

Instrument ID: A5 Calibration Start Date: 04/10/2014 15:10

GC Column: Anion HR ID: 4.6(mm) Calibration End Date: 04/10/2014 17:05

Calibration ID: 6973

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		471240937	11.52				
UPPER LIMIT		706861406	12.52				
LOWER LIMIT		235620469	10.52				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 320-40216/12		455755157	11.54				
CCVL 320-40216/14		378597817	11.54				
CCV 320-40216/22		518667831	11.56				
CCB 320-40216/23		514745471	11.56				
MB 320-40142/1-A		476982561	11.56				
LCS 320-40142/2-A		438927541	11.56				
INF 320-40142/3-A		495364900	11.50				
240-35725-3	MSA-MW18I-040114	547964100	11.53				
240-35791-4	MSA-MW46S-040214	549721807	11.48				
240-35791-5	MSA-MW46I-040214	533529165	11.45				
240-35791-6	MSA-MW46D-040214	552688675	11.50				
CCV 320-40216/37		579022506	11.53				
240-35834-4	MSA-MW47S-040314	513173747	11.48				
240-35834-5	MSA-MW47I-040314	530690793	11.46				
CCV 320-40216/46		511929782	11.52				
CCVL 320-40216/52		503903934	11.57				
CCB 320-40216/53		488477423	11.57				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

Tetra Tech **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE:** **JULY 10, 2014**

FROM: **EDWARD SEDLMYER** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – TOTAL AND DISSOLVED METALS / MISCELLANEOUS**
MARTIN STATE AIRPORT (MSA)
SDG 240-35725-1

SAMPLES: 14 / Aqueous / Total and Dissolved Metals / MISC.

MSA-MW16I-040314	MSA-MW16S-040314	MSA-MW18I-040114
MSA-MW18S-040114	MSA-MW41I-040414	MSA-MW41S-040414
MSA-MW42I-040214	MSA-MW42S-040214	MSA-MW45S-040414
MSA-MW46D-040214	MSA-MW46I-040214	MSA-MW46S-040214
MSA-MW47I-040314	MSA-MW47S-040314	

Overview

The sample set for Lockheed – MSA, SDG 240-35725-1 consists of fourteen (14) aqueous environmental samples. All samples were analyzed for total and dissolved metals. In addition, samples MSA-MW18I-040114 and MSA-MW18S-040114 were analyzed for natural attenuation parameters including dissolved organic carbon, hardness, total dissolved solids, anions, alkalinity, and ammonia.

The samples were collected by Tetra Tech on April 1, 2, 3, and 4, 2014 and analyzed by Test America (North Canton). All analyses were conducted in accordance with SW-846 Methods 6010C, 6020A, 7470A, 9060, E.P.A. Standard method 2340B, E.P.A. methods 300.0, 310.1, 350.3, and 160.1 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, ICP/MS tuning, initial/continuing calibrations, laboratory method blank results, matrix spike/matrix spike duplicate results, blank spike/blank spike duplicate results, internal standard recoveries, ICP interference results, laboratory duplicate results, ICP serial dilution results, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

- Nitrate, and orthophosphate samples were analyzed six days after collection and grossly exceeded the 48 hour hold time. The nondetected nitrate, and orthophosphate results for samples MSA-MW18I-040114 and MSA-MW18S-040114 were qualified as rejected (UR).

Minor

- The following contaminants were detected in the preparation or calibration blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Antimony[(1)]	0.156 ug/L	0.78 ug/L
Arsenic[(1)]	0.199 ug/L	0.995 ug/L
Barium[(1)]	1.46 ug/L	7.3 ug/L
Copper[(1)]	0.816 ug/L	4.08 ug/L
Manganese[(1)]	0.966 ug/L	4.83 ug/L
Nickel[(1)]	0.212 ug/L	1.06 ug/L
Lead[(1)]	0.178 ug/L	0.89 ug/L
Antimony[(2)]	0.423 ug/L	2.115 ug/L
Barium[(2)]	1.25 ug/L	6.25 ug/L
Copper[(2)]	0.716 ug/L	3.58 ug/L
Manganese[(2)]	1.05 ug/L	5.25 ug/L
Antimony[(3)]	0.206 ug/L	1.03 ug/L
Barium[(3)]	1.2 ug/L	6.0 ug/L
Copper[(3)]	0.698 ug/L	3.49 ug/L
Potassium[(4)]	102 ug/L	510 ug/L
Beryllium[(5)]	0.034 ug/L	0.17 ug/L
Cadmium[(5)]	0.161 ug/L	0.805 ug/L
Chromium[(5)]	0.186 ug/L	0.93 ug/L
Cobalt[(5)]	0.182 ug/L	0.91 ug/L
Silver[(5)]	0.058 ug/L	0.29 ug/L
Vanadium[(5)]	0.224 ug/L	1.12 ug/L
Arsenic[(6)]	0.472 ug/L	2.36 ug/L
Cadmium[(6)]	0.228 ug/L	1.14 ug/L
Chromium[(6)]	0.184 ug/L	0.92 ug/L
Cobalt[(6)]	0.205 ug/L	1.025 ug/L
Iron[(6)]	19.8 ug/L	99 ug/L
Lead[(6)]	0.220 ug/L	1.1 ug/L
Nickel[(6)]	0.202 ug/L	1.01 ug/L
Silver[(6)]	0.079 ug/L	0.395 ug/L
Vanadium[(6)]	0.156 ug/L	0.78 ug/L
Beryllium[(7)]	0.155 ug/L	0.775 ug/L

(1) - Maximum concentration found in preparation blank (MB 240-125231/1-A) affecting total and dissolved samples MSA-MW18I-040114 and MSA-MW18S-040114.

(2) - Maximum concentration found in preparation blank (MB 240-125440/1-A) affecting total and dissolved samples MSA-MW16I-040314, MSA-MW16S-040314, MSA-MW47I-040314, and MSA-MW47S-040314.

(3) - Maximum concentration found in preparation blank (MB 240-125469/1-A) affecting total and dissolved samples MSA-MW41I-040414, MSA-MW41S-040414, MSA-MW42I-040214, MSA-MW42S-040214, MSA-MW45S-040414, MSA-MW46D-040214, MSA-MW46I-040214, and MSA-MW46S-040214.

(4) – Maximum concentration found in calibration blank (CCB240-126579/31 04/15/14 @ 10:44) affecting total and dissolved samples MSA-MW18I-040114 and MSA-MW18S-040114 for 6010 only.

(5) - Maximum concentration found in calibration blank (CCB240-125595/53 04/07/14 @ 16:57) affecting total and dissolved samples total and dissolved samples MSA-MW18I-040114 and MSA-MW18S-040114.

(6) - Maximum concentration found in calibration blank (CCB240-125759/18 04/08/14 @ 16:22) affecting total and dissolved samples MSA-MW16I-

040314, MSA-MW16S-040314, MSA-MW47I-040314, MSA-MW47S-040314, MSA-MW41I-040414, MSA-MW41S-040414, MSA-MW42I-040214, MSA-MW42S-040214, MSA-MW45S-040414, MSA-MW46D-040214, MSA-MW46I-040214, and MSA-MW46S-040214.

(7) - Maximum concentration found in calibration blank (CCB240-125759/58 04/08/14 @ 21:06) affecting total and dissolved samples MSA-MW16I-040314, MSA-MW16S-040314, MSA-MW47I-040314, MSA-MW47S-040314, MSA-MW41I-040414, MSA-MW41S-040414, MSA-MW42I-040214, MSA-MW42S-040214, MSA-MW45S-040414, MSA-MW46D-040214, MSA-MW46I-040214, and MSA-MW46S-040214.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. No action was taken on this basis because all results were greater than the action level.

- The interfering analyte iron was present in the total and dissolved samples MSA-MW18I-040114 at concentrations comparable to the concentration of iron in the interference check sample (ICS) solution. Several analytes namely, antimony, arsenic, cadmium, chromium, cobalt, manganese, nickel, and silver were present in the ICS solution at a concentration that exceeded the absolute value of the instrument detection limit (IDL). Interference effects exist for cadmium and chromium in total and dissolved samples MSA-MW18I-040114. The detected results reported for cadmium and chromium in total and dissolved samples MSA-MW18I-040114 were qualified as estimated (J).

- The interfering analyte iron was present in the total and dissolved samples MSA-MW42S-040214 at concentrations comparable to the concentration of iron in the interference check sample (ICS) solution. Several analytes namely, antimony, arsenic, cadmium, chromium, cobalt, copper, manganese, nickel, and silver were present in the ICS solution at a concentration that exceeded the absolute value of the instrument detection limit (IDL). Interference effects exist for cadmium and chromium in total and dissolved samples MSA-MW42S-040214. The detected results reported for chromium in total and dissolved samples MSA-MW42S-040214 were qualified as estimated (J). The nondetected results reported for cadmium in total and dissolved samples MSA-MW42S-040214 were qualified as estimated (UJ).

- The matrix spike / matrix spike duplicate (MS/MS) performed on sample MSA-MW18S-040114 had percent recoveries less than the 69-134% quality control limits for mercury. The nondetected mercury results for total and dissolved samples MSA-MW18I-040114 and MSA-MW18s-040114 were qualified as estimated (UJ).

- Nitrite samples were analyzed one day outside the 48 hour hold time. The nondetected nitrite results for samples MSA-MW18I-040114 and MSA-MW18S-040114 were qualified as estimated (UJ).

- Positive results less than the reporting limit (RL) were qualified as estimated, (J), due to uncertainty near the detection limit.

Notes

The total and dissolved samples MSA-MW18S-040114, MSA-MW46I-040214, and MSA-MW47I-040314 were diluted due to sample matrix interference for several metals. This accounts for the elevated detection limit for the nondetected metals.

The samples MSA-MW18I-040114 and MSA-MW18S-040114 were analyzed at dilutions due to ammonia, chloride, and sulfate concentrations that exceeded the linear calibration range of the instrument.

A continuing calibration verification (CCV) exceeded the 90-110% quality control limit for orthophosphate. No action was taken because the results were qualified for a more severe noncompliance.

Executive Summary

Laboratory Performance: Blank contamination resulted in the qualification of metals data. Hold time noncompliance resulted in the qualification of several anions.

Other Factors Affecting Data Quality: The interfering analyte iron was present is several samples resulting in qualification of the results. Positive results less than the reporting limit (RL) were qualified as estimated, due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to USEPA National Functional Guidelines for Inorganic Data Validation (January 2010). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Edward Sedlmyer
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 06183	NSAMPLE	MSA-MW16I-040314			MSA-MW16S-040314			MSA-MW18I-040114			MSA-MW18S-040114		
SDG: 240-35725-1	LAB_ID	240-35834-3			240-35834-2			240-35725-3			240-35725-2		
FRACTION: MF	SAMP_DATE	4/3/2014			4/3/2014			4/1/2014			4/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.22	U	A	0.21	U	A	0.27	U	A	0.55	U	
ARSENIC		23			2.1	U	A	3.7	J	P	8.6		
BARIUM		2.6	U	A	51			65			42		
BERYLLIUM		0.29	U	A	0.55	U	A	0.11	U	A	2.4		
CADMIUM		0.057	U	A	0.026	U		3.2	J	K	110		
CHROMIUM		0.22	U	A	3.1			1.1	J	KP	1.5	J	P
COBALT		19			120			57			310		
COPPER		0.37	U	A	0.24	U		0.97	U	A	32		
IRON		2500			26000			99000			24000		
LEAD		0.14	U		0.14	U		0.14	U		0.7	U	
MANGANESE		31			8100			2700			4500		
MERCURY		0.12	U		0.12	U		0.12	UJ	D	0.12	UJ	D
MOLYBDENUM		0.81	U		0.81	U		0.81	U		0.81	U	
NICKEL		26			96			43			180		
SELENIUM		0.34	U		0.37	J	P	0.7	J	P	19		
SILVER		0.0083	U		0.0083	U		0.087	U	A	0.0083	U	
THALLIUM		0.4	U		0.4	U		0.4	U		2.3	J	P
VANADIUM		0.15	U		1.3	J	P	1.4	J	P	0.8	U	A

PROJ_NO: 06183	NSAMPLE	MSA-MW41I-040414			MSA-MW41S-040414			MSA-MW42I-040214			MSA-MW42S-040214		
SDG: 240-35725-1	LAB_ID	240-35833-3			240-35833-2			240-35791-3			240-35791-2		
FRACTION: MF	SAMP_DATE	4/4/2014			4/4/2014			4/2/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.21	U	A	0.28	U	A	0.28	U	A	0.17	U	A
ARSENIC		6.9			0.77	U	A	2	U	A	4.6	J	P
BARIUM		26			120			35			360		
BERYLLIUM		0.23	U	A	0.24	U	A	0.038	U	A	0.076	U	A
CADMIUM		0.026	U		42			0.026	U		0.026	UJ	K
CHROMIUM		0.52	U	A	0.38	U	A	0.38	U	A	1.9	J	KP
COBALT		21			84			5.5			0.29	U	A
COPPER		0.24	U		3.2	U	A	1.2	U	A	0.31	U	A
IRON		47000			12	U		2500			52000		
LEAD		0.14	U		0.14	U		0.15	U	A	0.14	U	
MANGANESE		2000			740			110			940		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.9	J	P	1.4	J	P	1.6	J	P	0.81	U	
NICKEL		12			83			4.4			0.45	U	A
SELENIUM		0.67	J	P	2.8	J	P	0.34	U		0.58	J	P
SILVER		0.0083	U		0.0083	U		0.0083	U		0.0083	U	
THALLIUM		1.8	J	P	0.4	U		0.4	U		0.4	U	
VANADIUM		0.55	U	A	0.15	U		0.72	U	A	2.6	J	P

PROJ_NO: 06183	NSAMPLE	MSA-MW45S-040414			MSA-MW46D-040214			MSA-MW46I-040214			MSA-MW46S-040214		
SDG: 240-35725-1	LAB_ID	240-35833-4			240-35791-6			240-35791-5			240-35791-4		
FRACTION: MF	SAMP_DATE	4/4/2014			4/2/2014			4/2/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.49	U	A	0.11	U		0.55	U		0.15	U	A
ARSENIC		3.3	J	P	0.53	U	A	8.7			5.9		
BARIUM		63			28			17	U	A	51		
BERYLLIUM		0.6	U	A	0.11	U	A	0.86	J	P	0.054	U	A
CADMIUM		4700			0.026	U		0.11	U	A	0.026	U	
CHROMIUM		9300			0.13	U		1.1	J	P	2.3		
COBALT		33			18			110			4.8		
COPPER		5.8			0.24	U		1.2	U	A	0.24	U	
IRON		12	U		6100			5200			13000		
LEAD		0.14	U		0.14	U		0.7	U		0.14	U	
MANGANESE		2400			66			1000			920		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.4	J	P	0.81	U		0.81	U		0.81	U	
NICKEL		180			24			58			5.5		
SELENIUM		8.2			0.34	U		20			0.5	J	P
SILVER		0.0083	U		0.0083	U		0.0083	U		0.0083	U	
THALLIUM		0.4	U		0.4	U		2	U		0.4	U	
VANADIUM		0.15	U		0.15	U		0.92	J	P	0.85	J	P

PROJ_NO: 06183	NSAMPLE	MSA-MW47I-040314	MSA-MW47S-040314
SDG: 240-35725-1	LAB_ID	240-35834-5	240-35834-4
FRACTION: MF	SAMP_DATE	4/3/2014	4/3/2014
MEDIA: WATER	QC_TYPE	NM	NM
	UNITS	UG/L	UG/L
	PCT_SOLIDS	0.0	0.0
	DUP_OF		

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY	0.55	U		0.26	U	A
ARSENIC	6.8			11		
BARIUM	26	U	A	33		
BERYLLIUM	1.4			0.12	U	A
CADMIUM	90			0.045	U	A
CHROMIUM	1.3	J	P	0.86	U	A
COBALT	280			52		
COPPER	14			0.24	U	
IRON	3200			12000		
LEAD	0.7	U		0.14	U	
MANGANESE	5500			4800		
MERCURY	0.12	U		0.12	U	
MOLYBDENUM	0.81	U		0.81	U	
NICKEL	100			19		
SELENIUM	13			1	J	P
SILVER	0.0083	U		0.0083	U	
THALLIUM	2	U		0.4	U	
VANADIUM	0.26	U	A	0.9	J	P

PROJ_NO: 06183	NSAMPLE	MSA-MW16I-040314			MSA-MW16S-040314			MSA-MW18I-040114			MSA-MW18S-040114		
SDG: 240-35725-1	LAB_ID	240-35834-3			240-35834-2			240-35725-3			240-35725-2		
FRACTION: M	SAMP_DATE	4/3/2014			4/3/2014			4/1/2014			4/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.34	U	A	0.24	U	A	0.34	U	A	0.55	U	
ARSENIC		33			2.9	J	P	3.8	J	P	7.9		
BARIUM		18			52			69			41		
BERYLLIUM		0.72	U	A	0.95	J	P	0.14	U	A	2.2		
CADMIUM		0.22	U	A	0.026	U		2.5	J	K	110		
CALCIUM								170000			57000		
CHROMIUM		1.4	J	P	4			1.5	J	KP	1.6	J	P
COBALT		30			120			49			310		
COPPER		2.5	U	A	0.24	U		1.6	U	A	29		
IRON		6500			27000			97000			26000		
LEAD		2.6			0.14	U		0.41	U	A	0.7	U	
MAGNESIUM								130000			44000		
MANGANESE		54			8200			2500			4100		
MERCURY		0.12	U		0.12	U		0.12	UJ	D	0.12	UJ	D
MOLYBDENUM		0.81	U		0.81	U		0.97	J	P	0.81	U	
NICKEL		44			100			38			170		
POTASSIUM								29000			8200		
SELENIUM		0.37	J	P	0.91	J	P	0.82	J	P	17		
SILICON DIOXIDE								28000			11000		
SILVER		0.0083	U		0.0083	U		0.0083	U		0.027	U	A
SODIUM								330000			150000		
THALLIUM		0.4	U		0.65	J	P	0.4	U		2	U	
VANADIUM		1.9	J	P	2.9	J	P	1.9	J	P	1.1	U	A

PROJ_NO: 06183	NSAMPLE	MSA-MW41I-040414			MSA-MW41S-040414			MSA-MW42I-040214			MSA-MW42S-040214		
SDG: 240-35725-1	LAB_ID	240-35833-3			240-35833-2			240-35791-3			240-35791-2		
FRACTION: M	SAMP_DATE	4/4/2014			4/4/2014			4/2/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.32	U	A	0.32	U	A	0.33	U	A	0.18	U	A
ARSENIC		9.8			0.89	U	A	3.1	J	P	4.3	J	P
BARIUM		27			130			38			360		
BERYLLIUM		0.087	U	A	0.3	U	A	0.067	U	A	0.082	U	A
CADMIUM		0.15	U	A	46			0.026	U		0.026	UJ	K
CALCIUM													
CHROMIUM		2			0.61	U	A	0.92	J	P	2	J	K
COBALT		21			87			6			0.29	U	A
COPPER		1.1	U	A	4.3			2.1	U	A	0.46	U	A
IRON		48000			25	U	A	5100			52000		
LEAD		0.66	U	A	0.14	U		0.78	U	A	0.14	U	
MAGNESIUM													
MANGANESE		2000			770			120			920		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.7	J	P	1.4	J	P	1.7	J	P	0.81	U	
NICKEL		13			86			4.8			0.37	U	A
POTASSIUM													
SELENIUM		1.1	J	P	2.6	J	P	0.34	U		0.52	J	P
SILICON DIOXIDE													
SILVER		0.047	U	A	0.01	U	A	0.019	U	A	0.0083	U	
SODIUM													
THALLIUM		1.1	J	P	0.48	J	P	0.4	U		0.4	U	
VANADIUM		1.5	J	P	0.17	U	A	1.8	J	P	2.7	J	P

PROJ_NO: 06183	NSAMPLE	MSA-MW45S-040414			MSA-MW46D-040214			MSA-MW46I-040214			MSA-MW46S-040214		
SDG: 240-35725-1	LAB_ID	240-35833-4			240-35791-6			240-35791-5			240-35791-4		
FRACTION: M	SAMP_DATE	4/4/2014			4/2/2014			4/2/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.47	U	A	0.11	U		2.8	U		0.18	U	A
ARSENIC		3.4	J	P	0.5	U	A	28			9.6		
BARIUM		63			29			23	U	A	56		
BERYLLIUM		0.6	U	A	0.11	U	A	2			0.078	U	A
CADMIUM		4700			0.048	U	A	0.21	U	A	0.088	U	A
CALCIUM													
CHROMIUM		9300			0.23	U	A	8.4			3		
COBALT		33			14			130			5		
COPPER		6.1			0.86	U	A	14			4.5		
IRON		180			7000			12000			17000		
LEAD		0.14	U		0.14	U		3.5	U		0.28	U	A
MAGNESIUM													
MANGANESE		2500			67			1100			910		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.6	J	P	0.81	U		1.2	J	P	0.81	U	
NICKEL		180			25			67			4.5		
POTASSIUM													
SELENIUM		7.7			0.34	U		60			0.64	J	P
SILICON DIOXIDE													
SILVER		0.0083	U		0.0083	U		0.0083	U		0.0083	U	
SODIUM													
THALLIUM		0.4	U		0.4	U		10	U		0.4	U	
VANADIUM		0.15	U		0.15	U		7.4			2.1	J	P

PROJ_NO: 06183	NSAMPLE	MSA-MW47I-040314			MSA-MW47S-040314		
SDG: 240-35725-1	LAB_ID	240-35834-5			240-35834-4		
FRACTION: M	SAMP_DATE	4/3/2014			4/3/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		2.8	U		0.28	U	A
ARSENIC		52			9.5		
BARIUM		30	U	A	32		
BERYLLIUM		6.4			0.12	U	A
CADMIUM		110			1.7		
CALCIUM							
CHROMIUM		22			0.92	J	P
COBALT		240			46		
COPPER		290			1.3	U	A
IRON		11000			11000		
LEAD		3.5	U		0.14	U	
MAGNESIUM							
MANGANESE		5200			4200		
MERCURY		0.76			0.12	U	
MOLYBDENUM		0.81	U		0.81	U	
NICKEL		90			17		
POTASSIUM							
SELENIUM		76			1.1	J	P
SILICON DIOXIDE							
SILVER		0.0083	U		0.0083	U	
SODIUM							
THALLIUM		10	U		0.4	U	
VANADIUM		2.5	J	P	0.84	J	P

PROJ_NO: 06183	NSAMPLE	MSA-MW18I-040114			MSA-MW18S-040114		
SDG: 240-35725-1	LAB_ID	240-35725-3			240-35725-2		
FRACTION: MISC	SAMP_DATE	4/1/2014			4/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	MG/L			MG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALKALINITY		34			190		
AMMONIA-N		2.4			9		
CALCIUM HARDNESS AS CACO3		430			160		
CHLORIDE		270			400		
DISSOLVED ORGANIC CARBON		8.9			25		
HARDNESS AS CACO3		900			370		
MAGNESIUM HARDNESS AS CACO3		470			210		
NITRATE-N		0.12	UR	H	0.12	UR	H
NITRITE-N		0.012	UJ	h	0.012	UJ	h
ORTHOPHOSPHATE-P		0.22	UR	H	0.22	UR	H
SULFATE		520			1100		
TOTAL DISSOLVED SOLIDS		1300			2200		

Appendix B

Results as Reported by the Laboratory

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW16I-040314 Lab Sample ID: 240-35834-3

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/03/2014 10:45

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW16I-040314 Lab Sample ID: 240-35834-3

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/03/2014 10:45

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.34	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	33	5.0	0.063	ug/L			1	6020
7440-39-3	Barium	18	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.72	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.22	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	30	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	1.4	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	2.5	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	6500	100	12	ug/L			1	6020
7439-96-5	Manganese	54	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	44	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	2.6	1.0	0.14	ug/L			1	6020
7782-49-2	Selenium	0.37	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.9	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW16I-040314 Lab Sample ID: 240-35834-3

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/03/2014 10:45

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.22	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	23	5.0	0.063	ug/L			1	6020
7440-39-3	Barium	2.6	5.0	0.32	ug/L	J	B	1	6020
7440-41-7	Beryllium	0.29	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.057	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	0.22	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	19	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.37	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	26	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	2500	100	12	ug/L			1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	31	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.15	5.0	0.15	ug/L	U		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW16S-040314 Lab Sample ID: 240-35834-2

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/03/2014 09:40

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW16S-040314 Lab Sample ID: 240-35834-2

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/03/2014 09:40

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.24	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	2.9	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	52	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.95	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	120	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	4.0	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-89-6	Iron	27000	100	12	ug/L			1	6020
7439-96-5	Manganese	8200	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	100	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7782-49-2	Selenium	0.91	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.65	2.0	0.40	ug/L	J		1	6020
7440-62-2	Vanadium	2.9	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW16S-040314 Lab Sample ID: 240-35834-2

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/03/2014 09:40

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.21	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	2.1	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	51	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.55	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	3.1	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	120	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	96	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	26000	100	12	ug/L			1	6020
7782-49-2	Selenium	0.37	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	8100	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.3	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW18I-040114 Lab Sample ID: 240-35725-3

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/01/2014 13:40

Reporting Basis: WET Date Received: 04/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW18I-040114 Lab Sample ID: 240-35725-3

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/01/2014 13:40

Reporting Basis: WET Date Received: 04/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	170000	5000	130	ug/L			1	6010C
7440-09-7	Potassium	29000	5000	72	ug/L			1	6010C
7439-95-4	Magnesium	130000	5000	34	ug/L			1	6010C
7440-23-5	Sodium	330000	5000	590	ug/L			1	6010C
14808-60-7	SiO2, Silica	28000	1100	17	ug/L			1	6010C
7440-36-0	Antimony	0.34	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	3.8	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	69	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.14	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	2.5	1.0	0.026	ug/L		B	1	6020
7440-48-4	Cobalt	49	1.0	0.020	ug/L		B	1	6020
7440-47-3	Chromium	1.5	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	1.6	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	97000	100	12	ug/L		B	1	6020
7439-96-5	Manganese	2500	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.97	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	38	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.41	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.82	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.9	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
	Hardness as calcium carbonate	900	33	33	mg/L			1	2340B-1997
	Calcium hardness as calcium carbonate	430	12	12	mg/L			1	2340B-1997
	Magnesium hardness as calcium carbonate	470	21	21	mg/L			1	2340B-1997

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW18I-040114 Lab Sample ID: 240-35725-3

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/01/2014 13:40

Reporting Basis: WET Date Received: 04/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.27	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	3.7	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	65	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.11	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	3.2	1.0	0.026	ug/L		B	1	6020
7440-47-3	Chromium	1.1	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	57	1.0	0.020	ug/L		B	1	6020
7440-50-8	Copper	0.97	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	43	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	99000	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.70	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	2700	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.087	1.0	0.0083	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.4	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW18S-040114 Lab Sample ID: 240-35725-2

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/01/2014 11:15

Reporting Basis: WET Date Received: 04/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW18S-040114 Lab Sample ID: 240-35725-2

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/01/2014 11:15

Reporting Basis: WET Date Received: 04/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	57000	5000	130	ug/L			1	6010C
7440-09-7	Potassium	8200	5000	72	ug/L			1	6010C
7439-95-4	Magnesium	44000	5000	34	ug/L			1	6010C
7440-23-5	Sodium	150000	5000	590	ug/L			1	6010C
14808-60-7	SiO2, Silica	11000	1100	17	ug/L			1	6010C
7440-36-0	Antimony	0.55	10	0.55	ug/L	U		5	6020
7440-38-2	Arsenic	7.9	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	41	25	1.6	ug/L		B	5	6020
7440-41-7	Beryllium	2.2	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	110	5.0	0.13	ug/L		B	5	6020
7440-48-4	Cobalt	310	5.0	0.10	ug/L		B	5	6020
7440-47-3	Chromium	1.6	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	29	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	26000	500	59	ug/L		B	5	6020
7439-96-5	Manganese	4100	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	170	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.70	5.0	0.70	ug/L	U		5	6020
7782-49-2	Selenium	17	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	2.0	10	2.0	ug/L	U		5	6020
7440-62-2	Vanadium	1.1	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.027	1.0	0.0083	ug/L	J		1	6020
	Hardness as calcium carbonate	370	33	33	mg/L			1	2340B-1997
	Calcium hardness as calcium carbonate	160	12	12	mg/L			1	2340B-1997
	Magnesium hardness as calcium carbonate	210	21	21	mg/L			1	2340B-1997

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW18S-040114 Lab Sample ID: 240-35725-2

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/01/2014 11:15

Reporting Basis: WET Date Received: 04/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.55	10	0.55	ug/L	U		5	6020
7440-38-2	Arsenic	8.6	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	42	25	1.6	ug/L		B	5	6020
7440-41-7	Beryllium	2.4	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	110	1.0	0.026	ug/L		B	1	6020
7440-47-3	Chromium	1.5	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	310	1.0	0.020	ug/L		B	1	6020
7440-50-8	Copper	32	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.70	5.0	0.70	ug/L	U		5	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	180	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	24000	100	12	ug/L		B	1	6020
7782-49-2	Selenium	19	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	4500	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	2.3	10	2.0	ug/L	J		5	6020
7440-62-2	Vanadium	0.80	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW41I-040414 Lab Sample ID: 240-35833-3

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/04/2014 10:40

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW41I-040414 Lab Sample ID: 240-35833-3

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/04/2014 10:40

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.32	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	9.8	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	27	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.087	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.15	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	21	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	2.0	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	1.1	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	48000	100	12	ug/L			1	6020
7439-96-5	Manganese	2000	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	1.7	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	13	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.66	1.0	0.14	ug/L	J		1	6020
7782-49-2	Selenium	1.1	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	1.1	2.0	0.40	ug/L	J		1	6020
7440-62-2	Vanadium	1.5	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.047	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW41I-040414 Lab Sample ID: 240-35833-3

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/04/2014 10:40

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.21	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	6.9	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	26	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.23	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.52	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	21	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.90	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	12	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	47000	100	12	ug/L			1	6020
7782-49-2	Selenium	0.67	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	2000	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	1.8	2.0	0.40	ug/L	J		1	6020
7440-62-2	Vanadium	0.55	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW41S-040414 Lab Sample ID: 240-35833-2

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/04/2014 09:40

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW41S-040414 Lab Sample ID: 240-35833-2

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/04/2014 09:40

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.32	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.89	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	130	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.30	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	46	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	87	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.61	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	4.3	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	25	100	12	ug/L	J		1	6020
7439-96-5	Manganese	770	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	1.4	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	86	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7782-49-2	Selenium	2.6	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.48	2.0	0.40	ug/L	J		1	6020
7440-62-2	Vanadium	0.17	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.010	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW41S-040414 Lab Sample ID: 240-35833-2

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/04/2014 09:40

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.28	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.77	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	120	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.24	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	42	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	0.38	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	84	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	3.2	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	1.4	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	83	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	12	100	12	ug/L	U		1	6020
7782-49-2	Selenium	2.8	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	740	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.15	5.0	0.15	ug/L	U		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW42I-040214 Lab Sample ID: 240-35791-3

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/02/2014 11:10

Reporting Basis: WET Date Received: 04/04/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW42I-040214 Lab Sample ID: 240-35791-3

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/02/2014 11:10

Reporting Basis: WET Date Received: 04/04/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.33	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	3.1	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	38	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.067	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	6.0	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.92	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	2.1	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	5100	100	12	ug/L			1	6020
7439-96-5	Manganese	120	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	1.7	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	4.8	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.78	1.0	0.14	ug/L	J		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.8	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.019	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW42I-040214 Lab Sample ID: 240-35791-3

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/02/2014 11:10

Reporting Basis: WET Date Received: 04/04/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.28	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	2.0	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	35	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.038	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.38	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	5.5	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	1.2	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.15	1.0	0.14	ug/L	J		1	6020
7439-98-7	Molybdenum	1.6	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	4.4	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	2500	100	12	ug/L			1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	110	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.72	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW42S-040214 Lab Sample ID: 240-35791-2

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/02/2014 10:00

Reporting Basis: WET Date Received: 04/04/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW42S-040214 Lab Sample ID: 240-35791-2

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/02/2014 10:00

Reporting Basis: WET Date Received: 04/04/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.18	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	4.3	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	360	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.082	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	0.29	1.0	0.020	ug/L	J		1	6020
7440-47-3	Chromium	2.0	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	0.46	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	52000	100	12	ug/L			1	6020
7439-96-5	Manganese	920	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	0.37	2.0	0.088	ug/L	J	B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7782-49-2	Selenium	0.52	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.7	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW42S-040214 Lab Sample ID: 240-35791-2

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/02/2014 10:00

Reporting Basis: WET Date Received: 04/04/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.17	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	4.6	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	360	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.076	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	1.9	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	0.29	1.0	0.020	ug/L	J		1	6020
7440-50-8	Copper	0.31	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	0.45	2.0	0.088	ug/L	J	B	1	6020
7439-89-6	Iron	52000	100	12	ug/L			1	6020
7782-49-2	Selenium	0.58	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	940	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.6	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW45S-040414 Lab Sample ID: 240-35833-4

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/04/2014 11:55

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW45S-040414 Lab Sample ID: 240-35833-4

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/04/2014 11:55

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.47	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	3.4	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	63	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.60	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	4700	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	33	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	9300	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	6.1	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	180	100	12	ug/L			1	6020
7439-96-5	Manganese	2500	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	1.6	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	180	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7782-49-2	Selenium	7.7	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.15	5.0	0.15	ug/L	U	L	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW45S-040414 Lab Sample ID: 240-35833-4

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/04/2014 11:55

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.49	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	3.3	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	63	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.60	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	4700	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	9300	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	33	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	5.8	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	1.4	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	180	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	12	100	12	ug/L	U		1	6020
7782-49-2	Selenium	8.2	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	2400	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.15	5.0	0.15	ug/L	U	L	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW46D-040214 Lab Sample ID: 240-35791-6

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/02/2014 14:40

Reporting Basis: WET Date Received: 04/04/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW46D-040214 Lab Sample ID: 240-35791-6

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/02/2014 14:40

Reporting Basis: WET Date Received: 04/04/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	0.50	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	29	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.11	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.048	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	14	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.23	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	0.86	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	7000	100	12	ug/L			1	6020
7439-96-5	Manganese	67	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	25	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.15	5.0	0.15	ug/L	U		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW46D-040214 Lab Sample ID: 240-35791-6

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/02/2014 14:40

Reporting Basis: WET Date Received: 04/04/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	0.53	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	28	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.11	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.13	2.0	0.13	ug/L	U		1	6020
7440-48-4	Cobalt	18	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	24	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	6100	100	12	ug/L			1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	66	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.15	5.0	0.15	ug/L	U		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW46I-040214 Lab Sample ID: 240-35791-5

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/02/2014 13:50

Reporting Basis: WET Date Received: 04/04/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW46I-040214 Lab Sample ID: 240-35791-5

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/02/2014 13:50

Reporting Basis: WET Date Received: 04/04/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.8	50	2.8	ug/L	U		25	6020
7440-38-2	Arsenic	28	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	23	130	8.0	ug/L	J	B	25	6020
7440-41-7	Beryllium	2.0	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	0.21	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	130	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	8.4	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	14	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	12000	100	12	ug/L			1	6020
7439-96-5	Manganese	1100	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	1.2	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	67	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	3.5	25	3.5	ug/L	U		25	6020
7782-49-2	Selenium	60	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	10	50	10	ug/L	U		25	6020
7440-62-2	Vanadium	7.4	5.0	0.15	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW46I-040214 Lab Sample ID: 240-35791-5

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/02/2014 13:50

Reporting Basis: WET Date Received: 04/04/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.55	10	0.55	ug/L	U		5	6020
7440-38-2	Arsenic	8.7	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	17	25	1.6	ug/L	J	B	5	6020
7440-41-7	Beryllium	0.86	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.11	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	1.1	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	110	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	1.2	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.70	5.0	0.70	ug/L	U		5	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	58	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	5200	100	12	ug/L			1	6020
7782-49-2	Selenium	20	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	1000	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	2.0	10	2.0	ug/L	U		5	6020
7440-62-2	Vanadium	0.92	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW46S-040214 Lab Sample ID: 240-35791-4

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/02/2014 12:10

Reporting Basis: WET Date Received: 04/04/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW46S-040214 Lab Sample ID: 240-35791-4

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/02/2014 12:10

Reporting Basis: WET Date Received: 04/04/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.18	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	9.6	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	56	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.078	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.088	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	5.0	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	3.0	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	4.5	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	17000	100	12	ug/L			1	6020
7439-96-5	Manganese	910	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	4.5	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.28	1.0	0.14	ug/L	J		1	6020
7782-49-2	Selenium	0.64	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.1	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW46S-040214 Lab Sample ID: 240-35791-4

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/02/2014 12:10

Reporting Basis: WET Date Received: 04/04/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.15	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	5.9	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	51	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.054	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	2.3	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	4.8	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	5.5	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	13000	100	12	ug/L			1	6020
7782-49-2	Selenium	0.50	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	920	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.85	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW47I-040314 Lab Sample ID: 240-35834-5

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/03/2014 14:10

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.76	0.20	0.12	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW47I-040314 Lab Sample ID: 240-35834-5

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/03/2014 14:10

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.8	50	2.8	ug/L	U		25	6020
7440-38-2	Arsenic	52	5.0	0.063	ug/L			1	6020
7440-39-3	Barium	30	130	8.0	ug/L	J	B	25	6020
7440-41-7	Beryllium	6.4	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	110	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	240	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	22	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	290	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	11000	100	12	ug/L			1	6020
7439-96-5	Manganese	5200	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	90	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	3.5	25	3.5	ug/L	U		25	6020
7782-49-2	Selenium	76	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	10	50	10	ug/L	U		25	6020
7440-62-2	Vanadium	2.5	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW47I-040314 Lab Sample ID: 240-35834-5

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/03/2014 14:10

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.55	10	0.55	ug/L	U		5	6020
7440-38-2	Arsenic	6.8	5.0	0.063	ug/L			1	6020
7440-39-3	Barium	26	25	1.6	ug/L		B	5	6020
7440-41-7	Beryllium	1.4	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	90	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	1.3	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	280	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	14	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.70	5.0	0.70	ug/L	U		5	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	100	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	3200	100	12	ug/L			1	6020
7782-49-2	Selenium	13	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	5500	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	2.0	10	2.0	ug/L	U		5	6020
7440-62-2	Vanadium	0.26	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW47S-040314 Lab Sample ID: 240-35834-4

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/03/2014 12:05

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW47S-040314 Lab Sample ID: 240-35834-4

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/03/2014 12:05

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.28	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	9.5	5.0	0.063	ug/L			1	6020
7440-39-3	Barium	32	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.12	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	1.7	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	46	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.92	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	1.3	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	11000	100	12	ug/L			1	6020
7439-96-5	Manganese	4200	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	17	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7782-49-2	Selenium	1.1	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.84	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW47S-040314 Lab Sample ID: 240-35834-4

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/03/2014 12:05

Reporting Basis: WET Date Received: 04/05/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.26	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	11	5.0	0.063	ug/L			1	6020
7440-39-3	Barium	33	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.12	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.045	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	0.86	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	52	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	19	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	12000	100	12	ug/L			1	6020
7782-49-2	Selenium	1.0	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	4800	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.90	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MSA-MW18S-040114 Lab Sample ID: 240-35725-2

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/01/2014 11:15

Reporting Basis: WET Date Received: 04/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	190	5.0	1.9	mg/L		B	1	310.1
	Total Dissolved Solids	2200	20	15	mg/L			1	160.1
16887-00-6	Chloride	400	5.0	0.50	mg/L			5	300.0
14797-65-0	Nitrite as N	0.012	0.10	0.012	mg/L	U	H	1	300.0
14797-55-8	Nitrate as N	0.12	0.50	0.12	mg/L	U	H	5	300.0
14808-79-8	Sulfate	1100	10	1.2	mg/L			10	300.0
	Orthophosphate as P	0.22	2.5	0.22	mg/L	U	H ^	5	300.0
7664-41-7	Ammonia (as N)	9.0	0.40	0.050	mg/L			2	350.3

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-MW18S-040114 Lab Sample ID: 240-35725-2

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/01/2014 11:15

Reporting Basis: WET Date Received: 04/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	25	1.0	0.24	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MSA-MW18I-040114 Lab Sample ID: 240-35725-3

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/01/2014 13:40

Reporting Basis: WET Date Received: 04/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	34	5.0	1.9	mg/L		B	1	310.1
	Total Dissolved Solids	1300	20	15	mg/L			1	160.1
16887-00-6	Chloride	270	5.0	0.50	mg/L			5	300.0
14797-65-0	Nitrite as N	0.012	0.10	0.012	mg/L	U	H	1	300.0
14797-55-8	Nitrate as N	0.12	0.50	0.12	mg/L	U	H	5	300.0
14808-79-8	Sulfate	520	5.0	0.60	mg/L			5	300.0
	Orthophosphate as P	0.22	2.5	0.22	mg/L	U	H ^	5	300.0
7664-41-7	Ammonia (as N)	2.4	0.20	0.025	mg/L			1	350.3

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-MW18I-040114 Lab Sample ID: 240-35725-3

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG ID.:

Matrix: Water Date Sampled: 04/01/2014 13:40

Reporting Basis: WET Date Received: 04/03/2014 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	8.9	1.0	0.24	mg/L			1	9060

Appendix C

Support Documentation

HOLDTIME

PROJ_NO 06183

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	HG	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/04/2014	04/07/2014	3	3	6
240-35725-1	HG	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35725-1	HG	UG/L	MSA-MW41I-040414	240-35833-3	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35725-1	HG	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	HG	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/07/2014	3	3	6
240-35725-1	HG	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	HG	UG/L	MSA-MW46D-040214	240-35791-6	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	HG	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	HG	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	HG	UG/L	MSA-MW42I-040214	240-35791-3	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	HG	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	HG	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	HG	UG/L	MSA-MW16I-040314	240-35834-3	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	HG	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35913-1	HG	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	HG	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	HG	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/15/2014	04/16/2014	7	1	8
240-35913-1	HG	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/11/2014	04/17/2014	3	6	9
240-35913-1	HG	UG/L	MSA-MW17D-040814	240-36010-4	NM	04/08/2014	04/11/2014	04/17/2014	3	6	9
240-35913-1	HG	UG/L	MSA-MW-14I-040914	240-36043-1	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	HG	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/11/2014	04/17/2014	3	6	9
240-35913-1	HG	UG/L	MSA-MW-14D-040914	240-36043-2	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	HG	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	HG	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35725-1	M	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35725-1	M	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	M	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/07/2014	04/09/2014	4	2	6
240-35725-1	M	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	M	UG/L	MSA-MW46D-040214	240-35791-6	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	M	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35725-1	M	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	M	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	M	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/04/2014	04/07/2014	3	3	6
240-35725-1	M	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	M	UG/L	MSA-MW16I-040314	240-35834-3	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	M	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/08/2014	3	4	7
240-35725-1	M	UG/L	MSA-MW41I-040414	240-35833-3	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35725-1	M	UG/L	MSA-MW42I-040214	240-35791-3	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	M	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	M	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/14/2014	04/15/2014	13	1	14
240-35725-1	M	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/07/2014	3	3	6
240-35725-1	M	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/14/2014	04/15/2014	13	1	14
240-35725-1	M	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35913-1	M	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	M	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	M	UG/L	MSA-MW-14D-040914	240-36043-2	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	M	UG/L	MSA-MW-14I-040914	240-36043-1	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	M	UG/L	MSA-MW17D-040814	240-36010-4	NM	04/08/2014	04/11/2014	04/14/2014	3	3	6
240-35913-1	M	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/14/2014	04/15/2014	6	1	7
240-35913-1	M	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/11/2014	04/14/2014	3	3	6
240-35913-1	M	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/11/2014	04/14/2014	3	3	6
240-35913-1	M	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	M	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35725-1	MF	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	MF	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/07/2014	04/09/2014	4	2	6
240-35725-1	MF	UG/L	MSA-MW42I-040214	240-35791-3	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	MF	UG/L	MSA-MW16I-040314	240-35834-3	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	MF	UG/L	MSA-MW46D-040214	240-35791-6	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	MF	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	MF	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	MF	UG/L	MSA-MW41I-040414	240-35833-3	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35725-1	MF	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/07/2014	3	3	6
240-35725-1	MF	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	MF	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/04/2014	04/07/2014	3	3	6
240-35725-1	MF	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35725-1	MF	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	MF	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/08/2014	3	4	7
240-35725-1	MF	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35725-1	MF	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	MF	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35913-1	MF	UG/L	MSA-MW-14I-040914	240-36043-1	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	MF	UG/L	MSA-MW-14D-040914	240-36043-2	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	MF	UG/L	MSA-MW-14D-040914	240-36043-2	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	MF	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	MF	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	MF	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/14/2014	04/15/2014	6	1	7
240-35913-1	MF	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/15/2014	04/16/2014	7	1	8
240-35913-1	MF	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	MF	UG/L	MSA-MW-14I-040914	240-36043-1	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	MF	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/11/2014	04/14/2014	3	3	6
240-35913-1	MF	UG/L	MSA-MW17D-040814	240-36010-4	NM	04/08/2014	04/11/2014	04/14/2014	3	3	6
240-35913-1	MF	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/11/2014	04/14/2014	3	3	6
240-35913-1	MF	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	MF	UG/L	MSA-MW17D-040814	240-36010-4	NM	04/08/2014	04/11/2014	04/17/2014	3	6	9
240-35913-1	MF	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	MF	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/11/2014	04/17/2014	3	6	9
240-35913-1	MF	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	MF	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/11/2014	04/17/2014	3	6	9
240-35725-1	ALK	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/08/2014	04/08/2014	7	0	7
240-35725-1	ALK	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/08/2014	04/08/2014	7	0	7
240-35913-1	ALK	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/15/2014	04/15/2014	6	0	6
240-35913-1	ALK	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/15/2014	04/15/2014	6	0	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	CL	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/15/2014	04/15/2014	14	0	14
240-35725-1	CL	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/15/2014	04/15/2014	14	0	14
240-35913-1	CL	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/17/2014	04/17/2014	8	0	8
240-35913-1	CL	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/17/2014	04/17/2014	8	0	8
240-35725-1	DOC	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35725-1	DOC	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35913-1	DOC	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/13/2014	04/13/2014	4	0	4
240-35913-1	DOC	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/13/2014	04/13/2014	4	0	4
240-35725-1	HARD	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/16/2014	04/16/2014	15	0	15
240-35725-1	HARD	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/16/2014	04/16/2014	15	0	15
240-35913-1	HARD	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/16/2014	04/16/2014	7	0	7
240-35913-1	HARD	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/16/2014	04/16/2014	7	0	7
240-35725-1	NH3	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35725-1	NH3	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35913-1	NH3	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/16/2014	04/16/2014	7	0	7
240-35913-1	NH3	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/16/2014	04/16/2014	7	0	7
240-35725-1	NTA	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35725-1	NTA	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35913-1	NTA	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	NTA	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2
240-35725-1	NTI	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/04/2014	04/04/2014	3	0	3
240-35725-1	NTI	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/04/2014	3	0	3
240-35913-1	NTI	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2
240-35913-1	NTI	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2
240-35725-1	OPO4	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35725-1	OPO4	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35913-1	OPO4	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2
240-35913-1	OPO4	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2
240-35725-1	PCL	UG/L	MSA-MW46D-040214	240-35791-6	NM	04/02/2014	04/09/2014	04/11/2014	7	2	9
240-35725-1	PCL	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/09/2014	04/10/2014	7	1	8
240-35725-1	PCL	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/09/2014	04/11/2014	6	2	8
240-35725-1	PCL	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/09/2014	04/11/2014	6	2	8
240-35725-1	PCL	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/09/2014	04/10/2014	7	1	8
240-35725-1	PCL	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/09/2014	04/10/2014	8	1	9
240-35913-1	PCL	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	PCL	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	PCL	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/15/2014	04/16/2014	7	1	8
240-35913-1	PCL	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/15/2014	04/16/2014	7	1	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	SO4	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/16/2014	04/16/2014	15	0	15
240-35725-1	SO4	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/15/2014	04/15/2014	14	0	14
240-35913-1	SO4	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	SO4	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35725-1	TDS	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/04/2014	3	0	3
240-35725-1	TDS	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/04/2014	04/04/2014	3	0	3
240-35913-1	TDS	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35913-1	TDS	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35725-1	OS	UG/L	MSA-MW42I-040214	240-35791-3	NM	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW42S-040214	240-35791-2	SUR	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/07/2014	04/10/2014	6	3	9
240-35725-1	OS	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/07/2014	04/11/2014	6	4	10
240-35725-1	OS	UG/L	MSA-MW41I-040414	240-35833-3	SUR	04/04/2014	04/08/2014	04/11/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW18S-040114	240-35725-2	SUR	04/01/2014	04/07/2014	04/10/2014	6	3	9
240-35725-1	OS	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/08/2014	04/11/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW42I-040214	240-35791-3	SUR	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW45S-040414	240-35833-4	SUR	04/04/2014	04/08/2014	04/11/2014	4	3	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	OS	UG/L	MSA-MW46I-040214	240-35791-5	SUR	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW46D-040214	240-35791-6	NM	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW47I-040314	240-35834-5	SUR	04/03/2014	04/07/2014	04/11/2014	4	4	8
240-35725-1	OS	UG/L	MSA-MW46S-040214	240-35791-4	SUR	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW41S-040414	240-35833-2	SUR	04/04/2014	04/08/2014	04/11/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW18I-040114	240-35725-3	SUR	04/01/2014	04/07/2014	04/11/2014	6	4	10
240-35725-1	OS	UG/L	MSA-MW46D-040214	240-35791-6	SUR	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW41I-040414	240-35833-3	NM	04/04/2014	04/08/2014	04/11/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/08/2014	04/11/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW47S-040314	240-35834-4	SUR	04/03/2014	04/07/2014	04/10/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW16I-040314	240-35834-3	NM	04/03/2014	04/07/2014	04/10/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW16S-040314	240-35834-2	SUR	04/03/2014	04/07/2014	04/11/2014	4	4	8
240-35725-1	OS	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/07/2014	04/11/2014	4	4	8
240-35725-1	OS	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/07/2014	04/11/2014	4	4	8
240-35725-1	OS	UG/L	MSA-MW16I-040314	240-35834-3	SUR	04/03/2014	04/07/2014	04/10/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/07/2014	04/10/2014	4	3	7
240-35913-1	OS	UG/L	MSA-MW-14D-040914	240-36043-2	SUR	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	OS	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	OS	UG/L	MSA-DMW7S-040714	240-35913-2	SUR	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW17I-040814	240-36010-3	SUR	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW-48D-040914	240-36043-4	SUR	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	OS	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW-14I-040914	240-36043-1	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	OS	UG/L	MSA-MW-14I-040914	240-36043-1	SUR	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	OS	UG/L	MSA-MW17D-040814	240-36010-4	NM	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW17D-040814	240-36010-4	SUR	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW-14D-040914	240-36043-2	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	OS	UG/L	MSA-MW47D-040814	240-36010-5	SUR	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW17S-040814	240-36010-2	SUR	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW5-040714	240-35913-3	SUR	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35725-1	OV	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	OV	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/15/2014	04/15/2014	11	0	11
240-35725-1	OV	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	OV	UG/L	MSA-MW18S-040114	240-35725-2	SUR	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	OV	UG/L	MSA-MW47I-040314	240-35834-5	SUR	04/03/2014	04/09/2014	04/09/2014	6	0	6
240-35725-1	OV	UG/L	MSA-MW42I-040214	240-35791-3	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW42I-040214	240-35791-3	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW47S-040314	240-35834-4	SUR	04/03/2014	04/14/2014	04/14/2014	11	0	11
240-35725-1	OV	UG/L	MSA-MW16I-040314	240-35834-3	SUR	04/03/2014	04/15/2014	04/15/2014	12	0	12
240-35725-1	OV	UG/L	MSA-MW41I-040414	240-35833-3	SUR	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW16I-040314	240-35834-3	NM	04/03/2014	04/15/2014	04/15/2014	12	0	12
240-35725-1	OV	UG/L	MSA-MW41S-040414	240-35833-2	SUR	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW41I-040414	240-35833-3	NM	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35725-1	OV	UG/L	MSA-MW46I-040214	240-35791-5	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	TB-040414	240-35833-1	SUR	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW46D-040214	240-35791-6	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	TB-040114	240-35725-1	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	OV	UG/L	TB-040114	240-35725-1	SUR	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	OV	UG/L	TB-040214	240-35791-1	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	OV	UG/L	TB-040214	240-35791-1	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	TB-040314	240-35834-1	NM	04/03/2014	04/14/2014	04/14/2014	11	0	11
240-35725-1	OV	UG/L	TB-040314	240-35834-1	SUR	04/03/2014	04/14/2014	04/14/2014	11	0	11
240-35725-1	OV	UG/L	TB-040414	240-35833-1	NM	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW45S-040414	240-35833-4	SUR	04/04/2014	04/15/2014	04/15/2014	11	0	11
240-35725-1	OV	UG/L	MSA-MW46D-040214	240-35791-6	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW46S-040214	240-35791-4	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW18I-040114	240-35725-3	SUR	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35725-1	OV	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/09/2014	04/09/2014	6	0	6
240-35725-1	OV	UG/L	MSA-MW16S-040314	240-35834-2	SUR	04/03/2014	04/15/2014	04/15/2014	12	0	12
240-35725-1	OV	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/15/2014	04/15/2014	12	0	12
240-35725-1	OV	UG/L	MSA-MW42S-040214	240-35791-2	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/14/2014	04/14/2014	11	0	11
240-35913-1	OV	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	TB-040714	240-35913-1	NM	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	TB-040714	240-35913-1	SUR	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	MSA-MW-48I-040914	240-36043-3	SUR	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	TB-040814	240-36010-1	NM	04/08/2014	04/14/2014	04/14/2014	6	0	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	OV	UG/L	TB-040814	240-36010-1	SUR	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW5-040714	240-35913-3	SUR	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	MSA-DMW7S-040714	240-35913-2	SUR	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW47D-040814	240-36010-5	SUR	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW17S-040814	240-36010-2	SUR	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	TB-040914	240-36043-5	SUR	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	TB-040914	240-36043-5	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW17I-040814	240-36010-3	SUR	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW-14D-040914	240-36043-2	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW-14D-040914	240-36043-2	SUR	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW-48D-040914	240-36043-4	SUR	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW-14I-040914	240-36043-1	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW-14I-040914	240-36043-1	SUR	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW17D-040814	240-36010-4	NM	04/08/2014	04/14/2014	04/14/2014	6	0	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	OV	UG/L	MSA-MW17D-040814	240-36010-4	SUR	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35725-1	ETHA	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	ETHA	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35913-1	ETHA	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35913-1	ETHA	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35725-1	ETHE	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	ETHE	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35913-1	ETHE	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35913-1	ETHE	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35725-1	METH	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	METH	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35913-1	METH	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35913-1	METH	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35725-1	OVG	UG/L	MSA-MW18S-040114	240-35725-2	SUR	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	OVG	UG/L	MSA-MW18I-040114	240-35725-3	SUR	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35913-1	OVG	UG/L	MSA-MW-48I-040914	240-36043-3	SUR	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35913-1	OVG	UG/L	MSA-MW-48D-040914	240-36043-4	SUR	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35725-1	DRO	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/07/2014	04/09/2014	4	2	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	DRO	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/07/2014	04/09/2014	3	2	5
240-35725-1	DRO	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/07/2014	04/09/2014	4	2	6
240-35725-1	DRO	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/09/2014	3	5	8
240-35725-1	DRO	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35725-1	DRO	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/07/2014	04/09/2014	3	2	5
240-35725-1	DRO	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35913-1	DRO	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/14/2014	04/15/2014	7	1	8
240-35913-1	DRO	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/11/2014	04/15/2014	3	4	7
240-35913-1	DRO	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/14/2014	04/15/2014	7	1	8
240-35725-1	GRO	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	GRO	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/16/2014	04/16/2014	13	0	13
240-35725-1	GRO	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/16/2014	04/16/2014	13	0	13
240-35725-1	GRO	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	GRO	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/16/2014	04/16/2014	12	0	12
240-35725-1	GRO	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/16/2014	04/16/2014	12	0	12
240-35725-1	GRO	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35913-1	GRO	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/11/2014	04/11/2014	4	0	4
240-35913-1	GRO	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/19/2014	04/19/2014	12	0	12
240-35913-1	GRO	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/17/2014	04/17/2014	9	0	9

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	TPH	UG/L	MSA-MW42S-040214	240-35791-2	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	TPH	UG/L	MSA-MW47S-040314	240-35834-4	SUR	04/03/2014	04/16/2014	04/16/2014	13	0	13
240-35725-1	TPH	UG/L	MSA-MW47S-040314	240-35834-4	SUR	04/03/2014	04/07/2014	04/09/2014	4	2	6
240-35725-1	TPH	UG/L	MSA-MW46S-040214	240-35791-4	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	TPH	UG/L	MSA-MW46S-040214	240-35791-4	SUR	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35725-1	TPH	UG/L	MSA-MW45S-040414	240-35833-4	SUR	04/04/2014	04/07/2014	04/09/2014	3	2	5
240-35725-1	TPH	UG/L	MSA-MW45S-040414	240-35833-4	SUR	04/04/2014	04/16/2014	04/16/2014	12	0	12
240-35725-1	TPH	UG/L	MSA-MW42S-040214	240-35791-2	SUR	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35725-1	TPH	UG/L	MSA-MW41S-040414	240-35833-2	SUR	04/04/2014	04/16/2014	04/16/2014	12	0	12
240-35725-1	TPH	UG/L	MSA-MW41S-040414	240-35833-2	SUR	04/04/2014	04/07/2014	04/09/2014	3	2	5
240-35725-1	TPH	UG/L	MSA-MW18S-040114	240-35725-2	SUR	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	TPH	UG/L	MSA-MW18S-040114	240-35725-2	SUR	04/01/2014	04/04/2014	04/09/2014	3	5	8
240-35725-1	TPH	UG/L	MSA-MW16S-040314	240-35834-2	SUR	04/03/2014	04/16/2014	04/16/2014	13	0	13
240-35725-1	TPH	UG/L	MSA-MW16S-040314	240-35834-2	SUR	04/03/2014	04/07/2014	04/09/2014	4	2	6
240-35913-1	TPH	UG/L	MSA-MW5-040714	240-35913-3	SUR	04/07/2014	04/14/2014	04/15/2014	7	1	8
240-35913-1	TPH	UG/L	MSA-MW5-040714	240-35913-3	SUR	04/07/2014	04/11/2014	04/11/2014	4	0	4
240-35913-1	TPH	UG/L	MSA-MW17S-040814	240-36010-2	SUR	04/08/2014	04/11/2014	04/15/2014	3	4	7
240-35913-1	TPH	UG/L	MSA-DMW7S-040714	240-35913-2	SUR	04/07/2014	04/14/2014	04/15/2014	7	1	8
240-35913-1	TPH	UG/L	MSA-DMW7S-040714	240-35913-2	SUR	04/07/2014	04/19/2014	04/19/2014	12	0	12

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	TPH	UG/L	MSA-MW17S-040814	240-36010-2	SUR	04/08/2014	04/17/2014	04/17/2014	9	0	9

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-35725-1

Job Description: MSA Groundwater Sampling

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Tony Apanavage

Approved for release.
John McFadden
Project Manager I
4/29/2014 4:32 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
04/29/2014

cc: Samantha Brenner
Final Data Tracking

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA Groundwater Sampling

Report Number: 240-35725-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 6850 Perchlorate analysis was performed at the TestAmerica Sacramento Laboratory. The Radiological analysis was performed at the TestAmerica Richland Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 4/3/2014 9:30 AM, 4/4/2014 11:00 AM and 4/5/2014 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 0.8° C, 1.0° C, 1.0° C, 1.2° C, 1.2° C and 1.4° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-040114 (240-35725-1), TB-040214 (240-35791-1), TB-040414 (240-35833-1), TB-040314 (240-35834-1), MSA-MW18S-040114 (240-35725-2), MSA-MW42S-040214 (240-35791-2), MSA-MW41S-040414 (240-35833-2), MSA-MW16S-040314 (240-35834-2), MSA-MW18I-040114 (240-35725-3), MSA-MW42I-040214 (240-35791-3), MSA-MW41I-040414 (240-35833-3), MSA-MW16I-040314 (240-35834-3), MSA-MW46S-040214 (240-35791-4), MSA-MW45S-040414 (240-35833-4), MSA-MW47S-040314 (240-35834-4), MSA-MW46I-040214 (240-35791-5), MSA-MW47I-040314 (240-35834-5) and MSA-MW46D-040214 (240-35791-6) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 04/07/2014, 04/09/2014, 04/14/2014 and 04/15/2014.

Acetone was detected in method blank MB 240-126387/6 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Carbon disulfide was detected in method blank MB 240-126387/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Carbon disulfide was detected in method blank MB 240-126549/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Methylene Chloride was detected in method blank MB 240-126549/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

tert-Butyl alcohol failed the recovery criteria high for LCS 240-125779/4. Dibromomethane failed the recovery criteria high for LCS 240-126390/4.

Samples MSA-MW42S-040214 (240-35725-2)[100X], MSA-MW16S-040314 (240-35725-2)[2.86X], MSA-MW18S-040114 (240-35725-2)

[25X], MSA-MW41S-040414 (240-35725-2)[50X], MSA-MW16I-040314 (240-35725-3)[14.29X], MSA-MW18I-040114 (240-35725-3) [250X], MSA-MW41I-040414 (240-35725-3)[6.67X], MSA-MW47S-040314 (240-35725-4)[5.71X], MSA-MW45S-040414 (240-35725-4) [833.33X], MSA-MW46I-040214 (240-35725-5)[3.33X] and MSA-MW47I-040314 (240-35725-5)[50X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The pH of the following samples was greater than 2.MSA-MW18I-040114 (240-35725-3)(pH of 3) and MSA-MW47I-040314 (240-35834-5)(pH of 4)

The continuing calibration verification (CCV) for analytical batch 125779 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The laboratory control sample (LCS) for batch 125779 recovered outside control limits for 2-Methyl-2-propanol. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

The laboratory control sample (LCS) for batch 126390 recovered outside control limits for the following analytes: Dibromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) associated with batch 126390 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The continuing calibration verification (CCV) for analytical batch 126390 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The continuing calibration verification (CCV) associated with batch 126387 recovered above the upper control limit for tert-Butyl ethyl ether. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The continuing calibration verification (CCV) for analytical batch 126387 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The method blank for preparation batch 126549 contained Carbon Disulfide above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

The continuing calibration verification (CCV) for analytical batch 126549 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The continuing calibration verification (CCV) associated with batch 126549 recovered above the upper control limit for tert-Butyl ethyl ether. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

No other difficulties were encountered during the VOCs analysis. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-MW18S-040114 (240-35725-2), MSA-MW42S-040214 (240-35791-2), MSA-MW41S-040414 (240-35833-2), MSA-MW16S-040314 (240-35834-2), MSA-MW18I-040114 (240-35725-3), MSA-MW42I-040214 (240-35791-3), MSA-MW41I-040414 (240-35833-3), MSA-MW16I-040314 (240-35834-3), MSA-MW46S-040214 (240-35791-4), MSA-MW45S-040414 (240-35833-4), MSA-MW47S-040314 (240-35834-4), MSA-MW46I-040214 (240-35791-5), MSA-MW47I-040314 (240-35834-5) and MSA-MW46D-040214 (240-35791-6) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 04/07/2014 and 04/08/2014 and analyzed on 04/10/2014 and 04/11/2014.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Terphenyl-d14 (Surr) failed the surrogate recovery criteria high for MSA-MW45S-040414 (240-35833-4).

Samples MSA-MW41S-040414 (240-35725-2)[10X], MSA-MW16S-040314 (240-35725-2)[10X], MSA-MW18I-040114 (240-35725-3)[5X], MSA-MW41I-040414 (240-35725-3)[5X], MSA-MW45S-040414 (240-35725-4)[50X] and MSA-MW47I-040314 (240-35725-5)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the SVOCs analysis. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)

Samples MSA-MW18S-040114 (240-35725-2), MSA-MW42S-040214 (240-35791-2), MSA-MW41S-040414 (240-35833-2), MSA-MW16S-040314 (240-35834-2), MSA-MW46S-040214 (240-35791-4), MSA-MW45S-040414 (240-35833-4) and MSA-MW47S-040314 (240-35834-4) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/09/2014 and 04/16/2014.

Samples MSA-MW42S-040214 (240-35725-2)[20X] and MSA-MW45S-040414 (240-35725-4)[50X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Batch 125897 is reported without a matrix spike/matrix spike duplicate (MS/MSD). The batch MS/MSD was originally performed on another client's sample, for method 8015c. This MS/MSD result does not have immediate bearing on any samples except for the actual sample spiked. The associated laboratory control sample (LCS) met acceptance criteria and provides long-term precision and accuracy for this batch.

The following volatile samples was analyzed with headspace in the sample vials due to multiple injections and/or limited volume: MSA-MW16S-040314 (240-35834-2), MSA-MW41S-040414 (240-35833-2), MSA-MW45S-040414 (240-35833-4), MSA-MW47S-040314 (240-35834-4).

Batch is reported without a matrix spike/matrix spike duplicate (MS/MSD). The batch MS/MSD was originally performed on another client's sample, for method 8015c. This MS/MSD result does not have immediate bearing on any samples except for the actual sample spiked. The associated laboratory control sample (LCS) met acceptance criteria and provides long-term precision and accuracy for this batch.

No other difficulties were encountered during the GRO analysis. All quality control parameters were within the acceptance limits.

DISSOLVED GASES

Samples MSA-MW18S-040114 (240-35725-2) and MSA-MW18I-040114 (240-35725-3) were analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 04/09/2014.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate(MS/MSD) associated with batch 125787.

No other difficulties were encountered during the dissolved gases analysis. All quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples MSA-MW18S-040114 (240-35725-2), MSA-MW42S-040214 (240-35791-2), MSA-MW41S-040414 (240-35833-2), MSA-MW16S-040314 (240-35834-2), MSA-MW46S-040214 (240-35791-4), MSA-MW45S-040414 (240-35833-4) and MSA-MW47S-040314 (240-35834-4) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 04/04/2014 and 04/07/2014 and analyzed on 04/09/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 125302.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 125491, 8015.

No other difficulties were encountered during the DRO analysis. All quality control parameters were within the acceptance limits.

PERCHLORATE

Samples MSA-MW18I-040114 (240-35725-3), MSA-MW46S-040214 (240-35791-4), MSA-MW47S-040314 (240-35834-4), MSA-MW46I-040214 (240-35791-5), MSA-MW47I-040314 (240-35834-5) and MSA-MW46D-040214 (240-35791-6) were analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 04/09/2014 and analyzed on 04/10/2014 and 04/11/2014.

No difficulties were encountered during the perchlorate analysis. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Samples MSA-MW18S-040114 (240-35725-2) and MSA-MW18I-040114 (240-35725-3) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/14/2014 and analyzed on 04/15/2014.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)

Samples MSA-MW18S-040114 (240-35725-2), MSA-MW42S-040214 (240-35791-2), MSA-MW41S-040414 (240-35833-2), MSA-MW16S-040314 (240-35834-2), MSA-MW18I-040114 (240-35725-3), MSA-MW42I-040214 (240-35791-3), MSA-MW41I-040414 (240-35833-3), MSA-MW16I-040314 (240-35834-3), MSA-MW46S-040214 (240-35791-4), MSA-MW45S-040414 (240-35833-4), MSA-MW47S-040314 (240-35834-4), MSA-MW46I-040214 (240-35791-5), MSA-MW47I-040314 (240-35834-5) and

MSA-MW46D-040214 (240-35791-6) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/04/2014 and 04/07/2014 and analyzed on 04/07/2014, 04/08/2014 and 04/09/2014.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-MW18S-040114 (240-35725-2). Elevated reporting limits (RLs) are provided.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-MW46I-040214 (240-35791-5), MSA-MW47I-040314 (240-35834-5). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the metals analysis. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)

Samples MSA-MW18S-040114 (240-35725-2), MSA-MW42S-040214 (240-35791-2), MSA-MW41S-040414 (240-35833-2), MSA-MW16S-040314 (240-35834-2), MSA-MW18I-040114 (240-35725-3), MSA-MW42I-040214 (240-35791-3), MSA-MW41I-040414 (240-35833-3), MSA-MW16I-040314 (240-35834-3), MSA-MW46S-040214 (240-35791-4), MSA-MW45S-040414 (240-35833-4), MSA-MW47S-040314 (240-35834-4), MSA-MW46I-040214 (240-35791-5), MSA-MW47I-040314 (240-35834-5) and MSA-MW46D-040214 (240-35791-6) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/04/2014 and 04/07/2014 and analyzed on 04/07/2014, 04/08/2014 and 04/09/2014.

Several analytes were detected in method blank MB 240-125231/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 240-125440/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 240-125469/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples MSA-MW18S-040114 (240-35725-2)[5X], MSA-MW46I-040214 (240-35725-5)[25X] and MSA-MW47I-040314 (240-35725-5) [25X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-MW18S-040114 (240-35725-2). Elevated reporting limits (RLs) are provided.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-MW46I-040214 (240-35791-5), MSA-MW47I-040314 (240-35834-5). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)

Samples MSA-MW18S-040114 (240-35725-2), MSA-MW42S-040214 (240-35791-2), MSA-MW41S-040414 (240-35833-2), MSA-MW16S-040314 (240-35834-2), MSA-MW18I-040114 (240-35725-3), MSA-MW42I-040214 (240-35791-3), MSA-MW41I-040414 (240-35833-3), MSA-MW16I-040314 (240-35834-3), MSA-MW46S-040214 (240-35791-4), MSA-MW45S-040414 (240-35833-4), MSA-MW47S-040314 (240-35834-4), MSA-MW46I-040214 (240-35791-5), MSA-MW47I-040314 (240-35834-5) and MSA-MW46D-040214 (240-35791-6) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/04/2014 and 04/07/2014 and analyzed on 04/07/2014 and 04/08/2014.

No difficulties were encountered during the mercury analysis. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples MSA-MW18S-040114 (240-35725-2), MSA-MW42S-040214 (240-35791-2), MSA-MW41S-040414 (240-35833-2), MSA-MW16S-040314 (240-35834-2), MSA-MW18I-040114 (240-35725-3), MSA-MW42I-040214 (240-35791-3), MSA-MW41I-040414 (240-35833-3), MSA-MW16I-040314 (240-35834-3), MSA-MW46S-040214 (240-35791-4), MSA-MW45S-040414 (240-35833-4), MSA-MW47S-040314 (240-35834-4), MSA-MW46I-040214 (240-35791-5), MSA-MW47I-040314 (240-35834-5) and MSA-MW46D-040214 (240-35791-6) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/04/2014 and 04/07/2014 and analyzed on 04/07/2014 and 04/08/2014.

No difficulties were encountered during the mercury analysis. All other quality control parameters were within the acceptance limits.

HARDNESS

Samples MSA-MW18S-040114 (240-35725-2) and MSA-MW18I-040114 (240-35725-3) were analyzed for hardness in accordance with SM 2340B. The samples were analyzed on 04/16/2014.

No difficulties were encountered during the hardness analysis. All quality control parameters were within the acceptance limits.

TOTAL DISSOLVED SOLIDS

Samples MSA-MW18S-040114 (240-35725-2) and MSA-MW18I-040114 (240-35725-3) were analyzed for total dissolved solids in accordance with EPA Method 160.1. The samples were analyzed on 04/04/2014.

No difficulties were encountered during the TDS analysis. All quality control parameters were within the acceptance limits.

ANIONS

Samples MSA-MW18S-040114 (240-35725-2) and MSA-MW18I-040114 (240-35725-3) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/04/2014 and 04/07/2014.

Samples MSA-MW18S-040114 (240-35725-2)[5X] and MSA-MW18I-040114 (240-35725-3)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following samples were received with less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: MSA-MW18I-040114 (240-35725-3), MSA-MW18S-040114 (240-35725-2).The samples were collected on 4/1/14 at 1115 (18S) and 1340 (18I). The samples were received on 4/3/14 at 0930 and due to a lab instrument issue the samples were analyzed outside of hold time once the instrument was fixed on 4/3/14.

The following samples were diluted for nitrate and orthophosphate due to the nature of the sample matrix: MSA-MW18I-040114 (240-35725-3), MSA-MW18S-040114 (240-35725-2). Elevated reporting limits (RLs) are provided.

The final continuing calibration verification (CCV) associated with batch 125546 recovered above the upper control limit for orthophosphate. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: MSA-MW18I-040114 (240-35725-3), MSA-MW18S-040114 (240-35725-2).

No other difficulties were encountered during the anions analysis. All other quality control parameters were within the acceptance limits.

ANIONS

Samples MSA-MW18S-040114 (240-35725-2) and MSA-MW18I-040114 (240-35725-3) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/15/2014 and 04/16/2014.

Samples MSA-MW18S-040114 (240-35725-2)[10X], MSA-MW18S-040114 (240-35725-2)[5X] and MSA-MW18I-040114 (240-35725-3) [5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the anions analysis. All other quality control parameters were within the acceptance limits.

ALKALINITY

Samples MSA-MW18S-040114 (240-35725-2) and MSA-MW18I-040114 (240-35725-3) were analyzed for alkalinity in accordance with EPA Method 310.1. The samples were analyzed on 04/08/2014.

Alkalinity was detected in method blank MB 240-125761/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No other difficulties were encountered during the alkalinity analysis. All other quality control parameters were within the acceptance limits.

AMMONIA

Samples MSA-MW18S-040114 (240-35725-2) and MSA-MW18I-040114 (240-35725-3) were analyzed for ammonia in accordance with EPA Method 350.3. The samples were analyzed on 04/07/2014.

Sample MSA-MW18S-040114 (240-35725-2)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the ammonia analysis. All quality control parameters were within the acceptance limits.

DISSOLVED ORGANIC CARBON

Samples MSA-MW18S-040114 (240-35725-2) and MSA-MW18I-040114 (240-35725-3) were analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 04/07/2014.

No difficulties were encountered during the TOC analysis. All quality control parameters were within the acceptance limits.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Groundwater Sampling

TestAmerica Job ID: 240-35725-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015B	Gasoline Range Organics - (GC)	SW846	TAL CAN
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CAN
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
2340B-1997	Total Hardness (as CaCO3) by calculation	SM	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
160.1	Solids, Total Dissolved (TDS)	MCAWW	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
310.1	Alkalinity	MCAWW	TAL CAN
350.3	Nitrogen, Ammonia	MCAWW	TAL CAN
9060	Organic Carbon, Dissolved (DOC)	SW846	TAL CAN
Radium-Richland	Total Radium	NONE	TAL RCH
903.0/904.0			

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

NONE = NONE

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Groundwater Sampling

TestAmerica Job ID: 240-35725-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-35725-1	TB-040114	Water	04/01/14 00:00	04/03/14 09:30
240-35725-2	MSA-MW18S-040114	Water	04/01/14 11:15	04/03/14 09:30
240-35725-3	MSA-MW18I-040114	Water	04/01/14 13:40	04/03/14 09:30
240-35791-1	TB-040214	Water	04/02/14 00:00	04/04/14 11:00
240-35791-2	MSA-MW42S-040214	Water	04/02/14 10:00	04/04/14 11:00
240-35791-3	MSA-MW42I-040214	Water	04/02/14 11:10	04/04/14 11:00
240-35791-4	MSA-MW46S-040214	Water	04/02/14 12:10	04/04/14 11:00
240-35791-5	MSA-MW46I-040214	Water	04/02/14 13:50	04/04/14 11:00
240-35791-6	MSA-MW46D-040214	Water	04/02/14 14:40	04/04/14 11:00
240-35833-1	TB-040414	Water	04/04/14 00:00	04/05/14 09:30
240-35833-2	MSA-MW41S-040414	Water	04/04/14 09:40	04/05/14 09:30
240-35833-3	MSA-MW41I-040414	Water	04/04/14 10:40	04/05/14 09:30
240-35833-4	MSA-MW45S-040414	Water	04/04/14 11:55	04/05/14 09:30
240-35834-1	TB-040314	Water	04/03/14 00:00	04/05/14 09:30
240-35834-2	MSA-MW16S-040314	Water	04/03/14 09:40	04/05/14 09:30
240-35834-3	MSA-MW16I-040314	Water	04/03/14 10:45	04/05/14 09:30
240-35834-4	MSA-MW47S-040314	Water	04/03/14 12:05	04/05/14 09:30
240-35834-5	MSA-MW47I-040314	Water	04/03/14 14:10	04/05/14 09:30

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

1.4

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 4/1/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No. 112IC06183
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			
(301) 528-3021 Phone	TAT if different from Below 1 DAY			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Groundwater Sampling	☐ 1 week			Sampler:
Site: MSA, Middle River MD	☐ 2 days			
PO#	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs	Total Metals	Dissolved Metals	TPH-GRO	TPH-DRO	1,4-Dioxane	Perchlorate	Dissolved Gasses	Ammonia	Dissolved Organic Carbon	Alkalinity, TDS, and Anions	Methane, Ethane, and Ethene	Sample Specific Notes:
TB-040114	–	–	TB	AQ	2		2												
MSA-MW18S-040114	4/1/14	1115	GW	AQ	20		3	1	1	2	2	2		2	1	2	1	3	
MSA-MW18I-040114	4/1/14	1340	GW	AQ	17		3	1	1			2	1	2	1	2	1	3	

Page 2713 of 2732

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments: **DISSOLVED METALS FILTERED IN FIELD**

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Tetra Tech	4/2/14/1210		TestAmerica	4/2/14 / 1210
Relinquished by:	TestAmerica	4/2/14/1615		TA	4/3/14 0930
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative Login # : 35725
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: Denny Burns

Cooler Received on 4/3/14 Opened on 4/3/14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # CANTON Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp. 1.4 °C	Corrected Cooler Temp. 1.4 °C
IR GUN# 4	(CF -1 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C

☐ See Multiple Cooler Form

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? ~~Yes~~ ~~No~~
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No

6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: [signature]

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW18S-040114	240-35725-M-2	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MSA-MW18S-040114	240-35725-R-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW18S-040114	240-35725-S-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW18I-040114	240-35725-L-3	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MSA-MW18I-040114	240-35725-Q-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW18I-040114	240-35725-R-3	Plastic 500ml - with Nitric Acid	<2	_____	_____

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

0.0

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 4/2/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	**Analysis Turnaround Time**			Job No. 112IC06183
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			SDG No.
(301) 528-3021 Phone	TAT if different from Below 14 DAY			
(301) 528-3000 FAX	☐ 2 weeks			Sampler:
Project Name: MSA Groundwater Sampling	☐ 1 week			
Site: MSA, Middle River MD	☐ 2 days			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs	Total Metals	Dissolved Metals	TPH-GRO	TPH-DRO	1,4-Dioxane	Perchlorate	Sample Specific Notes:
TB-040214	--	--	TB	AQ	2		2							
MSA-MW42S-040214	4/2/14	1000	GW	AQ	11		3	1	1	2	2	2		
MSA-MW42I-040214	4/2/14	1110	GW	AQ	7		3	1	1			2		
MSA-MW46S-040214	4/2/14	1210	GW	AQ	12		3	1	1	2	2	2	1	
MSA-MW46I-040214	4/2/14	1350	GW	AQ	8		3	1	1			2	1	
MSA-MW46D-040214	4/2/14	1440	GW	AQ	8		3	1	1			2	1	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments: **DISSOLVED METALS FILTERED IN FIELD**

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Tetra Tech	4-2-14 / 1630		TestAmerica	4/3/14 / 1245
Relinquished by:	TestAmerica	4/3/14 / 1705	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company: TML	Date/Time: 4-4-14 / 1100

TestAmerica Canton Sample Receipt Form/Narrative Login # : _____
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: CL

Cooler Received on 4-4-14 Opened on 4-4-14

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box ~~Client Cooler~~ Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp. 0.8 °C	Corrected Cooler Temp. 0.8 °C	☐ See Multiple Cooler Form
IR GUN# 4	(CF -1 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? ~~Yes~~ No NA
   -Were custody seals on the bottle(s)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Did all bottles arrive in good condition (Unbroken)? Yes No
7. Could all bottle labels be reconciled with the COC? Yes No
8. Were correct bottle(s) used for the test(s) indicated? Yes No
9. Sufficient quantity received to perform indicated analyses? Yes No
10. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? Yes No
12. Were air bubbles >6 mm in any VOA vials? Yes No NA
13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW42S-040214	240-35791-J-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW42S-040214	240-35791-K-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW42I-040214	240-35791-F-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW42I-040214	240-35791-G-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW46S-040214	240-35791-K-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW46S-040214	240-35791-L-4	Plastic 500ml - with Nitric Acid	<2		
MSA-MW46I-040214	240-35791-G-5	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW46I-040214	240-35791-H-5	Plastic 500ml - with Nitric Acid	<2		
MSA-MW46D-040214	240-35791-G-6	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW46D-040214	240-35791-H-6	Plastic 500ml - with Nitric Acid	<2		

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

1.2, 1.0

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 4/4/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	**Analysis Turnaround Time**			Job No. 112IC06183
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			
(301) 528-3021 Phone	TAT if different from Below: 21 DAY			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Groundwater Sampling	☐ 1 week			
Site: MSA, Middle River MD	☐ 2 days			Sampler:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs	Total Metals	Dissolved Metals	TPH-GRO	TPH-DRO	1,4-Dioxane	Sample Specific Notes:
TB-040414	–	–	TB	AQ	2		2						
MSA-MW41S-040414	4/4/14	940	GW	AQ	11		3	1	1	2	2	2	
MSA-MW41I-040414	4/4/14	1040	GW	AQ	7		3	1	1			2	MS/MSD
MSA-MW45S-040414	4/4/14	1155	GW	AQ	11		3	1	1	2	2	2	

Page 2721 of 2732

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments: **DISSOLVED METALS FILTERED IN FIELD**

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Tetra Tech	4/4/14/1330		4/4/14/1330	TestAmerica
Relinquished by:	TestAmerica	4/4/14/1610	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	TA Canton	4/5/14 9:30am

TestAmerica Canton Sample Receipt Form/Narrative Login # : 35833
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 4/5/14 Opened on 4/5/14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C) Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	
IR GUN# 4	(CF -1 °C) Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	☐ See Multiple Cooler Form
IR GUN# 5	(CF +1 °C) Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	
IR GUN# 8	(CF +1 °C) Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2	(Yes)	No
-Were custody seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were custody seals on the bottle(s)?	Yes	(No)
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Did all bottles arrive in good condition (Unbroken)?	Yes	(No)
7. Could all bottle labels be reconciled with the COC?	(Yes)	No
8. ~~Were correct bottle(s) used for the test(s) indicated?~~	(Yes)	No
9. Sufficient quantity received to perform indicated analyses?	(Yes)	No
10. Were sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC391902
11. Were VOAs on the COC?	(Yes)	No
12. Were air bubbles >6 mm in any VOA vials?	Yes	(No) NA
13. Was a trip blank present in the cooler(s)?	(Yes)	No

Contacted PM JWM Date 4/15/14 by JM via Verbal (Voice Mail) Other
Concerning #15

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: JM

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) 1X250 MW-16S 1X250 MW-47S were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative
Canton Facility

Login # : 35833

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client	A	1.2	1.2	ICE
1	1	1.0	1.0	1

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW41S-040414	240-35833-J-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW41S-040414	240-35833-K-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW41I-040414	240-35833-P-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW41I-040414	240-35833-Q-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW41I-040414	240-35833-R-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW41I-040414	240-35833-S-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW41I-040414	240-35833-T-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW41I-040414	240-35833-U-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW45S-040414	240-35833-J-4	Plastic 500ml - with Nitric Acid	<2		
MSA-MW45S-040414	240-35833-K-4	Plastic 500ml - w/ Nitric - Dis.	<2		

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

1.2,1.0

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 4/3/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			112IC06183
(301) 528-3021 Phone	TAT if different from Below: 21 DAY			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Groundwater Sampling	☐ 1 week			
Site: MSA, Middle River MD	☐ 2 days			Sampler:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs	Total Metals	Dissolved Metals	TPH-GRO	TPH-DRO	1,4-Dioxane	Perchlorate	Radium 224, 226, 228	Sample Specific Notes:
TB-040314	--	--	TB	AQ	2		2								
MSA-MW16S-040314	4/3/14	940	GW	AQ	13		3	1	1	2	2	2		2	
MSA-MW16I-040314	4/3/14	1045	GW	AQ	9		3	1	1			2		2	
MSA-MW47S-040314	4/3/14	1205	GW	AQ	12		3	1	1	2	2	2	1		
MSA-MW47I-040314	4/3/14	1410	GW	AQ	8		3	1	1			2	1		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments: **DISSOLVED METALS FILTERED IN FIELD**

	Company:	Date/Time:		Company:	Date/Time:
Relinquished by:	Tetra Tech	4-4-14 / 1330	Received by:	TestAmerica	4/4/14 / 1350
Relinquished by:	TestAmerica	4/4/14/1610	Received by:		
Relinquished by:			Received by:	TA Canton	4/5/14 9:30

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 355834

Client Tetra Tech Site Name

Cooler unpacked by:

Cooler Received on 4/5/14 Opened on 4/5/14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # Foam Box Client Cooler Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C
IR GUN# 4	(CF -1 °C)	Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C

☑ See Multiple Cooler Form

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? Yes (No)
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM JWM Date 4/5/14 by JWM via Verbal (Voice Mail) Other
Concerning #15

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: BM

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) 1X250 MW-16S 1X250 MW-47S were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative
Canton Facility

Login # : 35834

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client	A	1.2	1.2	ICE
1	1	1.0	1.0	1

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW16S-040314	240-35834-I-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW16S-040314	240-35834-J-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW16S-040314	240-35834-K-2	Plastic 1 liter - Nitric Acid	<2	_____	_____
MSA-MW16S-040314	240-35834-L-2	Plastic 1 liter - Nitric Acid	<2	_____	_____
MSA-MW16I-040314	240-35834-F-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW16I-040314	240-35834-G-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW16I-040314	240-35834-H-3	Plastic 1 liter - Nitric Acid	<2	_____	_____
MSA-MW16I-040314	240-35834-I-3	Plastic 1 liter - Nitric Acid	<2	_____	_____
MSA-MW47S-040314	240-35834-J-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW47S-040314	240-35834-K-4	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW47I-040314	240-35834-G-5	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW47I-040314	240-35834-H-5	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-35725-1

Login Number: 35725
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 04/04/14 01:33 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-35725-1

Login Number: 35791
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 04/05/14 12:04 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-35725-1

Login Number: 35834
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 04/08/14 01:52 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG No.:

Project: MSA Groundwater Sampling

Client Sample ID	Lab Sample ID
MSA-MW18S-040114	240-35725-2
MSA-MW18I-040114	240-35725-3
MSA-MW42S-040214	240-35791-2
MSA-MW42I-040214	240-35791-3
MSA-MW46S-040214	240-35791-4
MSA-MW46I-040214	240-35791-5
MSA-MW46D-040214	240-35791-6
MSA-MW41S-040414	240-35833-2
MSA-MW41I-040414	240-35833-3
MSA-MW45S-040414	240-35833-4
MSA-MW16S-040314	240-35834-2
MSA-MW16I-040314	240-35834-3
MSA-MW47S-040314	240-35834-4
MSA-MW47I-040314	240-35834-5

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICV Source: MT6500ICV_00017 Concentration Units: ug/L

CCV Source: MTICPCCV_00020

Analyte	ICV 240-126579/4 04/15/2014 08:54				CCV 240-126579/18 04/15/2014 09:51				CCV 240-126579/30 04/15/2014 10:41			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	25900		25000	104	51100		50000	102	51500		50000	103
Magnesium	25000		25000	100	50100		50000	100	50800		50000	102
Potassium	25300		25000	101	50300		50000	101	50500		50000	101
SiO2, Silica	6760		6420	105	11100		10700	104	11200		10700	105
Sodium	25200		25000	101	50500		50000	101	50600		50000	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICV Source: MTMSICVW_00032 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	ICV 240-125595/5 04/07/2014 11:17				CCV 240-125595/30 04/07/2014 14:14				CCV 240-125595/40 04/07/2014 15:25			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	41.1		40.0	103	52.3		50.0	105	51.1		50.0	102
Arsenic	40.4		40.0	101	51.2		50.0	102	51.6		50.0	103
Barium	40.5		40.0	101	51.6		50.0	103	51.2		50.0	102
Beryllium	40.8		40.0	102	50.6		50.0	101	51.5		50.0	103
Cadmium	41.2		40.0	103	52.5		50.0	105	52.5		50.0	105
Calcium	19800		20000	99	25800		25000	103	25400		25000	102
Chromium	40.3		40.0	101	52.3		50.0	105	51.9		50.0	104
Cobalt	39.7		40.0	99	52.2		50.0	104	52.2		50.0	104
Copper	41.4		40.0	103	52.7		50.0	105	53.9		50.0	108
Iron	10000		10000	100	13000		12500	104	12800		12500	103
Lead	41.7		40.0	104	53.0		50.0	106	52.2		50.0	104
Magnesium	20200		20000	101	26800		25000	107	26100		25000	105
Manganese	202		200	101	263		250	105	260		250	104
Molybdenum	40.8		40.0	102	53.2		50.0	106	53.1		50.0	106
Nickel	40.2		40.0	101	52.7		50.0	105	53.1		50.0	106
Selenium	40.1		40.0	100	51.2		50.0	102	51.9		50.0	104
Silver	41.9		40.0	105	53.7		50.0	107	52.8		50.0	106
Thallium	41.6		40.0	104	52.4		50.0	105	51.7		50.0	103
Vanadium	40.1		40.0	100	51.2		50.0	102	51.0		50.0	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICV Source: MTMSICVW_00032 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	CCV 240-125595/52 04/07/2014 16:50											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	51.8		50.0	104								
Arsenic	51.5		50.0	103								
Barium	52.5		50.0	105								
Beryllium	53.1		50.0	106								
Cadmium	53.4		50.0	107								
Calcium	26200		25000	105								
Chromium	52.5		50.0	105								
Cobalt	52.9		50.0	106								
Copper	53.8		50.0	108								
Iron	12600		12500	101								
Lead	53.5		50.0	107								
Magnesium	25800		25000	103								
Manganese	264		250	105								
Molybdenum	53.1		50.0	106								
Nickel	53.2		50.0	106								
Selenium	51.7		50.0	103								
Silver	53.6		50.0	107								
Thallium	53.2		50.0	106								
Vanadium	51.6		50.0	103								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	ICV 240-125759/5 04/08/2014 14:49				CCV 240-125759/12 04/08/2014 15:39				CCV 240-125759/17 04/08/2014 16:15			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.7		40.0	102	49.0		50.0	98	49.0		50.0	98
Arsenic	40.3		40.0	101	49.2		50.0	98	50.4		50.0	101
Barium	41.0		40.0	103	49.2		50.0	98	50.1		50.0	100
Beryllium	41.0		40.0	102	50.4		50.0	101	50.5		50.0	101
Cadmium	41.1		40.0	103	49.4		50.0	99	50.7		50.0	101
Calcium	20400		20000	102	25200		25000	101	25500		25000	102
Chromium	41.4		40.0	103	50.0		50.0	100	50.1		50.0	100
Cobalt	41.0		40.0	102	50.6		50.0	101	50.7		50.0	101
Copper	43.0		40.0	108	50.4		50.0	101	50.7		50.0	101
Iron	10300		10000	103	12500		12500	100	12400		12500	99
Lead	42.1		40.0	105	51.5		50.0	103	51.8		50.0	104
Magnesium	21100		20000	105	24700		25000	99	24900		25000	100
Manganese	207		200	103	252		250	101	254		250	101
Molybdenum	41.0		40.0	103	50.4		50.0	101	51.4		50.0	103
Nickel	41.4		40.0	104	50.8		50.0	102	51.0		50.0	102
Selenium	40.9		40.0	102	49.0		50.0	98	49.5		50.0	99
Silver	42.6		40.0	107	50.8		50.0	102	51.2		50.0	102
Thallium	42.0		40.0	105	52.5		50.0	105	53.2		50.0	106
Vanadium	40.8		40.0	102	49.2		50.0	98	49.3		50.0	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	CCV 240-125759/29 04/08/2014 17:40				CCV 240-125759/36 04/08/2014 18:30				CCV 240-125759/45 04/08/2014 19:34			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	49.2		50.0	98	49.6		50.0	99	49.4		50.0	99
Arsenic	49.8		50.0	100	49.8		50.0	100	49.6		50.0	99
Barium	49.9		50.0	100	49.6		50.0	99	50.7		50.0	101
Beryllium	50.7		50.0	101	51.4		50.0	103	51.1		50.0	102
Cadmium	49.9		50.0	100	50.7		50.0	101	50.9		50.0	102
Calcium	25800		25000	103	25800		25000	103	26000		25000	104
Chromium	50.8		50.0	102	50.1		50.0	100	50.3		50.0	101
Cobalt	50.2		50.0	100	50.7		50.0	101	50.3		50.0	101
Copper	50.8		50.0	102	50.3		50.0	101	50.0		50.0	100
Iron	12200		12500	98	12200		12500	97	12100		12500	97
Lead	52.0		50.0	104	51.6		50.0	103	51.4		50.0	103
Magnesium	24900		25000	100	24700		25000	99	25000		25000	100
Manganese	253		250	101	253		250	101	254		250	102
Molybdenum	50.7		50.0	101	50.8		50.0	102	51.0		50.0	102
Nickel	50.2		50.0	100	50.8		50.0	102	50.4		50.0	101
Selenium	48.6		50.0	97	50.2		50.0	100	49.1		50.0	98
Silver	51.1		50.0	102	51.0		50.0	102	51.2		50.0	102
Thallium	52.7		50.0	105	51.8		50.0	104	52.1		50.0	104
Vanadium	49.4		50.0	99	49.4		50.0	99	49.4		50.0	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	CCV 240-125759/57 04/08/2014 20:59				CCV 240-125759/60 04/08/2014 21:20				CCV 240-125759/72 04/08/2014 22:45			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.0		50.0	100	50.0		50.0	100	50.6		50.0	101
Arsenic	50.6		50.0	101	50.3		50.0	101	50.3		50.0	101
Barium	50.3		50.0	101	50.5		50.0	101	50.4		50.0	101
Beryllium	51.3		50.0	103	51.6		50.0	103	50.9		50.0	102
Cadmium	50.6		50.0	101	50.1		50.0	100	51.3		50.0	103
Calcium	25900		25000	103	26000		25000	104	26600		25000	106
Chromium	51.0		50.0	102	50.3		50.0	101	50.9		50.0	102
Cobalt	50.9		50.0	102	50.6		50.0	101	50.7		50.0	101
Copper	50.9		50.0	102	50.6		50.0	101	50.9		50.0	102
Iron	12500		12500	100	12200		12500	98	12200		12500	98
Lead	52.2		50.0	104	52.0		50.0	104	51.8		50.0	104
Magnesium	25200		25000	101	25100		25000	101	25800		25000	103
Manganese	255		250	102	252		250	101	255		250	102
Molybdenum	51.3		50.0	103	51.2		50.0	102	51.8		50.0	104
Nickel	51.4		50.0	103	51.0		50.0	102	51.0		50.0	102
Selenium	51.2		50.0	102	50.5		50.0	101	50.0		50.0	100
Silver	50.8		50.0	102	50.9		50.0	102	51.9		50.0	104
Thallium	54.3		50.0	109	52.8		50.0	106	51.9		50.0	104
Vanadium	50.2		50.0	100	49.6		50.0	99	50.7		50.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	CCV 240-125759/81 04/08/2014 23:50											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.1		50.0	100								
Arsenic	50.3		50.0	101								
Barium	50.9		50.0	102								
Beryllium	51.7		50.0	103								
Cadmium	50.1		50.0	100								
Calcium	27100		25000	108								
Chromium	51.0		50.0	102								
Cobalt	50.9		50.0	102								
Copper	51.2		50.0	102								
Iron	12200		12500	98								
Lead	52.0		50.0	104								
Magnesium	25400		25000	102								
Manganese	258		250	103								
Molybdenum	50.6		50.0	101								
Nickel	50.6		50.0	101								
Selenium	51.2		50.0	102								
Silver	50.8		50.0	102								
Thallium	52.0		50.0	104								
Vanadium	50.0		50.0	100								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	ICV 240-125859/5 04/09/2014 10:42				CCV 240-125859/10 04/09/2014 11:17				CCV 240-125859/20 04/09/2014 12:28			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	41.2		40.0	103	50.1		50.0	100	50.7		50.0	101
Barium	41.3		40.0	103	49.6		50.0	99	50.1		50.0	100
Lead	42.4		40.0	106	51.5		50.0	103	51.7		50.0	103
Thallium	42.1		40.0	105	53.2		50.0	106	53.0		50.0	106
Arsenic	40.4		40.0	101	49.2		50.0	98	49.7		50.0	99
Beryllium	42.1		40.0	105	51.9		50.0	104	51.2		50.0	102
Cadmium	41.9		40.0	105	50.2		50.0	100	51.2		50.0	102
Calcium	20200		20000	101	24800		25000	99	25200		25000	101
Chromium	41.2		40.0	103	49.8		50.0	100	50.1		50.0	100
Cobalt	40.5		40.0	101	50.2		50.0	100	50.0		50.0	100
Copper	42.2		40.0	106	49.6		50.0	99	49.8		50.0	100
Iron	10100		10000	101	12700		12500	102	12600		12500	101
Magnesium	20500		20000	102	25400		25000	101	25400		25000	102
Manganese	207		200	103	256		250	102	254		250	102
Molybdenum	41.9		40.0	105	51.8		50.0	104	51.4		50.0	103
Nickel	41.0		40.0	102	50.2		50.0	100	50.0		50.0	100
Selenium	41.3		40.0	103	48.6		50.0	97	48.8		50.0	98
Silver	42.5		40.0	106	50.7		50.0	101	51.4		50.0	103
Vanadium	41.1		40.0	103	49.0		50.0	98	49.8		50.0	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	CCV 240-125859/27 04/09/2014 13:18											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.2		50.0	100								
Barium	50.3		50.0	101								
Lead	51.5		50.0	103								
Thallium	52.3		50.0	105								
Arsenic	50.3		50.0	101								
Beryllium	50.8		50.0	102								
Cadmium	50.8		50.0	102								
Calcium	25600		25000	102								
Chromium	50.2		50.0	100								
Cobalt	50.5		50.0	101								
Copper	51.5		50.0	103								
Iron	12700		12500	101								
Magnesium	25400		25000	102								
Manganese	253		250	101								
Molybdenum	51.7		50.0	103								
Nickel	50.9		50.0	102								
Selenium	51.3		50.0	103								
Silver	51.7		50.0	103								
Vanadium	49.8		50.0	100								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00607

Analyte	ICV 240-125521/7-A 04/07/2014 11:20				CCVL 240-125521/10-A 04/07/2014 11:24				CCV 240-125521/11-A 04/07/2014 12:02			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.45		2.50	98	5.24		5.00	105	4.85		5.00	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00607

Analyte	CCV 240-125521/11-A 04/07/2014 12:22				CCV 240-125521/11-A 04/07/2014 12:41							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.75		5.00	95	4.74		5.00	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00607

Analyte	ICV 240-125521/7-A 04/08/2014 08:37				CCVL 240-125521/10-A 04/08/2014 08:42				CCV 240-125521/11-A 04/08/2014 12:56			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.54		2.50	102	4.80		5.00	96	4.75		5.00	95

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00607

Analyte	CCV 240-125521/11-A 04/08/2014 13:15				CCV 240-125521/11-A 04/08/2014 13:34				CCV 240-125521/11-A 04/08/2014 13:53			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.65		5.00	93	4.63		5.00	93	4.61		5.00	92

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00607

Analyte	CCV 240-125521/11-A 04/08/2014 15:18				CCV 240-125521/11-A 04/08/2014 15:36				CCV 240-125521/11-A 04/08/2014 15:53			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.99		5.00	100	4.99		5.00	100	4.99		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Method: 6010C Instrument ID: I12

Lab Sample ID: CRI 240-126579/20 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00019

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	5000	5260		105	70-130
Potassium	5000	5110		102	70-130
Magnesium	5000	5210		104	70-130
Sodium	5000	5080		102	70-130
SiO2, Silica	1070	1090	J	102	70-130

Lab Sample ID: CRI 240-126579/33 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00019

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	5000	5240		105	70-130
Potassium	5000	5120		102	70-130
Magnesium	5000	5210		104	70-130
Sodium	5000	5140		103	70-130
SiO2, Silica	1070	1090	J	101	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Method: 6020 Instrument ID: I11

Lab Sample ID: CRI 240-125595/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.09		105	50-150
Arsenic	5.00	5.12		102	50-150
Barium	5.00	5.19		104	50-150
Beryllium	1.00	1.15		115	50-150
Calcium	1000	1060		106	50-150
Cadmium	1.00	1.21		121	50-150
Cobalt	1.00	1.15		115	50-150
Chromium	2.00	2.40		120	50-150
Copper	2.00	2.24		112	50-150
Magnesium	1000	1090		109	50-150
Iron	100	116		116	50-150
Molybdenum	10.0	10.1		101	50-150
Manganese	5.00	5.17		103	50-150
Nickel	2.00	2.45		123	50-150
Lead	1.00	1.25		125	50-150
Selenium	5.00	5.34		107	50-150
Thallium	2.00	2.21		110	50-150
Vanadium	5.00	5.20		104	50-150
Silver	1.00	1.15		115	50-150

Lab Sample ID: CRI 240-125759/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	1.99	J	100	50-150
Arsenic	5.00	4.98	J	100	50-150
Barium	5.00	4.97	J	99	50-150
Beryllium	1.00	1.03		103	50-150
Calcium	1000	1010		101	50-150
Cadmium	1.00	1.03		103	50-150
Cobalt	1.00	1.04		104	50-150
Chromium	2.00	2.24		112	50-150
Copper	2.00	2.10		105	50-150
Magnesium	1000	1030		103	50-150
Iron	100	111		111	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Method: 6020 Instrument ID: I11

Lab Sample ID: CRI 240-125759/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Molybdenum	10.0	9.94	J	99	50-150
Manganese	5.00	5.09		102	50-150
Nickel	2.00	2.13		107	50-150
Lead	1.00	1.14		114	50-150
Selenium	5.00	4.59	J	92	50-150
Thallium	2.00	2.13		106	50-150
Vanadium	5.00	5.10		102	50-150
Silver	1.00	1.10		110	50-150

Lab Sample ID: CRI 240-125859/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	1.99	J	99	50-150
Arsenic	5.00	4.87	J	97	50-150
Barium	5.00	5.10		102	50-150
Beryllium	1.00	1.07		107	50-150
Calcium	1000	1020		102	50-150
Cadmium	1.00	1.07		107	50-150
Cobalt	1.00	1.07		107	50-150
Chromium	2.00	2.28		114	50-150
Copper	2.00	2.24		112	50-150
Magnesium	1000	1060		106	50-150
Iron	100	116		116	50-150
Molybdenum	10.0	9.82	J	98	50-150
Manganese	5.00	5.23		105	50-150
Nickel	2.00	2.07		104	50-150
Lead	1.00	1.17		117	50-150
Selenium	5.00	4.76	J	95	50-150
Thallium	2.00	2.28		114	50-150
Vanadium	5.00	5.07		101	50-150
Silver	1.00	1.08		108	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Method: 7470A Instrument ID: H1

Lab Sample ID: CRA 240-125521/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00607

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.167	J	83	50-150

Lab Sample ID: CRA 240-125521/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00607

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.237		119	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-126579/5 04/15/2014 08:58		CCB 240-126579/19 04/15/2014 09:55		CCB 240-126579/31 04/15/2014 10:44			
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	130	U	130	U	130	U		
Magnesium	5000	34	U	34	U	34	U		
Potassium	5000	89.5	J	72	U	102	J		
SiO2, Silica	1100	17	U	17	U	17	U		
Sodium	5000	590	U	590	U	590	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-125595/6 04/07/2014 11:24		CCB 240-125595/31 04/07/2014 14:21		CCB 240-125595/41 04/07/2014 15:32		CCB 240-125595/53 04/07/2014 16:57		
		Found	C	Found	C	Found	C	Found	C	
Antimony	2.0	0.11	U	0.11	U	0.11	U	0.11	U	
Arsenic	5.0	0.063	U	0.063	U	0.063	U	0.153	J	
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U	
Beryllium	1.0	0.031	U	0.031	U	0.031	U	0.0340	J	
Cadmium	1.0	0.026	U	0.0700	J	0.0470	J	0.161	J	
Calcium	1000	27	U	27	U	27	U	27	U	
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.186	J	
Cobalt	1.0	0.020	U	0.0790	J	0.0500	J	0.182	J	
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U	
Iron	100	12	U	14.1	J	12	U	35.8	J	NO
Lead	1.0	0.14	U	0.14	U	0.14	U	0.174	J	NO
Magnesium	1000	15	U	30.7	J	16.7	J	55.6	J	
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.505	J	
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U	
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.197	J	NO
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U	
Silver	1.0	0.0083	U	0.0510	J	0.0120	J	0.0580	J	
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U	
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.224	J	

Not aged

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-125759/6 04/08/2014 14:56		CCB 240-125759/13 04/08/2014 15:46		CCB 240-125759/18 04/08/2014 16:22		CCB 240-125759/30 04/08/2014 17:47	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.120	J	0.11	U	0.121	J	0.11	U
Arsenic	5.0	0.063	U	0.063	U	0.207	J	0.063	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.031	U	0.031	U	0.0490	J
Cadmium	1.0	0.0790	J	0.026	U	0.228	J	0.113	J
Calcium	1000	27	U	27	U	27	U	27	U
Chromium	2.0	0.13	U	0.13	U	0.184	J	0.13	U
Cobalt	1.0	0.0770	J	0.020	U	0.205	J	0.0980	J
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	12	U	19.8	J	12	U
Lead	1.0	0.14	U	0.14	U	0.220	J	0.14	U
Magnesium	1000	34.4	J	15	U	57.1	J	32.1	J
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.202	J	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0190	J	0.0140	J	0.0790	J	0.0440	J
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.156	J	0.15	U

Not used

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-125759/37 04/08/2014 18:37		CCB 240-125759/46 04/08/2014 19:41		CCB 240-125759/58 04/08/2014 21:06		CCB 240-125759/61 04/08/2014 21:27	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.11	U	0.11	U	0.11	U	0.11	U
Arsenic	5.0	0.063	U	0.135	J	0.0760	J	0.063	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.0320	J	0.155	J	0.118	J
Cadmium	1.0	0.0460	J	0.152	J	0.0480	J	0.0350	J
Calcium	1000	27	U	27	U	27	U	27	U
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.0480	J	0.150	J	0.0450	J	0.0380	J
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	21.1	J	12	U	12	U
Lead	1.0	0.14	U	0.163	J	0.14	U	0.14	U
Magnesium	1000	19.1	J	56.2	J	18.4	J	15	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.113	J	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0190	J	0.0570	J	0.0180	J	0.0170	J
Thallium	2.0	0.40	U	0.40	U	1.02	J	0.426	J
Vanadium	5.0	0.15	U	0.150	J	0.15	U	0.15	U

Not used

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-125759/73 04/08/2014 22:53		CCB 240-125759/82 04/08/2014 23:57					
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.11	U	0.11	U				
Arsenic	5.0	0.063	U	0.063	U				
Barium	5.0	0.32	U	0.32	U				
Beryllium	1.0	0.0720	J	0.0780	J				
Cadmium	1.0	0.0710	J	0.282	J				
Calcium	1000	27	U	29.6	J				
Chromium	2.0	0.13	U	0.439	J				
Cobalt	1.0	0.0490	J	0.0850	J				
Copper	2.0	0.24	U	0.24	U				
Iron	100	12	U	16.5	J				
Lead	1.0	0.14	U	0.14	U				
Magnesium	1000	26.6	J	30.4	J				
Manganese	5.0	0.41	U	0.41	U				
Molybdenum	10	0.81	U	0.81	U				
Nickel	2.0	0.088	U	0.088	U				
Selenium	5.0	0.34	U	0.34	U				
Silver	1.0	0.0320	J	0.0530	J				
Thallium	2.0	0.40	U	0.40	U				
Vanadium	5.0	0.15	U	0.15	U				

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-125859/6 04/09/2014 10:49		CCB 240-125859/11 04/09/2014 11:25		CCB 240-125859/21 04/09/2014 12:36		CCB 240-125859/28 04/09/2014 13:25	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.11	U	0.11	U	0.11	U	0.11	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Lead	1.0	0.14	U	0.14	U	0.14	U	0.14	U
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Arsenic	5.0	0.063	U	0.063	U	0.063	U	0.063	U
Beryllium	1.0	0.031	U	0.031	U	0.031	U	0.031	U
Cadmium	1.0	0.026	U	0.026	U	0.305	J	0.0710	J
Calcium	1000	27	U	27	U	27	U	27	U
Chromium	2.0	0.13	U	0.13	U	0.465	J	0.13	U
Cobalt	1.0	0.020	U	0.020	U	0.0390	J	0.0520	J
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	12	U	12	U	12	U
Magnesium	1000	15	U	15	U	16.8	J	19.3	J
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0083	U	0.00900	J	0.0400	J	0.0340	J
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-125521/8-A 04/07/2014 11:21		CCB 240-125521/12-A 04/07/2014 12:05		CCB 240-125521/12-A 04/07/2014 12:23		CCB 240-125521/12-A 04/07/2014 12:43	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-125521/8-A 04/08/2014 08:39		CCB 240-125521/12-A 04/08/2014 12:57		CCB 240-125521/12-A 04/08/2014 13:17		CCB 240-125521/12-A 04/08/2014 13:35	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-125521/12-A 04/08/2014 13:54		CCB 240-125521/12-A 04/08/2014 15:19		CCB 240-125521/12-A 04/08/2014 15:37		CCB 240-125521/12-A 04/08/2014 15:55	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/15/2014 08:42 End Date: 04/15/2014 14:18

| Lab Sample Id | D/F | Type | Time | Analytes | | |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/15/2014 08:42 End Date: 04/15/2014 14:18

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ca	K	Mg	Na	SiO2																							
ZZZZZZ			11:25																												
CCV 240-126579/42			11:29																												
CCB 240-126579/43			11:33																												
ZZZZZZ			11:37																												
ZZZZZZ			11:41																												
ZZZZZZ			11:45																												
ZZZZZZ			11:49																												
ZZZZZZ			11:53																												
ZZZZZZ			11:57																												
ZZZZZZ			12:01																												
ZZZZZZ			12:06																												
ZZZZZZ			12:10																												
ZZZZZZ			12:14																												
CCV 240-126579/54			12:18																												
CCB 240-126579/55			12:22																												
ZZZZZZ			12:26																												
ZZZZZZ			12:30																												
ZZZZZZ			12:34																												
ZZZZZZ			12:38																												
ZZZZZZ			12:42																												
ZZZZZZ			12:46																												
ZZZZZZ			12:50																												
ZZZZZZ			12:54																												
ZZZZZZ			12:58																												
ZZZZZZ			13:02																												
CCV 240-126579/66			13:06																												
CCB 240-126579/67			13:10																												
ZZZZZZ			13:14																												
ZZZZZZ			13:18																												
ZZZZZZ			13:22																												
ZZZZZZ			13:26																												
ZZZZZZ			13:30																												
ZZZZZZ			13:34																												
ZZZZZZ			13:38																												
ZZZZZZ			13:42																												
ZZZZZZ			13:46																												
ZZZZZZ			13:50																												
CCV 240-126579/78			13:54																												
CCB 240-126579/79			13:58																												
ZZZZZZ			14:02																												

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/15/2014 08:42 End Date: 04/15/2014 14:18

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ca	K	Mg	Na	SiO2																									
ZZZZZZ			14:06																													
ZZZZZZ			14:10																													
CCV 240-126579/83			14:15																													
CCB 240-126579/84			14:18																													

Prep Types:
R = Total Recoverable

FORM XIII-IN

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-126346/1-A

Instrument Code: I12 Batch No.: 126579

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	130	U		6010C
7440-09-7	Potassium	72	U		6010C
7439-95-4	Magnesium	34	U		6010C
7440-23-5	Sodium	590	U		6010C
14808-60-7	SiO2, Silica	17	U		6010C

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-126346/1-A	04/14/2014 09:05	126346		50	50
LCS 240-126346/2-A	04/14/2014 09:05	126346		50	50
240-35725-3	04/14/2014 09:05	126346		50	50
240-35725-3 MS	04/14/2014 09:05	126346		50	50
240-35725-3 MSD	04/14/2014 09:05	126346		50	50
240-35725-2	04/14/2014 09:05	126346		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-125231/1-A

Instrument Code: I11 Batch No.: 125595

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.156	J		6020
7440-38-2	Arsenic	0.199	J		6020
7440-39-3	Barium	1.46	J		6020
7440-41-7	Beryllium	0.031	U		6020
7440-70-2	Calcium	251	J		6020
7440-43-9	Cadmium	0.0440	J		6020
7440-48-4	Cobalt	0.0520	J		6020
7440-47-3	Chromium	0.13	U		6020
7440-50-8	Copper	0.816	J		6020
7439-95-4	Magnesium	85.9	J		6020
7439-89-6	Iron	49.8	J		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-96-5	Manganese	0.966	J		6020
7440-02-0	Nickel	0.212	J		6020
7439-92-1	Lead	0.178	J		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-62-2	Vanadium	0.15	U		6020
7440-22-4	Silver	0.0083	U		6020

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-125231/1-A	04/04/2014 07:59	125231		50	50
LCS 240-125231/2-A	04/04/2014 07:59	125231		50	50
240-35725-2	04/04/2014 07:59	125231		50	50
240-35725-2 MS	04/04/2014 07:59	125231		50	50
240-35725-2 MSD	04/04/2014 07:59	125231		50	50
240-35725-2	04/04/2014 07:59	125231		50	50
240-35725-3	04/04/2014 07:59	125231		50	50
240-35725-3	04/04/2014 07:59	125231		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-125440/1-A

Instrument Code: I11 Batch No.: 125759

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.423	J		6020
7440-38-2	Arsenic	0.063	U		6020
7440-39-3	Barium	1.25	J		6020
7440-41-7	Beryllium	0.031	U		6020
7440-70-2	Calcium	398	J		6020
7440-43-9	Cadmium	0.026	U		6020
7440-48-4	Cobalt	0.020	U		6020
7440-47-3	Chromium	0.13	U		6020
7440-50-8	Copper	0.716	J		6020
7439-95-4	Magnesium	43.6	J		6020
7439-89-6	Iron	12	U		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-96-5	Manganese	1.05	J		6020
7440-02-0	Nickel	0.142	J		6020
7439-92-1	Lead	0.14	U		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-62-2	Vanadium	0.15	U		6020
7440-22-4	Silver	0.0083	U		6020

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-125440/1-A	04/07/2014 07:49	125440		50	50
LCS 240-125440/3-A	04/07/2014 07:49	125440		50	50
240-35834-2	04/07/2014 07:49	125440		50	50
240-35834-2	04/07/2014 07:49	125440		50	50
240-35834-3	04/07/2014 07:49	125440		50	50
240-35834-3	04/07/2014 07:49	125440		50	50
240-35834-4	04/07/2014 07:49	125440		50	50
240-35834-4	04/07/2014 07:49	125440		50	50
240-35834-5	04/07/2014 07:49	125440		50	50
240-35834-5	04/07/2014 07:49	125440		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-125469/1-A

Instrument Code: I11 Batch No.: 125759

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.206	J		6020
7440-38-2	Arsenic	0.0910	J		6020
7440-39-3	Barium	1.20	J		6020
7440-41-7	Beryllium	0.031	U		6020
7440-70-2	Calcium	215	J		6020
7440-43-9	Cadmium	0.026	U		6020
7440-48-4	Cobalt	0.020	U		6020
7440-47-3	Chromium	0.13	U		6020
7440-50-8	Copper	0.698	J		6020
7439-95-4	Magnesium	42.3	J		6020
7439-89-6	Iron	12	U		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-96-5	Manganese	0.41	U		6020
7440-02-0	Nickel	0.0910	J		6020
7439-92-1	Lead	0.14	U		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-62-2	Vanadium	0.15	U		6020
7440-22-4	Silver	0.0083	U		6020

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-125469/1-A	04/07/2014 08:52	125469		50	50
LCS 240-125469/2-A	04/07/2014 08:52	125469		50	50
240-35833-3	04/07/2014 08:52	125469		50	50
240-35833-3 MS	04/07/2014 08:52	125469		50	50
240-35833-3 MSD	04/07/2014 08:52	125469		50	50
240-35833-3	04/07/2014 08:52	125469		50	50
240-35833-3 MS	04/07/2014 08:52	125469		50	50
240-35833-3 MSD	04/07/2014 08:52	125469		50	50
240-35791-2	04/07/2014 08:52	125469		50	50
240-35791-2	04/07/2014 08:52	125469		50	50
240-35791-3	04/07/2014 08:52	125469		50	50
240-35791-3	04/07/2014 08:52	125469		50	50
240-35791-4	04/07/2014 08:52	125469		50	50
240-35791-4	04/07/2014 08:52	125469		50	50
240-35791-5	04/07/2014 08:52	125469		50	50
240-35791-5	04/07/2014 08:52	125469		50	50
240-35791-6	04/07/2014 08:52	125469		50	50
240-35791-6	04/07/2014 08:52	125469		50	50
240-35833-2	04/07/2014 08:52	125469		50	50
240-35833-2	04/07/2014 08:52	125469		50	50
240-35833-4	04/07/2014 08:54	125469		50	50
240-35833-4	04/07/2014 08:54	125469		50	50

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-125232/1-A

Instrument Code: H1 Batch No.: 125541

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-125452/1-A

Instrument Code: H1 Batch No.: 125741

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-125470/1-A

Instrument Code: H1 Batch No.: 125741

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

FORM III-IN

SDG 240-35725-1

Water ICP Interference

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. nterferenc	Validation Action	Validation Action
Sb	MSA-MW18I-040114 Total	0.34	u	Fe	50800	0.131	97000	0.25	na	na
As		3.8			50800	0.078	97000	0.15	na	na
Cd		2.5			50800	-0.314	97000	-0.60	J	na
Cr		1.5			50800	0.59	97000	1.13	J	na
Co		49			50800	0.048	97000	0.09	na	na
Mn		2500			50800	0.575	97000	1.10	na	na
Ni		38			50800	0.678	97000	1.29	na	na
Ag		0.0083	u		50800	0.024	97000	0.05	na	na

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. nterferenc	Validation Action	Validation Action
Sb	MSA-MW18I-040114 Diss	0.27	u	Fe	50800	0.131	99000	0.26	na	na
As		3.7			50800	0.078	99000	0.15	na	na
Cd		3.2			50800	-0.314	99000	-0.61	J	na
Cr		1.1			50800	0.59	99000	1.15	J	na
Co		57			50800	0.048	99000	0.09	na	na
Mn		2700			50800	0.575	99000	1.12	na	na
Ni		43			50800	0.678	99000	1.32	na	na
Ag		0.087	u		50800	0.024	99000	0.05	na	na

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. nterferenc	Validation Action	Validation Action
Sb	MSA-MW42S-040214 Total	0.18	u	Fe	48321	0.156	70000	0.23	na	na
As		4.3			48321	0.07	70000	0.10	na	na
Cd		0.026	u		48321	-0.332	70000	-0.48	na	UJ
Cr		2			48321	0.566	70000	0.82	J	na
Co		0.29	u		48321	0.037	70000	0.05	na	na

Cu		0.46	u		48321	0.614	70000	0.89	na	na
Mn		920			48321	0.934	70000	1.35	na	na
Ni		0.37	u		48321	1.46	70000	2.12	na	na
Ag		0.0083	u		48321	0.02	70000	0.03	na	na

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. nterferenc	Validation Action	Validation Action
Sb	MSA-MW42S-040214 Diss	0.17	u	Fe	48321	0.156	68000	0.22	na	na
As		4.6			48321	0.07	68000	0.10	na	na
Cd		0.026	u		48321	-0.332	68000	-0.47	na	UJ
Cr		1.9			48321	0.566	68000	0.80	J	na
Co		0.29	u		48321	0.037	70000	0.05	na	na
Cu		0.31	u		48321	0.614	70000	0.89	na	na
Mn		940			48321	0.934	68000	1.31	na	na
Ni		0.45	u		48321	1.46	68000	2.05	na	na
Ag		0.0083	u		48321	0.02	68000	0.03	na	na

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICSA 240-126579/8 Instrument ID: I12

Lab File ID: I12041514A.asc ICS Source: MTTRICSAW_00022

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Calcium	**500000**	**480390**	**96**
Magnesium	**500000**	**508300**	**102**
Potassium		**95.1**	
Sodium		**24.0**	
Aluminum	*500000*	*508780*	*102*
Antimony		*0.572*	
Arsenic		*3.10*	
Barium		*0.614*	
Beryllium		*0.115*	
Boron		*4.76*	
Cadmium		*0.953*	
Chromium		*2.55*	
Cobalt		*-7.61*	
Copper		*-6.93*	
Iron	*200000*	*189180*	*95*
Lead		*-1.28*	
Lithium		*-3.84*	
Manganese		*2.50*	
Molybdenum		*-1.91*	
Nickel		*0.384*	
Selenium		*4.54*	
Silicon		*-5.68*	
Silver		*-1.49*	
Strontium		*20.5*	
Thallium		*-0.534*	
Tin		*5.78*	
Titanium		*-1.04*	
Vanadium		*-4.16*	
Zinc		*1.42*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICSAB 240-126579/9 Instrument ID: I12

Lab File ID: I12041514A.asc ICS Source: MTICPICSABW_00003

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Calcium	**500000**	**489890**	**98**
Magnesium	**500000**	**516400**	**103**
Potassium	**10000**	**10559**	**106**
Sodium	**10000**	**10560**	**106**
Aluminum	*500000*	*522470*	*104*
Antimony	*1000*	*1052*	*105*
Arsenic	*1000*	*1024*	*102*
Barium	*500*	*506*	*101*
Beryllium	*500*	*489*	*98*
Boron	*500*	*525*	*105*
Cadmium	*1000*	*1047*	*105*
Chromium	*500*	*480*	*96*
Cobalt	*500*	*494*	*99*
Copper	*500*	*537*	*107*
Iron	*200000*	*192910*	*96*
Lead	*1000*	*915*	*91*
Lithium	*500*	*529*	*106*
Manganese	*500*	*489*	*98*
Molybdenum	*1000*	*963*	*96*
Nickel	*1000*	*988*	*99*
Selenium	*1000*	*1031*	*103*
Silicon	*10000*	*10183*	*102*
Silver	*1000*	*1104*	*110*
Strontium	*1500*	*1447*	*96*
Thallium	*1000*	*957*	*96*
Tin	*500*	*517*	*103*
Titanium	*500*	*501*	*100*
Vanadium	*500*	*488*	*98*
Zinc	*1000*	*999*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICSA 240-125595/8 Instrument ID: I11

Lab File ID: I11040714B.csv ICS Source: MTMSICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Antimony		**0.131**	
Arsenic		**0.0780**	
Barium		**0.142**	
Beryllium		**0.0150**	
Cadmium		**-0.314**	
Calcium	**50000**	**50800**	**102**
Chromium		**0.590**	
Cobalt		**0.0480**	
Copper		**0.180**	
Iron	**50000**	**51130**	**102**
Lead		**0.0840**	
Magnesium	**50000**	**50540**	**101**
Manganese		**0.575**	
Molybdenum	**1000**	**1038**	**104**
Nickel		**0.678**	
Selenium		**0.0050**	
Silver		**0.0240**	
Thallium		**-0.0110**	
Vanadium		**0.0590**	
Aluminum	*50000*	*48800*	*98*
Boron		*-1.06*	
Potassium	*50000*	*52100*	*104*
Sodium	*50000*	*51540*	*103*
Strontium		*2.36*	
Tin		*0.0170*	
Titanium	*1000*	*1014*	*101*
Tungsten		*0.0520*	
Zinc		*0.395*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICSAB 240-125595/9 Instrument ID: I11

Lab File ID: I11040714B.csv ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**100**	**100**
Arsenic	**100**	**100.0**	**100**
Barium	**100**	**102**	**102**
Beryllium	**100**	**100**	**100**
Cadmium	**100**	**101**	**101**
Calcium	**50000**	**49610**	**99**
Chromium	**100**	**102**	**102**
Cobalt	**100**	**99.9**	**100**
Copper	**100**	**99.3**	**99**
Iron	**50000**	**51480**	**103**
Lead	**100**	**105**	**105**
Magnesium	**50000**	**49460**	**99**
Manganese	**100**	**94.4**	**94**
Molybdenum	**1100**	**1136**	**103**
Nickel	**100**	**101**	**101**
Selenium	**100**	**100.0**	**100**
Silver	**100**	**99.9**	**100**
Thallium	**100**	**103**	**103**
Vanadium	**100**	**101**	**101**
Aluminum	*50000*	*48020*	*96*
Boron	*100*	*98.6*	*99*
Potassium	*50000*	*51700*	*103*
Sodium	*50000*	*51740*	*103*
Strontium	*100*	*102*	*102*
Tin	*100*	*98.6*	*99*
Titanium	*1100*	*1106*	*101*
Tungsten	*100*	*106*	*106*
Zinc	*100*	*101*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICSA 240-125759/8 Instrument ID: I11

Lab File ID: I11040814C.csv ICS Source: MTMSICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Antimony		**0.156**	
Arsenic		**0.0700**	
Barium		**0.153**	
Beryllium		**0.0050**	
Cadmium		**-0.332**	
Calcium	**50000**	**51430**	**103**
Chromium		**0.566**	
Cobalt		**0.0370**	
Copper		**0.614**	
Iron	**50000**	**51780**	**104**
Lead		**0.0720**	
Magnesium	**50000**	**50860**	**102**
Manganese		**0.934**	
Molybdenum	**1000**	**1037**	**104**
Nickel		**1.46**	
Selenium		**-0.0510**	
Silver		**0.0200**	
Thallium		**-0.0090**	
Vanadium		**-0.0100**	
Aluminum	*50000*	*50220*	*100*
Boron		*0.387*	
Potassium	*50000*	*52860*	*106*
Sodium	*50000*	*51620*	*103*
Strontium		*2.27*	
Tin		*0.143*	
Titanium	*1000*	*1015*	*102*
Tungsten		*0.149*	
Zinc		*1.74*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICSAB 240-125759/9 Instrument ID: I11

Lab File ID: I11040814C.csv ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**97.5**	**98**
Arsenic	**100**	**101**	**101**
Barium	**100**	**102**	**102**
Beryllium	**100**	**101**	**101**
Cadmium	**100**	**99.9**	**100**
Calcium	**50000**	**50890**	**102**
Chromium	**100**	**103**	**103**
Cobalt	**100**	**101**	**101**
Copper	**100**	**99.2**	**99**
Iron	**50000**	**51600**	**103**
Lead	**100**	**105**	**105**
Magnesium	**50000**	**50310**	**101**
Manganese	**100**	**99.0**	**99**
Molybdenum	**1100**	**1137**	**103**
Nickel	**100**	**101**	**101**
Selenium	**100**	**98.4**	**98**
Silver	**100**	**100**	**100**
Thallium	**100**	**106**	**106**
Vanadium	**100**	**101**	**101**
Aluminum	*50000*	*49470*	*99*
Boron	*100*	*99.9*	*100*
Potassium	*50000*	*52100*	*104*
Sodium	*50000*	*50940*	*102*
Strontium	*100*	*102*	*102*
Tin	*100*	*99.4*	*99*
Titanium	*1100*	*1120*	*102*
Tungsten	*100*	*105*	*105*
Zinc	*100*	*103*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICSA 240-125859/8 Instrument ID: I11

Lab File ID: I11040914A.csv ICS Source: MTMSICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Antimony		**0.167**	
Barium		**0.196**	
Lead		**0.120**	
Thallium		**0.130**	
Aluminum	*50000*	*49880*	*100*
Arsenic		*0.0890*	
Beryllium		*0.0290*	
Boron		*-2.18*	
Cadmium		*-0.300*	
Calcium	*50000*	*51310*	*103*
Chromium		*0.642*	
Cobalt		*0.0790*	
Copper		*0.738*	
Iron	*50000*	*51620*	*103*
Magnesium	*50000*	*51720*	*103*
Manganese		*1.01*	
Molybdenum	*1000*	*1047*	*105*
Nickel		*1.57*	
Potassium	*50000*	*52520*	*105*
Selenium		*0.111*	
Silver		*0.0230*	
Sodium	*50000*	*51120*	*102*
Strontium		*2.45*	
Tin		*0.0950*	
Titanium	*1000*	*1042*	*104*
Tungsten		*0.179*	
Vanadium		*0.0410*	
Zinc		*1.73*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Lab Sample ID: ICSAB 240-125859/9 Instrument ID: I11

Lab File ID: I11040914A.csv ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True	Found	
	Solution AB	Solution AB	Percent Recovery
Antimony	**100**	**101**	**101**
Barium	**100**	**101**	**101**
Lead	**100**	**104**	**104**
Thallium	**100**	**105**	**105**
Aluminum	*50000*	*48900*	*98*
Arsenic	*100*	*101*	*101*
Beryllium	*100*	*103*	*103*
Boron	*100*	*102*	*102*
Cadmium	*100*	*99.7*	*100*
Calcium	*50000*	*50100*	*100*
Chromium	*100*	*102*	*102*
Cobalt	*100*	*100*	*100*
Copper	*100*	*100*	*100*
Iron	*50000*	*51450*	*103*
Magnesium	*50000*	*50630*	*101*
Manganese	*100*	*102*	*102*
Molybdenum	*1100*	*1146*	*104*
Nickel	*100*	*98.8*	*99*
Potassium	*50000*	*51540*	*103*
Selenium	*100*	*98.5*	*98*
Silver	*100*	*99.5*	*100*
Sodium	*50000*	*50590*	*101*
Strontium	*100*	*102*	*102*
Tin	*100*	*97.3*	*97*
Titanium	*1100*	*1152*	*105*
Tungsten	*100*	*106*	*106*
Vanadium	*100*	*102*	*102*
Zinc	*100*	*103*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MSA-MW18S-040114 MS
Lab ID: 240-35725-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-35725-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.625		0.12	U	1.00	62	69-134	F1	7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MSA-MW18S-040114 MSD
Lab ID: 240-35725-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-35725-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.662		1.00	66	69-134	6	20	F1	7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW18S-040114 MS
Lab ID: 240-35725-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-35725-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	96.6		0.55	U	100	97	44-153		6020
Arsenic	916		7.9		1000	91	82-123		6020
Barium	943		41		1000	90	45-144		6020
Beryllium	933		2.2		1000	93	77-124		6020
Calcium	76100		66000		10000	103	70-130	4	6020
Cadmium	1090		110		1000	98	78-117		6020
Cobalt	1280		310		1000	97	67-114		6020
Chromium	922		1.6	J	1000	92	72-110		6020
Copper	918		29		1000	89	60-123		6020
Magnesium	60500		51000		10000	95	70-130	4	6020
Iron	34400		26000		10000	87	22-169		6020
Molybdenum	98.1		0.81	U	100	98	80-110		6020
Manganese	5070		4100		1000	94	10-172	4	6020
Nickel	1060		170		1000	89	72-111		6020
Lead	873		0.70	U	1000	87	73-115		6020
Selenium	899		17		1000	88	72-148		6020
Thallium	211		2.0	U	250	84	69-117		6020
Vanadium	921		1.1	J	1000	92	70-112		6020
Silver	94.3		0.027	J	100	94	10-139		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW18S-040114 MSD
Lab ID: 240-35725-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-35725-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	96.8		100	97	44-153	0	20		6020
Arsenic	908		1000	90	82-123	1	20		6020
Barium	940		1000	90	45-144	0	20		6020
Beryllium	930		1000	93	77-124	0	20		6020
Calcium	77000		10000	112	70-130	1	20	4	6020
Cadmium	1090		1000	98	78-117	0	20		6020
Cobalt	1290		1000	97	67-114	0	20		6020
Chromium	913		1000	91	72-110	1	20		6020
Copper	912		1000	88	60-123	1	20		6020
Magnesium	60600		10000	96	70-130	0	20	4	6020
Iron	34500		10000	87	22-169	0	20		6020
Molybdenum	98.5		100	98	80-110	0	20		6020
Manganese	5160		1000	103	10-172	2	20	4	6020
Nickel	1060		1000	89	72-111	0	20		6020
Lead	854		1000	85	73-115	2	20		6020
Selenium	889		1000	87	72-148	1	20		6020
Thallium	209		250	83	69-117	1	20		6020
Vanadium	916		1000	91	70-112	1	20		6020
Silver	93.5		100	94	10-139	1	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW18I-040114 MS
Lab ID: 240-35725-3 MS
Lab Name: TestAmerica Canton
Job No.: 240-35725-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	228000		170000		50000	113	75-125		6010C
Potassium	83300		29000		50000	109	75-125		6010C
Magnesium	188000		130000		50000	118	75-125		6010C
Sodium	376000		330000		50000	96	75-125	4	6010C
SiO2, Silica	32200		28000		2140	187	75-125	4	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW18I-040114 MSD
Lab ID: 240-35725-3 MSD
Lab Name: TestAmerica Canton
Job No.: 240-35725-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	224000	50000	107	75-125	1	20		6010C
Potassium	81400	50000	106	75-125	2	20		6010C
Magnesium	185000	50000	113	75-125	1	20		6010C
Sodium	371000	50000	86	75-125	1	20	4	6010C
SiO2, Silica	31500	2140	159	75-125	2	20	4	6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MSA-MW41I-040414 MS
Lab ID: 240-35833-3 MS
Lab Name: TestAmerica Canton
Job No.: 240-35725-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.785		0.12	U	1.00	79	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MSA-MW41I-040414 MSD
Lab ID: 240-35833-3 MSD
Lab Name: TestAmerica Canton
Job No.: 240-35725-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.826	1.00	83	69-134	5	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW41I-040414 MSD
Lab ID: 240-35833-3 MSD
Lab Name: TestAmerica Canton
Job No.: 240-35725-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	95.1		100	95	44-153	2	20		6020
Arsenic	992		1000	98	82-123	2	20		6020
Barium	958		1000	93	45-144	3	20		6020
Beryllium	949		1000	95	77-124	3	20		6020
Calcium	153000		10000	43	70-130	4	20	4	6020
Cadmium	937		1000	94	78-117	3	20		6020
Cobalt	959		1000	94	67-114	3	20		6020
Chromium	959		1000	96	72-110	2	20		6020
Copper	939		1000	94	60-123	3	20		6020
Iron	55900		10000	83	22-169	3	20	4	6020
Magnesium	30700		10000	80	70-130	4	20		6020
Manganese	2930		1000	91	10-172	3	20		6020
Molybdenum	102		100	101	80-110	3	20		6020
Nickel	955		1000	94	72-111	3	20		6020
Lead	902		1000	90	73-115	3	20		6020
Selenium	935		1000	93	72-148	3	20		6020
Thallium	233		250	93	69-117	3	20		6020
Vanadium	949		1000	95	70-112	3	20		6020
Silver	96.4		100	96	10-139	3	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW41I-040414 MS
Lab ID: 240-35833-3 MS
Lab Name: TestAmerica Canton
Job No.: 240-35725-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	97.4		0.32	J	100	97	44-153		6020
Arsenic	1020		9.8		1000	101	82-123		6020
Barium	992		27		1000	96	45-144		6020
Beryllium	981		0.087	J	1000	98	77-124		6020
Calcium	159000		150000		10000	101	70-130	4	6020
Cadmium	966		0.15	J	1000	97	78-117		6020
Cobalt	990		21		1000	97	67-114		6020
Chromium	981		2.0		1000	98	72-110		6020
Copper	964		1.1	J	1000	96	60-123		6020
Iron	57500		48000		10000	99	22-169	4	6020
Magnesium	31800		23000		10000	91	70-130		6020
Manganese	3030		2000		1000	101	10-172		6020
Molybdenum	105		1.7	J	100	103	80-110		6020
Nickel	979		13		1000	97	72-111		6020
Lead	928		0.66	J	1000	93	73-115		6020
Selenium	959		1.1	J	1000	96	72-148		6020
Thallium	239		1.1	J	250	95	69-117		6020
Vanadium	977		1.5	J	1000	98	70-112		6020
Silver	99.0		0.047	J	100	99	10-139		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW41I-040414 MSD
Lab ID: 240-35833-3 MSD
Lab Name: TestAmerica Canton
Job No.: 240-35725-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	96.1		100	96	44-153	0	20		6020
Arsenic	1010		1000	101	82-123	0	20		6020
Barium	986		1000	96	45-144	1	20		6020
Beryllium	971		1000	97	77-124	0	20		6020
Cadmium	955		1000	96	78-117	1	20		6020
Chromium	983		1000	98	72-110	1	20		6020
Cobalt	984		1000	96	67-114	0	20		6020
Copper	957		1000	96	60-123	0	20		6020
Lead	935		1000	94	73-115	2	20		6020
Molybdenum	105		100	104	80-110	1	20		6020
Nickel	976		1000	96	72-111	0	20		6020
Iron	55800		10000	91	22-169	1	20	4	6020
Selenium	951		1000	95	72-148	0	20		6020
Manganese	3050		1000	101	10-172	2	20		6020
Silver	98.2		100	98	10-139	1	20		6020
Thallium	242		250	96	69-117	2	20		6020
Vanadium	973		1000	97	70-112	1	20		6020
Mercury	0.811		1.00	81	69-134	0	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW41I-040414 MS
Lab ID: 240-35833-3 MS
Lab Name: TestAmerica Canton
Job No.: 240-35725-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	95.6		0.21	J	100	95	44-153		6020
Arsenic	1010		6.9		1000	100	82-123		6020
Barium	974		26		1000	95	45-144		6020
Beryllium	975		0.23	J	1000	97	77-124		6020
Cadmium	946		0.026	U	1000	95	78-117		6020
Chromium	976		0.52	J	1000	98	72-110		6020
Cobalt	982		21		1000	96	67-114		6020
Copper	957		0.24	U	1000	96	60-123		6020
Lead	918		0.14	U	1000	92	73-115		6020
Molybdenum	103		0.90	J	100	102	80-110		6020
Nickel	979		12		1000	97	72-111		6020
Iron	55400		47000		10000	88	22-169	4	6020
Selenium	951		0.67	J	1000	95	72-148		6020
Manganese	2990		2000		1000	94	10-172		6020
Silver	97.2		0.0083	U	100	97	10-139		6020
Thallium	236		1.8	J	250	94	69-117		6020
Vanadium	967		0.55	J	1000	97	70-112		6020
Mercury	0.810		0.12	U	1.00	81	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-126346/2-A

Lab Name: TestAmerica Canton Job No.: 240-35725-1

Sample Matrix: Water LCS Source: MTICP2A_00036

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	51900		104	80	120		6010C
Potassium	50000	51300		103	80	120		6010C
Magnesium	50000	51400		103	80	120		6010C
Sodium	50000	51600		103	80	120		6010C
SiO2, Silica	2140	2320		108	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-125231/2-A

Lab Name: TestAmerica Canton Job No.: 240-35725-1

Sample Matrix: Water LCS Source: MTICPMSB_00015

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	97.9		98	80	120		6020
Arsenic	1000	1030		103	80	120		6020
Barium	1000	948		95	80	120		6020
Beryllium	1000	960		96	80	120		6020
Calcium	10000	10500		105	80	120		6020
Cadmium	1000	998		100	80	120		6020
Cobalt	1000	987		99	80	120		6020
Chromium	1000	984		98	80	120		6020
Copper	1000	1040		104	80	120		6020
Magnesium	10000	9970		100	80	120		6020
Iron	10000	10100		101	80	120		6020
Molybdenum	100	101		101	80	120		6020
Manganese	1000	1000		100	80	120		6020
Nickel	1000	1020		102	80	120		6020
Lead	1000	1020		102	80	120		6020
Selenium	1000	1020		102	80	120		6020
Thallium	250	242		97	80	120		6020
Vanadium	1000	960		96	80	120		6020
Silver	100	105		105	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-125440/3-A

Lab Name: TestAmerica Canton Job No.: 240-35725-1

Sample Matrix: Water LCS Source: MTICPMSB_00015

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	93.9		94	80	120		6020
Arsenic	1000	973		97	80	120		6020
Barium	1000	914		91	80	120		6020
Beryllium	1000	941		94	80	120		6020
Calcium	10000	10400		104	80	120		6020
Cadmium	1000	960		96	80	120		6020
Cobalt	1000	951		95	80	120		6020
Chromium	1000	952		95	80	120		6020
Copper	1000	986		99	80	120		6020
Magnesium	10000	9400		94	80	120		6020
Iron	10000	9530		95	80	120		6020
Molybdenum	100	96.4		96	80	120		6020
Manganese	1000	980		98	80	120		6020
Nickel	1000	971		97	80	120		6020
Lead	1000	966		97	80	120		6020
Selenium	1000	964		96	80	120		6020
Thallium	250	242		97	80	120		6020
Vanadium	1000	918		92	80	120		6020
Silver	100	100		100	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-125469/2-A

Lab Name: TestAmerica Canton Job No.: 240-35725-1

Sample Matrix: Water LCS Source: MTICPMSB_00015

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	93.2		93	80	120		6020
Arsenic	1000	975		98	80	120		6020
Barium	1000	912		91	80	120		6020
Beryllium	1000	948		95	80	120		6020
Calcium	10000	10600		106	80	120		6020
Cadmium	1000	950		95	80	120		6020
Cobalt	1000	940		94	80	120		6020
Chromium	1000	938		94	80	120		6020
Copper	1000	982		98	80	120		6020
Magnesium	10000	9570		96	80	120		6020
Iron	10000	9280		93	80	120		6020
Molybdenum	100	94.9		95	80	120		6020
Manganese	1000	961		96	80	120		6020
Nickel	1000	966		97	80	120		6020
Lead	1000	933		93	80	120		6020
Selenium	1000	970		97	80	120		6020
Thallium	250	236		94	80	120		6020
Vanadium	1000	913		91	80	120		6020
Silver	100	98.6		99	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-125232/2-A

Lab Name: TestAmerica Canton Job No.: 240-35725-1

Sample Matrix: Water LCS Source: MTHGCALW_00606

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.60		92	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-125470/2-A

Lab Name: TestAmerica Canton Job No.: 240-35725-1

Sample Matrix: Water LCS Source: MTHGCALW_00607

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.17		103	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-125452/2-A

Lab Name: TestAmerica Canton Job No.: 240-35725-1

Sample Matrix: Water LCS Source: MTHGCALW_00607

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.96		99	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-35725-3

SDG No:

Lab Name: TestAmerica Canton Job No: 240-35725-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	170000		176000		2.7		6010C
Potassium	29000		28300		1.2		6010C
Magnesium	130000		130000		0.94		6010C
Sodium	330000		337000		2.7		6010C
SiO2, Silica	28000		28300		0.39		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-35725-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-35725-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.55	U	2.8	U	NC		6020
Arsenic	7.9		10.7	J	NC		6020
Barium	41		53.4	J	NC		6020
Beryllium	2.2		2.58	J	NC		6020
Calcium	66000		73500		NC		6020
Cadmium	110		116		NC		6020
Cobalt	310		324		NC		6020
Chromium	1.6	J	2.45	J	NC		6020
Copper	29		34.7		NC		6020
Magnesium	51000		58300		NC		6020
Iron	26000		27800		NC		6020
Molybdenum	0.81	U	4.1	U	NC		6020
Manganese	4100		4530		9.8		6020
Nickel	170		193		NC		6020
Lead	0.70	U	3.5	U	NC		6020
Selenium	17		21.7	J	NC		6020
Thallium	2.0	U	10	U	NC		6020
Vanadium	1.1	J	2.08	J	NC		6020
Silver	0.027	J	0.115	J	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-35833-3

SDG No:

Lab Name: TestAmerica Canton Job No: 240-35725-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.32	J	0.55	U	NC		6020
Arsenic	9.8		10.8	J	NC		6020
Barium	27		29.1		NC		6020
Beryllium	0.087	J	0.16	U	NC		6020
Calcium	150000		148000		0.54		6020
Cadmium	0.15	J	0.620	J	NC		6020
Cobalt	21		21.7		NC		6020
Chromium	2.0		2.38	J	NC		6020
Copper	1.1	J	2.35	J	NC		6020
Magnesium	23000		24200		NC		6020
Iron	48000		49700		4.6		6020
Molybdenum	1.7	J	4.1	U	NC		6020
Manganese	2000		2090		3.4		6020
Nickel	13		13.9		NC		6020
Lead	0.66	J	1.30	J	NC		6020
Selenium	1.1	J	1.7	U	NC		6020
Thallium	1.1	J	2.0	U	NC		6020
Vanadium	1.5	J	2.02	J	NC		6020
Silver	0.047	J	0.105	J	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C MDL Date: 02/05/2014 10:38

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	317.933	5000	130
Magnesium	279.078	5000	34
Potassium	766.491	5000	72
SiO2, Silica	251.6	1070	17.34
Sodium	330.232	5000	590

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C XMDL Date: 02/05/2014 10:39

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	317.933	5000	130
Magnesium	279.078	5000	34
Potassium	766.491	5000	72
SiO2, Silica	251.6	1070	17.34
Sodium	330.232	5000	590

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A XMDL Date: 02/08/2010 16:06

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A XMDL Date: 02/08/2010 16:06

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 MDL Date: 04/14/2011 14:06

Prep Method: None

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Calcium hardness as calcium carbonate		12	0.325
Hardness as calcium carbonate		33	0.465
Magnesium hardness as calcium carbonate		21	0.14

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 XMDL Date: 04/14/2011 14:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium hardness as calcium carbonate		12000	325
Hardness as calcium carbonate		33000	465
Magnesium hardness as calcium carbonate		21000	140

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 01/08/2014

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.02582449				0.0246223550	
Antimony		-0.00007386			-0.00046157			-0.00003848						0.00237754	
Arsenic		0.00002780			-0.00003031	0.00087168			-0.00035509	0.00255741					
Beryllium														0.00016486	
Cadmium			0.00268624					0.00000262							
Cobalt													0.001782		
Copper				0.00002889	-0.00018281			0.00002357							
Lead		-0.0006892					0.00040100	0.00003973			0.00022800	0.00010489			
Lithium				0.00008364											
Nickel					0.00051756			0.00007724							
Selenium		-0.00001443							0.00033830						
Thallium					0.00169072				0.00057100				-0.00199962	-0.01173712	
Vanadium								0.00003609							
Zinc						-0.00059174									

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-35725-1

SDG No.:

Instrument ID: I12 Date: 01/30/2014 13:30

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		500000	6010C
Potassium		500000	6010C
Magnesium		500000	6010C
Sodium		500000	6010C
SiO2, Silica		428000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-35725-1

SDG No.:

Instrument ID: I11 Date: 03/10/2014 12:42

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		1000	6020
Arsenic		10000	6020
Barium		10000	6020
Beryllium		10000	6020
Calcium		500000	6020
Cadmium		10000	6020
Cobalt		10000	6020
Chromium		10000	6020
Copper		10000	6020
Magnesium		500000	6020
Iron		500000	6020
Molybdenum		2000	6020
Manganese		10000	6020
Nickel		10000	6020
Lead		10000	6020
Selenium		10000	6020
Thallium		500	6020
Vanadium		10000	6020
Silver		500	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-35725-1

SDG No.:

Instrument ID: H1 Date: 12/10/2013 15:54

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

FORM XI - IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/07/2014 10:48 End Date: 04/07/2014 18:58

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V							
ICIS 240-125595/1	1		10:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
STD2 240-125595/2 IC	1		10:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
STD3 240-125595/3 IC	1		11:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
STD4 240-125595/4 IC	1		11:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ICV 240-125595/5	1		11:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ICB 240-125595/6	1		11:24	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
CRI 240-125595/7	1		11:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ICSA 240-125595/8	1		11:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ICSAB 240-125595/9	1		11:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCV 240-125595/10			11:52																										
CCB 240-125595/11			11:59																										
ZZZZZZ			12:06																										
ZZZZZZ			12:14																										
ZZZZZZ			12:21																										
ZZZZZZ			12:28																										
ZZZZZZ			12:35																										
ZZZZZZ			12:42																										
ZZZZZZ			12:49																										
ZZZZZZ			12:56																										
CCV 240-125595/20			13:03																										
CCB 240-125595/21			13:10																										
CRI 240-125595/22			13:17																										
ZZZZZZ			13:25																										
ZZZZZZ			13:32																										
ZZZZZZ			13:39																										
ZZZZZZ			13:46																										
ZZZZZZ			13:53																										
ZZZZZZ			14:00																										
ZZZZZZ			14:07																										
CCV 240-125595/30	1		14:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-125595/31	1		14:21	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
ZZZZZZ			14:28																										
ZZZZZZ			14:35																										
ZZZZZZ			14:43																										
ZZZZZZ			14:50																										
MB 240-125231/1-A	1	R	14:57	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
LCS 240-125231/2-A	1	R	15:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-35725-2	1	R	15:11	X	X		X				X	X			X	X	X			X		X							
240-35725-2 SD	5	R	15:18	X	X		X				X	X			X	X	X			X		X							
CCV 240-125595/40	1		15:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-125595/41	1		15:32	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-35725-2 MS	1	R	15:39	X	X		X	X			X	X		X	X	X	X			X		X							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/07/2014 10:48 End Date: 04/07/2014 18:58

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V							
240-35725-2 MSD	1	R	15:46	X	X		X	X			X	X		X	X	X	X			X		X							
240-35725-2	1	D	15:53	X	X		X		X	X	X	X	X		X	X	X			X		X							
240-35725-3	1	R	16:01	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-35725-3	1	D	16:08	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
ZZZZZZ			16:15																										
ZZZZZZ			16:22																										
ZZZZZZ			16:29																										
ZZZZZZ			16:36																										
ZZZZZZ			16:43																										
CCV 240-125595/52	1		16:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-125595/53	1		16:57	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
ZZZZZZ			17:05																										
ZZZZZZ			17:12																										
ZZZZZZ			17:19																										
ZZZZZZ			17:26																										
ZZZZZZ			17:33																										
CCV 240-125595/59			17:40																										
CCB 240-125595/60			17:47																										
ZZZZZZ			17:54																										
ZZZZZZ			18:01																										
ZZZZZZ			18:08																										
ZZZZZZ			18:16																										
ZZZZZZ			18:23																										
ZZZZZZ			18:30																										
ZZZZZZ			18:37																										
ZZZZZZ			18:44																										
CCV 240-125595/69			18:51																										
CCB 240-125595/70			18:58																										

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/08/2014 14:21 End Date: 04/09/2014 04:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V							
ICIS 240-125759/1			14:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
STD2 240-125759/2 IC	1		14:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
STD3 240-125759/3 IC	1		14:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
STD4 240-125759/4 IC	1		14:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ICV 240-125759/5	1		14:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ICB 240-125759/6	1		14:56	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
CRI 240-125759/7	1		15:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ICSA 240-125759/8	1		15:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ICSAB 240-125759/9	1		15:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCV 240-125759/10			15:25																									
CCB 240-125759/11			15:32																									
CCV 240-125759/12	1		15:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
~~CCB 240-125759/13~~	1		15:46	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
~~MB 240-125440/1-A~~	1	R	15:53	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
~~LCS 240-125440/3-A~~	1	R	16:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			16:08																									
CCV 240-125759/17	1		16:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-125759/18	1		16:22	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
ZZZZZZ			16:29																									
ZZZZZZ			16:36																									
ZZZZZZ			16:43																									
ZZZZZZ			16:50																									
ZZZZZZ			16:57																									
ZZZZZZ			17:04																									
240-35834-2	1	R	17:12	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-35834-2	1	D	17:19	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-35834-3	1	R	17:26	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-35834-3	1	D	17:33	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
CCV 240-125759/29	1		17:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-125759/30	1		17:47	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-35834-4	1	R	17:54	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-35834-4	1	D	18:01	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-35834-5	1	R	18:08	X	X		X		X	X	X	X	X		X	X	X			X		X							
240-35834-5	1	D	18:15	X	X		X		X	X	X	X	X		X	X	X			X		X							
ZZZZZZ			18:23																									
CCV 240-125759/36	1		18:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-125759/37	1		18:37	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-35725-2	5	R	18:44			X			X	X			X					X	X		X							
240-35725-2 SD	25	R	18:51			X			X	X			X					X	X		X							
240-35725-2 MS	5	R	18:58			X			X	X			X					X	X		X							
240-35725-2 MSD	5	R	19:05			X			X	X			X					X	X		X							
240-35725-2	5	D	19:12			X												X	X		X							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/08/2014 14:21 End Date: 04/09/2014 04:13

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V								
ZZZZZZ			19:19																											
ZZZZZZ			19:26																											
CCV 240-125759/45	1		19:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-125759/46	1		19:41	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
MB 240-125469/1-A	1	R	19:48	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
LCS 240-125469/2-A	1	R	19:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-35833-3	1	R	20:02	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
240-35833-3 SD	5	R	20:09	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
ZZZZZZ			20:16																											
240-35833-3 MS	1	R	20:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-35833-3 MSD	1	R	20:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-35833-3	1	D	20:38	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
240-35833-3 MS	1	D	20:45	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
240-35833-3 MSD	1	D	20:52	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
CCV 240-125759/57	1		20:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-125759/58	1		21:06	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
ZZZZZZ			21:13																											
CCV 240-125759/60	1		21:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-125759/61	1		21:27	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
240-35791-2	1	R	21:34	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
240-35791-2	1	D	21:41	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
240-35791-3	1	R	21:49	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
240-35791-3	1	D	21:56	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
240-35791-4	1	R	22:03	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
240-35791-4	1	D	22:10	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
240-35791-5	1	R	22:17	X	X		X		X	X	X	X	X		X	X	X			X		X								
240-35791-5	1	D	22:24	X	X		X		X	X	X	X	X		X	X	X			X		X								
240-35791-6	1	R	22:31	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
240-35791-6	1	D	22:38	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
CCV 240-125759/72	1		22:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-125759/73	1		22:53	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
ZZZZZZ			23:00																											
ZZZZZZ			23:07																											
ZZZZZZ			23:14																											
240-35833-2	1	R	23:21	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
240-35833-2	1	D	23:28	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
240-35833-4	1	R	23:35	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
240-35833-4	1	D	23:42	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
CCV 240-125759/81	1		23:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-125759/82	1		23:57	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
ICSA 240-125759/83			00:04																											
ICSAB 240-125759/84			00:11																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/08/2014 14:21 End Date: 04/09/2014 04:13

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V								
CCV 240-125759/85			00:18																											
CCB 240-125759/86			00:25																											
ZZZZZZ			00:32																											
CCV 240-125759/88			00:39																											
CCB 240-125759/89			00:46																											
ZZZZZZ			00:54																											
ZZZZZZ			01:01																											
ZZZZZZ			01:08																											
ZZZZZZ			01:15																											
ZZZZZZ			01:22																											
ZZZZZZ			01:29																											
ZZZZZZ			01:36																											
ZZZZZZ			01:43																											
ZZZZZZ			01:51																											
ZZZZZZ			01:58																											
CCV 240-125759/100			02:05																											
CCB 240-125759/101			02:12																											
ZZZZZZ			02:19																											
ZZZZZZ			02:26																											
ZZZZZZ			02:33																											
ZZZZZZ			02:40																											
ZZZZZZ			02:48																											
ZZZZZZ			02:55																											
ZZZZZZ			03:02																											
ZZZZZZ			03:09																											
ZZZZZZ			03:16																											
ZZZZZZ			03:23																											
CCV 240-125759/112			03:30																											
CCB 240-125759/113			03:37																											
ZZZZZZ			03:45																											
ZZZZZZ			03:52																											
ZZZZZZ			03:59																											
CCV 240-125759/117			04:06																											
CCB 240-125759/118			04:13																											

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/09/2014 10:13 End Date: 04/09/2014 13:25

| Lab Sample Id | D/F | Type | Time | Analytes | | |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/07/2014 11:11 End Date: 04/07/2014 14:40

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-125521/1-A			11:11	X
IC 240-125521/2-A			11:12	X
IC 240-125521/3-A			11:14	X
IC 240-125521/4-A			11:15	X
IC 240-125521/5-A			11:16	X
IC 240-125521/6-A			11:18	X
ICV 240-125521/7-A	1		11:20	X
ICB 240-125521/8-A	1		11:21	X
CRA 240-125521/9-A	1		11:23	X
CCVL 240-125521/10-A	1		11:24	X
CCB 240-125521/12-A			11:26	
ZZZZZZ			11:28	
ZZZZZZ			11:29	
ZZZZZZ			11:30	
ZZZZZZ			11:32	
ZZZZZZ			11:33	
ZZZZZZ			11:35	
ZZZZZZ			11:36	
ZZZZZZ			11:37	
ZZZZZZ			11:39	
ZZZZZZ			11:41	
CCV 240-125521/11-A			11:43	
CCB 240-125521/12-A			11:44	
ZZZZZZ			11:46	
ZZZZZZ			11:48	
ZZZZZZ			11:50	
ZZZZZZ			11:52	
ZZZZZZ			11:53	
ZZZZZZ			11:55	
ZZZZZZ			11:57	
ZZZZZZ			11:58	
ZZZZZZ			11:59	
ZZZZZZ			12:01	
CCV 240-125521/11-A	1		12:02	X
CCB 240-125521/12-A	1		12:05	X
ZZZZZZ			12:07	
ZZZZZZ			12:08	
ZZZZZZ			12:10	
ZZZZZZ			12:12	
ZZZZZZ			12:13	
ZZZZZZ			12:15	
MB 240-125232/1-A	1	T	12:16	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/07/2014 11:11 End Date: 04/07/2014 14:40

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
LCS 240-125232/2-A	1	T	12:18	X
240-35725-2	1	T	12:19	X
240-35725-2 MS	1	T	12:20	X
CCV 240-125521/11-A	1		12:22	X
CCB 240-125521/12-A	1		12:23	X
240-35725-2 MSD	1	T	12:25	X
240-35725-2	1	D	12:27	X
240-35725-3	1	T	12:29	X
240-35725-3	1	D	12:30	X
ZZZZZZ			12:32	
ZZZZZZ			12:33	
ZZZZZZ			12:35	
ZZZZZZ			12:36	
ZZZZZZ			12:38	
ZZZZZZ			12:40	
CCV 240-125521/11-A	1		12:41	X
CCB 240-125521/12-A	1		12:43	X
ZZZZZZ			12:45	
ZZZZZZ			12:46	
ZZZZZZ			12:48	
ZZZZZZ			12:50	
ZZZZZZ			12:52	
ZZZZZZ			12:53	
ZZZZZZ			12:55	
ZZZZZZ			12:56	
ZZZZZZ			12:58	
ZZZZZZ			12:59	
CCV 240-125521/11-A			13:01	
CCB 240-125521/12-A			13:02	
ZZZZZZ			13:04	
ZZZZZZ			13:05	
ZZZZZZ			13:07	
ZZZZZZ			13:08	
ZZZZZZ			13:10	
ZZZZZZ			13:11	
ZZZZZZ			13:13	
ZZZZZZ			13:15	
ZZZZZZ			13:16	
ZZZZZZ			13:17	
CCV 240-125521/11-A			13:19	
CCB 240-125521/12-A			13:21	
ZZZZZZ			13:22	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/07/2014 11:11 End Date: 04/07/2014 14:40

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			13:24	
ZZZZZZ			13:25	
ZZZZZZ			13:27	
ZZZZZZ			13:28	
ZZZZZZ			13:30	
ZZZZZZ			13:32	
ZZZZZZ			13:34	
ZZZZZZ			13:35	
ZZZZZZ			13:36	
CCV 240-125521/11-A			13:38	
CCB 240-125521/12-A			13:39	
ZZZZZZ			13:41	
ZZZZZZ			13:42	
ZZZZZZ			13:44	
ZZZZZZ			13:45	
ZZZZZZ			13:47	
CRA 240-125521/9-A			13:48	
CCV 240-125521/11-A			13:50	
CCB 240-125521/12-A			13:51	
CRA 240-125521/9-A			13:53	
CCV 240-125521/11-A			13:55	
CCB 240-125521/12-A			13:56	
CCV 240-125521/11-A			14:30	
CCB 240-125521/12-A			14:31	
ZZZZZZ			14:33	
ZZZZZZ			14:35	
CRA 240-125521/9-A			14:37	
CCV 240-125521/11-A			14:38	
CCB 240-125521/12-A			14:40	

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/08/2014 08:24 End Date: 04/08/2014 18:14

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-125521/1-A			08:24	X
IC 240-125521/2-A			08:25	X
IC 240-125521/3-A			08:28	X
IC 240-125521/4-A			08:29	X
IC 240-125521/5-A			08:31	X
IC 240-125521/6-A			08:33	X
ICV 240-125521/7-A	1		08:37	X
ICB 240-125521/8-A	1		08:39	X
CRA 240-125521/9-A	1		08:40	X
CCVL 240-125521/10-A	1		08:42	X
CCB 240-125521/12-A			08:43	
ZZZZZZ			08:45	
ZZZZZZ			08:46	
ZZZZZZ			08:48	
ZZZZZZ			08:49	
ZZZZZZ			08:51	
ZZZZZZ			08:52	
ZZZZZZ			08:54	
ZZZZZZ			08:55	
ZZZZZZ			08:57	
ZZZZZZ			08:59	
CCV 240-125521/11-A			09:01	
CCB 240-125521/12-A			09:03	
ZZZZZZ			09:04	
ZZZZZZ			09:05	
ZZZZZZ			09:07	
ZZZZZZ			09:08	
ZZZZZZ			09:10	
ZZZZZZ			09:12	
ZZZZZZ			09:13	
ZZZZZZ			09:15	
ZZZZZZ			09:16	
ZZZZZZ			09:18	
CCV 240-125521/11-A			09:19	
CCB 240-125521/12-A			09:21	
CCV 240-125521/11-A	1		12:56	X
CCB 240-125521/12-A	1		12:57	X
MB 240-125470/1-A	1	T	12:59	X
LCS 240-125470/2-A	1	T	13:00	X
240-35833-3	1	T	13:02	X
240-35833-3 MS	1	T	13:03	X
240-35833-3 MSD	1	T	13:05	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/08/2014 08:24 End Date: 04/08/2014 18:14

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
240-35833-3	1	D	13:07	X
240-35833-3 MS	1	D	13:09	X
240-35833-3 MSD	1	D	13:11	X
240-35791-2	1	T	13:12	X
240-35791-2	1	D	13:14	X
CCV 240-125521/11-A	1		13:15	X
CCB 240-125521/12-A	1		13:17	X
240-35791-3	1	T	13:18	X
240-35791-3	1	D	13:20	X
240-35791-4	1	T	13:21	X
240-35833-4	1	D	13:23	X
240-35791-5	1	T	13:24	X
240-35791-5	1	D	13:26	X
240-35791-6	1	T	13:27	X
240-35791-6	1	D	13:29	X
ZZZZZZ			13:31	
240-35833-2	1	D	13:32	X
CCV 240-125521/11-A	1		13:34	X
CCB 240-125521/12-A	1		13:35	X
240-35833-2	1	T	13:37	X
240-35791-4	1	D	13:39	X
240-35833-4	1	T	13:41	X
ZZZZZZ			13:42	
ZZZZZZ			13:43	
ZZZZZZ			13:45	
ZZZZZZ			13:46	
ZZZZZZ			13:48	
ZZZZZZ			13:49	
ZZZZZZ			13:51	
CCV 240-125521/11-A	1		13:53	X
CCB 240-125521/12-A	1		13:54	X
ZZZZZZ			13:56	
ZZZZZZ			13:57	
ZZZZZZ			13:58	
ZZZZZZ			14:00	
ZZZZZZ			14:02	
ZZZZZZ			14:03	
ZZZZZZ			14:05	
ZZZZZZ			14:07	
ZZZZZZ			14:08	
ZZZZZZ			14:10	
CCV 240-125521/11-A			14:11	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/08/2014 08:24 End Date: 04/08/2014 18:14

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
CCB 240-125521/12-A			14:13	
ZZZZZZ			14:14	
ZZZZZZ			14:15	
ZZZZZZ			14:17	
ZZZZZZ			14:19	
ZZZZZZ			14:20	
ZZZZZZ			14:21	
ZZZZZZ			14:23	
ZZZZZZ			14:24	
ZZZZZZ			14:26	
ZZZZZZ			14:28	
CCV 240-125521/11-A			14:29	
CCB 240-125521/12-A			14:30	
ZZZZZZ			14:32	
ZZZZZZ			14:35	
ZZZZZZ			14:36	
ZZZZZZ			14:38	
ZZZZZZ			14:40	
ZZZZZZ			14:41	
ZZZZZZ			14:43	
ZZZZZZ			14:44	
ZZZZZZ			14:46	
ZZZZZZ			14:47	
CCV 240-125521/11-A			14:49	
CCB 240-125521/12-A			14:50	
ZZZZZZ			14:52	
ZZZZZZ			14:54	
ZZZZZZ			14:55	
ZZZZZZ			14:57	
ZZZZZZ			14:58	
ZZZZZZ			15:00	
ZZZZZZ			15:02	
CCV 240-125521/11-A			15:04	
CCB 240-125521/12-A			15:05	
CCV 240-125521/11-A	1		15:18	X
CCB 240-125521/12-A	1		15:19	X
MB 240-125452/1-A	1	T	15:21	X
LCS 240-125452/2-A	1	T	15:22	X
ZZZZZZ			15:24	
ZZZZZZ			15:26	
ZZZZZZ			15:27	
ZZZZZZ			15:28	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/08/2014 08:24 End Date: 04/08/2014 18:14

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
240-35834-2	1	T	15:30	X
240-35834-2	1	D	15:31	X
240-35834-3	1	T	15:33	X
240-35834-3	1	D	15:34	X
CCV 240-125521/11-A	1		15:36	X
CCB 240-125521/12-A	1		15:37	X
240-35834-4	1	T	15:38	X
240-35834-4	1	D	15:40	X
240-35834-5	1	T	15:42	X
240-35834-5	1	D	15:43	X
ZZZZZZ			15:44	
ZZZZZZ			15:46	
ZZZZZZ			15:47	
ZZZZZZ			15:49	
ZZZZZZ			15:50	
ZZZZZZ			15:52	
CCV 240-125521/11-A	1		15:53	X
CCB 240-125521/12-A	1		15:55	X
ZZZZZZ			15:57	
ZZZZZZ			15:59	
ZZZZZZ			16:01	
ZZZZZZ			16:03	
ZZZZZZ			16:04	
ZZZZZZ			16:05	
ZZZZZZ			16:07	
ZZZZZZ			16:09	
ZZZZZZ			16:10	
ZZZZZZ			16:12	
CCV 240-125521/11-A			16:14	
CCB 240-125521/12-A			16:16	
ZZZZZZ			16:18	
ZZZZZZ			16:19	
ZZZZZZ			16:21	
ZZZZZZ			16:23	
ZZZZZZ			16:25	
ZZZZZZ			16:27	
ZZZZZZ			16:28	
ZZZZZZ			16:30	
ZZZZZZ			16:31	
ZZZZZZ			16:33	
CCV 240-125521/11-A			16:35	
CCB 240-125521/12-A			16:36	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/08/2014 08:24 End Date: 04/08/2014 18:14

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			16:38	
ZZZZZZ			16:39	
ZZZZZZ			16:41	
ZZZZZZ			16:43	
ZZZZZZ			16:44	
ZZZZZZ			16:46	
ZZZZZZ			16:48	
ZZZZZZ			16:49	
ZZZZZZ			16:51	
ZZZZZZ			16:52	
CCV 240-125521/11-A			16:53	
CCB 240-125521/12-A			16:55	
ZZZZZZ			16:56	
ZZZZZZ			16:58	
ZZZZZZ			17:00	
ZZZZZZ			17:01	
ZZZZZZ			17:02	
ZZZZZZ			17:04	
ZZZZZZ			17:05	
ZZZZZZ			17:06	
ZZZZZZ			17:08	
ZZZZZZ			17:09	
CCV 240-125521/11-A			17:14	
CCB 240-125521/12-A			17:15	
ZZZZZZ			17:17	
ZZZZZZ			17:19	
ZZZZZZ			17:20	
ZZZZZZ			17:21	
ZZZZZZ			17:23	
ZZZZZZ			17:25	
ZZZZZZ			17:27	
ZZZZZZ			17:28	
ZZZZZZ			17:30	
ZZZZZZ			17:31	
CCV 240-125521/11-A			17:32	
CCB 240-125521/12-A			17:34	
ZZZZZZ			17:35	
ZZZZZZ			17:37	
ZZZZZZ			17:38	
ZZZZZZ			17:40	
ZZZZZZ			17:41	
ZZZZZZ			17:43	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/08/2014 08:24 End Date: 04/08/2014 18:14

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			17:46	
ZZZZZZ			17:49	
ZZZZZZ			17:50	
ZZZZZZ			17:52	
CCV 240-125521/11-A			17:54	
CCB 240-125521/12-A			17:56	
ZZZZZZ			17:57	
ZZZZZZ			17:59	
ZZZZZZ			18:00	
ZZZZZZ			18:02	
ZZZZZZ			18:03	
ZZZZZZ			18:04	
ZZZZZZ			18:06	
ZZZZZZ			18:08	
ZZZZZZ			18:09	
ZZZZZZ			18:10	
CCV 240-125521/11-A			18:13	
CCB 240-125521/12-A			18:14	

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2340B-1997

Start Date: 04/16/2014 05:32 End Date: 04/16/2014 05:32

| Lab Sample Id | D/F | Type | Time | Analytes | | |

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/07/2014 End Date: 04/07/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
ICIS 240-125595/1	10:48	100		100		100		100		100	
STD2 240-125595/2 IC	10:55	96		99		98		95		96	
STD3 240-125595/3 IC	11:03	93		100		97		93		94	
STD4 240-125595/4 IC	11:10	100		104		100		98		99	
ICV 240-125595/5	11:17	97		104		100		96		96	
ICB 240-125595/6	11:24	101		103		98		97		99	
CRI 240-125595/7	11:31	100		103		100		98		99	
ICSA 240-125595/8	11:38	87		92		94		92		93	
ICSAB 240-125595/9	11:45	82		88		89		88		91	
CCV 240-125595/30	14:14	93		93		87		84		86	
CCB 240-125595/31	14:21	98		98		91		90		91	
MB 240-125231/1-A	14:57	84		88		80		81		83	
LCS 240-125231/2-A	15:04	82		85		77		73		80	
240-35725-2	15:11	75		84		75		76		75	
240-35725-2 SD	15:18	85		91		82		82		84	
CCV 240-125595/40	15:25	89		95		85		82		85	
CCB 240-125595/41	15:32	95		99		88		87		89	
240-35725-2 MS	15:39	74		85		73		74		75	
240-35725-2 MSD	15:46	71		80		72		73		73	
240-35725-2	15:53	72		80		72		73		74	
240-35725-3	16:01	63		76		68		64		70	
240-35725-3	16:08	63		75		66		62		69	
CCV 240-125595/52	16:50	76		77		70		70		74	
CCB 240-125595/53	16:57	83		80		73		73		79	

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/07/2014 End Date: 04/07/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
ICIS 240-125595/1	10:48			100							
STD2 240-125595/2 IC	10:55			97							
STD3 240-125595/3 IC	11:03			96							
STD4 240-125595/4 IC	11:10			101							
ICV 240-125595/5	11:17			98							
ICB 240-125595/6	11:24			101							
CRI 240-125595/7	11:31			100							
ICSA 240-125595/8	11:38			95							
ICSAB 240-125595/9	11:45			94							
CCV 240-125595/30	14:14			90							
CCB 240-125595/31	14:21			94							
MB 240-125231/1-A	14:57			91							
LCS 240-125231/2-A	15:04			88							
240-35725-2	15:11			149	*						
240-35725-2 SD	15:18			104							
CCV 240-125595/40	15:25			90							
CCB 240-125595/41	15:32			93							
240-35725-2 MS	15:39			147	*						
240-35725-2 MSD	15:46			146	*						
240-35725-2	15:53			153	*						
240-35725-3	16:01			81							
240-35725-3	16:08			80							
CCV 240-125595/52	16:50			84							
CCB 240-125595/53	16:57			86							

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/08/2014 End Date: 04/08/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
STD2 240-125759/2 IC	14:28	95		98		98		96		96	
STD3 240-125759/3 IC	14:35	91		96		96		92		93	
STD4 240-125759/4 IC	14:42	99		97		98		98		100	
ICV 240-125759/5	14:49	98		99		99		97		97	
ICB 240-125759/6	14:56	102		100		100		100		101	
CRI 240-125759/7	15:04	102		100		100		100		101	
ICSA 240-125759/8	15:11	89		90		94		92		94	
ICSAB 240-125759/9	15:18	85		88		90		89		92	
CCV 240-125759/12	15:39	90		88		90		88		93	
CCB 240-125759/13	15:46	93		89		91		92		96	
MB 240-125440/1-A	15:53	89		82		83		85		89	
LCS 240-125440/3-A	16:00	85		79		82		79		86	
CCV 240-125759/17	16:15	88		86		88		87		91	
CCB 240-125759/18	16:22	94		89		92		92		95	
240-35834-2	17:12	70		71		74		72		77	
240-35834-2	17:19	69		72		74		71		77	
240-35834-3	17:26	81		76		79		83		86	
240-35834-3	17:33	84		77		81		82		86	
CCV 240-125759/29	17:40	87		84		89		87		90	
CCB 240-125759/30	17:47	92		87		91		91		93	
240-35834-4	17:54	75		77		78		75		80	
240-35834-4	18:01	73		74		76		74		79	
240-35834-5	18:08	73		78		81		99		80	
240-35834-5	18:15	74		74		76		78		80	
CCV 240-125759/36	18:30	87		84		89		86		89	
CCB 240-125759/37	18:37	92		88		91		92		94	
240-35725-2	18:44	90		87		89		89		90	
240-35725-2 SD	18:51	93		89		93		93		94	
240-35725-2 MS	18:58	89		87		90		89		91	
240-35725-2 MSD	19:05	90		87		90		89		91	
240-35725-2	19:12	90		88		90		90		92	
CCV 240-125759/45	19:34	91		88		91		89		91	
CCB 240-125759/46	19:41	95		90		95		93		95	
MB 240-125469/1-A	19:48	90		84		86		86		88	
LCS 240-125469/2-A	19:55	87		81		85		80		86	
240-35833-3	20:02	78		77		80		79		82	
240-35833-3 SD	20:09	88		84		88		88		91	
240-35833-3 PDS	20:16	75		77		79		77		81	
240-35833-3 MS	20:23	72		74		77		75		80	
240-35833-3 MSD	20:31	72		73		76		74		79	
240-35833-3	20:38	73		73		76		75		80	
240-35833-3 MS	20:45	70		72		76		74		79	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/08/2014 End Date: 04/08/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD2 240-125759/2 IC	14:28			98							
STD3 240-125759/3 IC	14:35			96							
STD4 240-125759/4 IC	14:42			101							
ICV 240-125759/5	14:49			101							
ICB 240-125759/6	14:56			102							
CRI 240-125759/7	15:04			102							
ICSA 240-125759/8	15:11			96							
ICSAB 240-125759/9	15:18			96							
CCV 240-125759/12	15:39			99							
CCB 240-125759/13	15:46			101							
MB 240-125440/1-A	15:53			98							
LCS 240-125440/3-A	16:00			96							
CCV 240-125759/17	16:15			97							
CCB 240-125759/18	16:22			99							
240-35834-2	17:12			92							
240-35834-2	17:19			90							
240-35834-3	17:26			97							
240-35834-3	17:33			95							
CCV 240-125759/29	17:40			94							
CCB 240-125759/30	17:47			98							
240-35834-4	17:54			92							
240-35834-4	18:01			92							
240-35834-5	18:08			426	*						
240-35834-5	18:15			142	*						
CCV 240-125759/36	18:30			94							
CCB 240-125759/37	18:37	✓		96							
240-35725-2	18:44			112							
240-35725-2 SD	18:51			100							
240-35725-2 MS	18:58			111							
240-35725-2 MSD	19:05	✓		113							
240-35725-2	19:12			112							
CCV 240-125759/45	19:34			96							
CCB 240-125759/46	19:41			98							
MB 240-125469/1-A	19:48			95							
LCS 240-125469/2-A	19:55			94							
240-35833-3	20:02			95							
240-35833-3 SD	20:09			96							
240-35833-3 PDS	20:16			94							
240-35833-3 MS	20:23			94							
240-35833-3 MSD	20:31			93							
240-35833-3	20:38			92							
240-35833-3 MS	20:45			92							

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/08/2014 End Date: 04/08/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
240-35833-3 MSD	20:52	71		72		76		74		79	
CCV 240-125759/57	20:59	84		81		86		84		88	
CCB 240-125759/58	21:06	90		86		90		90		92	
CCV 240-125759/60	21:20	90		88		91		88		90	
CCB 240-125759/61	21:27	95		90		94		93		94	
240-35791-2	21:34	81		79		79		80		82	
240-35791-2	21:41	77		76		78		78		80	
240-35791-3	21:49	83		77		79		80		83	
240-35791-3	21:56	83		77		80		81		84	
240-35791-4	22:03	78		75		78		76		80	
240-35791-4	22:10	78		75		78		78		81	
240-35791-5	22:17	81		77		79		100		81	
240-35791-5	22:24	81		77		79		85		81	
240-35791-6	22:31	85		77		80		82		85	
240-35791-6	22:38	84		77		81		83		84	
CCV 240-125759/72	22:45	89		85		89		86		88	
CCB 240-125759/73	22:53	95		89		92		92		92	
240-35833-2	23:21	78		74		75		75		78	
240-35833-2	23:28	77		74		76		76		78	
240-35833-4	23:35	71		71		72		69		72	
240-35833-4	23:42	73		74		74		71		74	
CCV 240-125759/81	23:50	88		84		88		86		88	
CCB 240-125759/82	23:57	94		88		90		89		90	

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/08/2014 End Date: 04/08/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
240-35833-3 MSD	20:52			91							
CCV 240-125759/57	20:59			93							
CCB 240-125759/58	21:06			95							
CCV 240-125759/60	21:20			93							
CCB 240-125759/61	21:27			96							
240-35791-2	21:34			91							
240-35791-2	21:41			90							
240-35791-3	21:49			92							
240-35791-3	21:56			92							
240-35791-4	22:03			90							
240-35791-4	22:10			91							
240-35791-5	22:17			333	*						
240-35791-5	22:24			162	*						
240-35791-6	22:31			92							
240-35791-6	22:38			92							
CCV 240-125759/72	22:45			92							
CCB 240-125759/73	22:53			94							
240-35833-2	23:21			92							
240-35833-2	23:28			91							
240-35833-4	23:35			107							
240-35833-4	23:42			106							
CCV 240-125759/81	23:50			91							
CCB 240-125759/82	23:57			93							

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/09/2014 End Date: 04/09/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
STD2 240-125859/2 IC	10:21	100		100		97		95		95	
STD3 240-125859/3 IC	10:28	96		98		95		92		94	
STD4 240-125859/4 IC	10:35	103		102		99		99		100	
ICV 240-125859/5	10:42	99		101		97		95		95	
ICB 240-125859/6	10:49	104		103		98		98		98	
CRI 240-125859/7	10:56	103		104		99		99		99	
ICSA 240-125859/8	11:03	91		94		91		90		92	
ICSAB 240-125859/9	11:10	85		89		87		87		91	
CCV 240-125859/10	11:17	89		92		88		88		93	
CCB 240-125859/11	11:25	93		92		89		90		95	
240-35791-5	11:39	90		90		86		93		92	
240-35791-5	11:46	93		92		89		92		95	
240-35791-5	11:53	95		94		91		93		95	
240-35791-5	12:00	92		91		87		91		92	
240-35791-5	12:07	94		93		91		92		95	
240-35833-4	12:14	94		92		89		89		92	
240-35833-4	12:21	94		92		89		89		92	
CCV 240-125859/20	12:28	93		93		90		89		92	
CCB 240-125859/21	12:36	97		96		91		92		95	
240-35834-5	12:43	94		93		90		96		92	
240-35834-5	12:50	98		96		93		95		97	
240-35834-5	12:57	100		97		93		95		97	
240-35834-5	13:04	97		95		90		91		91	
240-35834-5	13:11	101		96		93		93		96	
CCV 240-125859/27	13:18	99		97		94		90		93	
CCB 240-125859/28	13:25	100		98		94		95		96	

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/09/2014 End Date: 04/09/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD2 240-125859/2 IC	10:21			98							
STD3 240-125859/3 IC	10:28			95							
STD4 240-125859/4 IC	10:35			101							
ICV 240-125859/5	10:42			98							
ICB 240-125859/6	10:49			101							
CRI 240-125859/7	10:56			99							
ICSA 240-125859/8	11:03			94							
ICSAB 240-125859/9	11:10			95							
CCV 240-125859/10	11:17			99							
CCB 240-125859/11	11:25			100							
240-35791-5	11:39			155	*						
240-35791-5	11:46			111							
240-35791-5	11:53			102							
240-35791-5	12:00			115							
240-35791-5	12:07			103							
240-35833-4	12:14			101							
240-35833-4	12:21			101							
CCV 240-125859/20	12:28			98							
CCB 240-125859/21	12:36			100							
240-35834-5	12:43			177	*						
240-35834-5	12:50			117							
240-35834-5	12:57			104							
240-35834-5	13:04			110							
240-35834-5	13:11			102							
CCV 240-125859/27	13:18			98							
CCB 240-125859/28	13:25			100							

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-125232/1-A	04/04/2014 08:10	125232		50	50
LCS 240-125232/2-A	04/04/2014 08:10	125232		50	50
240-35725-2	04/04/2014 08:10	125232		50	50
240-35725-2 MS	04/04/2014 08:10	125232		50	50
240-35725-2 MSD	04/04/2014 08:10	125232		50	50
240-35725-2	04/04/2014 08:10	125232		50	50
240-35725-3	04/04/2014 08:10	125232		50	50
240-35725-3	04/04/2014 08:10	125232		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-125452/1-A	04/07/2014 15:30	125452		50	50
LCS 240-125452/2-A	04/07/2014 15:30	125452		50	50
240-35834-2	04/07/2014 15:30	125452		50	50
240-35834-2	04/07/2014 15:30	125452		50	50
240-35834-3	04/07/2014 15:30	125452		50	50
240-35834-3	04/07/2014 15:30	125452		50	50
240-35834-4	04/07/2014 15:30	125452		50	50
240-35834-4	04/07/2014 15:30	125452		50	50
240-35834-5	04/07/2014 15:30	125452		50	50
240-35834-5	04/07/2014 15:30	125452		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-125470/1-A	04/07/2014 15:30	125470		50	50
LCS 240-125470/2-A	04/07/2014 15:30	125470		50	50
240-35833-3	04/07/2014 15:30	125470		50	50
240-35833-3 MS	04/07/2014 15:30	125470		50	50
240-35833-3 MSD	04/07/2014 15:30	125470		50	50
240-35833-3	04/07/2014 15:30	125470		50	50
240-35833-3 MS	04/07/2014 15:30	125470		50	50
240-35833-3 MSD	04/07/2014 15:30	125470		50	50
240-35791-2	04/07/2014 15:30	125470		50	50
240-35791-2	04/07/2014 15:30	125470		50	50
240-35791-3	04/07/2014 15:30	125470		50	50
240-35791-3	04/07/2014 15:30	125470		50	50
240-35791-4	04/07/2014 15:30	125470		50	50
240-35791-4	04/07/2014 15:30	125470		50	50
240-35791-5	04/07/2014 15:30	125470		50	50
240-35791-5	04/07/2014 15:30	125470		50	50
240-35791-6	04/07/2014 15:30	125470		50	50
240-35791-6	04/07/2014 15:30	125470		50	50
240-35833-2	04/07/2014 15:30	125470		50	50
240-35833-2	04/07/2014 15:30	125470		50	50
240-35833-4	04/07/2014 15:30	125470		50	50
240-35833-4	04/07/2014 15:30	125470		50	50

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Batch Number: 126346 Batch Start Date: 04/14/14 09:05 Batch Analyst: McGall, Lisa

Batch Method: 3005A Batch End Date: 04/14/14 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAGSPIKEW 00037	MTICP1 00030	MTICP2A 00036	MTTMHCL 00030
MB 240-126346/1		3005A, 6010C		50 mL	50 mL				2.5 mL
LCS 240-126346/2		3005A, 6010C		50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-35725-R-3	MSA-MW18I-040114	3005A, 6010C	R	50 mL	50 mL				2.5 mL
240-35725-R-3 MS	MSA-MW18I-040114	3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-35725-R-3 MSD	MSA-MW18I-040114	3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-35725-S-2	MSA-MW18S-040114	3005A, 6010C	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-126346/1		3005A, 6010C		1 mL					
LCS 240-126346/2		3005A, 6010C		1 mL					
240-35725-R-3	MSA-MW18I-040114	3005A, 6010C	R	1 mL					
240-35725-R-3 MS	MSA-MW18I-040114	3005A, 6010C	R	1 mL					
240-35725-R-3 MSD	MSA-MW18I-040114	3005A, 6010C	R	1 mL					
240-35725-S-2	MSA-MW18S-040114	3005A, 6010C	R	1 mL					

Batch Notes	
Filter Paper Lot Number	9546553
Hot Block ID number	hb1
Pipette ID	383364
Digestion Tube/Cup Lot #	1308077

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Batch Number: 125231 Batch Start Date: 04/04/14 07:59 Batch Analyst: McGall, Lisa

Batch Method: 3005A Batch End Date: 04/04/14 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00015	MTICPMSA 00015	MTICPMSB 00015	MTTMHCL 00029
MB 240-125231/1		3005A, 6020		50 mL	50 mL				2.5 mL
LCS 240-125231/2		3005A, 6020		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-35725-S-2	MSA-MW18S-040114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35725-S-2 MS	MSA-MW18S-040114	3005A, 6020	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-35725-S-2 MSD	MSA-MW18S-040114	3005A, 6020	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-35725-R-2	MSA-MW18S-040114	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35725-R-3	MSA-MW18I-040114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35725-Q-3	MSA-MW18I-040114	3005A, 6020	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-125231/1		3005A, 6020		1 mL					
LCS 240-125231/2		3005A, 6020		1 mL					
240-35725-S-2	MSA-MW18S-040114	3005A, 6020	R	1 mL					
240-35725-S-2 MS	MSA-MW18S-040114	3005A, 6020	R	1 mL					
240-35725-S-2 MSD	MSA-MW18S-040114	3005A, 6020	R	1 mL					
240-35725-R-2	MSA-MW18S-040114	3005A, 6020	D	1 mL					
240-35725-R-3	MSA-MW18I-040114	3005A, 6020	R	1 mL					
240-35725-Q-3	MSA-MW18I-040114	3005A, 6020	D	1 mL					

Batch Notes	
Filter Paper Lot Number	9546553
Hot Block ID number	hb4
Pipette ID	383363
Digestion Tube/Cup Lot #	1308077

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Batch Number: 125231 Batch Start Date: 04/04/14 07:59 Batch Analyst: McGall, Lisa

Batch Method: 3005A Batch End Date: 04/04/14 17:00

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Batch Number: 125440 Batch Start Date: 04/07/14 07:49 Batch Analyst: McGall, Lisa

Batch Method: 3005A Batch End Date: 04/07/14 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00015	MTICPMSA 00015	MTICPMSB 00015	MTTMHCL 00029
MB 240-125440/1		3005A, 6020		50 mL	50 mL				2.5 mL
LCS 240-125440/3		3005A, 6020		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-35834-I-2	MSA-MW16S-040314	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35834-J-2	MSA-MW16S-040314	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35834-F-3	MSA-MW16I-040314	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35834-G-3	MSA-MW16I-040314	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35834-J-4	MSA-MW47S-040314	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35834-K-4	MSA-MW47S-040314	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35834-G-5	MSA-MW47I-040314	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35834-H-5	MSA-MW47I-040314	3005A, 6020	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027
MB 240-125440/1		3005A, 6020		1 mL
LCS 240-125440/3		3005A, 6020		1 mL
240-35834-I-2	MSA-MW16S-040314	3005A, 6020	R	1 mL
240-35834-J-2	MSA-MW16S-040314	3005A, 6020	D	1 mL
240-35834-F-3	MSA-MW16I-040314	3005A, 6020	R	1 mL
240-35834-G-3	MSA-MW16I-040314	3005A, 6020	D	1 mL
240-35834-J-4	MSA-MW47S-040314	3005A, 6020	R	1 mL
240-35834-K-4	MSA-MW47S-040314	3005A, 6020	D	1 mL
240-35834-G-5	MSA-MW47I-040314	3005A, 6020	R	1 mL
240-35834-H-5	MSA-MW47I-040314	3005A, 6020	D	1 mL

Batch Notes	
Filter Paper Lot Number	9546553
Hot Block ID number	hb0
Pipette ID	383363 383364
Digestion Tube/Cup Lot #	1308077

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Batch Number: 125440 Batch Start Date: 04/07/14 07:49 Batch Analyst: McGall, Lisa

Batch Method: 3005A Batch End Date: 04/07/14 17:00

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Batch Number: 125469 Batch Start Date: 04/07/14 08:52 Batch Analyst: McGall, Lisa

Batch Method: 3005A Batch End Date: 04/07/14 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00015	MTICPMSA 00015	MTICPMSB 00015	MTTMHCL 00029
MB 240-125469/1		3005A, 6020		50 mL	50 mL				2.5 mL
LCS 240-125469/2		3005A, 6020		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-35833-P-3	MSA-MW41I-040414	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35833-P-3 MS	MSA-MW41I-040414	3005A, 6020	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-35833-P-3 MSD	MSA-MW41I-040414	3005A, 6020	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-35833-T-3	MSA-MW41I-040414	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35833-T-3 MS	MSA-MW41I-040414	3005A, 6020	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-35833-T-3 MSD	MSA-MW41I-040414	3005A, 6020	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-35791-K-2	MSA-MW42S-040214	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35791-J-2	MSA-MW42S-040214	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35791-G-3	MSA-MW42I-040214	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35791-F-3	MSA-MW42I-040214	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35791-L-4	MSA-MW46S-040214	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35791-K-4	MSA-MW46S-040214	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35791-H-5	MSA-MW46I-040214	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35791-G-5	MSA-MW46I-040214	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35791-H-6	MSA-MW46D-040214	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35791-G-6	MSA-MW46D-040214	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35833-J-2	MSA-MW41S-040414	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35833-K-2	MSA-MW41S-040414	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-35833-J-4	MSA-MW45S-040414	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-35833-K-4	MSA-MW45S-040414	3005A, 6020	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-125469/1		3005A, 6020		1 mL					
LCS 240-125469/2		3005A, 6020		1 mL					
240-35833-P-3	MSA-MW41I-040414	3005A, 6020	R	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Batch Number: 125469 Batch Start Date: 04/07/14 08:52 Batch Analyst: McGall, Lisa

Batch Method: 3005A Batch End Date: 04/07/14 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
240-35833-P-3 MS	MSA-MW41I-040414	3005A, 6020	R	1 mL					
240-35833-P-3 MSD	MSA-MW41I-040414	3005A, 6020	R	1 mL					
240-35833-T-3	MSA-MW41I-040414	3005A, 6020	D	1 mL					
240-35833-T-3 MS	MSA-MW41I-040414	3005A, 6020	D	1 mL					
240-35833-T-3 MSD	MSA-MW41I-040414	3005A, 6020	D	1 mL					
240-35791-K-2	MSA-MW42S-040214	3005A, 6020	R	1 mL					
240-35791-J-2	MSA-MW42S-040214	3005A, 6020	D	1 mL					
240-35791-G-3	MSA-MW42I-040214	3005A, 6020	R	1 mL					
240-35791-F-3	MSA-MW42I-040214	3005A, 6020	D	1 mL					
240-35791-L-4	MSA-MW46S-040214	3005A, 6020	R	1 mL					
240-35791-K-4	MSA-MW46S-040214	3005A, 6020	D	1 mL					
240-35791-H-5	MSA-MW46I-040214	3005A, 6020	R	1 mL					
240-35791-G-5	MSA-MW46I-040214	3005A, 6020	D	1 mL					
240-35791-H-6	MSA-MW46D-040214	3005A, 6020	R	1 mL					
240-35791-G-6	MSA-MW46D-040214	3005A, 6020	D	1 mL					
240-35833-J-2	MSA-MW41S-040414	3005A, 6020	R	1 mL					
240-35833-K-2	MSA-MW41S-040414	3005A, 6020	D	1 mL					
240-35833-J-4	MSA-MW45S-040414	3005A, 6020	R	1 mL					
240-35833-K-4	MSA-MW45S-040414	3005A, 6020	D	1 mL					

Batch Notes	
Filter Paper Lot Number	9546553
Hot Block ID number	hb2
Pipette ID	383363
Digestion Tube/Cup Lot #	1308077

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Batch Number: 125469 Batch Start Date: 04/07/14 08:52 Batch Analyst: McGall, Lisa

Batch Method: 3005A Batch End Date: 04/07/14 17:00

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Batch Number: 125232 Batch Start Date: 04/04/14 08:10 Batch Analyst: McGall, Lisa

Batch Method: 7470A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00015	MTHGCALW 00606	MTK2S208RGNT 00052	MTKMN04W 00058
MB 240-125232/1		7470A, 7470A		50 mL	50 mL	2.5 mL		4 mL	7.5 mL
LCS 240-125232/2		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL	4 mL	7.5 mL
240-35725-S-2	MSA-MW18S-040114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35725-S-2 MS	MSA-MW18S-040114	7470A, 7470A	T	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-35725-S-2 MSD	MSA-MW18S-040114	7470A, 7470A	T	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-35725-R-2	MSA-MW18S-040114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35725-R-3	MSA-MW18I-040114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35725-Q-3	MSA-MW18I-040114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHN03 00027					
MB 240-125232/1		7470A, 7470A		1.25 mL					
LCS 240-125232/2		7470A, 7470A		1.25 mL					
240-35725-S-2	MSA-MW18S-040114	7470A, 7470A	T	1.25 mL					
240-35725-S-2 MS	MSA-MW18S-040114	7470A, 7470A	T	1.25 mL					
240-35725-S-2 MSD	MSA-MW18S-040114	7470A, 7470A	T	1.25 mL					
240-35725-R-2	MSA-MW18S-040114	7470A, 7470A	D	1.25 mL					
240-35725-R-3	MSA-MW18I-040114	7470A, 7470A	T	1.25 mL					
240-35725-Q-3	MSA-MW18I-040114	7470A, 7470A	D	1.25 mL					

Batch Notes	
Hot Block ID number	c1
Pipette ID	383363 383366
Digestion Tube/Cup Lot #	1309271

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Batch Number: 125232 Batch Start Date: 04/04/14 08:10 Batch Analyst: McGall, Lisa

Batch Method: 7470A Batch End Date:

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Batch Number: 125452 Batch Start Date: 04/07/14 15:30 Batch Analyst: McGall, Lisa

Batch Method: 7470A Batch End Date: 04/07/14 17:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00015	MTHGCALW 00607	MTK2S208RGNT 00052	MTKMN04W 00058
MB 240-125452/1		7470A, 7470A		50 mL	50 mL	2.5 mL		4 mL	7.5 mL
LCS 240-125452/2		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL	4 mL	7.5 mL
240-35834-I-2	MSA-MW16S-040314	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35834-J-2	MSA-MW16S-040314	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35834-F-3	MSA-MW16I-040314	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35834-G-3	MSA-MW16I-040314	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35834-J-4	MSA-MW47S-040314	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35834-K-4	MSA-MW47S-040314	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35834-G-5	MSA-MW47I-040314	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35834-H-5	MSA-MW47I-040314	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-125452/1		7470A, 7470A		1.25 mL					
LCS 240-125452/2		7470A, 7470A		1.25 mL					
240-35834-I-2	MSA-MW16S-040314	7470A, 7470A	T	1.25 mL					
240-35834-J-2	MSA-MW16S-040314	7470A, 7470A	D	1.25 mL					
240-35834-F-3	MSA-MW16I-040314	7470A, 7470A	T	1.25 mL					
240-35834-G-3	MSA-MW16I-040314	7470A, 7470A	D	1.25 mL					
240-35834-J-4	MSA-MW47S-040314	7470A, 7470A	T	1.25 mL					
240-35834-K-4	MSA-MW47S-040314	7470A, 7470A	D	1.25 mL					
240-35834-G-5	MSA-MW47I-040314	7470A, 7470A	T	1.25 mL					
240-35834-H-5	MSA-MW47I-040314	7470A, 7470A	D	1.25 mL					

Batch Notes	
Hot Block ID number	c1
Pipette ID	383363 383366
Digestion Tube/Cup Lot #	1309271

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Batch Number: 125452 Batch Start Date: 04/07/14 15:30 Batch Analyst: McGall, Lisa

Batch Method: 7470A Batch End Date: 04/07/14 17:30

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Batch Number: 125470 Batch Start Date: 04/07/14 15:30 Batch Analyst: McGall, Lisa

Batch Method: 7470A Batch End Date: 04/07/14 17:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00015	MTHGCALW 00607	MTK2S208RGNT 00052	MTKMN04W 00058
MB 240-125470/1		7470A, 7470A		50 mL	50 mL	2.5 mL		4 mL	7.5 mL
LCS 240-125470/2		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL	4 mL	7.5 mL
240-35833-P-3	MSA-MW41I-040414	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35833-P-3 MS	MSA-MW41I-040414	7470A, 7470A	T	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-35833-P-3 MSD	MSA-MW41I-040414	7470A, 7470A	T	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-35833-T-3	MSA-MW41I-040414	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35833-T-3 MS	MSA-MW41I-040414	7470A, 7470A	D	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-35833-T-3 MSD	MSA-MW41I-040414	7470A, 7470A	D	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-35791-K-2	MSA-MW42S-040214	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35791-J-2	MSA-MW42S-040214	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35791-G-3	MSA-MW42I-040214	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35791-F-3	MSA-MW42I-040214	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35791-L-4	MSA-MW46S-040214	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35791-K-4	MSA-MW46S-040214	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35791-H-5	MSA-MW46I-040214	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35791-G-5	MSA-MW46I-040214	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35791-H-6	MSA-MW46D-040214	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35791-G-6	MSA-MW46D-040214	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35833-J-2	MSA-MW41S-040414	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35833-K-2	MSA-MW41S-040414	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35833-J-4	MSA-MW45S-040414	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-35833-K-4	MSA-MW45S-040414	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-125470/1		7470A, 7470A		1.25 mL					
LCS 240-125470/2		7470A, 7470A		1.25 mL					
240-35833-P-3	MSA-MW41I-040414	7470A, 7470A	T	1.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Batch Number: 125470 Batch Start Date: 04/07/14 15:30 Batch Analyst: McGall, Lisa

Batch Method: 7470A Batch End Date: 04/07/14 17:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
240-35833-P-3 MS	MSA-MW41I-040414	7470A, 7470A	T	1.25 mL					
240-35833-P-3 MSD	MSA-MW41I-040414	7470A, 7470A	T	1.25 mL					
240-35833-T-3	MSA-MW41I-040414	7470A, 7470A	D	1.25 mL					
240-35833-T-3 MS	MSA-MW41I-040414	7470A, 7470A	D	1.25 mL					
240-35833-T-3 MSD	MSA-MW41I-040414	7470A, 7470A	D	1.25 mL					
240-35791-K-2	MSA-MW42S-040214	7470A, 7470A	T	1.25 mL					
240-35791-J-2	MSA-MW42S-040214	7470A, 7470A	D	1.25 mL					
240-35791-G-3	MSA-MW42I-040214	7470A, 7470A	T	1.25 mL					
240-35791-F-3	MSA-MW42I-040214	7470A, 7470A	D	1.25 mL					
240-35791-L-4	MSA-MW46S-040214	7470A, 7470A	T	1.25 mL					
240-35791-K-4	MSA-MW46S-040214	7470A, 7470A	D	1.25 mL					
240-35791-H-5	MSA-MW46I-040214	7470A, 7470A	T	1.25 mL					
240-35791-G-5	MSA-MW46I-040214	7470A, 7470A	D	1.25 mL					
240-35791-H-6	MSA-MW46D-040214	7470A, 7470A	T	1.25 mL					
240-35791-G-6	MSA-MW46D-040214	7470A, 7470A	D	1.25 mL					
240-35833-J-2	MSA-MW41S-040414	7470A, 7470A	T	1.25 mL					
240-35833-K-2	MSA-MW41S-040414	7470A, 7470A	D	1.25 mL					
240-35833-J-4	MSA-MW45S-040414	7470A, 7470A	T	1.25 mL					
240-35833-K-4	MSA-MW45S-040414	7470A, 7470A	D	1.25 mL					

Batch Notes	
Hot Block ID number	c2
Pipette ID	383363 383366
Digestion Tube/Cup Lot #	1309271

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Batch Number: 125521 Batch Start Date: 04/07/14 08:35 Batch Analyst: Martin, Aaron

Batch Method: 7470A Batch End Date: 04/07/14 10:35

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00015	MTHGCALW 00607	MTHgStd 00010	MTHNO3 00045
ICV 240-125521/7		7470A, 7470A		50 mL	50 mL	2.5 mL		0.125 mL	1.25 mL
ICB 240-125521/8		7470A, 7470A		50 mL	50 mL	2.5 mL			1.25 mL
CRA 240-125521/9		7470A, 7470A		50 mL	50 mL	2.5 mL	0.1 mL		1.25 mL
CCVL 240-125521/10		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL		1.25 mL
CCV 240-125521/11		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL		1.25 mL
CCB 240-125521/12		7470A, 7470A		50 mL	50 mL	2.5 mL			1.25 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTK2S208RGNT 00052	MTKMN04W 00058				
ICV 240-125521/7		7470A, 7470A		4 mL	7.5 mL				
ICB 240-125521/8		7470A, 7470A		4 mL	7.5 mL				
CRA 240-125521/9		7470A, 7470A		4 mL	7.5 mL				
CCVL 240-125521/10		7470A, 7470A		4 mL	7.5 mL				
CCV 240-125521/11		7470A, 7470A		4 mL	7.5 mL				
CCB 240-125521/12		7470A, 7470A		4 mL	7.5 mL				

Batch Notes	
Hot Block ID number	B1
Pipette ID	383364-383366
Digestion Tube/Cup Lot #	1308077

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG No.:

Project: MSA Groundwater Sampling

Client Sample ID	Lab Sample ID
MSA-MW18S-040114	240-35725-2
MSA-MW18I-040114	240-35725-3

Comments:

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Analyst: JMB Batch Start Date: 03/19/2014

Reporting Units: mg/L Analytical Batch No.: 123157

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
12	ICV	22:57	Chloride	50.8	50.0	102	90-110		WCICLCS_00279
			Sulfate	47.7	50.0	95	90-110		WCICLCS_00279

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Analyst: JMB Batch Start Date: 03/19/2014

Reporting Units: mg/L Analytical Batch No.: 123158

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
12	ICV	22:57	Nitrite as N	2.51	2.50	100	90-110		WCICLCS_00279
			Nitrate as N	2.43	2.50	97	90-110		WCICLCS_00279
			Orthophosphate as P	2.58	2.50	103	90-110		WCICLCS_00279

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Analyst: LCN Batch Start Date: 04/04/2014

Reporting Units: mg/L Analytical Batch No.: 125347

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	16:27	Nitrite as N	2.37	2.50	95	90-110		WCICCCV_00392
2	CCB	16:44	Nitrite as N	0.012				U	
13	CCV	19:44	Nitrite as N	2.42	2.50	97	90-110		WCICCCV_00392
14	CCB	20:00	Nitrite as N	0.012				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Analyst: JMB Batch Start Date: 04/07/2014

Reporting Units: mg/L Analytical Batch No.: 125546

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	15:04	Nitrate as N	2.36	2.50	94	90-110		WCICCCV_00394
			Orthophosphate as P	2.42	2.50	97	90-110		WCICCCV_00394
2	CCB	15:20	Nitrate as N	0.023				U	
			Orthophosphate as P	0.044				U	
13	CCV	18:21	Nitrate as N	2.36	2.50	94	90-110		WCICCCV_00394
			Orthophosphate as P	2.59	2.50	104	90-110		WCICCCV_00394
14	CCB	18:37	Nitrate as N	0.023				U	
			Orthophosphate as P	0.044				U	
25	CCV	21:38	Nitrate as N	2.37	2.50	95	90-110		WCICCCV_00394
			Orthophosphate as P	3.30	2.50	132	90-110		WCICCCV_00394
26	CCB	21:54	Nitrate as N	0.023				U	
			Orthophosphate as P	0.044				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Analyst: LCN Batch Start Date: 04/15/2014

Reporting Units: mg/L Analytical Batch No.: 126589

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	11:00	Chloride	49.8	50.0	100	90-110		WCICCCV_00395
			Sulfate	47.4	50.0	95	90-110		WCICCCV_00395
2	CCB	11:17	Chloride	0.10				U	
			Sulfate	0.12				U	
13	CCV	17:22	Chloride	50.0	50.0	100	90-110		WCICCCV_00395
			Sulfate	47.7	50.0	95	90-110		WCICCCV_00395
14	CCB	17:39	Chloride	0.10				U	
			Sulfate	0.12				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Analyst: JMB Batch Start Date: 04/16/2014

Reporting Units: mg/L Analytical Batch No.: 126724

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	11:18	Chloride	50.4	50.0	101	90-110		WCICCCV_00395
			Sulfate	47.8	50.0	96	90-110		WCICCCV_00395
2	CCB	11:34	Chloride	0.10				U	
			Sulfate	0.12				U	
10	CCV	13:50	Chloride	50.3	50.0	101	90-110		WCICCCV_00395
			Sulfate	47.8	50.0	96	90-110		WCICCCV_00395
11	CCB	14:06	Chloride	0.10				U	
			Sulfate	0.12				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Analyst: JAK Batch Start Date: 04/07/2014

Reporting Units: mg/L Analytical Batch No.: 125534

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
5	ICV	07:56	Ammonia (as N)	14.7	15.3	96	90-110		WCWIBBYNUTRIE_00013
6	ICB	08:26	Ammonia (as N)	0.0262				J	
17	CCV	09:53	Ammonia (as N)	2.60	2.50	104	90-110		WCNH31000_00028
18	CCB	10:21	Ammonia (as N)	0.025				U	
29	CCV	13:04	Ammonia (as N)	2.55	2.50	102	90-110		WCNH31000_00028
30	CCB	13:04	Ammonia (as N)	0.0262				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Analyst: TPH Batch Start Date: 04/07/2014

Reporting Units: mg/L Analytical Batch No.: 125584

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	14:03	Dissolved Organic Carbon	25.9	25.0	104	90-110		WC TOC CCV_00190
2	CCB	14:14	Dissolved Organic Carbon	0.24				U	
9	CCV	16:31	Dissolved Organic Carbon	24.2	25.0	97	90-110		WC TOC CCV_00190
10	CCB	16:42	Dissolved Organic Carbon	0.24				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 125304	Date: 04/04/2014 11:43						
160.1	MB 240-125304/1	Total Dissolved Solids	7.4	U	mg/L	10	1
Batch ID: 125347	Date: 04/04/2014 17:00						
300.0	MB 240-125347/3	Nitrite as N	0.012	U	mg/L	0.10	1
Batch ID: 125546	Date: 04/07/2014 15:37						
300.0	MB 240-125546/3	Nitrate as N	0.023	U	mg/L	0.10	1
300.0	MB 240-125546/3	Orthophosphate as P	0.044	U	mg/L	0.50	1
Batch ID: 126589	Date: 04/15/2014 11:33						
300.0	MB 240-126589/3	Chloride	0.10	U	mg/L	1.0	1
300.0	MB 240-126589/3	Sulfate	0.12	U	mg/L	1.0	1
Batch ID: 126724	Date: 04/16/2014 11:50						
300.0	MB 240-126724/3	Chloride	0.10	U	mg/L	1.0	1
300.0	MB 240-126724/3	Sulfate	0.12	U	mg/L	1.0	1
Batch ID: 125761	Date: 04/08/2014 16:42						
310.1	MB 240-125761/5	Alkalinity	2.05	J	mg/L	5.0	1
Batch ID: 125534	Date: 04/07/2014 08:26						
350.3	MB 240-125534/7	Ammonia (as N)	0.025	U	mg/L	0.20	1
Batch ID: 125584	Date: 04/07/2014 14:25						
9060	MB 240-125584/3	Dissolved Organic Carbon	0.24	U	mg/L	1.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 126589	Date: 04/15/2014 15:27										
300.0	240-35725-2	Chloride	400		mg/L						
300.0	240-35725-2 MS	Chloride	448		mg/L	50.0	91	80-120			4
300.0	240-35725-2	Sulfate	1200		mg/L						E
300.0	240-35725-2 MS	Sulfate	1240		mg/L	50.0	31	80-120			E 4
Batch ID: 126724	Date: 04/16/2014 12:44										
300.0	240-35725-2	Chloride	370		mg/L						
300.0	240-35725-2 MS	Chloride	411		mg/L	50.0	76	80-120			4
300.0	240-35725-2	Sulfate	1100		mg/L						
300.0	240-35725-2 MS	Sulfate	1120		mg/L	50.0	12	80-120			4
Batch ID: 125761	Date: 04/08/2014 18:08										
310.1	240-35725-3	Alkalinity	34		mg/L						B
310.1	240-35725-3 MS	Alkalinity	508		mg/L	500	95	10-160			
Batch ID: 125584	Date: 04/07/2014 15:28										
9060	240-35725-2	Dissolved Organic Carbon	25		mg/L						
9060	240-35725-2 MS	Dissolved Organic Carbon	52.0		mg/L	25.0	109	72-136			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 126589		Date: 04/15/2014 15:44									
300.0	240-35725-2 MSD	Chloride	441		mg/L	50.0	76	80-120	2	20	4
300.0	240-35725-2 MSD	Sulfate	1220		mg/L	50.0	-10	80-120	2	20	E 4
Batch ID: 126724		Date: 04/16/2014 13:01									
300.0	240-35725-2 MSD	Chloride	408		mg/L	50.0	70	80-120	1	20	4
300.0	240-35725-2 MSD	Sulfate	1120		mg/L	50.0	0.3	80-120	1	20	4
Batch ID: 125761		Date: 04/08/2014 18:24									
310.1	240-35725-3 MSD	Alkalinity	514		mg/L	500	96	10-160	1	24	
Batch ID: 125584		Date: 04/07/2014 15:39									
9060	240-35725-2 MSD	Dissolved Organic Carbon	51.5		mg/L	25.0	107	72-136	1	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID:	125304 Date:	04/04/2014 11:43						
160.1	MSA-MW18I-040114	240-35725-3	Total Dissolved Solids	1300	mg/L			
160.1	MSA-MW18I-040114	240-35725-3 DU	Total Dissolved Solids	1300	mg/L	3	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 125304		Date: 04/04/2014 11:43									
						LCS Source: WCWIBBYSOLIDS_00010					
160.1	LCS 240-125304/2	Total Dissolved Solids	593		mg/L	622	95	88-110			
Batch ID: 125347		Date: 04/04/2014 17:16									
						LCS Source: WCICLCS_00281					
300.0	LCS 240-125347/4	Nitrite as N	2.45		mg/L	2.50	98	90-110			
Batch ID: 125546		Date: 04/07/2014 15:53									
						LCS Source: WCICLCS_00282					
300.0	LCS 240-125546/4	Nitrate as N	2.42		mg/L	2.50	97	90-110			
300.0	LCS 240-125546/4	Orthophosphate as P	2.52		mg/L	2.50	101	90-110			
Batch ID: 126589		Date: 04/15/2014 11:49									
						LCS Source: WCICLCS_00284					
300.0	LCS 240-126589/4	Chloride	50.9		mg/L	50.0	102	90-110			
300.0	LCS 240-126589/4	Sulfate	48.2		mg/L	50.0	96	90-110			
Batch ID: 126724		Date: 04/16/2014 12:07									
						LCS Source: WCICLCS_00284					
300.0	LCS 240-126724/4	Chloride	51.1		mg/L	50.0	102	90-110			
300.0	LCS 240-126724/4	Sulfate	48.6		mg/L	50.0	97	90-110			
Batch ID: 125761		Date: 04/08/2014 16:35									
						LCS Source: WCPHENOMINER_00006					
310.1	LCS 240-125761/4	Alkalinity	125		mg/L	120	104	90-127			
Batch ID: 125534		Date: 04/07/2014 08:26									
						LCS Source: WCWIBBYNUTRIE_00013					
350.3	LCS 240-125534/8	Ammonia (as N)	14.5		mg/L	15.3	95	85-114			
Batch ID: 125584		Date: 04/07/2014 14:36									
						LCS Source: WC LCS_00019					
9060	LCS 240-125584/4	Dissolved Organic Carbon	37.5		mg/L	40.8	92	88-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 310.1 MDL Date: 07/12/2013 09:18

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	1.9

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 310.1 XMDL Date: 07/12/2013 09:19

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	1.9

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 160.1 MDL Date: 01/28/2010 09:50

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 160.1 XMDL Date: 01/28/2010 09:51

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: SIMON

Method: 300.0 MDL Date: 01/27/2010 17:40

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Chloride		1	0.1
Nitrate as N		0.1	0.023
Nitrite as N		0.1	0.012
Orthophosphate as P		0.5	0.044
Sulfate		1	0.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: SIMON

Method: 300.0 XMDL Date: 01/27/2010 17:40

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chloride		1	0.1
Nitrate as N		0.1	0.023
Nitrite as N		0.1	0.012
Orthophosphate as P		0.5	0.044
Sulfate		1	0.12

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: DAVE

Method: 350.3 MDL Date: 07/18/2013 13:57

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Ammonia (as N)		0.2	0.025

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: DAVE

Method: 350.3 XMDL Date: 07/18/2013 13:58

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia (as N)		0.2	0.025

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: SPARKY

Method: 9060 MDL Date: 01/27/2010 15:20

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Dissolved Organic Carbon		1	0.24

9-IN

CALIBRATION BLANK DETECTION LIMITS

GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35725-1

SDG Number:

Matrix: Water Instrument ID: SPARKY

Method: 9060 XMDL Date: 01/27/2010 15:20

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon		1	0.24

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: STEVE Analysis Method: 310.1

Start Date: 04/08/2014 16:00 End Date: 04/08/2014 20:21

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
ZZZZZZ			16:00	
RINSE 240-125761/2			16:10	
ZZZZZZ			16:26	
LCS 240-125761/4	1	T	16:35	X
MB 240-125761/5	1	T	16:42	X
ZZZZZZ			16:46	
ZZZZZZ			17:00	
ZZZZZZ			17:10	
ZZZZZZ			17:23	
ZZZZZZ			17:37	
240-35725-2	1	T	17:46	X
240-35725-3	1	T	17:52	X
240-35725-3 MS	1	T	18:08	X
240-35725-3 MSD	1	T	18:24	X
ZZZZZZ			18:33	
ZZZZZZ			18:41	
ZZZZZZ			18:45	
ZZZZZZ			18:54	
ZZZZZZ			19:04	
ZZZZZZ			19:16	
ZZZZZZ			19:39	
ZZZZZZ			19:47	
ZZZZZZ			19:56	
ZZZZZZ			20:17	
ZZZZZZ			20:21	

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 160.1

Start Date: 04/04/2014 11:43 End Date: 04/04/2014 11:43

Lab Sample Id	D/F	Type	Time	Analytes
				TDS
MB 240-125304/1	1	T	11:43	X
LCS 240-125304/2	1	T	11:43	X
ZZZZZZ			11:43	
ZZZZZZ			11:43	
ZZZZZZ			11:43	
ZZZZZZ			11:43	
ZZZZZZ			11:43	
ZZZZZZ			11:43	
ZZZZZZ			11:43	
ZZZZZZ			11:43	
ZZZZZZ			11:43	
ZZZZZZ			11:43	
ZZZZZZ			11:43	
ZZZZZZ			11:43	
240-35725-2	1	T	11:43	X
240-35725-3 DU	1	T	11:43	X
240-35725-3	1	T	11:43	X

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 03/19/2014 19:56 End Date: 03/19/2014 23:13

Lab Sample Id	D/F	Type	Time	Analytes																												
				CL-	SO4																											
RINSE 240-123157/1			19:56																													
STD1 240-123157/2 IC	1		20:12	X	X																											
STD2 240-123157/3 IC	1		20:29	X	X																											
STD3 240-123157/4 IC	1		20:45	X	X																											
STD4 240-123157/5 IC	1		21:02	X	X																											
STD5 240-123157/6 ICRT	1		21:18	X	X																											
STD6 240-123157/7 IC	1		21:34	X	X																											
STD7 240-123157/8 IC	1		21:51	X	X																											
STD8 240-123157/9 IC	1		22:07	X	X																											
STD9 240-123157/10 IC	1		22:24	X	X																											
ZZZZZZ			22:40																													
ICV 240-123157/12	1		22:57	X	X																											
ICB 240-123157/13			23:13																													

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 03/19/2014 19:56 End Date: 03/19/2014 23:13

| Lab Sample Id | D/F | Type | Time | Analytes | | |

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 04/04/2014 16:27 End Date: 04/05/2014 02:18

Lab Sample Id	D/F	Type	Time	Analytes
				N-No2
CCV 240-125347/1	1		16:27	X
CCB 240-125347/2	1		16:44	X
MB 240-125347/3	1	T	17:00	X
LCS 240-125347/4	1	T	17:16	X
ZZZZZZ			17:33	
ZZZZZZ			17:49	
ZZZZZZ			18:06	
ZZZZZZ			18:22	
240-35725-2	1	T	18:38	X
240-35725-3	1	T	18:55	X
CCV 240-125347/13	1		19:44	X
CCB 240-125347/14	1		20:00	X
CCV 240-125347/25			23:01	
CCB 240-125347/26			23:17	
ZZZZZZ			23:34	
ZZZZZZ			23:50	
ZZZZZZ			01:45	
CCV 240-125347/36			02:02	
CCB 240-125347/37			02:18	

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 04/07/2014 15:04 End Date: 04/08/2014 01:11

Lab Sample Id	D/F	Type	Time	Analytes	
				NO3	Orthophosasp
CCV 240-125546/1	1		15:04	X	X
CCB 240-125546/2	1		15:20	X	X
MB 240-125546/3	1	T	15:37	X	X
LCS 240-125546/4	1	T	15:53	X	X
ZZZZZZ			16:10		
ZZZZZZ			16:26		
ZZZZZZ			16:42		
ZZZZZZ			16:59		
ZZZZZZ			17:15		
ZZZZZZ			17:32		
ZZZZZZ			18:04		
CCV 240-125546/13	1		18:21	X	X
CCB 240-125546/14	1		18:37	X	X
ZZZZZZ			18:54		
ZZZZZZ			19:10		
ZZZZZZ			19:26		
240-35725-2	5	T	20:49	X	X
240-35725-3	5	T	21:05	X	X
CCV 240-125546/25	1		21:38	X	X
CCB 240-125546/26	1		21:54	X	X
ZZZZZZ			22:11		
ZZZZZZ			22:27		
ZZZZZZ			22:43		
ZZZZZZ			23:00		
ZZZZZZ			23:16		
CCV 240-125546/37			00:55		
CCB 240-125546/38			01:11		

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 04/15/2014 11:00 End Date: 04/15/2014 23:56

Lab Sample Id	D/F	Type	Time	Analytes	
				Cl-	SO4
CCV 240-126589/1	1		11:00	X	X
CCB 240-126589/2	1		11:17	X	X
MB 240-126589/3	1	T	11:33	X	X
LCS 240-126589/4	1	T	11:49	X	X
240-35725-2	5	T	15:11	X	
240-35725-2 MS	5	T	15:27	X	X
240-35725-2 MSD	5	T	15:44	X	X
240-35725-3	5	T	16:00	X	X
ZZZZZZ			16:16		
ZZZZZZ			16:33		
ZZZZZZ			16:49		
ZZZZZZ			17:06		
CCV 240-126589/13	1		17:22	X	X
CCB 240-126589/14	1		17:39	X	X
ZZZZZZ			17:55		
ZZZZZZ			18:11		
ZZZZZZ			18:28		
ZZZZZZ			18:44		
ZZZZZZ			19:01		
ZZZZZZ			19:17		
ZZZZZZ			19:50		
ZZZZZZ			20:06		
ZZZZZZ			20:23		
CCV 240-126589/25			20:39		
CCB 240-126589/26			20:55		
ZZZZZZ			21:12		
ZZZZZZ			21:28		
ZZZZZZ			21:45		
ZZZZZZ			22:01		
ZZZZZZ			22:18		
ZZZZZZ			22:34		
ZZZZZZ			22:50		
ZZZZZZ			23:07		
ZZZZZZ			23:23		
CCV 240-126589/36			23:40		
CCB 240-126589/37			23:56		

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 04/16/2014 11:18 End Date: 04/16/2014 14:06

Lab Sample Id	D/F	Type	Time	Analytes	
				Cl-	SO4
CCV 240-126724/1	1		11:18	X	X
CCB 240-126724/2	1		11:34	X	X
MB 240-126724/3	1	T	11:50	X	X
LCS 240-126724/4	1	T	12:07	X	X
240-35725-2	10	T	12:23		X
240-35725-2 MS	10	T	12:44	X	X
240-35725-2 MSD	10	T	13:01	X	X
ZZZZZZ			13:17		
ZZZZZZ			13:33		
CCV 240-126724/10	1		13:50	X	X
CCB 240-126724/11	1		14:06	X	X

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: DAVE Analysis Method: 350.3

Start Date: 04/07/2014 07:56 End Date: 04/07/2014 13:46

Lab Sample Id	D/F	Type	Time	Analytes
				NH3
IC 240-125534/1			07:56	X
IC 240-125534/2			07:56	X
IC 240-125534/3			07:56	X
IC 240-125534/4			07:56	X
ICV 240-125534/5	10		07:56	X
ICB 240-125534/6	1		08:26	X
MB 240-125534/7	1	T	08:26	X
LCS 240-125534/8	10	T	08:26	X
ZZZZZZ			08:39	
ZZZZZZ			08:49	
ZZZZZZ			09:05	
ZZZZZZ			09:16	
ZZZZZZ			09:25	
ZZZZZZ			09:30	
ZZZZZZ			09:37	
ZZZZZZ			09:43	
CCV 240-125534/17	1		09:53	X
CCB 240-125534/18	1		10:21	X
ZZZZZZ			10:26	
ZZZZZZ			10:36	
ZZZZZZ			10:43	
ZZZZZZ			10:48	
ZZZZZZ			11:55	
ZZZZZZ			11:55	
ZZZZZZ			11:55	
ZZZZZZ			13:02	
240-35725-2	2	T	13:03	X
240-35725-3	1	T	13:03	X
CCV 240-125534/29	1		13:04	X
CCB 240-125534/30	1		13:04	X
ZZZZZZ			13:09	
ZZZZZZ			13:13	
ZZZZZZ			13:23	
ZZZZZZ			13:23	
CCV 240-125534/35			13:25	
CCB 240-125534/36			13:46	

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35725-1

SDG No.:

Instrument ID: SPARKY Analysis Method: 9060

Start Date: 04/07/2014 14:03 End Date: 04/07/2014 16:42

Lab Sample Id	D/F	Type	Time	Analytes
				DOC
CCV 240-125584/1	1		14:03	X
CCB 240-125584/2	1		14:14	X
MB 240-125584/3	1	D	14:25	X
LCS 240-125584/4	1	D	14:36	X
240-35725-2	1	D	14:47	X
240-35725-2 MS	2	D	15:28	X
240-35725-2 MSD	2	D	15:39	X
240-35725-3	1	D	15:50	X
CCV 240-125584/9	1		16:31	X
CCB 240-125584/10	1		16:42	X

Prep Types:
D = Dissolved

FORM XIII-IN

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE:** **JULY 10, 2014**

FROM: **J. KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / 1,4-DIOXANE / OVG**
ORGANIC DATA VALIDATION – TPH C06-C10 / TPH C10-C32 / PERCHLORATE
INORGANIC DATA VALIDATION – TOTAL & DISSOLVED METALS / MISC
LOCKHEED MARTIN STATE AIRPORT (MSA)
SAMPLE DELIVERY GROUP (SDG) 240-35913-1

SAMPLES: 13 / Aqueous - VOC

MSA-DMW7S-040714	MSA-MW-14D-040914	MSA-MW-14I-040914
MSA-MW-48D-040914	MSA-MW-48I-040914	MSA-MW17D-040814
MSA-MW17I-040814	MSA-MW17S-040814	MSA-MW47D-040814
MSA-MW5-040714	TB-040714	TB-040814
TB-040914		

9 / Aqueous – 1.4-Dioxane

MSA-DMW7S-040714	MSA-MW-14D-040914	MSA-MW-14I-040914
MSA-MW-48D-040914	MSA-MW17D-040814	MSA-MW17I-040814
MSA-MW17S-040814	MSA-MW47D-040814	MSA-MW5-040714

3 / Aqueous - TPH C06-C10 / TPH C10-C32

MSA-DMW7S-040714	MSA-MW17S-040814	MSA-MW5-040714

4 / Aqueous - Perchlorate

MSA-MW-48D-040914	MSA-MW-48I-040914	MSA-MW17I-040814
MSA-MW47D-040814		

2 / Aqueous - OVG / Miscellaneous Parameters / Metals - K, Mg, Ca, Na & SiO2

MSA-MW-48D-040914	MSA-MW-48I-040914

10 / Aqueous – Total & Dissolved Metals

MSA-DMW7S-040714	MSA-MW-14D-040914	MSA-MW-14I-040914
MSA-MW-48D-040914	MSA-MW-48I-040914	MSA-MW17D-040814
MSA-MW17I-040814	MSA-MW17S-040814	MSA-MW47D-040814
MSA-MW5-040714		

Overview

The sample set for Lockheed MSA, SDG 240-35913-1, consisted of thirteen (13) aqueous samples including three (3) aqueous trip blank samples. All samples were analyzed for volatile organic compounds (VOCs) as listed above. Nine (9) aqueous samples were analyzed for the semi-volatile organic compound (SVOC) 1,4-dioxane as listed above. Three (3) aqueous samples were analyzed for the total petroleum hydrocarbons (TPH) TPH C06-C10 & TPH C10-C32 as listed above. Four (4) aqueous samples were analyzed for perchlorate as listed above. Two (2) aqueous samples were analyzed for organic volatile

compounds (OVG) as listed above. Ten (10) aqueous samples were analyzed for total and dissolved metals as listed above. In addition, two (2) samples were analyzed for the miscellaneous parameters of dissolved organic carbon, hardness, calcium hardness, magnesium hardness, total dissolved solids, anions (chloride, sulfate, nitrite as N, nitrate as N, orthophosphate as phosphorus), alkalinity, and ammonia as well as the additional metal analytes potassium, magnesium, calcium, sodium and silica dioxide as listed above. No field duplicate sample pairs were included in the sample delivery group (SDG).

The samples were collected by Tetra Tech on April 7, 8 and 9, 2014 and analyzed by TestAmerica Laboratories, Inc., North Canton for all analyses. All analyses were conducted in accordance with EPA SW-846 Methods 8260C for VOCs, 8270C for 1,4-dioxane, 8015B for TPH C06-C10 & TPH C10-C32, 6850 for perchlorate, RSK-175 for OVG, 6010C & 6020 for metals, 7470A for mercury, 9060 for dissolved organic carbon (DOC), EPA Standard Method (SM) 2340B for total hardness, EPA Methods 600.1 for total dissolved solids (TDS), 300.0 for anions, 310.1 for alkalinity, and 350.3 for ammonia-N, analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, blank results, blank spike/blank spike duplicate results, matrix spike/matrix spike duplicate results, surrogate spike recoveries, internal standard recoveries, chromatographic resolution, ICP interference results, laboratory duplicate results, ICP serial dilution results, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major Problems

- The matrix spike (MS) and MS duplicate (MSD) percent recoveries (%Rs) were less than the quality control limit at 0% for 2-chloroethyl vinyl ether for sample MSA-MW17D-040814.
  Affected Sample: MSA-MW17D-040814
  Actions: The sample non-detected 2-chloroethyl vinyl ether result was qualified rejected, (UR).

Minor Problems

- Detected results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

- The VOC continuing calibration verification (CCV) percent differences (%Ds) were greater than the 20% quality control limit for trichlorofluoromethane, 1,3-dichloropropane, 1,1,2,2-tetrachloroethane, and 1,2,3-triichloropropane for instrument A3UX10 on 04/21/14 @ 10:59.
  Affected Samples:
  MSA-MW-14D-040914 MSA-MW-14I-040914 MSA-MW-48D-040914
  MSA-MW-48I-040914 TB-040914
  Action: The sample non-detected aforementioned analyte results were qualified estimated, (UJ).

- The VOC CCV %Ds were greater than the 20% quality control limit for bromomethane, trichlorofluoromethane, tert-butyl alcohol, dibromomethane, sec-butyl benzene, and n-butylbenzene for instrument A3UX12 on 04/14/14 @ 12:16.
  Affected Samples:
  MSA-DMW7S-040714 MSA-MW17D-040814 MSA-MW17I-040814
  MSA-MW17S-040814 MSA-MW47D-040814 MSA-MW5-040714
  TB-040714 TB-040814
  Action: The sample non-detected aforementioned analyte results were qualified estimated, (UJ).

- The laboratory control sample (LCS) percent recoveries (%Rs) for 1,4-dioxane were less than the quality control limit for batch samples 240-126143 and 240-126314 affecting the samples listed below.

  Affected Samples:

MSA-MW17D-040814	MSA-MW17I-040814	MSA-MW17S-040814
MSA-MW47D-040814	MSA-MW-14D-040914	MSA-MW-14I-040914
MSA-MW-48D-040914		

  Actions: The sample detected and non-detected 1,4-dioxane results were qualified estimated, (J) and (UJ), respectively.

- The metal CCV %D for molybdenum for CCV 240-126699/102 was greater than the 110% quality control limit for instrument I10 on 04/15/14 @ 16:46.

  Affected Total and Dissolved Samples:

MSA-MW17S-040814	MSA-MW-14I-040914	MSA-MW-14D-040914
MSA-MW-48D-040914	MSA-MW-48I-040914	

  Action: The sample total and dissolved non-detected molybdenum results were qualified estimated, (UJ), except where qualified non-detected for blank contamination.

- The following contaminants were detected in the preparation or calibration blanks at the following maximum concentrations:

Analyte	Maximum Conc. µg/	Action Level µg/
Potassium [1]	102	510
Antimony [2]	0.623	3.115
Beryllium [2]	0.0770	0.385
Nickel [2]	0.0970	0.485
Silver [2]	0.0190	0.095
Antimony [3]	0.802	4.010
Beryllium [3]	0.148	0.740
Cobalt [3]	0.0220	0.110
Iron [3]	12.4	62.0
Lead [3]	0.182	0.910
Silver [3]	0.0170	0.0850
Antimony [4]	0.542	2.71
Beryllium [4]	0.0710	0.355
Cobalt [4]	0.0200	0.100
Molybdenum [4]	1.63	8.15
Silver [4]	0.0100	0.0500
Arsenic [5]	0.344	1.72
Barium [5]	1.01	5.05
Copper [5]	1.57	7.85
Nickel [5]	0.102	0.510
Lead [5]	0.142	0.710
Vanadium [5]	0.754	3.77
Silver [5]	0.0240	0.120
Arsenic [6]	0.472	2.36
Barium [6]	1.23	6.15
Copper [6]	0.911	4.555

Iron [6]	58.5	292.5
Manganese [6]	1.18	5.90
Lead [6]	0.197	0.985
Vanadium [6]	0.445	2.225
Arsenic [7]	0.652	3.26
Barium [7]	1.48	7.40
Calcium [7]	308	1540
Copper [7]	0.961	4.805
Magnesium [7]	67.4	337
Iron [7]	15.0	75
Nickel [7]	0.112	0.560
Lead [7]	0.207	1.035
Vanadium [7]	0.742	3.71
Silver [7]	0.018	0.090

(1) Maximum concentration found in continuing calibration blank CCB 240-126579/31 affecting total metals for samples MSA-MW-48D-040914 and MSA-MW-48I-040914.
(2) Maximum concentration found in CCBs affecting total and dissolved metals for samples MSA-DMW7S-040714 and MSA-MW5-040714.
(3) Maximum concentration found in CCBs affecting total and dissolved metals for samples MSA-MW17D-040814, MSA-MW17I-040814, and MSA-MW47D-040814.
(4) Maximum concentration found in CCBs affecting total and dissolved metals for samples MSA-MW17S-040814, MSA-MW-14D-040914, MSA-MW-14I-040914, MSA-MW-48D-040914 and MSA-MW-48I-040914.
(5) Maximum concentration found in preparation blank MB 240-125933/1-A affecting total and dissolved samples MSA-DMW7S-040714 and MSA-MW5-040714.
(6) Maximum concentration found in preparation blank MB 240-126116/1-A affecting total and dissolved samples MSA-MW17D-040814, MSA-MW17I-040814, and MSA-MW47D-040814.
(7) Maximum concentration found in preparation blank MB 240-126332/1-A affecting total and dissolved samples MSA-MW17S-040814, MSA-MW-14D-040914, MSA-MW-14I-040914, MSA-MW-48D-040914 and MSA-MW-48I-040914.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors were taken into consideration when evaluating for blank contamination. Sample analyte results less than the action level were qualified non-detected, (U), for blank.

- The serial dilution %D was greater than 10% for cobalt, iron, manganese, and nickel for the total metals sample MSA-MW17D-040814. All total and dissolved sample detected cobalt, iron, manganese, and nickel results were qualified estimated, (J), except where qualified non-detected for blank contamination.

- The interfering analyte iron was present in the total and dissolved samples MSA-MW-14I-040914 at concentrations comparable to the concentration of iron in the interference check sample (ICS) solution. Several analytes namely, antimony, arsenic, cadmium, chromium, manganese, nickel, and silver were present in the ICS solution at a concentration that exceeded the absolute value of the instrument detection limit (IDL). Interference effects exist for cadmium, chromium, and nickel in total and dissolved samples MSA-MW-14I-040914. The detected and non-detected results reported for cadmium, chromium, and nickel in total and dissolved samples MSA-MW-14I-040914 were qualified as estimated, (J) and (UJ), respectively.

- TPH C6-C10 results were qualified in samples MSA-DMW7S-040714 and MSA-MW5-040714 because contain high concentrations of chlorinated organic compounds as reported in the volatile organic fraction analysis. The compounds vinyl chloride, cis-1,2-dichloroethene, and/or trichloroethene were detected and reported at high concentrations in the aforementioned samples. While reviewing the petroleum hydrocarbon results, the data reviewer noticed that the parameter TPH (C06-C10) was also reported in the aforementioned samples at concentrations between 54 and 0.98 mg/L. Because of the presence of the chlorinated compounds in the samples, the reported concentrations of TPH (C06-C10) in samples MSA-DMW7S-040714 and MSA-MW5-040714 likely contain contribution from chlorinated organic compounds thus elevating the concentrations of TPH (C06-C10). The results for TPH (C06-C10) in both samples are qualified as estimated, J.

Notes

The VOC LCS %R was greater than the quality control limit for dibromomethane for LCS 240-126390. No validation action was taken as all affected samples had non-detected dibromomethane results.

The VOC matrix spike (MS) %R was greater than the quality control limit for dibromomethane for sample MSA-MW17D-040814. No action was taken as the MS duplicate (MSD) %R was compliant and the sample dibromomethane result was non-detected.

The laboratory VOC contaminant methylene chloride was detected in the trip blank samples TB-040714 and TB-040814 affecting all VOC samples. No action was taken as all samples had non-detected results for methylene chloride.

The laboratory contaminant TPH C06-C10 was detected in the method blank sample MB 240-127165 affecting sample MSA-DMW7S-040714 for TPH C06-C10. The sample had a very high concentration for TPC C06-C10 and was not qualified for method blank contamination.

The OVG laboratory contaminant methane was detected in the method blank sample MB 240-127844 at the maximum concentration of 0.104 µg/l affecting OVG samples MSA-MW-48D-040914 and MSA-MW-48I-040914. An action level of five times the maximum level for the OVG contamination was used to evaluate the sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. No validation action was necessary.

The alkalinity method blank for batch 126654 had a result of 1.92 mg/l affecting the samples MSA-MW-48D-040914 and MSA-MW-48I-040914. No action was taken on the associated sample for this water quality parameter.

Samples were diluted as listed below for the VOC analysis resulting in elevated levels reported for non-detected VOC analytes.

Sample	Dilution
MSA-DMW7S-040714	200X
MSA-MW-14I-040914	40X
MSA-MW-48D-040914	5.71X
MSA-MW-48I-040914	166.67X
MSA-MW17I-040814	11.11X
MSA-MW47D-040814	5.71X
MSA-MW5-040714	83.3X

Sample MSA-DMW7S-040714 was diluted 5X and sample MSA-MW-14I-040914 was diluted 2X for the 1,4-dioxane analysis.

Sample MSA-DMW7S-040714 was diluted 5X for the TPH C06-C10 analysis.

Samples MSA-MW-48D-040914 and MSA-MW-48I-040914 were diluted 5X for the sulfate analysis.

Sample analyte results were reported to the Method Detection Limit (MDL).

EXECUTIVE SUMMARY

Laboratory Performance Issues: VOC sample results were qualified for CCV %D and LCS %R non-compliances. Metal sample results were qualified for a CCV %D and serial dilution non-compliances and blank contamination. A sample alkalinity result was qualified for blank contamination.

Other Factors Affecting Data Quality: Detected results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J). A sample VOC non-detected result for 2-chloroethyl vinyl ether was rejected due to 0% MS/MSD recoveries. Metal samples were qualified for interfering analytes.

The data for these analyses were reviewed with reference to EPA SW-846 Methods 8260C, 8270C, 8015B, 6850, RSK-175, 6010C & 6020, 7470A, 9060, EPA SM 2340B, EPA Methods 600.1, 300.0, 310.1, 350.3, and the USEPA National Functional Guidelines for Organic Data Validation (June 2008), and the USEPA National Functional Guidelines for Inorganic Data Validation (January 2010)..

for Tetra Tech
Joseph Kalinyak
Data Validator/Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 06183	NSAMPLE	MSA-DMW7S-040714			MSA-MW-14D-040914			MSA-MW-14I-040914			MSA-MW17D-040814		
SDG: 240-35913-1	LAB_ID	240-35913-2			240-36043-2			240-36043-1			240-36010-4		
FRACTION: OV	SAMP_DATE	4/7/2014			4/9/2014			4/9/2014			4/8/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	46	U		0.23	U		9.2	U		0.23	U	
1,1,1-TRICHLOROETHANE	100	J	P	0.22	U		8.8	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE	36	U		0.18	UJ	C	7.2	UJ	C	0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	56	U		0.28	U		11	U		0.28	U	
1,1-DICHLOROETHANE	49	J	P	0.15	U		6	U		0.15	U	
1,1-DICHLOROETHENE	98	J	P	0.19	U		7.6	U		0.19	U	
1,1-DICHLOROPROPENE	26	U		0.13	U		5.2	U		0.13	U	
1,2,3-TRICHLOROBENZENE	34	U		0.17	U		6.8	U		0.17	U	
1,2,3-TRICHLOROPROPANE	86	U		0.43	UJ	C	17	UJ	C	0.43	U	
1,2,3-TRIMETHYLBENZENE	1.2	U		0.0059	U		0.24	U		0.0059	U	
1,2,4-TRICHLOROBENZENE	30	U		0.15	U		6	U		0.15	U	
1,2,4-TRIMETHYLBENZENE	24	U		0.12	U		4.8	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE	130	U		0.67	U		27	U		0.67	U	
1,2-DIBROMOETHANE	48	U		0.24	U		9.6	U		0.24	U	
1,2-DICHLOROBENZENE	26	U		0.13	U		5.2	U		0.13	U	
1,2-DICHLOROETHANE	44	U		0.22	U		8.8	U		0.22	U	
1,2-DICHLOROPROPANE	36	U		0.18	U		7.2	U		0.18	U	
1,3-DICHLOROBENZENE	28	U		0.14	U		5.6	U		0.14	U	
1,3-DICHLOROPROPANE	32	U		0.16	UJ	C	6.4	UJ	C	0.16	U	
1,4-DICHLOROBENZENE	26	U		0.13	U		5.2	U		0.13	U	
2,2-DICHLOROPROPANE	26	U		0.13	U		5.2	U		0.13	U	
2-BUTANONE	110	U		0.57	U		23	U		0.57	U	
2-CHLOROETHYL VINYL ETHER	200	U		0.99	U		40	U		0.99	UR	D
2-CHLOROTOLUENE	22	U		0.11	U		4.4	U		0.11	U	
2-HEXANONE	82	U		0.41	U		16	U		0.41	U	
4-CHLOROTOLUENE	36	U		0.18	U		7.2	U		0.18	U	
4-ISOPROPYLTOLUENE	24	U		0.12	U		4.8	U		0.12	U	
4-METHYL-2-PENTANONE	64	U		0.32	U		13	U		0.32	U	
ACETONE	220	U		1.2	J	P	44	U		1.1	U	
BENZENE	26	U		0.13	U		12	J	P	0.13	U	
BROMOBENZENE	26	U		0.13	U		5.2	U		0.13	U	
BROMOCHLOROMETHANE	58	U		0.29	U		12	U		0.29	U	
BROMODICHLOROMETHANE	30	U		0.15	U		6	U		0.15	U	
BROMOFORM	130	U		0.64	U		26	U		0.64	U	
BROMOMETHANE	82	UJ	C	0.41	U		16	U		0.41	UJ	C
CARBON DISULFIDE	26	U		0.13	U		5.2	U		0.13	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW17I-040814			MSA-MW17S-040814			MSA-MW47D-040814			MSA-MW-48D-040914		
SDG: 240-35913-1	LAB_ID	240-36010-3			240-36010-2			240-36010-5			240-36043-4		
FRACTION: OV	SAMP_DATE	4/8/2014			4/8/2014			4/8/2014			4/9/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	2.6	U		0.23	U		1.3	U		1.3	U	
1,1,1-TRICHLOROETHANE	2.4	U		0.22	U		1.3	U		1.3	U	
1,1,2,2-TETRACHLOROETHANE	2	U		0.18	U		1	U		1	UJ	C
1,1,2-TRICHLOROTRIFLUOROETHANE	3.1	U		0.28	U		1.6	U		1.6	U	
1,1-DICHLOROETHANE	1.7	U		0.15	U		0.86	U		0.86	U	
1,1-DICHLOROETHENE	2.1	U		0.19	U		1.1	U		1.1	U	
1,1-DICHLOROPROPENE	1.4	U		0.13	U		0.74	U		0.74	U	
1,2,3-TRICHLOROBENZENE	1.9	U		0.17	U		0.97	U		0.97	U	
1,2,3-TRICHLOROPROPANE	4.8	U		0.43	U		2.5	U		2.5	UJ	C
1,2,3-TRIMETHYLBENZENE	0.066	U		0.0059	U		0.034	U		0.034	U	
1,2,4-TRICHLOROBENZENE	1.7	U		0.15	U		0.86	U		0.86	U	
1,2,4-TRIMETHYLBENZENE	1.3	U		0.12	U		0.69	U		0.69	U	
1,2-DIBROMO-3-CHLOROPROPANE	7.4	U		0.67	U		3.8	U		3.8	U	
1,2-DIBROMOETHANE	2.7	U		0.24	U		1.4	U		1.4	U	
1,2-DICHLOROBENZENE	1.4	U		0.13	U		0.74	U		0.74	U	
1,2-DICHLOROETHANE	2.4	U		0.22	U		3.6	J	P	2.7	J	P
1,2-DICHLOROPROPANE	2	U		0.18	U		1	U		1	U	
1,3-DICHLOROBENZENE	1.6	U		0.14	U		0.8	U		0.8	U	
1,3-DICHLOROPROPANE	1.8	U		0.16	U		0.91	U		0.91	UJ	C
1,4-DICHLOROBENZENE	1.4	U		0.13	U		0.74	U		0.74	U	
2,2-DICHLOROPROPANE	1.4	U		0.13	U		0.74	U		0.74	U	
2-BUTANONE	6.3	U		0.57	U		3.3	U		3.3	U	
2-CHLOROETHYL VINYL ETHER	11	U		0.99	U		5.7	U		5.7	U	
2-CHLOROTOLUENE	1.2	U		0.11	U		0.63	U		0.63	U	
2-HEXANONE	4.6	U		0.41	U		2.3	U		2.3	U	
4-CHLOROTOLUENE	2	U		0.18	U		1	U		1	U	
4-ISOPROPYLTOLUENE	1.3	U		0.12	U		0.69	U		0.69	U	
4-METHYL-2-PENTANONE	3.6	U		0.32	U		1.8	U		1.8	U	
ACETONE	12	U		1.1	U		6.3	U		6.3	U	
BENZENE	1.4	U		0.2	J	P	0.74	U		0.96	J	P
BROMOBENZENE	1.4	U		0.13	U		0.74	U		0.74	U	
BROMOCHLOROMETHANE	3.2	U		0.29	U		1.7	U		1.7	U	
BROMODICHLOROMETHANE	1.7	U		0.15	U		0.86	U		0.86	U	
BROMOFORM	7.1	U		0.64	U		3.7	U		3.7	U	
BROMOMETHANE	4.6	UJ	C	0.41	UJ	C	2.3	UJ	C	2.3	U	
CARBON DISULFIDE	1.4	U		0.13	U		0.74	U		0.74	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-48I-040914			MSA-MW5-040714			TB-040714			TB-040814		
SDG: 240-35913-1	LAB_ID	240-36043-3			240-35913-3			240-35913-1			240-36010-1		
FRACTION: OV	SAMP_DATE	4/9/2014			4/7/2014			4/7/2014			4/8/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	38	U		19	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE	37	U		18	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE	30	UJ	C	15	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	47	U		23	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE	25	U		12	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE	32	U		16	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE	22	U		11	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE	28	U		14	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE	72	UJ	C	36	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE	0.98	U		0.49	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE	88	J	P	12	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE	20	U		10	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE	110	U		56	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE	40	U		20	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE	22	U		11	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE	37	U		18	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE	30	U		15	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE	23	U		12	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE	27	UJ	C	13	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE	22	U		11	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE	22	U		11	U		0.13	U		0.13	U	
2-BUTANONE	95	U		47	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER	170	U		82	U		0.99	U		0.99	U	
2-CHLOROTOLUENE	18	U		9.2	U		0.11	U		0.11	U	
2-HEXANONE	68	U		34	U		0.41	U		0.41	U	
4-CHLOROTOLUENE	30	U		15	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE	20	U		10	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE	53	U		27	U		0.32	U		0.32	U	
ACETONE	180	U		92	U		1.1	U		1.1	U	
BENZENE	22	U		11	U		0.13	U		0.13	U	
BROMOBENZENE	22	U		11	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE	48	U		24	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE	25	U		12	U		0.15	U		0.15	U	
BROMOFORM	110	U		53	U		0.64	U		0.64	U	
BROMOMETHANE	68	U		34	UJ	C	0.41	UJ	C	0.41	UJ	C
CARBON DISULFIDE	22	U		11	U		0.13	U		0.13	U	

PROJ_NO: 06183	NSAMPLE	TB-040914
SDG: 240-35913-1	LAB_ID	240-36043-5
FRACTION: OV	SAMP_DATE	4/9/2014
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	0.23	U	
1,1,1-TRICHLOROETHANE	0.22	U	
1,1,2,2-TETRACHLOROETHANE	0.18	UJ	C
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28	U	
1,1-DICHLOROETHANE	0.15	U	
1,1-DICHLOROETHENE	0.19	U	
1,1-DICHLOROPROPENE	0.13	U	
1,2,3-TRICHLOROBENZENE	0.17	U	
1,2,3-TRICHLOROPROPANE	0.43	UJ	C
1,2,3-TRIMETHYLBENZENE	0.0059	U	
1,2,4-TRICHLOROBENZENE	0.15	U	
1,2,4-TRIMETHYLBENZENE	0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE	0.67	U	
1,2-DIBROMOETHANE	0.24	U	
1,2-DICHLOROBENZENE	0.13	U	
1,2-DICHLOROETHANE	0.22	U	
1,2-DICHLOROPROPANE	0.18	U	
1,3-DICHLOROBENZENE	0.14	U	
1,3-DICHLOROPROPANE	0.16	UJ	C
1,4-DICHLOROBENZENE	0.13	U	
2,2-DICHLOROPROPANE	0.13	U	
2-BUTANONE	0.57	U	
2-CHLOROETHYL VINYL ETHER	0.99	U	
2-CHLOROTOLUENE	0.11	U	
2-HEXANONE	0.41	U	
4-CHLOROTOLUENE	0.18	U	
4-ISOPROPYLTOLUENE	0.12	U	
4-METHYL-2-PENTANONE	0.32	U	
ACETONE	1.1	U	
BENZENE	0.13	U	
BROMOBENZENE	0.13	U	
BROMOCHLOROMETHANE	0.29	U	
BROMODICHLOROMETHANE	0.15	U	
BROMOFORM	0.64	U	
BROMOMETHANE	0.41	U	
CARBON DISULFIDE	0.13	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW7S-040714			MSA-MW-14D-040914			MSA-MW-14I-040914			MSA-MW17D-040814		
SDG: 240-35913-1	LAB_ID	240-35913-2			240-36043-2			240-36043-1			240-36010-4		
FRACTION: OV	SAMP_DATE	4/7/2014			4/9/2014			4/9/2014			4/8/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON TETRACHLORIDE	26	U		0.13	U		5.2	U		0.13	U	
CHLOROBENZENE	30	U		0.15	U		190			0.15	U	
CHLORODIBROMOMETHANE	36	U		0.18	U		7.2	U		0.18	U	
CHLOROETHANE	58	U		0.29	U		12	U		0.29	U	
CHLOROFORM	32	U		0.16	U		6.4	U		0.16	U	
CHLOROMETHANE	60	U		0.3	U		12	U		0.3	U	
CIS-1,2-DICHLOROETHENE	14000			0.17	U		1200			0.17	U	
CIS-1,3-DICHLOROPROPENE	28	U		0.14	U		5.6	U		0.14	U	
DIBROMOMETHANE	56	UJ	C	0.28	U		11	U		0.28	UJ	C
DICHLORODIFLUOROMETHANE	62	U		0.31	U		12	U		0.31	U	
DIISOPROPYL ETHER	300	U		1.5	U		60	U		1.5	U	
ETHYL TERT-BUTYL ETHER	22	U		0.11	U		4.4	U		0.11	U	
ETHYLBENZENE	34	U		0.17	U		6.8	U		0.17	U	
HEXACHLOROBUTADIENE	60	U		0.3	U		12	U		0.3	U	
ISOPROPYLBENZENE	26	U		0.13	U		5.2	U		0.13	U	
M+P-XYLENES	48	U		0.24	U		9.6	U		0.24	U	
METHYL TERT-BUTYL ETHER	34	U		0.17	U		6.8	U		0.17	U	
METHYLENE CHLORIDE	66	U		0.33	U		13	U		0.33	U	
NAPHTHALENE	48	U		0.24	U		9.6	U		0.24	U	
N-BUTYLBENZENE	24	UJ	C	0.12	U		4.8	U		0.12	UJ	C
N-PROPYLBENZENE	28	U		0.14	U		5.6	U		0.14	U	
O-XYLENE	28	U		0.14	U		5.6	U		0.14	U	
SEC-BUTYLBENZENE	26	UJ	C	0.13	U		5.2	U		0.13	UJ	C
STYRENE	22	U		0.11	U		4.4	U		0.11	U	
TERT-AMYL METHYL ETHER	13	U		0.067	U		2.7	U		0.067	U	
TERT-BUTYLBENZENE	26	U		0.13	U		5.2	U		0.13	U	
TERTIARY-BUTYL ALCOHOL	780	UJ	C	3.9	U		280	J	P	3.9	UJ	C
TETRACHLOROETHENE	58	U		0.29	U		12	U		0.29	U	
TOLUENE	30	J	P	0.13	U		6	J	P	0.13	U	
TOTAL XYLENES	28	U		0.14	U		5.6	U		0.14	U	
TRANS-1,2-DICHLOROETHENE	100	J	P	0.19	U		11	J	P	0.19	U	
TRANS-1,3-DICHLOROPROPENE	38	U		0.19	U		7.6	U		0.19	U	
TRICHLOROETHENE	3600			0.17	U		10	J	P	0.45	J	P
TRICHLOROFLUOROMETHANE	42	UJ	C	0.21	UJ	C	8.4	UJ	C	0.21	UJ	C
VINYL ACETATE	38	U		0.19	U		7.6	U		0.19	U	
VINYL CHLORIDE	2100			0.22	U		1200			0.22	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW17I-040814			MSA-MW17S-040814			MSA-MW47D-040814			MSA-MW-48D-040914		
SDG: 240-35913-1	LAB_ID	240-36010-3			240-36010-2			240-36010-5			240-36043-4		
FRACTION: OV	SAMP_DATE	4/8/2014			4/8/2014			4/8/2014			4/9/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON TETRACHLORIDE	1.4	U		0.13	U		2.1	J	P	0.74	U	
CHLOROBENZENE	1.7	U		0.15	U		0.86	U		0.86	U	
CHLORODIBROMOMETHANE	2	U		0.18	U		1	U		1	U	
CHLOROETHANE	3.2	U		0.29	U		1.7	U		1.7	U	
CHLOROFORM	1.8	U		0.16	U		19			0.91	U	
CHLOROMETHANE	3.3	U		0.3	U		1.7	U		1.7	U	
CIS-1,2-DICHLOROETHENE	84			0.87	J	P	38			100		
CIS-1,3-DICHLOROPROPENE	1.6	U		0.14	U		0.8	U		0.8	U	
DIBROMOMETHANE	3.1	UJ	C	0.28	UJ	C	1.6	UJ	C	1.6	U	
DICHLORODIFLUOROMETHANE	3.4	U		0.31	U		1.8	U		1.8	U	
DIISOPROPYL ETHER	17	U		1.5	U		8.6	U		8.6	U	
ETHYL TERT-BUTYL ETHER	1.2	U		0.11	U		0.63	U		0.63	U	
ETHYLBENZENE	1.9	U		0.17	U		0.97	U		0.97	U	
HEXACHLOROBUTADIENE	3.3	U		0.3	U		1.7	U		1.7	U	
ISOPROPYLBENZENE	1.4	U		0.13	U		0.74	U		0.74	U	
M+P-XYLENES	2.7	U		0.24	U		1.4	U		1.4	U	
METHYL TERT-BUTYL ETHER	1.9	U		0.17	U		0.97	U		0.97	U	
METHYLENE CHLORIDE	3.7	U		0.33	U		1.9	U		1.9	U	
NAPHTHALENE	2.7	U		0.24	U		1.4	U		1.4	U	
N-BUTYLBENZENE	1.3	UJ	C	0.12	UJ	C	0.69	UJ	C	0.69	U	
N-PROPYLBENZENE	1.6	U		0.14	U		0.8	U		0.8	U	
O-XYLENE	1.6	U		0.14	U		0.8	U		0.8	U	
SEC-BUTYLBENZENE	1.4	UJ	C	0.13	UJ	C	0.74	UJ	C	0.74	U	
STYRENE	1.2	U		0.11	U		0.63	U		0.63	U	
TERT-AMYL METHYL ETHER	0.74	U		0.067	U		0.38	U		0.38	U	
TERT-BUTYLBENZENE	1.4	U		0.13	U		0.74	U		0.74	U	
TERTIARY-BUTYL ALCOHOL	43	UJ	C	3.9	UJ	C	22	UJ	C	22	U	
TETRACHLOROETHENE	3.2	U		0.29	U		1.7	U		1.7	U	
TOLUENE	1.4	U		0.13	U		0.74	U		1.5	J	P
TOTAL XYLENES	1.6	U		0.14	U		0.8	U		0.8	U	
TRANS-1,2-DICHLOROETHENE	2.1	U		0.19	U		1.1	U		1.3	J	P
TRANS-1,3-DICHLOROPROPENE	2.1	U		0.19	U		1.1	U		1.1	U	
TRICHLOROETHENE	750			0.17	U		360			180		
TRICHLOROFLUOROMETHANE	2.3	UJ	C	0.21	UJ	C	1.2	UJ	C	1.2	UJ	C
VINYL ACETATE	2.1	U		0.19	U		1.1	U		1.1	U	
VINYL CHLORIDE	6.9	J	P	7.3			3.3	J	P	32		

PROJ_NO: 06183	NSAMPLE	MSA-MW-48I-040914			MSA-MW5-040714			TB-040714			TB-040814		
SDG: 240-35913-1	LAB_ID	240-36043-3			240-35913-3			240-35913-1			240-36010-1		
FRACTION: OV	SAMP_DATE	4/9/2014			4/7/2014			4/7/2014			4/8/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON TETRACHLORIDE		22	U		11	U		0.13	U		0.13	U	
CHLOROBENZENE		25	U		12	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		30	U		15	U		0.18	U		0.18	U	
CHLOROETHANE		48	U		24	U		0.29	U		0.29	U	
CHLOROFORM		27	U		13	U		0.16	U		0.16	U	
CHLOROMETHANE		50	U		25	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		510			4000			0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		23	U		12	U		0.14	U		0.14	U	
DIBROMOMETHANE		47	U		23	UJ	C	0.28	UJ	C	0.28	UJ	C
DICHLORODIFLUOROMETHANE		52	U		26	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		250	U		120	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		18	U		9.2	U		0.11	U		0.11	U	
ETHYLBENZENE		28	U		14	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		50	U		25	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		22	U		11	U		0.13	U		0.13	U	
M+P-XYLENES		40	U		20	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		28	U		14	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		55	U		27	U		0.55	J	P	0.74	J	P
NAPHTHALENE		40	U		20	U		0.24	U		0.24	U	
N-BUTYLBENZENE		20	U		10	UJ	C	0.12	UJ	C	0.12	UJ	C
N-PROPYLBENZENE		23	U		12	U		0.14	U		0.14	U	
O-XYLENE		23	U		12	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		22	U		11	UJ	C	0.13	UJ	C	0.13	UJ	C
STYRENE		18	U		9.2	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		11	U		5.6	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		22	U		11	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		650	U		320	UJ	C	3.9	UJ	C	3.9	UJ	C
TETRACHLOROETHENE		48	U		24	U		0.29	U		0.29	U	
TOLUENE		22	U		11	U		0.13	U		0.13	U	
TOTAL XYLENES		23	U		12	U		0.14	U		0.14	U	
TRANS-1,2-DICHLOROETHENE		32	U		72	J	P	0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		32	U		16	U		0.19	U		0.19	U	
TRICHLOROETHENE		4200			14	U		0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		35	UJ	C	17	UJ	C	0.21	UJ	C	0.21	UJ	C
VINYL ACETATE		32	U		16	U		0.19	U		0.19	U	
VINYL CHLORIDE		100	J	P	800			0.22	U		0.22	U	

PROJ_NO: 06183	NSAMPLE	TB-040914
SDG: 240-35913-1	LAB_ID	240-36043-5
FRACTION: OV	SAMP_DATE	4/9/2014
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
CARBON TETRACHLORIDE	0.13	U	
CHLOROBENZENE	0.15	U	
CHLORODIBROMOMETHANE	0.18	U	
CHLOROETHANE	0.29	U	
CHLOROFORM	0.16	U	
CHLOROMETHANE	0.3	U	
CIS-1,2-DICHLOROETHENE	0.17	U	
CIS-1,3-DICHLOROPROPENE	0.14	U	
DIBROMOMETHANE	0.28	U	
DICHLORODIFLUOROMETHANE	0.31	U	
DIISOPROPYL ETHER	1.5	U	
ETHYL TERT-BUTYL ETHER	0.11	U	
ETHYLBENZENE	0.17	U	
HEXACHLOROBUTADIENE	0.3	U	
ISOPROPYLBENZENE	0.13	U	
M+P-XYLENES	0.24	U	
METHYL TERT-BUTYL ETHER	0.17	U	
METHYLENE CHLORIDE	0.33	U	
NAPHTHALENE	0.24	U	
N-BUTYLBENZENE	0.12	U	
N-PROPYLBENZENE	0.14	U	
O-XYLENE	0.14	U	
SEC-BUTYLBENZENE	0.13	U	
STYRENE	0.11	U	
TERT-AMYL METHYL ETHER	0.067	U	
TERT-BUTYLBENZENE	0.13	U	
TERTIARY-BUTYL ALCOHOL	3.9	U	
TETRACHLOROETHENE	0.29	U	
TOLUENE	0.13	U	
TOTAL XYLENES	0.14	U	
TRANS-1,2-DICHLOROETHENE	0.19	U	
TRANS-1,3-DICHLOROPROPENE	0.19	U	
TRICHLOROETHENE	0.17	U	
TRICHLOROFLUOROMETHANE	0.21	UJ	C
VINYL ACETATE	0.19	U	
VINYL CHLORIDE	0.22	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW7S-040714			MSA-MW-14D-040914			MSA-MW-14I-040914			MSA-MW17D-040814		
SDG: 240-35913-1	LAB_ID	240-35913-2			240-36043-2			240-36043-1			240-36010-4		
FRACTION: OS	SAMP_DATE	4/7/2014			4/9/2014			4/9/2014			4/8/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		96			0.23	UJ	E	57	J	E	0.28	UJ	E

PROJ_NO: 06183	NSAMPLE	MSA-MW17I-040814			MSA-MW17S-040814			MSA-MW47D-040814			MSA-MW-48D-040914		
SDG: 240-35913-1	LAB_ID	240-36010-3			240-36010-2			240-36010-5			240-36043-4		
FRACTION: OS	SAMP_DATE	4/8/2014			4/8/2014			4/8/2014			4/9/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.25	UJ	E	0.58	J	EP	14	J	E	21	J	E

PROJ_NO: 06183	NSAMPLE	MSA-MW5-040714		
SDG: 240-35913-1	LAB_ID	240-35913-3		
FRACTION: OS	SAMP_DATE	4/7/2014		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,4-DIOXANE		7.9		

PROJ_NO: 06183	NSAMPLE	MSA-DMW7S-040714			MSA-MW17S-040814			MSA-MW5-040714		
SDG: 240-35913-1	LAB_ID	240-35913-2			240-36010-2			240-35913-3		
FRACTION: PET	SAMP_DATE	4/7/2014			4/8/2014			4/7/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		5400	J	Q	34	J	P	980	J	Q
TPH (C10-C32)		550			250	U		250	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW7S-040714			MSA-MW-14D-040914			MSA-MW-14I-040914			MSA-MW17D-040814		
SDG: 240-35913-1	LAB_ID	240-35913-2			240-36043-2			240-36043-1			240-36010-4		
FRACTION: M	SAMP_DATE	4/7/2014			4/9/2014			4/9/2014			4/8/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.31	U	A	0.11	U		0.12	U	A	0.37	U	A
ARSENIC		2.9	J	P	1.2	U	A	26			3.3	J	P
BARIUM		12			7.9			18			14		
BERYLLIUM		0.42	J	P	0.4	J	P	0.15	U	A	0.22	U	A
CADMIUM		0.48	J	P	0.11	J	P	0.098	J	KP	0.026	U	
CALCIUM													
CHROMIUM		0.37	J	P	2.9			1.8	J	KP	1.3	J	P
COBALT		17	J	I	7.8	J	I	14	J	I	8.4	J	I
COPPER		2.9	U	A	5.7			1.1	U	A	0.97	U	A
IRON		24000	J	I	3300	J	I	75000	J	I	6000	J	I
LEAD		0.44	U	A	0.54	U	A	0.42	U	A	0.49	U	A
MAGNESIUM													
MANGANESE		8100	J	I	37	J	I	2000	J	I	46	J	I
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		0.81	UJ	C	1	U	A	0.81	U	
NICKEL		17	J	I	32	J	I	12	J	IK	10	J	I
POTASSIUM													
SELENIUM		3.6	J	P	0.34	U		0.91	J	P	0.34	U	
SILICON DIOXIDE													
SILVER		0.019	U	A	0.02	U	A	0.0083	U		0.0083	U	
SODIUM													
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		0.91	U	A	2.1	U	A	2.2	U	A	2.5	J	P

PROJ_NO: 06183	NSAMPLE	MSA-MW17I-040814			MSA-MW17S-040814			MSA-MW47D-040814			MSA-MW-48D-040914		
SDG: 240-35913-1	LAB_ID	240-36010-3			240-36010-2			240-36010-5			240-36043-4		
FRACTION: M	SAMP_DATE	4/8/2014			4/8/2014			4/8/2014			4/9/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.29	U	A	0.2	U	A	0.31	U	A	0.11	U	
ARSENIC		4.8	J	P	6.5			2.4	J	P	3.7	J	P
BARIUM		9.2			53			18			27		
BERYLLIUM		0.24	U	A	0.14	U	A	0.16	U	A	2.4		
CADMIUM		0.026	U		0.026	U		0.026	U		14		
CALCIUM											21000		
CHROMIUM		0.4	J	P	0.8	J	P	0.16	J	P	5		
COBALT		12	J	I	0.35	J	IP	11	J	I	170	J	I
COPPER		1.3	U	A	1	U	A	0.55	U	A	29		
IRON		1500	J	I	23000	J	I	3700	J	I	570	J	I
LEAD		0.36	U	A	0.3	U	A	0.17	U	A	0.67	U	A
MAGNESIUM											17000		
MANGANESE		26	J	I	650	J	I	100	J	I	2600	J	I
MERCURY		0.12	U		0.12	U		0.12	U		1.7		
MOLYBDENUM		0.81	U		1.1	U	A	0.81	U		0.81	UJ	C
NICKEL		21	J	I	12	J	I	11	J	I	89	J	I
POTASSIUM											2200	J	P
SELENIUM		0.49	J	P	0.36	J	P	0.58	J	P	10		
SILICON DIOXIDE											11000		
SILVER		0.0083	U		0.016	U	A	0.0083	U		0.0083	U	
SODIUM											58000		
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		1.8	U	A	1.7	U	A	0.9	U	A	1.8	U	A

PROJ_NO: 06183	NSAMPLE	MSA-MW-48I-040914			MSA-MW5-040714		
SDG: 240-35913-1	LAB_ID	240-36043-3			240-35913-3		
FRACTION: M	SAMP_DATE	4/9/2014			4/7/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.24	U	A	0.19	U	A
ARSENIC		4	J	P	2.3	J	P
BARIUM		19			18		
BERYLLIUM		2.9			0.041	U	A
CADMIUM		170			0.026	U	
CALCIUM		21000					
CHROMIUM		6.5			0.3	J	P
COBALT		300	J	I	0.15	J	IP
COPPER		47			0.25	U	A
IRON		1500	J	I	29000	J	I
LEAD		1	U	A	0.14	U	
MAGNESIUM		18000					
MANGANESE		4400	J	I	1500	J	I
MERCURY		0.12	U		0.12	U	
MOLYBDENUM		0.81	UJ	C	2.3	J	P
NICKEL		130	J	I	0.37	U	A
POTASSIUM		2300	J	P			
SELENIUM		9.4			0.47	J	P
SILICON DIOXIDE		9200					
SILVER		0.011	U	A	0.016	U	A
SODIUM		64000					
THALLIUM		0.4	U		0.4	U	
VANADIUM		2.8	U	A	1.2	U	A

PROJ_NO: 06183	NSAMPLE	MSA-DMW7S-040714			MSA-MW-14D-040914			MSA-MW-14I-040914			MSA-MW17D-040814		
SDG: 240-35913-1	LAB_ID	240-35913-2			240-36043-2			240-36043-1			240-36010-4		
FRACTION: MF	SAMP_DATE	4/7/2014			4/9/2014			4/9/2014			4/8/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.18	U	A	0.11	U		0.11	U		0.58	U	A
ARSENIC		2.8	J	P	0.71	U	A	26			3.1	J	P
BARIUM		12			7	U	A	17			12		
BERYLLIUM		0.42	J	P	0.26	U	A	0.14	U	A	0.25	U	A
CADMIUM		0.49	J	P	0.061	J	P	0.026	UJ	K	0.026	U	
CHROMIUM		0.35	J	P	0.5	J	P	0.93	J	KP	0.23	J	P
COBALT		17	J	I	7.3	J	I	14	J	I	8	J	I
COPPER		2.7	U	A	2.9	U	A	0.7	U	A	1.1	U	A
IRON		25000	J	I	490	J	I	76000	J	I	4900	J	I
LEAD		0.19	U	A	0.14	U		0.43	U	A	0.27	U	A
MANGANESE		8400	J	I	35	J	I	2000	J	I	44	J	I
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		0.81	UJ	C	0.89	U	A	0.81	U	
NICKEL		18	J	I	31	J	I	11	J	IK	12	J	I
SELENIUM		3.6	J	P	0.34	U		0.71	J	P	0.43	J	P
SILVER		0.012	U	A	0.0083	U		0.0083	U		0.009	U	A
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		0.93	U	A	0.96	U	A	1.4	U	A	0.86	U	A

PROJ_NO: 06183	NSAMPLE	MSA-MW17I-040814			MSA-MW17S-040814			MSA-MW47D-040814			MSA-MW-48D-040914		
SDG: 240-35913-1	LAB_ID	240-36010-3			240-36010-2			240-36010-5			240-36043-4		
FRACTION: MF	SAMP_DATE	4/8/2014			4/8/2014			4/8/2014			4/9/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.27	U	A	0.16	U	A	0.25	U	A	0.11	U	
ARSENIC		3.6	J	P	6.7			2	U	A	3.3	J	P
BARIUM		7.8			56			16			26		
BERYLLIUM		0.2	U	A	0.11	U	A	0.16	U	A	2.3		
CADMIUM		0.026	U		0.026	U		0.026	U		13		
CHROMIUM		0.15	J	P	0.57	J	P	0.13	U		4		
COBALT		11	J	I	0.34	J	IP	10	J	I	160	J	I
COPPER		1	U	A	0.56	U	A	0.24	U		27		
IRON		950	J	I	24000	J	I	3100	J	I	280	J	I
LEAD		0.15	U	A	0.14	U		0.14	U		0.58	U	A
MANGANESE		24	J	I	700	J	I	91	J	I	2400	J	I
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		1.1	U	A	0.81	U		0.81	UJ	C
NICKEL		22	J	I	16	J	I	10	J	I	86	J	I
SELENIUM		0.52	J	P	0.37	J	P	0.5	J	P	9.6		
SILVER		0.0083	U		0.009	U	A	0.0083	U		0.0083	U	
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		1.2	U	A	1.4	U	A	0.72	U	A	0.96	U	A

PROJ_NO: 06183	NSAMPLE	MSA-MW-48I-040914			MSA-MW5-040714		
SDG: 240-35913-1	LAB_ID	240-36043-3			240-35913-3		
FRACTION: MF	SAMP_DATE	4/9/2014			4/7/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.11	U		0.19	U	A
ARSENIC		3.9	J	P	2.3	J	P
BARIUM		19			19		
BERYLLIUM		2.7			0.045	U	A
CADMIUM		150			0.026	U	
CHROMIUM		5.7			0.3	J	P
COBALT		310	J	I	0.29	J	IP
COPPER		16			0.63	U	A
IRON		1300	J	I	29000	J	I
LEAD		0.71	U	A	0.14	U	
MANGANESE		4600	J	I	1500	J	I
MERCURY		0.12	U		0.12	U	
MOLYBDENUM		0.81	UJ	C	2.3	J	P
NICKEL		130	J	I	1.8	J	IP
SELENIUM		9.4			0.34	U	
SILVER		0.0083	U		0.013	U	A
THALLIUM		0.4	U		0.4	U	
VANADIUM		2.1	U	A	1.1	U	A

PROJ_NO: 06183	NSAMPLE	MSA-MW-48D-040914			MSA-MW-48I-040914		
SDG: 240-35913-1	LAB_ID	240-36043-4			240-36043-3		
FRACTION: OVG	SAMP_DATE	4/9/2014			4/9/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHANE		0.22	J	P	0.45		
ETHENE		1.6			7.4		
METHANE		57			110		

PROJ_NO: 06183	NSAMPLE	MSA-MW17I-040814			MSA-MW47D-040814			MSA-MW-48D-040914			MSA-MW-48I-040914		
SDG: 240-35913-1	LAB_ID	240-36010-3			240-36010-5			240-36043-4			240-36043-3		
FRACTION: MISCO	SAMP_DATE	4/8/2014			4/8/2014			4/9/2014			4/9/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.16	J	P	0.082	U		0.082	U		0.082	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-48D-040914			MSA-MW-48I-040914		
SDG: 240-35913-1	LAB_ID	240-36043-4			240-36043-3		
FRACTION: MISC	SAMP_DATE	4/9/2014			4/9/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	MG/L			MG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALKALINITY		1.9	U		4.4	J	P
AMMONIA-N		0.25			0.3		
CALCIUM HARDNESS AS CACO3		52			53		
CHLORIDE		98			110		
DISSOLVED ORGANIC CARBON		2			2.4		
HARDNESS AS CACO3		120			130		
MAGNESIUM HARDNESS AS CACO3		70			76		
NITRATE-N		0.36			1.1		
NITRITE-N		0.012	U		0.29		
ORTHOPHOSPHATE-P		0.98			1.5		
SULFATE		170			240		
TOTAL DISSOLVED SOLIDS		440			540		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-DMW7S-040714 Lab Sample ID: 240-35913-2

Matrix: Water Lab File ID: U1237007.D

Analysis Method: 8260C Date Collected: 04/07/2014 13:35

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 19:05

Soil Aliquot Vol: Dilution Factor: 200

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	46	U	200	46
71-55-6	1,1,1-Trichloroethane	100	J	200	44
79-34-5	1,1,2,2-Tetrachloroethane	36	U	200	36
76-13-1	1,1,2-Trichlorotrifluoroethane	56	U	200	56
75-34-3	1,1-Dichloroethane	49	J	200	30
75-35-4	1,1-Dichloroethene	98	J	200	38
563-58-6	1,1-Dichloropropene	26	U	200	26
87-61-6	1,2,3-Trichlorobenzene	34	U	200	34
96-18-4	1,2,3-Trichloropropane	86	U	200	86
526-73-8	1,2,3-Trimethylbenzene	1.2	U	1000	1.2
120-82-1	1,2,4-Trichlorobenzene	30	U	200	30
95-63-6	1,2,4-Trimethylbenzene	24	U	200	24
96-12-8	1,2-Dibromo-3-Chloropropane	130	U	400	130
95-50-1	1,2-Dichlorobenzene	26	U	200	26
107-06-2	1,2-Dichloroethane	44	U	200	44
78-87-5	1,2-Dichloropropane	36	U	200	36
541-73-1	1,3-Dichlorobenzene	28	U	200	28
142-28-9	1,3-Dichloropropane	32	U	200	32
106-46-7	1,4-Dichlorobenzene	26	U	200	26
594-20-7	2,2-Dichloropropane	26	U	200	26
78-93-3	2-Butanone (MEK)	110	U	2000	110
110-75-8	2-Chloroethyl vinyl ether	200	U	2000	200
95-49-8	2-Chlorotoluene	22	U	200	22
591-78-6	2-Hexanone	82	U	2000	82
106-43-4	4-Chlorotoluene	36	U	200	36
99-87-6	4-Isopropyltoluene	24	U	200	24
108-10-1	4-Methyl-2-pentanone (MIBK)	64	U	2000	64
67-64-1	Acetone	220	U	2000	220
71-43-2	Benzene	26	U	200	26
108-86-1	Bromobenzene	26	U	200	26
75-25-2	Bromoform	130	U	200	130
74-83-9	Bromomethane	82	U	200	82
75-15-0	Carbon disulfide	26	U	200	26
56-23-5	Carbon tetrachloride	26	U	200	26
108-90-7	Chlorobenzene	30	U	200	30
124-48-1	Chlorodibromomethane	36	U	200	36

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-DMW7S-040714 | Lab Sample ID: 240-35913-2

Matrix: Water | Lab File ID: U1237007.D

Analysis Method: 8260C | Date Collected: 04/07/2014 13:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 19:05

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	58	U	200	58
67-66-3	Chloroform	32	U	200	32
74-87-3	Chloromethane	60	U	200	60
156-59-2	cis-1,2-Dichloroethene	14000		200	34
10061-01-5	cis-1,3-Dichloropropene	28	U	200	28
74-95-3	Dibromomethane	56	U *	200	56
74-97-5	Bromochloromethane	58	U	200	58
75-71-8	Dichlorodifluoromethane	62	U	200	62
75-27-4	Bromodichloromethane	30	U	200	30
75-65-0	tert-Butyl alcohol	780	U	10000	780
100-41-4	Ethylbenzene	34	U	200	34
87-68-3	Hexachlorobutadiene	60	U	200	60
108-20-3	Diisopropyl ether	300	U	2000	300
98-82-8	Isopropylbenzene	26	U	200	26
1634-04-4	Methyl tert-butyl ether	34	U	200	34
75-09-2	Methylene Chloride	66	U	200	66
179601-23-1	m-Xylene & p-Xylene	48	U	400	48
91-20-3	Naphthalene	48	U	200	48
104-51-8	n-Butylbenzene	24	U	200	24
103-65-1	N-Propylbenzene	28	U	200	28
95-47-6	o-Xylene	28	U	200	28
135-98-8	sec-Butylbenzene	26	U	200	26
100-42-5	Styrene	22	U	200	22
994-05-8	Tert-amyl methyl ether	13	U	1000	13
637-92-3	Ethyl tert-butyl ether	22	U	1000	22
127-18-4	Tetrachloroethene	58	U	200	58
108-88-3	Toluene	30	J	200	26
156-60-5	trans-1,2-Dichloroethene	100	J	200	38
10061-02-6	trans-1,3-Dichloropropene	38	U	200	38
79-01-6	Trichloroethene	3600		200	34
75-69-4	Trichlorofluoromethane	42	U	200	42
108-05-4	Vinyl acetate	38	U	400	38
75-01-4	Vinyl chloride	2100		200	44
1330-20-7	Xylenes, Total	28	U	400	28
98-06-6	tert-Butylbenzene	26	U	200	26
106-93-4	1,2-Dibromoethane	48	U	200	48

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-DMW7S-040714 | Lab Sample ID: 240-35913-2

Matrix: Water | Lab File ID: U1237007.D

Analysis Method: 8260C | Date Collected: 04/07/2014 13:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 19:05

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		74-120
1868-53-7	Dibromofluoromethane (Surr)	100		75-121
460-00-4	4-Bromofluorobenzene (Surr)	90		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-DMW7S-040714 | Lab Sample ID: 240-35913-2

Matrix: Water | Lab File ID: U1237007.D

Analysis Method: 8260C | Date Collected: 04/07/2014 13:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 19:05

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-14D-040914 | Lab Sample ID: 240-36043-2

Matrix: Water | Lab File ID: UXX9856.D

Analysis Method: 8260C | Date Collected: 04/09/2014 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 14:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.2	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-14D-040914 | Lab Sample ID: 240-36043-2

Matrix: Water | Lab File ID: UXX9856.D

Analysis Method: 8260C | Date Collected: 04/09/2014 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 14:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-14D-040914 Lab Sample ID: 240-36043-2

Matrix: Water Lab File ID: UXX9856.D

Analysis Method: 8260C Date Collected: 04/09/2014 11:45

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 14:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	88		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-14D-040914 Lab Sample ID: 240-36043-2

Matrix: Water Lab File ID: UXX9856.D

Analysis Method: 8260C Date Collected: 04/09/2014 11:45

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 14:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-14I-040914 | Lab Sample ID: 240-36043-1

Matrix: Water | Lab File ID: UXX9855.D

Analysis Method: 8260C | Date Collected: 04/09/2014 10:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 14:31

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	9.2	U	40	9.2
71-55-6	1,1,1-Trichloroethane	8.8	U	40	8.8
79-34-5	1,1,2,2-Tetrachloroethane	7.2	U	40	7.2
76-13-1	1,1,2-Trichlorotrifluoroethane	11	U	40	11
75-34-3	1,1-Dichloroethane	6.0	U	40	6.0
75-35-4	1,1-Dichloroethene	7.6	U	40	7.6
563-58-6	1,1-Dichloropropene	5.2	U	40	5.2
87-61-6	1,2,3-Trichlorobenzene	6.8	U	40	6.8
96-18-4	1,2,3-Trichloropropane	17	U	40	17
526-73-8	1,2,3-Trimethylbenzene	0.24	U	200	0.24
120-82-1	1,2,4-Trichlorobenzene	6.0	U	40	6.0
95-63-6	1,2,4-Trimethylbenzene	4.8	U	40	4.8
96-12-8	1,2-Dibromo-3-Chloropropane	27	U	80	27
95-50-1	1,2-Dichlorobenzene	5.2	U	40	5.2
107-06-2	1,2-Dichloroethane	8.8	U	40	8.8
78-87-5	1,2-Dichloropropane	7.2	U	40	7.2
541-73-1	1,3-Dichlorobenzene	5.6	U	40	5.6
142-28-9	1,3-Dichloropropane	6.4	U	40	6.4
106-46-7	1,4-Dichlorobenzene	5.2	U	40	5.2
594-20-7	2,2-Dichloropropane	5.2	U	40	5.2
78-93-3	2-Butanone (MEK)	23	U	400	23
110-75-8	2-Chloroethyl vinyl ether	40	U	400	40
95-49-8	2-Chlorotoluene	4.4	U	40	4.4
591-78-6	2-Hexanone	16	U	400	16
106-43-4	4-Chlorotoluene	7.2	U	40	7.2
99-87-6	4-Isopropyltoluene	4.8	U	40	4.8
108-10-1	4-Methyl-2-pentanone (MIBK)	13	U	400	13
67-64-1	Acetone	44	U	400	44
71-43-2	Benzene	12	J	40	5.2
108-86-1	Bromobenzene	5.2	U	40	5.2
75-25-2	Bromoform	26	U	40	26
74-83-9	Bromomethane	16	U	40	16
75-15-0	Carbon disulfide	5.2	U	40	5.2
56-23-5	Carbon tetrachloride	5.2	U	40	5.2
108-90-7	Chlorobenzene	190		40	6.0
124-48-1	Chlorodibromomethane	7.2	U	40	7.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-14I-040914 | Lab Sample ID: 240-36043-1

Matrix: Water | Lab File ID: UXX9855.D

Analysis Method: 8260C | Date Collected: 04/09/2014 10:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 14:31

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	12	U	40	12
67-66-3	Chloroform	6.4	U	40	6.4
74-87-3	Chloromethane	12	U	40	12
156-59-2	cis-1,2-Dichloroethene	1200		40	6.8
10061-01-5	cis-1,3-Dichloropropene	5.6	U	40	5.6
74-95-3	Dibromomethane	11	U	40	11
74-97-5	Bromochloromethane	12	U	40	12
75-71-8	Dichlorodifluoromethane	12	U	40	12
75-27-4	Bromodichloromethane	6.0	U	40	6.0
75-65-0	tert-Butyl alcohol	280	J	2000	160
100-41-4	Ethylbenzene	6.8	U	40	6.8
87-68-3	Hexachlorobutadiene	12	U	40	12
108-20-3	Diisopropyl ether	60	U	400	60
98-82-8	Isopropylbenzene	5.2	U	40	5.2
1634-04-4	Methyl tert-butyl ether	6.8	U	40	6.8
75-09-2	Methylene Chloride	13	U	40	13
179601-23-1	m-Xylene & p-Xylene	9.6	U	80	9.6
91-20-3	Naphthalene	9.6	U	40	9.6
104-51-8	n-Butylbenzene	4.8	U	40	4.8
103-65-1	N-Propylbenzene	5.6	U	40	5.6
95-47-6	o-Xylene	5.6	U	40	5.6
135-98-8	sec-Butylbenzene	5.2	U	40	5.2
100-42-5	Styrene	4.4	U	40	4.4
994-05-8	Tert-amyl methyl ether	2.7	U	200	2.7
637-92-3	Ethyl tert-butyl ether	4.4	U	200	4.4
127-18-4	Tetrachloroethene	12	U	40	12
108-88-3	Toluene	6.0	J	40	5.2
156-60-5	trans-1,2-Dichloroethene	11	J	40	7.6
10061-02-6	trans-1,3-Dichloropropene	7.6	U	40	7.6
79-01-6	Trichloroethene	10	J	40	6.8
75-69-4	Trichlorofluoromethane	8.4	U	40	8.4
108-05-4	Vinyl acetate	7.6	U	80	7.6
75-01-4	Vinyl chloride	1200		40	8.8
1330-20-7	Xylenes, Total	5.6	U	80	5.6
98-06-6	tert-Butylbenzene	5.2	U	40	5.2
106-93-4	1,2-Dibromoethane	9.6	U	40	9.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-14I-040914 Lab Sample ID: 240-36043-1

Matrix: Water Lab File ID: UXX9855.D

Analysis Method: 8260C Date Collected: 04/09/2014 10:25

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 14:31

Soil Aliquot Vol: Dilution Factor: 40

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		74-120
1868-53-7	Dibromofluoromethane (Surr)	86		75-121
460-00-4	4-Bromofluorobenzene (Surr)	86		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-14I-040914 Lab Sample ID: 240-36043-1

Matrix: Water Lab File ID: UXX9855.D

Analysis Method: 8260C Date Collected: 04/09/2014 10:25

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 14:31

Soil Aliquot Vol: Dilution Factor: 40

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-48D-040914 | Lab Sample ID: 240-36043-4

Matrix: Water | Lab File ID: UXX9858.D

Analysis Method: 8260C | Date Collected: 04/09/2014 16:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 15:39

Soil Aliquot Vol: | Dilution Factor: 5.71

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.3	U	5.7	1.3
71-55-6	1,1,1-Trichloroethane	1.3	U	5.7	1.3
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	5.7	1.0
76-13-1	1,1,2-Trichlorotrifluoroethane	1.6	U	5.7	1.6
75-34-3	1,1-Dichloroethane	0.86	U	5.7	0.86
75-35-4	1,1-Dichloroethene	1.1	U	5.7	1.1
563-58-6	1,1-Dichloropropene	0.74	U	5.7	0.74
87-61-6	1,2,3-Trichlorobenzene	0.97	U	5.7	0.97
96-18-4	1,2,3-Trichloropropane	2.5	U	5.7	2.5
526-73-8	1,2,3-Trimethylbenzene	0.034	U	29	0.034
120-82-1	1,2,4-Trichlorobenzene	0.86	U	5.7	0.86
95-63-6	1,2,4-Trimethylbenzene	0.69	U	5.7	0.69
96-12-8	1,2-Dibromo-3-Chloropropane	3.8	U	11	3.8
95-50-1	1,2-Dichlorobenzene	0.74	U	5.7	0.74
107-06-2	1,2-Dichloroethane	2.7	J	5.7	1.3
78-87-5	1,2-Dichloropropane	1.0	U	5.7	1.0
541-73-1	1,3-Dichlorobenzene	0.80	U	5.7	0.80
142-28-9	1,3-Dichloropropane	0.91	U	5.7	0.91
106-46-7	1,4-Dichlorobenzene	0.74	U	5.7	0.74
594-20-7	2,2-Dichloropropane	0.74	U	5.7	0.74
78-93-3	2-Butanone (MEK)	3.3	U	57	3.3
110-75-8	2-Chloroethyl vinyl ether	5.7	U	57	5.7
95-49-8	2-Chlorotoluene	0.63	U	5.7	0.63
591-78-6	2-Hexanone	2.3	U	57	2.3
106-43-4	4-Chlorotoluene	1.0	U	5.7	1.0
99-87-6	4-Isopropyltoluene	0.69	U	5.7	0.69
108-10-1	4-Methyl-2-pentanone (MIBK)	1.8	U	57	1.8
67-64-1	Acetone	6.3	U	57	6.3
71-43-2	Benzene	0.96	J	5.7	0.74
108-86-1	Bromobenzene	0.74	U	5.7	0.74
75-25-2	Bromoform	3.7	U	5.7	3.7
74-83-9	Bromomethane	2.3	U	5.7	2.3
75-15-0	Carbon disulfide	0.74	U	5.7	0.74
56-23-5	Carbon tetrachloride	0.74	U	5.7	0.74
108-90-7	Chlorobenzene	0.86	U	5.7	0.86
124-48-1	Chlorodibromomethane	1.0	U	5.7	1.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-48D-040914 | Lab Sample ID: 240-36043-4

Matrix: Water | Lab File ID: UXX9858.D

Analysis Method: 8260C | Date Collected: 04/09/2014 16:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 15:39

Soil Aliquot Vol: | Dilution Factor: 5.71

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	1.7	U	5.7	1.7
67-66-3	Chloroform	0.91	U	5.7	0.91
74-87-3	Chloromethane	1.7	U	5.7	1.7
156-59-2	cis-1,2-Dichloroethene	100		5.7	0.97
10061-01-5	cis-1,3-Dichloropropene	0.80	U	5.7	0.80
74-95-3	Dibromomethane	1.6	U	5.7	1.6
74-97-5	Bromochloromethane	1.7	U	5.7	1.7
75-71-8	Dichlorodifluoromethane	1.8	U	5.7	1.8
75-27-4	Bromodichloromethane	0.86	U	5.7	0.86
75-65-0	tert-Butyl alcohol	22	U	290	22
100-41-4	Ethylbenzene	0.97	U	5.7	0.97
87-68-3	Hexachlorobutadiene	1.7	U	5.7	1.7
108-20-3	Diisopropyl ether	8.6	U	57	8.6
98-82-8	Isopropylbenzene	0.74	U	5.7	0.74
1634-04-4	Methyl tert-butyl ether	0.97	U	5.7	0.97
75-09-2	Methylene Chloride	1.9	U	5.7	1.9
179601-23-1	m-Xylene & p-Xylene	1.4	U	11	1.4
91-20-3	Naphthalene	1.4	U	5.7	1.4
104-51-8	n-Butylbenzene	0.69	U	5.7	0.69
103-65-1	N-Propylbenzene	0.80	U	5.7	0.80
95-47-6	o-Xylene	0.80	U	5.7	0.80
135-98-8	sec-Butylbenzene	0.74	U	5.7	0.74
100-42-5	Styrene	0.63	U	5.7	0.63
994-05-8	Tert-amyl methyl ether	0.38	U	29	0.38
637-92-3	Ethyl tert-butyl ether	0.63	U	29	0.63
127-18-4	Tetrachloroethene	1.7	U	5.7	1.7
108-88-3	Toluene	1.5	J	5.7	0.74
156-60-5	trans-1,2-Dichloroethene	1.3	J	5.7	1.1
10061-02-6	trans-1,3-Dichloropropene	1.1	U	5.7	1.1
79-01-6	Trichloroethene	180		5.7	0.97
75-69-4	Trichlorofluoromethane	1.2	U	5.7	1.2
108-05-4	Vinyl acetate	1.1	U	11	1.1
75-01-4	Vinyl chloride	32		5.7	1.3
1330-20-7	Xylenes, Total	0.80	U	11	0.80
98-06-6	tert-Butylbenzene	0.74	U	5.7	0.74
106-93-4	1,2-Dibromoethane	1.4	U	5.7	1.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-48D-040914 | Lab Sample ID: 240-36043-4

Matrix: Water | Lab File ID: UXX9858.D

Analysis Method: 8260C | Date Collected: 04/09/2014 16:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 15:39

Soil Aliquot Vol: | Dilution Factor: 5.71

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	90		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-48D-040914 Lab Sample ID: 240-36043-4

Matrix: Water Lab File ID: UXX9858.D

Analysis Method: 8260C Date Collected: 04/09/2014 16:00

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 15:39

Soil Aliquot Vol: Dilution Factor: 5.71

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-48I-040914 Lab Sample ID: 240-36043-3

Matrix: Water Lab File ID: UXX9857.D

Analysis Method: 8260C Date Collected: 04/09/2014 14:40

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 15:17

Soil Aliquot Vol: Dilution Factor: 166.67

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	38	U	170	38
71-55-6	1,1,1-Trichloroethane	37	U	170	37
79-34-5	1,1,2,2-Tetrachloroethane	30	U	170	30
76-13-1	1,1,2-Trichlorotrifluoroethane	47	U	170	47
75-34-3	1,1-Dichloroethane	25	U	170	25
75-35-4	1,1-Dichloroethene	32	U	170	32
563-58-6	1,1-Dichloropropene	22	U	170	22
87-61-6	1,2,3-Trichlorobenzene	28	U	170	28
96-18-4	1,2,3-Trichloropropane	72	U	170	72
526-73-8	1,2,3-Trimethylbenzene	0.98	U	830	0.98
120-82-1	1,2,4-Trichlorobenzene	88	J	170	25
95-63-6	1,2,4-Trimethylbenzene	20	U	170	20
96-12-8	1,2-Dibromo-3-Chloropropane	110	U	330	110
95-50-1	1,2-Dichlorobenzene	22	U	170	22
107-06-2	1,2-Dichloroethane	37	U	170	37
78-87-5	1,2-Dichloropropane	30	U	170	30
541-73-1	1,3-Dichlorobenzene	23	U	170	23
142-28-9	1,3-Dichloropropane	27	U	170	27
106-46-7	1,4-Dichlorobenzene	22	U	170	22
594-20-7	2,2-Dichloropropane	22	U	170	22
78-93-3	2-Butanone (MEK)	95	U	1700	95
110-75-8	2-Chloroethyl vinyl ether	170	U	1700	170
95-49-8	2-Chlorotoluene	18	U	170	18
591-78-6	2-Hexanone	68	U	1700	68
106-43-4	4-Chlorotoluene	30	U	170	30
99-87-6	4-Isopropyltoluene	20	U	170	20
108-10-1	4-Methyl-2-pentanone (MIBK)	53	U	1700	53
67-64-1	Acetone	180	U	1700	180
71-43-2	Benzene	22	U	170	22
108-86-1	Bromobenzene	22	U	170	22
75-25-2	Bromoform	110	U	170	110
74-83-9	Bromomethane	68	U	170	68
75-15-0	Carbon disulfide	22	U	170	22
56-23-5	Carbon tetrachloride	22	U	170	22
108-90-7	Chlorobenzene	25	U	170	25
124-48-1	Chlorodibromomethane	30	U	170	30

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-48I-040914 | Lab Sample ID: 240-36043-3

Matrix: Water | Lab File ID: UXX9857.D

Analysis Method: 8260C | Date Collected: 04/09/2014 14:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 15:17

Soil Aliquot Vol: | Dilution Factor: 166.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	48	U	170	48
67-66-3	Chloroform	27	U	170	27
74-87-3	Chloromethane	50	U	170	50
156-59-2	cis-1,2-Dichloroethene	510		170	28
10061-01-5	cis-1,3-Dichloropropene	23	U	170	23
74-95-3	Dibromomethane	47	U	170	47
74-97-5	Bromochloromethane	48	U	170	48
75-71-8	Dichlorodifluoromethane	52	U	170	52
75-27-4	Bromodichloromethane	25	U	170	25
75-65-0	tert-Butyl alcohol	650	U	8300	650
100-41-4	Ethylbenzene	28	U	170	28
87-68-3	Hexachlorobutadiene	50	U	170	50
108-20-3	Diisopropyl ether	250	U	1700	250
98-82-8	Isopropylbenzene	22	U	170	22
1634-04-4	Methyl tert-butyl ether	28	U	170	28
75-09-2	Methylene Chloride	55	U	170	55
179601-23-1	m-Xylene & p-Xylene	40	U	330	40
91-20-3	Naphthalene	40	U	170	40
104-51-8	n-Butylbenzene	20	U	170	20
103-65-1	N-Propylbenzene	23	U	170	23
95-47-6	o-Xylene	23	U	170	23
135-98-8	sec-Butylbenzene	22	U	170	22
100-42-5	Styrene	18	U	170	18
994-05-8	Tert-amyl methyl ether	11	U	830	11
637-92-3	Ethyl tert-butyl ether	18	U	830	18
127-18-4	Tetrachloroethene	48	U	170	48
108-88-3	Toluene	22	U	170	22
156-60-5	trans-1,2-Dichloroethene	32	U	170	32
10061-02-6	trans-1,3-Dichloropropene	32	U	170	32
79-01-6	Trichloroethene	4200		170	28
75-69-4	Trichlorofluoromethane	35	U	170	35
108-05-4	Vinyl acetate	32	U	330	32
75-01-4	Vinyl chloride	100	J	170	37
1330-20-7	Xylenes, Total	23	U	330	23
98-06-6	tert-Butylbenzene	22	U	170	22
106-93-4	1,2-Dibromoethane	40	U	170	40

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-48I-040914 Lab Sample ID: 240-36043-3

Matrix: Water Lab File ID: UXX9857.D

Analysis Method: 8260C Date Collected: 04/09/2014 14:40

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 15:17

Soil Aliquot Vol: Dilution Factor: 166.67

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	89		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-48I-040914 Lab Sample ID: 240-36043-3

Matrix: Water Lab File ID: UXX9857.D

Analysis Method: 8260C Date Collected: 04/09/2014 14:40

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 15:17

Soil Aliquot Vol: Dilution Factor: 166.67

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17D-040814 | Lab Sample ID: 240-36010-4

Matrix: Water | Lab File ID: U1237012.D

Analysis Method: 8260C | Date Collected: 04/08/2014 12:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 21:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17D-040814 | Lab Sample ID: 240-36010-4

Matrix: Water | Lab File ID: U1237012.D

Analysis Method: 8260C | Date Collected: 04/08/2014 12:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 21:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.45	J	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17D-040814 Lab Sample ID: 240-36010-4

Matrix: Water Lab File ID: U1237012.D

Analysis Method: 8260C Date Collected: 04/08/2014 12:25

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 21:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		74-120
1868-53-7	Dibromofluoromethane (Surr)	99		75-121
460-00-4	4-Bromofluorobenzene (Surr)	89		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17D-040814 | Lab Sample ID: 240-36010-4

Matrix: Water | Lab File ID: U1237012.D

Analysis Method: 8260C | Date Collected: 04/08/2014 12:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 21:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17I-040814 | Lab Sample ID: 240-36010-3

Matrix: Water | Lab File ID: U1237011.D

Analysis Method: 8260C | Date Collected: 04/08/2014 11:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 20:39

Soil Aliquot Vol: | Dilution Factor: 11.11

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	2.6	U	11	2.6
71-55-6	1,1,1-Trichloroethane	2.4	U	11	2.4
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	11	2.0
76-13-1	1,1,2-Trichlorotrifluoroethane	3.1	U	11	3.1
75-34-3	1,1-Dichloroethane	1.7	U	11	1.7
75-35-4	1,1-Dichloroethene	2.1	U	11	2.1
563-58-6	1,1-Dichloropropene	1.4	U	11	1.4
87-61-6	1,2,3-Trichlorobenzene	1.9	U	11	1.9
96-18-4	1,2,3-Trichloropropane	4.8	U	11	4.8
526-73-8	1,2,3-Trimethylbenzene	0.066	U	56	0.066
120-82-1	1,2,4-Trichlorobenzene	1.7	U	11	1.7
95-63-6	1,2,4-Trimethylbenzene	1.3	U	11	1.3
96-12-8	1,2-Dibromo-3-Chloropropane	7.4	U	22	7.4
95-50-1	1,2-Dichlorobenzene	1.4	U	11	1.4
107-06-2	1,2-Dichloroethane	2.4	U	11	2.4
78-87-5	1,2-Dichloropropane	2.0	U	11	2.0
541-73-1	1,3-Dichlorobenzene	1.6	U	11	1.6
142-28-9	1,3-Dichloropropane	1.8	U	11	1.8
106-46-7	1,4-Dichlorobenzene	1.4	U	11	1.4
594-20-7	2,2-Dichloropropane	1.4	U	11	1.4
78-93-3	2-Butanone (MEK)	6.3	U	110	6.3
110-75-8	2-Chloroethyl vinyl ether	11	U	110	11
95-49-8	2-Chlorotoluene	1.2	U	11	1.2
591-78-6	2-Hexanone	4.6	U	110	4.6
106-43-4	4-Chlorotoluene	2.0	U	11	2.0
99-87-6	4-Isopropyltoluene	1.3	U	11	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	3.6	U	110	3.6
67-64-1	Acetone	12	U	110	12
71-43-2	Benzene	1.4	U	11	1.4
108-86-1	Bromobenzene	1.4	U	11	1.4
75-25-2	Bromoform	7.1	U	11	7.1
74-83-9	Bromomethane	4.6	U	11	4.6
75-15-0	Carbon disulfide	1.4	U	11	1.4
56-23-5	Carbon tetrachloride	1.4	U	11	1.4
108-90-7	Chlorobenzene	1.7	U	11	1.7
124-48-1	Chlorodibromomethane	2.0	U	11	2.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17I-040814 | Lab Sample ID: 240-36010-3

Matrix: Water | Lab File ID: U1237011.D

Analysis Method: 8260C | Date Collected: 04/08/2014 11:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 20:39

Soil Aliquot Vol: | Dilution Factor: 11.11

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	3.2	U	11	3.2
67-66-3	Chloroform	1.8	U	11	1.8
74-87-3	Chloromethane	3.3	U	11	3.3
156-59-2	cis-1,2-Dichloroethene	84		11	1.9
10061-01-5	cis-1,3-Dichloropropene	1.6	U	11	1.6
74-95-3	Dibromomethane	3.1	U *	11	3.1
74-97-5	Bromochloromethane	3.2	U	11	3.2
75-71-8	Dichlorodifluoromethane	3.4	U	11	3.4
75-27-4	Bromodichloromethane	1.7	U	11	1.7
75-65-0	tert-Butyl alcohol	43	U	560	43
100-41-4	Ethylbenzene	1.9	U	11	1.9
87-68-3	Hexachlorobutadiene	3.3	U	11	3.3
108-20-3	Diisopropyl ether	17	U	110	17
98-82-8	Isopropylbenzene	1.4	U	11	1.4
1634-04-4	Methyl tert-butyl ether	1.9	U	11	1.9
75-09-2	Methylene Chloride	3.7	U	11	3.7
179601-23-1	m-Xylene & p-Xylene	2.7	U	22	2.7
91-20-3	Naphthalene	2.7	U	11	2.7
104-51-8	n-Butylbenzene	1.3	U	11	1.3
103-65-1	N-Propylbenzene	1.6	U	11	1.6
95-47-6	o-Xylene	1.6	U	11	1.6
135-98-8	sec-Butylbenzene	1.4	U	11	1.4
100-42-5	Styrene	1.2	U	11	1.2
994-05-8	Tert-amyl methyl ether	0.74	U	56	0.74
637-92-3	Ethyl tert-butyl ether	1.2	U	56	1.2
127-18-4	Tetrachloroethene	3.2	U	11	3.2
108-88-3	Toluene	1.4	U	11	1.4
156-60-5	trans-1,2-Dichloroethene	2.1	U	11	2.1
10061-02-6	trans-1,3-Dichloropropene	2.1	U	11	2.1
79-01-6	Trichloroethene	750		11	1.9
75-69-4	Trichlorofluoromethane	2.3	U	11	2.3
108-05-4	Vinyl acetate	2.1	U	22	2.1
75-01-4	Vinyl chloride	6.9	J	11	2.4
1330-20-7	Xylenes, Total	1.6	U	22	1.6
98-06-6	tert-Butylbenzene	1.4	U	11	1.4
106-93-4	1,2-Dibromoethane	2.7	U	11	2.7

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17I-040814 Lab Sample ID: 240-36010-3

Matrix: Water Lab File ID: U1237011.D

Analysis Method: 8260C Date Collected: 04/08/2014 11:05

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 20:39

Soil Aliquot Vol: Dilution Factor: 11.11

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		74-120
1868-53-7	Dibromofluoromethane (Surr)	100		75-121
460-00-4	4-Bromofluorobenzene (Surr)	89		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17I-040814 Lab Sample ID: 240-36010-3

Matrix: Water Lab File ID: U1237011.D

Analysis Method: 8260C Date Collected: 04/08/2014 11:05

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 20:39

Soil Aliquot Vol: Dilution Factor: 11.11

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17S-040814 | Lab Sample ID: 240-36010-2

Matrix: Water | Lab File ID: U1237010.D

Analysis Method: 8260C | Date Collected: 04/08/2014 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 20:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.20	J	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17S-040814 | Lab Sample ID: 240-36010-2

Matrix: Water | Lab File ID: U1237010.D

Analysis Method: 8260C | Date Collected: 04/08/2014 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 20:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.87	J	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	7.3		1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17S-040814 Lab Sample ID: 240-36010-2

Matrix: Water Lab File ID: U1237010.D

Analysis Method: 8260C Date Collected: 04/08/2014 09:50

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 20:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		74-120
1868-53-7	Dibromofluoromethane (Surr)	103		75-121
460-00-4	4-Bromofluorobenzene (Surr)	89		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17S-040814 | Lab Sample ID: 240-36010-2

Matrix: Water | Lab File ID: U1237010.D

Analysis Method: 8260C | Date Collected: 04/08/2014 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 20:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW47D-040814 | Lab Sample ID: 240-36010-5

Matrix: Water | Lab File ID: U1237013.D

Analysis Method: 8260C | Date Collected: 04/08/2014 14:15

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 21:26

Soil Aliquot Vol: | Dilution Factor: 5.71

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.3	U	5.7	1.3
71-55-6	1,1,1-Trichloroethane	1.3	U	5.7	1.3
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	5.7	1.0
76-13-1	1,1,2-Trichlorotrifluoroethane	1.6	U	5.7	1.6
75-34-3	1,1-Dichloroethane	0.86	U	5.7	0.86
75-35-4	1,1-Dichloroethene	1.1	U	5.7	1.1
563-58-6	1,1-Dichloropropene	0.74	U	5.7	0.74
87-61-6	1,2,3-Trichlorobenzene	0.97	U	5.7	0.97
96-18-4	1,2,3-Trichloropropane	2.5	U	5.7	2.5
526-73-8	1,2,3-Trimethylbenzene	0.034	U	29	0.034
120-82-1	1,2,4-Trichlorobenzene	0.86	U	5.7	0.86
95-63-6	1,2,4-Trimethylbenzene	0.69	U	5.7	0.69
96-12-8	1,2-Dibromo-3-Chloropropane	3.8	U	11	3.8
95-50-1	1,2-Dichlorobenzene	0.74	U	5.7	0.74
107-06-2	1,2-Dichloroethane	3.6	J	5.7	1.3
78-87-5	1,2-Dichloropropane	1.0	U	5.7	1.0
541-73-1	1,3-Dichlorobenzene	0.80	U	5.7	0.80
142-28-9	1,3-Dichloropropane	0.91	U	5.7	0.91
106-46-7	1,4-Dichlorobenzene	0.74	U	5.7	0.74
594-20-7	2,2-Dichloropropane	0.74	U	5.7	0.74
78-93-3	2-Butanone (MEK)	3.3	U	57	3.3
110-75-8	2-Chloroethyl vinyl ether	5.7	U	57	5.7
95-49-8	2-Chlorotoluene	0.63	U	5.7	0.63
591-78-6	2-Hexanone	2.3	U	57	2.3
106-43-4	4-Chlorotoluene	1.0	U	5.7	1.0
99-87-6	4-Isopropyltoluene	0.69	U	5.7	0.69
108-10-1	4-Methyl-2-pentanone (MIBK)	1.8	U	57	1.8
67-64-1	Acetone	6.3	U	57	6.3
71-43-2	Benzene	0.74	U	5.7	0.74
108-86-1	Bromobenzene	0.74	U	5.7	0.74
75-25-2	Bromoform	3.7	U	5.7	3.7
74-83-9	Bromomethane	2.3	U	5.7	2.3
75-15-0	Carbon disulfide	0.74	U	5.7	0.74
56-23-5	Carbon tetrachloride	2.1	J	5.7	0.74
108-90-7	Chlorobenzene	0.86	U	5.7	0.86
124-48-1	Chlorodibromomethane	1.0	U	5.7	1.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW47D-040814 Lab Sample ID: 240-36010-5

Matrix: Water Lab File ID: U1237013.D

Analysis Method: 8260C Date Collected: 04/08/2014 14:15

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 21:26

Soil Aliquot Vol: Dilution Factor: 5.71

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	1.7	U	5.7	1.7
67-66-3	Chloroform	19		5.7	0.91
74-87-3	Chloromethane	1.7	U	5.7	1.7
156-59-2	cis-1,2-Dichloroethene	38		5.7	0.97
10061-01-5	cis-1,3-Dichloropropene	0.80	U	5.7	0.80
74-95-3	Dibromomethane	1.6	U *	5.7	1.6
74-97-5	Bromochloromethane	1.7	U	5.7	1.7
75-71-8	Dichlorodifluoromethane	1.8	U	5.7	1.8
75-27-4	Bromodichloromethane	0.86	U	5.7	0.86
75-65-0	tert-Butyl alcohol	22	U	290	22
100-41-4	Ethylbenzene	0.97	U	5.7	0.97
87-68-3	Hexachlorobutadiene	1.7	U	5.7	1.7
108-20-3	Diisopropyl ether	8.6	U	57	8.6
98-82-8	Isopropylbenzene	0.74	U	5.7	0.74
1634-04-4	Methyl tert-butyl ether	0.97	U	5.7	0.97
75-09-2	Methylene Chloride	1.9	U	5.7	1.9
179601-23-1	m-Xylene & p-Xylene	1.4	U	11	1.4
91-20-3	Naphthalene	1.4	U	5.7	1.4
104-51-8	n-Butylbenzene	0.69	U	5.7	0.69
103-65-1	N-Propylbenzene	0.80	U	5.7	0.80
95-47-6	o-Xylene	0.80	U	5.7	0.80
135-98-8	sec-Butylbenzene	0.74	U	5.7	0.74
100-42-5	Styrene	0.63	U	5.7	0.63
994-05-8	Tert-amyl methyl ether	0.38	U	29	0.38
637-92-3	Ethyl tert-butyl ether	0.63	U	29	0.63
127-18-4	Tetrachloroethene	1.7	U	5.7	1.7
108-88-3	Toluene	0.74	U	5.7	0.74
156-60-5	trans-1,2-Dichloroethene	1.1	U	5.7	1.1
10061-02-6	trans-1,3-Dichloropropene	1.1	U	5.7	1.1
79-01-6	Trichloroethene	360		5.7	0.97
75-69-4	Trichlorofluoromethane	1.2	U	5.7	1.2
108-05-4	Vinyl acetate	1.1	U	11	1.1
75-01-4	Vinyl chloride	3.3	J	5.7	1.3
1330-20-7	Xylenes, Total	0.80	U	11	0.80
98-06-6	tert-Butylbenzene	0.74	U	5.7	0.74
106-93-4	1,2-Dibromoethane	1.4	U	5.7	1.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW47D-040814 Lab Sample ID: 240-36010-5

Matrix: Water Lab File ID: U1237013.D

Analysis Method: 8260C Date Collected: 04/08/2014 14:15

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 21:26

Soil Aliquot Vol: Dilution Factor: 5.71

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		74-120
1868-53-7	Dibromofluoromethane (Surr)	100		75-121
460-00-4	4-Bromofluorobenzene (Surr)	84		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW47D-040814 Lab Sample ID: 240-36010-5

Matrix: Water Lab File ID: U1237013.D

Analysis Method: 8260C Date Collected: 04/08/2014 14:15

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 21:26

Soil Aliquot Vol: Dilution Factor: 5.71

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW5-040714 Lab Sample ID: 240-35913-3

Matrix: Water Lab File ID: U1237008.D

Analysis Method: 8260C Date Collected: 04/07/2014 14:35

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 19:29

Soil Aliquot Vol: Dilution Factor: 83.33

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	19	U	83	19
71-55-6	1,1,1-Trichloroethane	18	U	83	18
79-34-5	1,1,2,2-Tetrachloroethane	15	U	83	15
76-13-1	1,1,2-Trichlorotrifluoroethane	23	U	83	23
75-34-3	1,1-Dichloroethane	12	U	83	12
75-35-4	1,1-Dichloroethene	16	U	83	16
563-58-6	1,1-Dichloropropene	11	U	83	11
87-61-6	1,2,3-Trichlorobenzene	14	U	83	14
96-18-4	1,2,3-Trichloropropane	36	U	83	36
526-73-8	1,2,3-Trimethylbenzene	0.49	U	420	0.49
120-82-1	1,2,4-Trichlorobenzene	12	U	83	12
95-63-6	1,2,4-Trimethylbenzene	10	U	83	10
96-12-8	1,2-Dibromo-3-Chloropropane	56	U	170	56
95-50-1	1,2-Dichlorobenzene	11	U	83	11
107-06-2	1,2-Dichloroethane	18	U	83	18
78-87-5	1,2-Dichloropropane	15	U	83	15
541-73-1	1,3-Dichlorobenzene	12	U	83	12
142-28-9	1,3-Dichloropropane	13	U	83	13
106-46-7	1,4-Dichlorobenzene	11	U	83	11
594-20-7	2,2-Dichloropropane	11	U	83	11
78-93-3	2-Butanone (MEK)	47	U	830	47
110-75-8	2-Chloroethyl vinyl ether	82	U	830	82
95-49-8	2-Chlorotoluene	9.2	U	83	9.2
591-78-6	2-Hexanone	34	U	830	34
106-43-4	4-Chlorotoluene	15	U	83	15
99-87-6	4-Isopropyltoluene	10	U	83	10
108-10-1	4-Methyl-2-pentanone (MIBK)	27	U	830	27
67-64-1	Acetone	92	U	830	92
71-43-2	Benzene	11	U	83	11
108-86-1	Bromobenzene	11	U	83	11
75-25-2	Bromoform	53	U	83	53
74-83-9	Bromomethane	34	U	83	34
75-15-0	Carbon disulfide	11	U	83	11
56-23-5	Carbon tetrachloride	11	U	83	11
108-90-7	Chlorobenzene	12	U	83	12
124-48-1	Chlorodibromomethane	15	U	83	15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW5-040714 | Lab Sample ID: 240-35913-3

Matrix: Water | Lab File ID: U1237008.D

Analysis Method: 8260C | Date Collected: 04/07/2014 14:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 19:29

Soil Aliquot Vol: | Dilution Factor: 83.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	24	U	83	24
67-66-3	Chloroform	13	U	83	13
74-87-3	Chloromethane	25	U	83	25
156-59-2	cis-1,2-Dichloroethene	4000		83	14
10061-01-5	cis-1,3-Dichloropropene	12	U	83	12
74-95-3	Dibromomethane	23	U *	83	23
74-97-5	Bromochloromethane	24	U	83	24
75-71-8	Dichlorodifluoromethane	26	U	83	26
75-27-4	Bromodichloromethane	12	U	83	12
75-65-0	tert-Butyl alcohol	320	U	4200	320
100-41-4	Ethylbenzene	14	U	83	14
87-68-3	Hexachlorobutadiene	25	U	83	25
108-20-3	Diisopropyl ether	120	U	830	120
98-82-8	Isopropylbenzene	11	U	83	11
1634-04-4	Methyl tert-butyl ether	14	U	83	14
75-09-2	Methylene Chloride	27	U	83	27
179601-23-1	m-Xylene & p-Xylene	20	U	170	20
91-20-3	Naphthalene	20	U	83	20
104-51-8	n-Butylbenzene	10	U	83	10
103-65-1	N-Propylbenzene	12	U	83	12
95-47-6	o-Xylene	12	U	83	12
135-98-8	sec-Butylbenzene	11	U	83	11
100-42-5	Styrene	9.2	U	83	9.2
994-05-8	Tert-amyl methyl ether	5.6	U	420	5.6
637-92-3	Ethyl tert-butyl ether	9.2	U	420	9.2
127-18-4	Tetrachloroethene	24	U	83	24
108-88-3	Toluene	11	U	83	11
156-60-5	trans-1,2-Dichloroethene	72	J	83	16
10061-02-6	trans-1,3-Dichloropropene	16	U	83	16
79-01-6	Trichloroethene	14	U	83	14
75-69-4	Trichlorofluoromethane	17	U	83	17
108-05-4	Vinyl acetate	16	U	170	16
75-01-4	Vinyl chloride	800		83	18
1330-20-7	Xylenes, Total	12	U	170	12
98-06-6	tert-Butylbenzene	11	U	83	11
106-93-4	1,2-Dibromoethane	20	U	83	20

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW5-040714 Lab Sample ID: 240-35913-3

Matrix: Water Lab File ID: U1237008.D

Analysis Method: 8260C Date Collected: 04/07/2014 14:35

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 19:29

Soil Aliquot Vol: Dilution Factor: 83.33

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		74-120
1868-53-7	Dibromofluoromethane (Surr)	102		75-121
460-00-4	4-Bromofluorobenzene (Surr)	88		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW5-040714 | Lab Sample ID: 240-35913-3

Matrix: Water | Lab File ID: U1237008.D

Analysis Method: 8260C | Date Collected: 04/07/2014 14:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 19:29

Soil Aliquot Vol: | Dilution Factor: 83.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: TB-040714 Lab Sample ID: 240-35913-1

Matrix: Water Lab File ID: U1237006.D

Analysis Method: 8260C Date Collected: 04/07/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 18:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: TB-040714 | Lab Sample ID: 240-35913-1

Matrix: Water | Lab File ID: U1237006.D

Analysis Method: 8260C | Date Collected: 04/07/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 18:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.55	J	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: TB-040714 Lab Sample ID: 240-35913-1

Matrix: Water Lab File ID: U1237006.D

Analysis Method: 8260C Date Collected: 04/07/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 18:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		74-120
1868-53-7	Dibromofluoromethane (Surr)	94		75-121
460-00-4	4-Bromofluorobenzene (Surr)	85		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: TB-040714 | Lab Sample ID: 240-35913-1

Matrix: Water | Lab File ID: U1237006.D

Analysis Method: 8260C | Date Collected: 04/07/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 18:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: TB-040814 Lab Sample ID: 240-36010-1

Matrix: Water Lab File ID: U1237009.D

Analysis Method: 8260C Date Collected: 04/08/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 19:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: TB-040814 | Lab Sample ID: 240-36010-1

Matrix: Water | Lab File ID: U1237009.D

Analysis Method: 8260C | Date Collected: 04/08/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 19:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.74	J	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: TB-040814 Lab Sample ID: 240-36010-1

Matrix: Water Lab File ID: U1237009.D

Analysis Method: 8260C Date Collected: 04/08/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 19:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		74-120
1868-53-7	Dibromofluoromethane (Surr)	92		75-121
460-00-4	4-Bromofluorobenzene (Surr)	85		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: TB-040814 Lab Sample ID: 240-36010-1

Matrix: Water Lab File ID: U1237009.D

Analysis Method: 8260C Date Collected: 04/08/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 19:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: TB-040914 | Lab Sample ID: 240-36043-5

Matrix: Water | Lab File ID: UXX9859.D

Analysis Method: 8260C | Date Collected: 04/09/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 16:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: TB-040914 | Lab Sample ID: 240-36043-5

Matrix: Water | Lab File ID: UXX9859.D

Analysis Method: 8260C | Date Collected: 04/09/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 16:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: TB-040914 Lab Sample ID: 240-36043-5

Matrix: Water Lab File ID: UXX9859.D

Analysis Method: 8260C Date Collected: 04/09/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 16:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	89		75-121
460-00-4	4-Bromofluorobenzene (Surr)	90		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: TB-040914 | Lab Sample ID: 240-36043-5

Matrix: Water | Lab File ID: UXX9859.D

Analysis Method: 8260C | Date Collected: 04/09/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 16:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-DMW7S-040714 | Lab Sample ID: 240-35913-2

Matrix: Water | Lab File ID: 0411030.D

Analysis Method: 8270C | Date Collected: 04/07/2014 13:35

Extract. Method: 3510C | Date Extracted: 04/10/2014 10:18

Sample wt/vol: 270(mL) | Date Analyzed: 04/11/2014 19:01

Con. Extract Vol.: 5(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	96		4.6	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	87		29-110
367-12-4	2-Fluorophenol (Surr)	70		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	98		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	86		31-110
4165-62-2	Phenol-d5 (Surr)	53		10-110
1718-51-0	Terphenyl-d14 (Surr)	104		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-14D-040914 | Lab Sample ID: 240-36043-2

Matrix: Water | Lab File ID: 0415006.D

Analysis Method: 8270C | Date Collected: 04/09/2014 11:45

Extract. Method: 3510C | Date Extracted: 04/14/2014 07:44

Sample wt/vol: 280(mL) | Date Analyzed: 04/15/2014 12:10

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126502 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.23	U *	0.89	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	65		29-110
367-12-4	2-Fluorophenol (Surr)	66		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	70		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	72		31-110
4165-62-2	Phenol-d5 (Surr)	55		10-110
1718-51-0	Terphenyl-d14 (Surr)	97		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-14I-040914 | Lab Sample ID: 240-36043-1

Matrix: Water | Lab File ID: 0415005.D

Analysis Method: 8270C | Date Collected: 04/09/2014 10:25

Extract. Method: 3510C | Date Extracted: 04/14/2014 07:44

Sample wt/vol: 270(mL) | Date Analyzed: 04/15/2014 11:47

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126502 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	57	*	1.9	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	71		29-110
367-12-4	2-Fluorophenol (Surr)	68		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	85		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	77		31-110
4165-62-2	Phenol-d5 (Surr)	58		10-110
1718-51-0	Terphenyl-d14 (Surr)	97		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-48D-040914 | Lab Sample ID: 240-36043-4

Matrix: Water | Lab File ID: 0415007.D

Analysis Method: 8270C | Date Collected: 04/09/2014 16:00

Extract. Method: 3510C | Date Extracted: 04/14/2014 07:44

Sample wt/vol: 260(mL) | Date Analyzed: 04/15/2014 12:33

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126502 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	21	*	0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	66		29-110
367-12-4	2-Fluorophenol (Surr)	63		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	76		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	70		31-110
4165-62-2	Phenol-d5 (Surr)	54		10-110
1718-51-0	Terphenyl-d14 (Surr)	95		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17D-040814 | Lab Sample ID: 240-36010-4

Matrix: Water | Lab File ID: 0412016.D

Analysis Method: 8270C | Date Collected: 04/08/2014 12:25

Extract. Method: 3510C | Date Extracted: 04/11/2014 09:45

Sample wt/vol: 230(mL) | Date Analyzed: 04/12/2014 17:18

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126265 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.28	U *	1.1	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	73		29-110
367-12-4	2-Fluorophenol (Surr)	62		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	74		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	79		31-110
4165-62-2	Phenol-d5 (Surr)	49		10-110
1718-51-0	Terphenyl-d14 (Surr)	95		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17I-040814 | Lab Sample ID: 240-36010-3

Matrix: Water | Lab File ID: 0412020.D

Analysis Method: 8270C | Date Collected: 04/08/2014 11:05

Extract. Method: 3510C | Date Extracted: 04/11/2014 09:45

Sample wt/vol: 260(mL) | Date Analyzed: 04/12/2014 18:50

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126265 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.25	U *	0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	75		29-110
367-12-4	2-Fluorophenol (Surr)	71		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	75		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	83		31-110
4165-62-2	Phenol-d5 (Surr)	55		10-110
1718-51-0	Terphenyl-d14 (Surr)	95		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17S-040814 | Lab Sample ID: 240-36010-2

Matrix: Water | Lab File ID: 0412021.D

Analysis Method: 8270C | Date Collected: 04/08/2014 09:50

Extract. Method: 3510C | Date Extracted: 04/11/2014 09:45

Sample wt/vol: 280(mL) | Date Analyzed: 04/12/2014 19:13

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126265 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.58	J *	0.89	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	70		29-110
367-12-4	2-Fluorophenol (Surr)	69		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	73		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	80		31-110
4165-62-2	Phenol-d5 (Surr)	56		10-110
1718-51-0	Terphenyl-d14 (Surr)	95		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW47D-040814 | Lab Sample ID: 240-36010-5

Matrix: Water | Lab File ID: 0412019.D

Analysis Method: 8270C | Date Collected: 04/08/2014 14:15

Extract. Method: 3510C | Date Extracted: 04/11/2014 09:45

Sample wt/vol: 230(mL) | Date Analyzed: 04/12/2014 18:27

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126265 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	14	*	1.1	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	69		29-110
367-12-4	2-Fluorophenol (Surr)	75		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	74		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	82		31-110
4165-62-2	Phenol-d5 (Surr)	65		10-110
1718-51-0	Terphenyl-d14 (Surr)	96		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW5-040714 | Lab Sample ID: 240-35913-3

Matrix: Water | Lab File ID: 0411015.D

Analysis Method: 8270C | Date Collected: 04/07/2014 14:35

Extract. Method: 3510C | Date Extracted: 04/10/2014 10:18

Sample wt/vol: 260(mL) | Date Analyzed: 04/11/2014 13:09

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	7.9		0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	80		29-110
367-12-4	2-Fluorophenol (Surr)	69		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	98		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	81		31-110
4165-62-2	Phenol-d5 (Surr)	54		10-110
1718-51-0	Terphenyl-d14 (Surr)	95		31-115

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-48D-040914 Lab Sample ID: 240-36043-4

Matrix: Water Lab File ID: Z0041408.D

Analysis Method: RSK-175 Date Collected: 04/09/2014 16:00

Sample wt/vol: 17(mL) Date Analyzed: 04/14/2014 12:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ID:

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126354 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	57	B	0.10	0.070
74-84-0	Ethane	0.22	J	0.26	0.19
74-85-1	Ethene	1.6		0.31	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	104		66-132

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-48I-040914 Lab Sample ID: 240-36043-3

Matrix: Water Lab File ID: Z0041407.D

Analysis Method: RSK-175 Date Collected: 04/09/2014 14:40

Sample wt/vol: 17(mL) Date Analyzed: 04/14/2014 12:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ID:

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126354 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	110	B	0.10	0.070
74-84-0	Ethane	0.45		0.26	0.19
74-85-1	Ethene	7.4		0.31	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	104		66-132

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-DMW7S-040714 Lab Sample ID: 240-35913-2

Matrix: Water Lab File ID: YF041907.D

Analysis Method: 8015B Date Collected: 04/07/2014 13:35

Sample wt/vol: 5(mL) Date Analyzed: 04/19/2014 16:50

Soil Aliquot Vol: Dilution Factor: 5

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127165 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	5400	B	500	130

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	80		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17S-040814 | Lab Sample ID: 240-36010-2

Matrix: Water | Lab File ID: YF041533.D

Analysis Method: 8015B | Date Collected: 04/08/2014 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2014 06:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126686 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	34	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	80		40-133

FORM I

GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW5-040714 Lab Sample ID: 240-35913-3

Matrix: Water Lab File ID: YF041036.D

Analysis Method: 8015B Date Collected: 04/07/2014 14:35

Sample wt/vol: 5(mL) Date Analyzed: 04/11/2014 08:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 125978 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	980		100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	68		40-133

FORM I

DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-DMW7S-040714 | Lab Sample ID: 240-35913-2

Matrix: Water | Lab File ID: P14F041509.D

Analysis Method: 8015B | Date Collected: 04/07/2014 13:35

Extraction Method: 3510C | Date Extracted: 04/14/2014 07:55

Sample wt/vol: 280(mL) | Date Analyzed: 04/15/2014 14:28

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	550		450	210

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	66		40-160

FORM I

DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17S-040814 Lab Sample ID: 240-36010-2

Matrix: Water Lab File ID: P14F041517.D

Analysis Method: 8015B Date Collected: 04/08/2014 09:50

Extraction Method: 3510C Date Extracted: 04/11/2014 09:50

Sample wt/vol: 240(mL) Date Analyzed: 04/15/2014 17:14

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 126527 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	250	U	520	250

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	78		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW5-040714 | Lab Sample ID: 240-35913-3

Matrix: Water | Lab File ID: P14F041510.D

Analysis Method: 8015B | Date Collected: 04/07/2014 14:35

Extraction Method: 3510C | Date Extracted: 04/14/2014 07:55

Sample wt/vol: 240(mL) | Date Analyzed: 04/15/2014 14:49

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	250	U	520	250

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	80		40-160

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-48D-040914 Lab Sample ID: 240-36043-4

Matrix: Water Lab File ID: 16APR14-Per-041.d

Analysis Method: 6850 Date Collected: 04/09/2014 16:00

Extraction Method: Filtration Date Extracted: 04/15/2014 13:56

Sample wt/vol: 4.00(mL) Date Analyzed: 04/16/2014 23:16

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW-48I-040914 Lab Sample ID: 240-36043-3

Matrix: Water Lab File ID: 16APR14-Per-040.d

Analysis Method: 6850 Date Collected: 04/09/2014 14:40

Extraction Method: Filtration Date Extracted: 04/15/2014 13:56

Sample wt/vol: 4.00(mL) Date Analyzed: 04/16/2014 22:54

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW17I-040814 Lab Sample ID: 240-36010-3

Matrix: Water Lab File ID: 16APR14-Per-036.d

Analysis Method: 6850 Date Collected: 04/08/2014 11:05

Extraction Method: Filtration Date Extracted: 04/15/2014 13:56

Sample wt/vol: 4.00(mL) Date Analyzed: 04/16/2014 21:29

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.16	J	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-MW47D-040814 Lab Sample ID: 240-36010-5

Matrix: Water Lab File ID: 16APR14-Per-039.d

Analysis Method: 6850 Date Collected: 04/08/2014 14:15

Extraction Method: Filtration Date Extracted: 04/15/2014 13:56

Sample wt/vol: 4.00(mL) Date Analyzed: 04/16/2014 22:33

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW7S-040714 Lab Sample ID: 240-35913-2

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/07/2014 13:35

Reporting Basis: WET Date Received: 04/09/2014 10:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.31	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	2.9	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	12	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.42	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.48	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	17	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.37	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	2.9	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	24000	100	12	ug/L			1	6020
7439-96-5	Manganese	8100	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	17	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.44	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	3.6	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.91	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.019	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-14D-040914 Lab Sample ID: 240-36043-2

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 11:45

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	1.2	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	7.9	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.40	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.11	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	7.8	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	2.9	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	5.7	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	3300	100	12	ug/L		B	1	6020
7439-96-5	Manganese	37	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	32	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.54	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.1	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.020	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-14I-040914 Lab Sample ID: 240-36043-1

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 10:25

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.12	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	26	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	18	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.15	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.098	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	14	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	1.8	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	1.1	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	75000	100	12	ug/L		B	1	6020
7439-96-5	Manganese	2000	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	1.0	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	12	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.42	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.91	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.2	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-48D-040914 Lab Sample ID: 240-36043-4

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 16:00

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	21000	5000	130	ug/L			1	6010C
7440-09-7	Potassium	2200	5000	72	ug/L	J		1	6010C
7440-23-5	Sodium	58000	5000	590	ug/L			1	6010C
14808-60-7	SiO2, Silica	11000	1100	17	ug/L			1	6010C
7439-95-4	Magnesium	17000	5000	34	ug/L			1	6010C
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	3.7	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	27	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	2.4	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	14	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	170	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	5.0	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	29	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	570	100	12	ug/L		B	1	6020
7439-96-5	Manganese	2600	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U	^	1	6020
7440-02-0	Nickel	89	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.67	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	10	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.8	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
	Hardness as calcium carbonate	120	33	33	mg/L			1	2340B-1997
	Calcium hardness as calcium carbonate	52	12	12	mg/L			1	2340B-1997
	Magnesium hardness as calcium carbonate	70	21	21	mg/L			1	2340B-1997

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-48I-040914 Lab Sample ID: 240-36043-3

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 14:40

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	21000	5000	130	ug/L			1	6010C
7440-09-7	Potassium	2300	5000	72	ug/L	J		1	6010C
7440-23-5	Sodium	64000	5000	590	ug/L			1	6010C
14808-60-7	SiO2, Silica	9200	1100	17	ug/L			1	6010C
7439-95-4	Magnesium	18000	5000	34	ug/L			1	6010C
7440-36-0	Antimony	0.24	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	4.0	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	19	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	2.9	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	170	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	300	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	6.5	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	47	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	1500	100	12	ug/L		B	1	6020
7439-96-5	Manganese	4400	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U	^	1	6020
7440-02-0	Nickel	130	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	1.0	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	9.4	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.8	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.011	1.0	0.0083	ug/L	J	B	1	6020
	Hardness as calcium carbonate	130	33	33	mg/L			1	2340B-1997
	Calcium hardness as calcium carbonate	53	12	12	mg/L			1	2340B-1997
	Magnesium hardness as calcium carbonate	76	21	21	mg/L			1	2340B-1997

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW17D-040814 Lab Sample ID: 240-36010-4

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/08/2014 12:25

Reporting Basis: WET Date Received: 04/10/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.37	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	3.3	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	14	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.22	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	8.4	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	1.3	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	0.97	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	6000	100	12	ug/L		B	1	6020
7439-96-5	Manganese	46	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	10	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.49	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.5	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW17I-040814 Lab Sample ID: 240-36010-3

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/08/2014 11:05

Reporting Basis: WET Date Received: 04/10/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.29	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	4.8	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	9.2	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.24	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	12	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.40	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	1.3	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	1500	100	12	ug/L		B	1	6020
7439-96-5	Manganese	26	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	21	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.36	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.49	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.8	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW17S-040814 Lab Sample ID: 240-36010-2

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/08/2014 09:50

Reporting Basis: WET Date Received: 04/10/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.20	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	6.5	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	53	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.14	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	0.35	1.0	0.020	ug/L	J		1	6020
7440-47-3	Chromium	0.80	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	1.0	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	23000	100	12	ug/L		B	1	6020
7439-96-5	Manganese	650	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	1.1	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	12	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.30	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.36	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.7	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.016	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW47D-040814 Lab Sample ID: 240-36010-5

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/08/2014 14:15

Reporting Basis: WET Date Received: 04/10/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.31	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	2.4	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	18	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.16	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	11	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.16	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	0.55	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	3700	100	12	ug/L		B	1	6020
7439-96-5	Manganese	100	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	11	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.17	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.58	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.90	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW5-040714 Lab Sample ID: 240-35913-3

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/07/2014 14:35

Reporting Basis: WET Date Received: 04/09/2014 10:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.19	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	2.3	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	18	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.041	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	0.15	1.0	0.020	ug/L	J		1	6020
7440-47-3	Chromium	0.30	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	0.25	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	29000	100	12	ug/L			1	6020
7439-96-5	Manganese	1500	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	2.3	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	0.37	2.0	0.088	ug/L	J	B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7782-49-2	Selenium	0.47	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.016	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW7S-040714 Lab Sample ID: 240-35913-2

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/07/2014 13:35

Reporting Basis: WET Date Received: 04/09/2014 10:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.18	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	2.8	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	12	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.42	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.49	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	0.35	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	17	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	2.7	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.19	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	18	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	25000	100	12	ug/L			1	6020
7782-49-2	Selenium	3.6	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	8400	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.012	1.0	0.0083	ug/L	J	B	1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.93	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-14D-040914 Lab Sample ID: 240-36043-2

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 11:45

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	0.71	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	7.0	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.26	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.061	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	0.50	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	7.3	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	2.9	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	31	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	490	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	35	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.96	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-14I-040914 Lab Sample ID: 240-36043-1

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 10:25

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	26	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	17	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.14	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.93	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	14	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.70	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.43	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.89	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	11	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	76000	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.71	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	2000	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.4	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-48D-040914 Lab Sample ID: 240-36043-4

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 16:00

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	3.3	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	26	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	2.3	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	13	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	4.0	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	160	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	27	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.58	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U	^	1	6020
7440-02-0	Nickel	86	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	280	100	12	ug/L		B	1	6020
7782-49-2	Selenium	9.6	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	2400	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.96	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-48I-040914 Lab Sample ID: 240-36043-3

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 14:40

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	3.9	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	19	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	2.7	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	150	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	5.7	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	310	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	16	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.71	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U	^	1	6020
7440-02-0	Nickel	130	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	1300	100	12	ug/L		B	1	6020
7782-49-2	Selenium	9.4	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	4600	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.1	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW17D-040814 Lab Sample ID: 240-36010-4

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/08/2014 12:25

Reporting Basis: WET Date Received: 04/10/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.58	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	3.1	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	12	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.25	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.23	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	8.0	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	1.1	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.27	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	12	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	4900	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.43	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	44	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0090	1.0	0.0083	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.86	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW17I-040814 Lab Sample ID: 240-36010-3

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/08/2014 11:05

Reporting Basis: WET Date Received: 04/10/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.27	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	3.6	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	7.8	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.20	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.15	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	11	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	1.0	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.15	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	22	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	950	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.52	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	24	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW17S-040814 Lab Sample ID: 240-36010-2

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/08/2014 09:50

Reporting Basis: WET Date Received: 04/10/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.16	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	6.7	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	56	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.11	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.57	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	0.34	1.0	0.020	ug/L	J		1	6020
7440-50-8	Copper	0.56	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	16	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	24000	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.37	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	700	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0090	1.0	0.0083	ug/L	J	B	1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.4	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW47D-040814 Lab Sample ID: 240-36010-5

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/08/2014 14:15

Reporting Basis: WET Date Received: 04/10/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.25	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	2.0	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	16	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.16	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.13	2.0	0.13	ug/L	U		1	6020
7440-48-4	Cobalt	10	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	10	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	3100	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.50	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	91	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.72	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW5-040714 Lab Sample ID: 240-35913-3

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/07/2014 14:35

Reporting Basis: WET Date Received: 04/09/2014 10:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.19	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	2.3	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	19	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.045	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.30	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	0.29	1.0	0.020	ug/L	J		1	6020
7440-50-8	Copper	0.63	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	2.3	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	1.8	2.0	0.088	ug/L	J	B	1	6020
7439-89-6	Iron	29000	100	12	ug/L			1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	1500	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.013	1.0	0.0083	ug/L	J	B	1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW7S-040714 Lab Sample ID: 240-35913-2

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/07/2014 13:35

Reporting Basis: WET Date Received: 04/09/2014 10:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-14D-040914 Lab Sample ID: 240-36043-2

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 11:45

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-14I-040914 Lab Sample ID: 240-36043-1

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 10:25

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-48D-040914 Lab Sample ID: 240-36043-4

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 16:00

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	1.7	0.20	0.12	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-48I-040914 Lab Sample ID: 240-36043-3

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 14:40

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW17D-040814 Lab Sample ID: 240-36010-4

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/08/2014 12:25

Reporting Basis: WET Date Received: 04/10/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW17I-040814 Lab Sample ID: 240-36010-3

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/08/2014 11:05

Reporting Basis: WET Date Received: 04/10/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW17S-040814 Lab Sample ID: 240-36010-2

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/08/2014 09:50

Reporting Basis: WET Date Received: 04/10/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW47D-040814 Lab Sample ID: 240-36010-5

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/08/2014 14:15

Reporting Basis: WET Date Received: 04/10/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW5-040714 Lab Sample ID: 240-35913-3

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/07/2014 14:35

Reporting Basis: WET Date Received: 04/09/2014 10:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MSA-MW-48D-040914 Lab Sample ID: 240-36043-4

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 16:00

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	1.9	5.0	1.9	mg/L	U		1	310.1
	Total Dissolved Solids	440	10	7.4	mg/L			1	160.1
16887-00-6	Chloride	98	1.0	0.10	mg/L			1	300.0
14797-65-0	Nitrite as N	0.012	0.10	0.012	mg/L	U		1	300.0
14797-55-8	Nitrate as N	0.36	0.10	0.023	mg/L			1	300.0
14808-79-8	Sulfate	170	5.0	0.60	mg/L			5	300.0
	Orthophosphate as P	0.98	0.50	0.044	mg/L			1	300.0
7664-41-7	Ammonia (as N)	0.25	0.20	0.092	mg/L			1	350.3

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MSA-MW-48I-040914 Lab Sample ID: 240-36043-3

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 14:40

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	4.4	5.0	1.9	mg/L	J	B	1	310.1
	Total Dissolved Solids	540	10	7.4	mg/L			1	160.1
16887-00-6	Chloride	110	1.0	0.10	mg/L			1	300.0
14797-65-0	Nitrite as N	0.29	0.10	0.012	mg/L			1	300.0
14797-55-8	Nitrate as N	1.1	0.10	0.023	mg/L			1	300.0
14808-79-8	Sulfate	240	5.0	0.60	mg/L			5	300.0
	Orthophosphate as P	1.5	0.50	0.044	mg/L			1	300.0
7664-41-7	Ammonia (as N)	0.30	0.20	0.092	mg/L			1	350.3

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-MW-48D-040914 Lab Sample ID: 240-36043-4

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 16:00

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	2.0	1.0	0.24	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-MW-48I-040914 Lab Sample ID: 240-36043-3

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG ID.:

Matrix: Water Date Sampled: 04/09/2014 14:40

Reporting Basis: WET Date Received: 04/11/2014 11:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	2.4	1.0	0.24	mg/L			1	9060

APPENDIX C

SUPPORT DOCUMENTATION

HOLDTIME

PROJ_NO 06183

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	HG	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/04/2014	04/07/2014	3	3	6
240-35725-1	HG	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35725-1	HG	UG/L	MSA-MW41I-040414	240-35833-3	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35725-1	HG	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	HG	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/07/2014	3	3	6
240-35725-1	HG	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	HG	UG/L	MSA-MW46D-040214	240-35791-6	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	HG	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	HG	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	HG	UG/L	MSA-MW42I-040214	240-35791-3	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	HG	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	HG	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	HG	UG/L	MSA-MW16I-040314	240-35834-3	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	HG	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35913-1	HG	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	HG	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	HG	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/15/2014	04/16/2014	7	1	8
240-35913-1	HG	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/11/2014	04/17/2014	3	6	9
240-35913-1	HG	UG/L	MSA-MW17D-040814	240-36010-4	NM	04/08/2014	04/11/2014	04/17/2014	3	6	9
240-35913-1	HG	UG/L	MSA-MW-14I-040914	240-36043-1	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	HG	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/11/2014	04/17/2014	3	6	9
240-35913-1	HG	UG/L	MSA-MW-14D-040914	240-36043-2	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	HG	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	HG	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35725-1	M	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35725-1	M	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	M	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/07/2014	04/09/2014	4	2	6
240-35725-1	M	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	M	UG/L	MSA-MW46D-040214	240-35791-6	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	M	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35725-1	M	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	M	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	M	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/04/2014	04/07/2014	3	3	6
240-35725-1	M	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	M	UG/L	MSA-MW16I-040314	240-35834-3	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	M	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/08/2014	3	4	7
240-35725-1	M	UG/L	MSA-MW41I-040414	240-35833-3	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35725-1	M	UG/L	MSA-MW42I-040214	240-35791-3	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	M	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	M	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/14/2014	04/15/2014	13	1	14
240-35725-1	M	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/07/2014	3	3	6
240-35725-1	M	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/14/2014	04/15/2014	13	1	14
240-35725-1	M	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35913-1	M	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	M	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	M	UG/L	MSA-MW-14D-040914	240-36043-2	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	M	UG/L	MSA-MW-14I-040914	240-36043-1	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	M	UG/L	MSA-MW17D-040814	240-36010-4	NM	04/08/2014	04/11/2014	04/14/2014	3	3	6
240-35913-1	M	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/14/2014	04/15/2014	6	1	7
240-35913-1	M	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/11/2014	04/14/2014	3	3	6
240-35913-1	M	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/11/2014	04/14/2014	3	3	6
240-35913-1	M	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	M	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35725-1	MF	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	MF	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/07/2014	04/09/2014	4	2	6
240-35725-1	MF	UG/L	MSA-MW42I-040214	240-35791-3	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	MF	UG/L	MSA-MW16I-040314	240-35834-3	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	MF	UG/L	MSA-MW46D-040214	240-35791-6	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	MF	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	MF	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	MF	UG/L	MSA-MW41I-040414	240-35833-3	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35725-1	MF	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/07/2014	3	3	6
240-35725-1	MF	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	MF	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/04/2014	04/07/2014	3	3	6
240-35725-1	MF	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35725-1	MF	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/07/2014	04/08/2014	4	1	5
240-35725-1	MF	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/08/2014	3	4	7
240-35725-1	MF	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35725-1	MF	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/07/2014	04/08/2014	5	1	6
240-35725-1	MF	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/07/2014	04/08/2014	3	1	4
240-35913-1	MF	UG/L	MSA-MW-14I-040914	240-36043-1	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	MF	UG/L	MSA-MW-14D-040914	240-36043-2	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	MF	UG/L	MSA-MW-14D-040914	240-36043-2	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	MF	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	MF	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	MF	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/14/2014	04/15/2014	6	1	7
240-35913-1	MF	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/15/2014	04/16/2014	7	1	8
240-35913-1	MF	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	MF	UG/L	MSA-MW-14I-040914	240-36043-1	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	MF	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/11/2014	04/14/2014	3	3	6
240-35913-1	MF	UG/L	MSA-MW17D-040814	240-36010-4	NM	04/08/2014	04/11/2014	04/14/2014	3	3	6
240-35913-1	MF	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/11/2014	04/14/2014	3	3	6
240-35913-1	MF	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	MF	UG/L	MSA-MW17D-040814	240-36010-4	NM	04/08/2014	04/11/2014	04/17/2014	3	6	9
240-35913-1	MF	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	MF	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/11/2014	04/17/2014	3	6	9
240-35913-1	MF	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	MF	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/11/2014	04/17/2014	3	6	9
240-35725-1	ALK	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/08/2014	04/08/2014	7	0	7
240-35725-1	ALK	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/08/2014	04/08/2014	7	0	7
240-35913-1	ALK	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/15/2014	04/15/2014	6	0	6
240-35913-1	ALK	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/15/2014	04/15/2014	6	0	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	CL	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/15/2014	04/15/2014	14	0	14
240-35725-1	CL	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/15/2014	04/15/2014	14	0	14
240-35913-1	CL	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/17/2014	04/17/2014	8	0	8
240-35913-1	CL	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/17/2014	04/17/2014	8	0	8
240-35725-1	DOC	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35725-1	DOC	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35913-1	DOC	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/13/2014	04/13/2014	4	0	4
240-35913-1	DOC	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/13/2014	04/13/2014	4	0	4
240-35725-1	HARD	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/16/2014	04/16/2014	15	0	15
240-35725-1	HARD	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/16/2014	04/16/2014	15	0	15
240-35913-1	HARD	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/16/2014	04/16/2014	7	0	7
240-35913-1	HARD	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/16/2014	04/16/2014	7	0	7
240-35725-1	NH3	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35725-1	NH3	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35913-1	NH3	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/16/2014	04/16/2014	7	0	7
240-35913-1	NH3	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/16/2014	04/16/2014	7	0	7
240-35725-1	NTA	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35725-1	NTA	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35913-1	NTA	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	NTA	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2
240-35725-1	NTI	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/04/2014	04/04/2014	3	0	3
240-35725-1	NTI	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/04/2014	3	0	3
240-35913-1	NTI	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2
240-35913-1	NTI	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2
240-35725-1	OPO4	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35725-1	OPO4	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35913-1	OPO4	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2
240-35913-1	OPO4	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/11/2014	04/11/2014	2	0	2
240-35725-1	PCL	UG/L	MSA-MW46D-040214	240-35791-6	NM	04/02/2014	04/09/2014	04/11/2014	7	2	9
240-35725-1	PCL	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/09/2014	04/10/2014	7	1	8
240-35725-1	PCL	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/09/2014	04/11/2014	6	2	8
240-35725-1	PCL	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/09/2014	04/11/2014	6	2	8
240-35725-1	PCL	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/09/2014	04/10/2014	7	1	8
240-35725-1	PCL	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/09/2014	04/10/2014	8	1	9
240-35913-1	PCL	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	PCL	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/15/2014	04/16/2014	6	1	7
240-35913-1	PCL	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/15/2014	04/16/2014	7	1	8
240-35913-1	PCL	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/15/2014	04/16/2014	7	1	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	SO4	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/16/2014	04/16/2014	15	0	15
240-35725-1	SO4	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/15/2014	04/15/2014	14	0	14
240-35913-1	SO4	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	SO4	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35725-1	TDS	MG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/04/2014	3	0	3
240-35725-1	TDS	MG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/04/2014	04/04/2014	3	0	3
240-35913-1	TDS	MG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35913-1	TDS	MG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35725-1	OS	UG/L	MSA-MW42I-040214	240-35791-3	NM	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW42S-040214	240-35791-2	SUR	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/07/2014	04/10/2014	6	3	9
240-35725-1	OS	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/07/2014	04/11/2014	6	4	10
240-35725-1	OS	UG/L	MSA-MW41I-040414	240-35833-3	SUR	04/04/2014	04/08/2014	04/11/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW18S-040114	240-35725-2	SUR	04/01/2014	04/07/2014	04/10/2014	6	3	9
240-35725-1	OS	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/08/2014	04/11/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW42I-040214	240-35791-3	SUR	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW45S-040414	240-35833-4	SUR	04/04/2014	04/08/2014	04/11/2014	4	3	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	OS	UG/L	MSA-MW46I-040214	240-35791-5	SUR	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW46D-040214	240-35791-6	NM	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW47I-040314	240-35834-5	SUR	04/03/2014	04/07/2014	04/11/2014	4	4	8
240-35725-1	OS	UG/L	MSA-MW46S-040214	240-35791-4	SUR	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW41S-040414	240-35833-2	SUR	04/04/2014	04/08/2014	04/11/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW18I-040114	240-35725-3	SUR	04/01/2014	04/07/2014	04/11/2014	6	4	10
240-35725-1	OS	UG/L	MSA-MW46D-040214	240-35791-6	SUR	04/02/2014	04/07/2014	04/11/2014	5	4	9
240-35725-1	OS	UG/L	MSA-MW41I-040414	240-35833-3	NM	04/04/2014	04/08/2014	04/11/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/08/2014	04/11/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW47S-040314	240-35834-4	SUR	04/03/2014	04/07/2014	04/10/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW16I-040314	240-35834-3	NM	04/03/2014	04/07/2014	04/10/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW16S-040314	240-35834-2	SUR	04/03/2014	04/07/2014	04/11/2014	4	4	8
240-35725-1	OS	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/07/2014	04/11/2014	4	4	8
240-35725-1	OS	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/07/2014	04/11/2014	4	4	8
240-35725-1	OS	UG/L	MSA-MW16I-040314	240-35834-3	SUR	04/03/2014	04/07/2014	04/10/2014	4	3	7
240-35725-1	OS	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/07/2014	04/10/2014	4	3	7
240-35913-1	OS	UG/L	MSA-MW-14D-040914	240-36043-2	SUR	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	OS	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	OS	UG/L	MSA-DMW7S-040714	240-35913-2	SUR	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW17I-040814	240-36010-3	SUR	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW-48D-040914	240-36043-4	SUR	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	OS	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW-14I-040914	240-36043-1	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	OS	UG/L	MSA-MW-14I-040914	240-36043-1	SUR	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	OS	UG/L	MSA-MW17D-040814	240-36010-4	NM	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW17D-040814	240-36010-4	SUR	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW-14D-040914	240-36043-2	NM	04/09/2014	04/14/2014	04/15/2014	5	1	6
240-35913-1	OS	UG/L	MSA-MW47D-040814	240-36010-5	SUR	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW17S-040814	240-36010-2	SUR	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW5-040714	240-35913-3	SUR	04/07/2014	04/10/2014	04/11/2014	3	1	4
240-35913-1	OS	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/11/2014	04/12/2014	3	1	4
240-35725-1	OV	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	OV	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/15/2014	04/15/2014	11	0	11
240-35725-1	OV	UG/L	MSA-MW46I-040214	240-35791-5	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	OV	UG/L	MSA-MW18S-040114	240-35725-2	SUR	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	OV	UG/L	MSA-MW47I-040314	240-35834-5	SUR	04/03/2014	04/09/2014	04/09/2014	6	0	6
240-35725-1	OV	UG/L	MSA-MW42I-040214	240-35791-3	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW42I-040214	240-35791-3	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW47S-040314	240-35834-4	SUR	04/03/2014	04/14/2014	04/14/2014	11	0	11
240-35725-1	OV	UG/L	MSA-MW16I-040314	240-35834-3	SUR	04/03/2014	04/15/2014	04/15/2014	12	0	12
240-35725-1	OV	UG/L	MSA-MW41I-040414	240-35833-3	SUR	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW16I-040314	240-35834-3	NM	04/03/2014	04/15/2014	04/15/2014	12	0	12
240-35725-1	OV	UG/L	MSA-MW41S-040414	240-35833-2	SUR	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW41I-040414	240-35833-3	NM	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35725-1	OV	UG/L	MSA-MW46I-040214	240-35791-5	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	TB-040414	240-35833-1	SUR	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW46D-040214	240-35791-6	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	TB-040114	240-35725-1	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	OV	UG/L	TB-040114	240-35725-1	SUR	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	OV	UG/L	TB-040214	240-35791-1	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	OV	UG/L	TB-040214	240-35791-1	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	TB-040314	240-35834-1	NM	04/03/2014	04/14/2014	04/14/2014	11	0	11
240-35725-1	OV	UG/L	TB-040314	240-35834-1	SUR	04/03/2014	04/14/2014	04/14/2014	11	0	11
240-35725-1	OV	UG/L	TB-040414	240-35833-1	NM	04/04/2014	04/14/2014	04/14/2014	10	0	10
240-35725-1	OV	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW45S-040414	240-35833-4	SUR	04/04/2014	04/15/2014	04/15/2014	11	0	11
240-35725-1	OV	UG/L	MSA-MW46D-040214	240-35791-6	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW46S-040214	240-35791-4	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW18I-040114	240-35725-3	SUR	04/01/2014	04/07/2014	04/07/2014	6	0	6
240-35725-1	OV	UG/L	MSA-MW47I-040314	240-35834-5	NM	04/03/2014	04/09/2014	04/09/2014	6	0	6
240-35725-1	OV	UG/L	MSA-MW16S-040314	240-35834-2	SUR	04/03/2014	04/15/2014	04/15/2014	12	0	12
240-35725-1	OV	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/15/2014	04/15/2014	12	0	12
240-35725-1	OV	UG/L	MSA-MW42S-040214	240-35791-2	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	OV	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/14/2014	04/14/2014	11	0	11
240-35913-1	OV	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	TB-040714	240-35913-1	NM	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	TB-040714	240-35913-1	SUR	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	MSA-MW-48I-040914	240-36043-3	SUR	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	TB-040814	240-36010-1	NM	04/08/2014	04/14/2014	04/14/2014	6	0	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	OV	UG/L	TB-040814	240-36010-1	SUR	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW5-040714	240-35913-3	SUR	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	MSA-DMW7S-040714	240-35913-2	SUR	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW47D-040814	240-36010-5	SUR	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW17S-040814	240-36010-2	SUR	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	TB-040914	240-36043-5	SUR	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	TB-040914	240-36043-5	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/14/2014	04/14/2014	7	0	7
240-35913-1	OV	UG/L	MSA-MW47D-040814	240-36010-5	NM	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW17I-040814	240-36010-3	SUR	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW-14D-040914	240-36043-2	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW-14D-040914	240-36043-2	SUR	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW-48D-040914	240-36043-4	SUR	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW17I-040814	240-36010-3	NM	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW-14I-040914	240-36043-1	NM	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW-14I-040914	240-36043-1	SUR	04/09/2014	04/21/2014	04/21/2014	12	0	12
240-35913-1	OV	UG/L	MSA-MW17D-040814	240-36010-4	NM	04/08/2014	04/14/2014	04/14/2014	6	0	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	OV	UG/L	MSA-MW17D-040814	240-36010-4	SUR	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35913-1	OV	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/14/2014	04/14/2014	6	0	6
240-35725-1	ETHA	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	ETHA	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35913-1	ETHA	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35913-1	ETHA	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35725-1	ETHE	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	ETHE	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35913-1	ETHE	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35913-1	ETHE	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35725-1	METH	UG/L	MSA-MW18I-040114	240-35725-3	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	METH	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35913-1	METH	UG/L	MSA-MW-48I-040914	240-36043-3	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35913-1	METH	UG/L	MSA-MW-48D-040914	240-36043-4	NM	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35725-1	OVG	UG/L	MSA-MW18S-040114	240-35725-2	SUR	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	OVG	UG/L	MSA-MW18I-040114	240-35725-3	SUR	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35913-1	OVG	UG/L	MSA-MW-48I-040914	240-36043-3	SUR	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35913-1	OVG	UG/L	MSA-MW-48D-040914	240-36043-4	SUR	04/09/2014	04/14/2014	04/14/2014	5	0	5
240-35725-1	DRO	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/07/2014	04/09/2014	4	2	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	DRO	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/07/2014	04/09/2014	3	2	5
240-35725-1	DRO	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/07/2014	04/09/2014	4	2	6
240-35725-1	DRO	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/04/2014	04/09/2014	3	5	8
240-35725-1	DRO	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35725-1	DRO	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/07/2014	04/09/2014	3	2	5
240-35725-1	DRO	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35913-1	DRO	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/14/2014	04/15/2014	7	1	8
240-35913-1	DRO	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/11/2014	04/15/2014	3	4	7
240-35913-1	DRO	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/14/2014	04/15/2014	7	1	8
240-35725-1	GRO	UG/L	MSA-MW18S-040114	240-35725-2	NM	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	GRO	UG/L	MSA-MW16S-040314	240-35834-2	NM	04/03/2014	04/16/2014	04/16/2014	13	0	13
240-35725-1	GRO	UG/L	MSA-MW47S-040314	240-35834-4	NM	04/03/2014	04/16/2014	04/16/2014	13	0	13
240-35725-1	GRO	UG/L	MSA-MW42S-040214	240-35791-2	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	GRO	UG/L	MSA-MW45S-040414	240-35833-4	NM	04/04/2014	04/16/2014	04/16/2014	12	0	12
240-35725-1	GRO	UG/L	MSA-MW41S-040414	240-35833-2	NM	04/04/2014	04/16/2014	04/16/2014	12	0	12
240-35725-1	GRO	UG/L	MSA-MW46S-040214	240-35791-4	NM	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35913-1	GRO	UG/L	MSA-MW5-040714	240-35913-3	NM	04/07/2014	04/11/2014	04/11/2014	4	0	4
240-35913-1	GRO	UG/L	MSA-DMW7S-040714	240-35913-2	NM	04/07/2014	04/19/2014	04/19/2014	12	0	12
240-35913-1	GRO	UG/L	MSA-MW17S-040814	240-36010-2	NM	04/08/2014	04/17/2014	04/17/2014	9	0	9

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35725-1	TPH	UG/L	MSA-MW42S-040214	240-35791-2	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	TPH	UG/L	MSA-MW47S-040314	240-35834-4	SUR	04/03/2014	04/16/2014	04/16/2014	13	0	13
240-35725-1	TPH	UG/L	MSA-MW47S-040314	240-35834-4	SUR	04/03/2014	04/07/2014	04/09/2014	4	2	6
240-35725-1	TPH	UG/L	MSA-MW46S-040214	240-35791-4	SUR	04/02/2014	04/09/2014	04/09/2014	7	0	7
240-35725-1	TPH	UG/L	MSA-MW46S-040214	240-35791-4	SUR	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35725-1	TPH	UG/L	MSA-MW45S-040414	240-35833-4	SUR	04/04/2014	04/07/2014	04/09/2014	3	2	5
240-35725-1	TPH	UG/L	MSA-MW45S-040414	240-35833-4	SUR	04/04/2014	04/16/2014	04/16/2014	12	0	12
240-35725-1	TPH	UG/L	MSA-MW42S-040214	240-35791-2	SUR	04/02/2014	04/07/2014	04/09/2014	5	2	7
240-35725-1	TPH	UG/L	MSA-MW41S-040414	240-35833-2	SUR	04/04/2014	04/16/2014	04/16/2014	12	0	12
240-35725-1	TPH	UG/L	MSA-MW41S-040414	240-35833-2	SUR	04/04/2014	04/07/2014	04/09/2014	3	2	5
240-35725-1	TPH	UG/L	MSA-MW18S-040114	240-35725-2	SUR	04/01/2014	04/09/2014	04/09/2014	8	0	8
240-35725-1	TPH	UG/L	MSA-MW18S-040114	240-35725-2	SUR	04/01/2014	04/04/2014	04/09/2014	3	5	8
240-35725-1	TPH	UG/L	MSA-MW16S-040314	240-35834-2	SUR	04/03/2014	04/16/2014	04/16/2014	13	0	13
240-35725-1	TPH	UG/L	MSA-MW16S-040314	240-35834-2	SUR	04/03/2014	04/07/2014	04/09/2014	4	2	6
240-35913-1	TPH	UG/L	MSA-MW5-040714	240-35913-3	SUR	04/07/2014	04/14/2014	04/15/2014	7	1	8
240-35913-1	TPH	UG/L	MSA-MW5-040714	240-35913-3	SUR	04/07/2014	04/11/2014	04/11/2014	4	0	4
240-35913-1	TPH	UG/L	MSA-MW17S-040814	240-36010-2	SUR	04/08/2014	04/11/2014	04/15/2014	3	4	7
240-35913-1	TPH	UG/L	MSA-DMW7S-040714	240-35913-2	SUR	04/07/2014	04/14/2014	04/15/2014	7	1	8
240-35913-1	TPH	UG/L	MSA-DMW7S-040714	240-35913-2	SUR	04/07/2014	04/19/2014	04/19/2014	12	0	12

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-35913-1	TPH	UG/L	MSA-MW17S-040814	240-36010-2	SUR	04/08/2014	04/17/2014	04/17/2014	9	0	9

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

4.8

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 4/7/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	**Analysis Turnaround Time**			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			112IC06183
(301) 528-3021 Phone	TAT if different from Below: 21 DAY			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Groundwater Sampling	☐ 1 week			Sampler:
Site: MSA, Middle River MD	☐ 2 days			
PO#	☐ 1 day			Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs	Total Metals	Dissolved Metals	TPH-GRO	TPH-DRO	1,4-Dioxane
TB-040714	–	–	TB	AQ	2		2					
MSA-DMW7S-040714	4/7/14	1335	GW	AQ	11		3	1	1	2	2	2
MSA-MW5-040714	4/7/14	1435	GW	AQ	11		3	1	1	2	2	2

Page 2401 of 2412

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments: **DISSOLVED METALS FILTERED IN FIELD**

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Tetra Tech	4/8/14 1300		TestAmerica	4/8/14 1300
Relinquished by:	TestAmerica	4/8/14 1740		TA	4-9-14 1010
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

TestAmerica Canton Sample Receipt Form/Narrative Login # : 35913
Canton Facility

Client TetraTech Site Name _____ Cooler unpacked by:

Cooler Received on 4-9.14 Opened on 4-9.14

FedEx: 1st Grd ~~Exp~~ UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # L260 Foam Box Client Cooler Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C) Observed Cooler Temp. 4.8 °C	Corrected Cooler Temp. 4.8 °C	☐ See Multiple Cooler Form
IR GUN# 4	(CF -1 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 5	(CF +1 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 8	(CF +1 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

2.8

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 4/8/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			112IC06183
(301) 528-3021 Phone	TAT if different from Below: 21 DAY			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Groundwater Sampling	☐ 1 week			Sampler:
Site: MSA, Middle River MD	☐ 2 days			
PO#	☐ 1 day			Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs	Total Metals	Dissolved Metals	TPH-GRO	TPH-DRO	1,4-Dioxane	Perchlorate	Sample Specific Notes:
TB-040814	–	–	TB	AQ	2		2							
MSA-MW17S-040814	4/8/14	950	GW	AQ	11		3	1	1	2	2	2		
MSA-MW17I-040814	4/8/14	1105	GW	AQ	8		3	1	1			2	1	
MSA-MW17D-040814	4/8/14	1225	GW	AQ	21		9	3	3			6		MS/MSD
MSA-MW47D-040814	4/8/14	1415	GW	AQ	8		3	1	1			2	1	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments: **DISSOLVED METALS FILTERED IN FIELD**

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	4-8-14/1600	[signature]	TestAmerica	4/8/14 1600 1230
Relinquished by: [signature]	Company: TestAmerica	Date/Time: 4/9/14/1650	Received by: Ryan Rose	Company: TA Canton	Date/Time: 4/10/14 920
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative Login # : 36010
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: Ryan Rogers

Cooler Received on 4-10-14 Opened on 4-10-14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box (Client Cooler) Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp. 2.8 °C	Corrected Cooler Temp. 2.8 °C	☐ See Multiple Cooler Form
IR GUN# 4	(CF -1 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____ (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: [signature]

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW17S-040814	240-36010-J-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW17S-040814	240-36010-K-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW17I-040814	240-36010-G-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW17I-040814	240-36010-H-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW17D-040814	240-36010-P-4	Plastic 500ml - w/ Nitric - Dis.	_____	_____	_____
MSA-MW17D-040814	240-36010-Q-4	Plastic 500ml - w/ Nitric - Dis.	_____	_____	_____
MSA-MW17D-040814	240-36010-R-4	Plastic 500ml - w/ Nitric - Dis.	_____	_____	_____
MSA-MW17D-040814	240-36010-S-4	Plastic 500ml - with Nitric Acid	_____	_____	_____
MSA-MW17D-040814	240-36010-T-4	Plastic 500ml - with Nitric Acid	_____	_____	_____
MSA-MW17D-040814	240-36010-U-4	Plastic 500ml - with Nitric Acid	_____	_____	_____
MSA-MW47D-040814	240-36010-G-5	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW47D-040814	240-36010-H-5	Plastic 500ml - with Nitric Acid	<2	_____	_____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW-14I-040914	240-36043-F-1	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-14I-040914	240-36043-G-1	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-14D-040914	240-36043-F-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-14D-040914	240-36043-G-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-48I-040914	240-36043-K-3	Plastic 250ml - with Sulfuric Acid	<2		
MSA-MW-48I-040914	240-36043-M-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-48I-040914	240-36043-N-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-48D-040914	240-36043-M-4	Plastic 250ml - with Sulfuric Acid	<2		
MSA-MW-48D-040914	240-36043-O-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-48D-040914	240-36043-P-4	Plastic 500ml - with Nitric Acid	<2		

TestAmerica Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

3.2

Chain of Custody Record

042317

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Tony Apanavage	Site Contact: Josh Mullis	Date: 4/10/14	COC No:
Company Name:	Tetra Tech	Tel/Fax: 301-528-3000	Lab Contact: Pat O'Meara	Carrier: Fed Ex	1 of 1 COCs
Address:	20251 Century Blvd. Ste. 200	Analysis Turnaround Time			Sampler:
City/State/Zip:	Germantown, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	301-528-3000	TAT if different from Below 21 days			Walk-in Client:
Fax:		☐ 2 weeks			Lab Sampling:
Project Name:	MSA GW 2014	☐ 1 week			
Site:	MSA	☐ 2 days			Job / SDG No.:
P O #	112IC06183	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	VOCs	1-4 dioxane	Total Metals	Dissolved Metals	Perchlorate	MEE	ODC	Ammonia	Alkalinity, Anions, TDS	Dissolved gasses	~~TPH-GRO~~	Sample Specific Notes:
MSA-MW-14I-040914	4/9/14	1025	G	Aq	7			3	2	1	1								
MSA-MW-14D-040914	4/9/14	1145	G	Aq	7			3	2	1	1								
MSA-MW-48I-040914	4/9/14	1440	G	Aq	16			3	2	1	1	1	2	2	1	1	2		
MSA-MW-48D-040914	4/9/14	1600	G	Aq	16			3	2	1	1	1	2	2	1	1	2		
TB-040914	4/9/14	—	—	Aq	2			2											

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: Dissolved Metals and Perchlorate filtered in field

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	4/10/14 1300	[signature]	TestAmerica	4/10/14 1300
[signature]	TestAmerica	4/10/14 1100	[signature]	TAC	4/11/14 1100

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 360043

Client Tetra Tech Site Name

Cooler unpacked by:

Cooler Received on 4-11-14 Opened on 4-11-14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop-Off TestAmerica Courier Other

TestAmerica Cooler # Foam Box (Client Cooler) Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp. 3.2 °C	Corrected Cooler Temp. 3.2 °C	
IR GUN# 4	(CF -1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	☐ See Multiple Cooler Form
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? Yes (No) NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM JWM Date 4/11/14 by AM via Verbal (Voice Mail) Other
Concerning #14 + #15

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

MSA-MW-48I-040914 - Did not receive 1,4 Dioxane volume. Will not log.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) MSA-MW-14I-040914 were further preserved in the laboratory.
Time preserved: 1240 Preservative(s) added/Lot number(s): 111360 HNO_3

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-35913-1

Login Number: 36010
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 04/11/14 12:57 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-35913-1

Login Number: 36043
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 04/12/14 03:04 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA Groundwater Sampling

Report Number: 240-35913-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 6850 Perchlorate analysis was performed at TestAmerica Sacramento.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 4/9/2014 10:10 AM, 4/10/2014 9:20 AM and 4/11/2014 11:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.8° C, 3.2° C and 4.8° C.

The laboratory did not receive 1,4-Dioxane volume for sample MSA-MW-48I-040914. The laboratory will not run 1,4-Dioxane for this sample.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-040714 (240-35913-1), TB-040814 (240-36010-1), MSA-MW-14I-040914 (240-36043-1), MSA-DMW7S-040714 (240-35913-2), MSA-MW17S-040814 (240-36010-2), MSA-MW-14D-040914 (240-36043-2), MSA-MW5-040714 (240-35913-3), MSA-MW17I-040814 (240-36010-3), MSA-MW-48I-040914 (240-36043-3), MSA-MW17D-040814 (240-36010-4), MSA-MW-48D-040914 (240-36043-4), MSA-MW47D-040814 (240-36010-5) and TB-040914 (240-36043-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 04/14/2014 and 04/21/2014.

Samples MSA-MW-14I-040914 (240-36043-1)[40X], MSA-DMW7S-040714 (240-36043-2)[200X], MSA-MW17I-040814 (240-36043-3) [11.11X], MSA-MW-48I-040914 (240-36043-3)[166.67X], MSA-MW5-040714 (240-36043-3)[83.33X], MSA-MW-48D-040914 (240-36043-4)[5.71X] and MSA-MW47D-040814 (240-36043-5)[5.71X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The laboratory control sample (LCS) for batch 126390 recovered outside control limits for the following analytes: Dibromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) associated with batch 126390 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The continuing calibration verification (CCV) for analytical batch 126390 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The continuing calibration verification (CCV) for analytical batch 127251 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

No other difficulties were encountered during the VOCs analysis. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-MW-14I-040914 (240-36043-1), MSA-DMW7S-040714 (240-35913-2), MSA-MW17S-040814 (240-36010-2), MSA-MW-14D-040914 (240-36043-2), MSA-MW5-040714 (240-35913-3), MSA-MW17I-040814 (240-36010-3), MSA-MW17D-040814 (240-36010-4), MSA-MW-48D-040914 (240-36043-4) and MSA-MW47D-040814 (240-36010-5) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 04/10/2014, 04/11/2014 and 04/14/2014 and analyzed on 04/11/2014, 04/12/2014 and 04/15/2014.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Samples MSA-MW-14I-040914 (240-36043-1)[2X] and MSA-DMW7S-040714 (240-36043-2)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The LCS for batch 126143 had a recovery of 38% for 1,4-Dioxane. This is below the default lower limit of 40%. Since 1,4-dioxane is not a controlling compound, and the lower recovery limit was arbitrarily set to 40%, no corrective action was taken.

1,4-Dioxane recovery in LCS 126314 was 36%. The default lower recovery limit was arbitrarily set to 40%. Since this is not a controlling compound, no corrective action was taken.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 126314.

No other difficulties were encountered during the SVOCs analysis. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)

Samples MSA-DMW7S-040714 (240-35913-2), MSA-MW17S-040814 (240-36010-2) and MSA-MW5-040714 (240-35913-3) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/11/2014, 04/17/2014 and 04/19/2014.

Gasoline Range Organics [C6 - C10] was detected in method blank MB 240-127165/5 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Sample MSA-DMW7S-040714 (240-36043-2)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the GRO analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED GASES

Samples MSA-MW-48I-040914 (240-36043-3) and MSA-MW-48D-040914 (240-36043-4) were analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 04/14/2014.

Methane was detected in method blank MB 240-126354/4 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 126354.

No other difficulties were encountered during the dissolved gases analysis. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples MSA-DMW7S-040714 (240-35913-2), MSA-MW17S-040814 (240-36010-2) and MSA-MW5-040714 (240-35913-3) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 04/11/2014 and 04/14/2014 and analyzed on 04/15/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Batch 126527 is reported without matrix spike/matrix spikes duplicate (MS/MSD). The batch MS/MSD was originally performed on another client's sample, for method 8015C. This MS/MSD result does not have immediate bearing on any samples except for the actual sample spiked. The associated laboratory control sample (LCS) met acceptance criteria and provides long-term precision and accuracy for this batch.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 126317.

No other difficulties were encountered during the DRO analysis. All other quality control parameters were within the acceptance limits.

PERCHLORATE
Samples MSA-MW17I-040814 (240-36010-3), MSA-MW-48I-040914 (240-36043-3), MSA-MW-48D-040914 (240-36043-4) and MSA-MW47D-040814 (240-36010-5) were analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 04/15/2014 and analyzed on 04/16/2014.

No difficulties were encountered during the perchlorate analysis. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)
Samples MSA-MW-48I-040914 (240-36043-3) and MSA-MW-48D-040914 (240-36043-4) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/14/2014 and analyzed on 04/15/2014.

No difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)
Samples MSA-MW-14I-040914 (240-36043-1), MSA-DMW7S-040714 (240-35913-2), MSA-MW17S-040814 (240-36010-2), MSA-MW-14D-040914 (240-36043-2), MSA-MW5-040714 (240-35913-3), MSA-MW17I-040814 (240-36010-3), MSA-MW-48I-040914 (240-36043-3), MSA-MW17D-040814 (240-36010-4), MSA-MW-48D-040914 (240-36043-4) and MSA-MW47D-040814 (240-36010-5) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/10/2014, 04/11/2014 and 04/14/2014 and analyzed on 04/11/2014, 04/14/2014 and 04/15/2014.

No difficulties were encountered during the metals analysis. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)
Samples MSA-MW-14I-040914 (240-36043-1), MSA-DMW7S-040714 (240-35913-2), MSA-MW17S-040814 (240-36010-2), MSA-MW-14D-040914 (240-36043-2), MSA-MW5-040714 (240-35913-3), MSA-MW17I-040814 (240-36010-3), MSA-MW-48I-040914 (240-36043-3), MSA-MW17D-040814 (240-36010-4), MSA-MW-48D-040914 (240-36043-4) and MSA-MW47D-040814 (240-36010-5) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/10/2014, 04/11/2014 and 04/14/2014 and analyzed on 04/11/2014, 04/14/2014 and 04/15/2014.

Several analytes were detected in method blank MB 240-125933/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 240-126116/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 240-126332/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The continuing calibration verification (CCV) associated with batch 126699 recovered above the upper control limit for Molybdenum. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: MSA-MW-48D-040914 (240-36043-4), MSA-MW-48I-040914 (240-36043-3).

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)
Samples MSA-MW-14I-040914 (240-36043-1), MSA-DMW7S-040714 (240-35913-2), MSA-MW17S-040814 (240-36010-2), MSA-MW-14D-040914 (240-36043-2), MSA-MW5-040714 (240-35913-3), MSA-MW17I-040814 (240-36010-3), MSA-MW-48I-040914 (240-36043-3), MSA-MW17D-040814 (240-36010-4), MSA-MW-48D-040914 (240-36043-4) and MSA-MW47D-040814 (240-36010-5) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/10/2014, 04/11/2014 and 04/15/2014 and analyzed on 04/11/2014, 04/16/2014 and 04/17/2014.

No difficulties were encountered during the mercury analysis. All quality control parameters were within the acceptance limits.

TOTAL MERCURY
Samples MSA-MW-14I-040914 (240-36043-1), MSA-DMW7S-040714 (240-35913-2), MSA-MW17S-040814 (240-36010-2), MSA-MW-14D-040914 (240-36043-2), MSA-MW5-040714 (240-35913-3), MSA-MW17I-040814 (240-36010-3), MSA-MW-48I-040914 (240-36043-3), MSA-MW17D-040814 (240-36010-4), MSA-MW-48D-040914 (240-36043-4) and MSA-MW47D-040814 (240-36010-5) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/10/2014, 04/11/2014 and 04/15/2014 and analyzed on 04/11/2014, 04/16/2014 and 04/17/2014.

No difficulties were encountered during the mercury analysis. All quality control parameters were within the acceptance limits.

HARDNESS
Samples MSA-MW-48I-040914 (240-36043-3) and MSA-MW-48D-040914 (240-36043-4) were analyzed for hardness in accordance with SM 2340B. The samples were analyzed on 04/16/2014.

No difficulties were encountered during the hardness analysis. All quality control parameters were within the acceptance limits.

TOTAL DISSOLVED SOLIDS
Samples MSA-MW-48I-040914 (240-36043-3) and MSA-MW-48D-040914 (240-36043-4) were analyzed for total dissolved solids in accordance with EPA Method 160.1. The samples were analyzed on 04/14/2014.

No difficulties were encountered during the TDS analysis. All quality control parameters were within the acceptance limits.

ANIONS
Samples MSA-MW-48I-040914 (240-36043-3) and MSA-MW-48D-040914 (240-36043-4) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/11/2014.

No difficulties were encountered during the anions analysis. All quality control parameters were within the acceptance limits.

ANIONS
Samples MSA-MW-48I-040914 (240-36043-3) and MSA-MW-48D-040914 (240-36043-4) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/17/2014 and 04/21/2014.

Samples MSA-MW-48I-040914 (240-36043-3)[5X] and MSA-MW-48D-040914 (240-36043-4)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the anions analysis. All quality control parameters were within the acceptance limits.

ALKALINITY
Samples MSA-MW-48I-040914 (240-36043-3) and MSA-MW-48D-040914 (240-36043-4) were analyzed for alkalinity in accordance with EPA Method 310.1. The samples were analyzed on 04/15/2014.

Alkalinity was detected in method blank MB 240-126654/3 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No other difficulties were encountered during the alkalinity analysis. All other quality control parameters were within the acceptance limits.

AMMONIA
Samples MSA-MW-48I-040914 (240-36043-3) and MSA-MW-48D-040914 (240-36043-4) were analyzed for ammonia in accordance with EPA Method 350.3. The samples were analyzed on 04/16/2014.

No difficulties were encountered during the ammonia analysis. All quality control parameters were within the acceptance limits.

DISSOLVED ORGANIC CARBON
Samples MSA-MW-48I-040914 (240-36043-3) and MSA-MW-48D-040914 (240-36043-4) were analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 04/13/2014.

No difficulties were encountered during the TOC analysis. All quality control parameters were within the acceptance limits.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Groundwater Sampling

TestAmerica Job ID: 240-35913-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015B	Gasoline Range Organics - (GC)	SW846	TAL CAN
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CAN
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
2340B-1997	Total Hardness (as CaCO3) by calculation	SM	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
160.1	Solids, Total Dissolved (TDS)	MCAWW	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
310.1	Alkalinity	MCAWW	TAL CAN
350.3	Nitrogen, Ammonia	MCAWW	TAL CAN
9060	Organic Carbon, Dissolved (DOC)	SW846	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Groundwater Sampling

TestAmerica Job ID: 240-35913-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-35913-1	TB-040714	Water	04/07/14 00:00	04/09/14 10:10
240-35913-2	MSA-DMW7S-040714	Water	04/07/14 13:35	04/09/14 10:10
240-35913-3	MSA-MW5-040714	Water	04/07/14 14:35	04/09/14 10:10
240-36010-1	TB-040814	Water	04/08/14 00:00	04/10/14 09:20
240-36010-2	MSA-MW17S-040814	Water	04/08/14 09:50	04/10/14 09:20
240-36010-3	MSA-MW17I-040814	Water	04/08/14 11:05	04/10/14 09:20
240-36010-4	MSA-MW17D-040814	Water	04/08/14 12:25	04/10/14 09:20
240-36010-5	MSA-MW47D-040814	Water	04/08/14 14:15	04/10/14 09:20
240-36043-1	MSA-MW-14I-040914	Water	04/09/14 10:25	04/11/14 11:00
240-36043-2	MSA-MW-14D-040914	Water	04/09/14 11:45	04/11/14 11:00
240-36043-3	MSA-MW-48I-040914	Water	04/09/14 14:40	04/11/14 11:00
240-36043-4	MSA-MW-48D-040914	Water	04/09/14 16:00	04/11/14 11:00
240-36043-5	TB-040914	Water	04/09/14 00:00	04/11/14 11:00

Detection Limit Exceptions Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Groundwater Sampling

TestAmerica Job ID: 240-35913-1

The requested project specific reporting limits listed below were less than laboratory standard quantitation limits (PQL) but greater than or equal to the laboratory method detection limits (MDL). It must be noted that results reported below lab standard quantitation limits may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Matrix	Analyte	Units	Client RL	Lab PQL
RSK-175	Water	Ethane	ug/L	0.26	0.5
RSK-175	Water	Ethene	ug/L	0.31	0.5
RSK-175	Water	Methane	ug/L	0.10	0.5

Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: MSA Groundwater Sampling

TestAmerica Job ID: 240-35913-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab File ID: BFB5580.D BFB Injection Date: 03/13/2014

Instrument ID: A3UX10 BFB Injection Time: 08:39

Analysis Batch No.: 122371

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.3	
75	30.0 - 60.0 % of mass 95	49.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.1	(0.1)1
174	50.0 - 120.00 % of mass 95	86.9	
175	5.0 - 9.0 % of mass 174	6.5	(7.5)1
176	95.0 - 101.0 % of mass 174	83.3	(95.8)1
177	5.0 - 9.0 % of mass 176	5.7	(6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-122371/2	UXX8834.D	03/13/2014	09:02
	STD8260 240-122371/3	UXX8835.D	03/13/2014	09:24
	STD8260 240-122371/4	UXX8836.D	03/13/2014	09:48
	STD8260 240-122371/5	UXX8837.D	03/13/2014	10:10
	STD8260 240-122371/6	UXX8838.D	03/13/2014	10:33
	STD8260 240-122371/7	UXX8839.D	03/13/2014	10:55
	STDA9 240-122371/8	UXX8840.D	03/13/2014	11:18
	STDA9 240-122371/9	UXX8841.D	03/13/2014	11:40
	STDA9 240-122371/10	UXX8842.D	03/13/2014	12:02
	STDA9 240-122371/11	UXX8843.D	03/13/2014	12:25
	STDA9 240-122371/12	UXX8844.D	03/13/2014	12:47
	STDA9 240-122371/13	UXX8845.D	03/13/2014	13:09
	ICV 240-122371/14	UXX8846.D	03/13/2014	13:50
	ICV 240-122371/15	UXX8847.D	03/13/2014	14:12

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-122371/7	UXX8839.D
Level 2	STD8260 240-122371/6	UXX8838.D
Level 3	STD8260 240-122371/5	UXX8837.D
Level 4	STD8260 240-122371/4	UXX8836.D
Level 5	STD8260 240-122371/3	UXX8835.D
Level 6	STD8260 240-122371/2	UXX8834.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2351 0.2522	0.2412	0.2233	0.2482	0.2522	Ave		0.2420			0.1000	4.7		15.0			
Chloromethane	0.3337 0.2770	0.3055	0.2809	0.2718	0.2761	Ave		0.2908			0.1000	8.3		15.0			
Vinyl chloride	0.2986 0.2843	0.2917	0.2749	0.2772	0.2823	Ave		0.2848			0.1000	3.1		15.0			
Bromomethane	0.1623 0.1036	0.1528	0.1378	0.1183	0.1263	Lin1	0.0764	0.1096			0.0500				0.9900		0.9900
Chloroethane	0.1738 0.1443	0.1643	0.1606	0.1470	0.1562	Ave		0.1577				7.0		15.0			
Dichlorofluoromethane	0.3860 0.2893	0.3416	0.3193	0.3006	0.3122	Ave		0.3248				11.0		15.0			
Trichlorofluoromethane	0.2911 0.2690	0.2877	0.2724	0.2839	0.2803	Ave		0.2807			0.1000	3.1		15.0			
Ethyl ether	0.1766 0.1775	0.1636	0.1606	0.1726	0.1710	Ave		0.1703				4.0		15.0			
Acrolein	0.0265 0.0260	0.0260	0.0244	0.0255	0.0267	Ave		0.0258				3.2		15.0			
1,1-Dichloroethene	0.2302 0.2164	0.2257	0.2045	0.2099	0.2186	Ave		0.2175			0.1000	4.4		15.0			
1,1,2-Trichlorotrifluoroethane	0.1862 0.1940	0.1959	0.1601	0.1824	0.1859	Ave		0.1841			0.0500	7.0		15.0			
Acetone	0.0617 0.0612	0.0527	0.0531	0.0617	0.0619	Ave		0.0587			0.0500	7.7		15.0			
Iodomethane	0.3782 0.3597	0.3626	0.3430	0.3520	0.3540	Ave		0.3583				3.3		15.0			
Carbon disulfide	0.7303 0.7175	0.7152	0.6643	0.6891	0.7109	Ave		0.7045			0.1000	3.4		15.0			
3-Chloro-1-propene	0.1611 0.1518	0.1494	0.1430	0.1476	0.1531	Ave		0.1510				4.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl acetate	0.1415 0.1427	0.1313	0.1280	0.1366	0.1443	Ave		0.1374			0.1000	4.8		15.0			
Methylene Chloride	0.3443 0.2359	0.2861	0.2451	0.2408	0.2412	Lin1	0.1037	0.2332			0.1000				1.0000		0.9900
tert-Butyl alcohol	0.0124 0.0185	0.0112	0.0115	0.0177	0.0193	Lin1	-0.118	0.0188							0.9910		0.9900
Acrylonitrile	0.0686 0.0713	0.0647	0.0637	0.0691	0.0727	Ave		0.0683				5.2		15.0			
Methyl tert-butyl ether	0.7053 0.7033	0.6530	0.6488	0.6670	0.7001	Ave		0.6796			0.1000	3.9		15.0			
trans-1,2-Dichloroethene	0.2715 0.2373	0.2550	0.2346	0.2414	0.2467	Ave		0.2478			0.1000	5.5		15.0			
Hexane	0.0622 0.0621	0.0576	0.0519	0.0604	0.0608	Ave		0.0592				6.6		15.0			
1,1-Dichloroethane	0.4200 0.4123	0.4127	0.3962	0.4073	0.4136	Ave		0.4104			0.1000	2.0		15.0			
Vinyl acetate	0.2499 0.2755	0.2458	0.2461	0.2668	0.2648	Ave		0.2581				4.9		15.0			
2,2-Dichloropropane	0.3404 0.3338	0.3346	0.3152	0.3274	0.3346	Ave		0.3310				2.6		15.0			
cis-1,2-Dichloroethene	0.2844 0.2570	0.2691	0.2526	0.2566	0.2589	Ave		0.2631			0.1000	4.5		15.0			
2-Butanone (MEK)	0.0717 0.0776	0.0661	0.0658	0.0765	0.0798	Ave		0.0729			0.0500	8.2		15.0			
Bromochloromethane	0.1277 0.1212	0.1199	0.1166	0.1182	0.1214	Ave		0.1208				3.2		15.0			
Tetrahydrofuran	0.0628 0.0532	0.0561	0.0513	0.0525	0.0532	Ave		0.0549				7.7		15.0			
Chloroform	0.4091 0.3998	0.3965	0.3883	0.3936	0.4001	Ave		0.3979				1.8		15.0			
1,1,1-Trichloroethane	0.3758 0.3613	0.3620	0.3441	0.3590	0.3657	Ave		0.3613			0.1000	2.9		15.0			
Cyclohexane	0.3882 0.4002	0.4071	0.3482	0.3903	0.3980	Ave		0.3887			0.1000	5.4		15.0			
1,1-Dichloropropene	0.3153 0.3039	0.2969	0.2821	0.2999	0.3027	Ave		0.3001				3.6		15.0			
Carbon tetrachloride	0.3030 0.3273	0.3113	0.2889	0.3134	0.3260	Ave		0.3117			0.1000	4.6		15.0			
Isobutyl alcohol	0.0120 0.0080	0.0058	0.0066	0.0078	0.0084	Lin1	0.0127	0.0080							0.9900		0.9900

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzene	0.9808 0.9463	0.9526	0.9016	0.9385	0.9429	Ave		0.9438			0.5000	2.7		15.0			
1,2-Dichloroethane	0.3005 0.2997	0.2897	0.2882	0.2961	0.3020	Ave		0.2960			0.1000	2.0		15.0			
n-Heptane	0.0505 0.0556	0.0518	0.0461	0.0536	0.0524	Ave		0.0517				6.3		15.0			
Trichloroethene	0.2524 0.2505	0.2456	0.2399	0.2491	0.2498	Ave		0.2479			0.2000	1.8		15.0			
Methylcyclohexane	0.3681 0.4035	0.3938	0.3403	0.3883	0.3998	Ave		0.3823			0.1000	6.3		15.0			
1,2-Dichloropropane	0.2019 0.2137	0.2038	0.2037	0.2136	0.2120	Ave		0.2081			0.1000	2.7		15.0			
Dibromomethane	0.1206 0.1236	0.1157	0.1190	0.1229	0.1246	Ave		0.1211				2.8		15.0			
1,4-Dioxane	0.0008 0.0018	0.0009	0.0009	0.0021	0.0020	Qua	-0.068	0.0024	0						0.9950		0.9900
Bromodichloromethane	0.2704 0.3046	0.2793	0.2780	0.2879	0.2969	Ave		0.2862			0.1000	4.5		15.0			
2-Chloroethyl vinyl ether	0.0585 0.0866	0.0595	0.0675	0.0807	0.0839	Lin1	-0.086	0.0862							0.9980		0.9900
cis-1,3-Dichloropropene	0.2912 0.3568	0.3047	0.3100	0.3419	0.3479	Ave		0.3254			0.1500	8.2		15.0			
4-Methyl-2-pentanone (MIBK)	0.1394 0.1665	0.1418	0.1396	0.1571	0.1664	Ave		0.1518			0.0500	8.6		15.0			
Toluene	1.4615 1.4216	1.4050	1.3791	1.3802	1.4160	Ave		1.4106			0.4000	2.2		15.0			
trans-1,3-Dichloropropene	0.3681 0.4292	0.3691	0.3915	0.4066	0.4240	Ave		0.3981			0.1000	6.6		15.0			
Ethyl methacrylate	0.2764 0.3465	0.2842	0.3048	0.3292	0.3516	Ave		0.3155				10.0		15.0			
1,1,2-Trichloroethane	0.2496 0.2460	0.2437	0.2522	0.2472	0.2515	Ave		0.2484			0.1000	1.3		15.0			
Tetrachloroethene	0.3038 0.2845	0.2924	0.2800	0.2816	0.2863	Ave		0.2881			0.2000	3.1		15.0			
1,3-Dichloropropane	0.4404 0.4501	0.4282	0.4405	0.4460	0.4519	Ave		0.4429				1.9		15.0			
2-Hexanone	0.1455 0.1559	0.1340	0.1386	0.1487	0.1580	Ave		0.1468			0.0500	6.4		15.0			
Chlorodibromomethane	0.2685 0.3074	0.2662	0.2766	0.2873	0.2992	Ave		0.2842				5.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dibromoethane	0.2466 0.2471	0.2388	0.2432	0.2450	0.2511	Ave		0.2453				1.7		15.0			
Chlorobenzene	0.9392 0.8969	0.8870	0.8903	0.8959	0.8955	Ave		0.9008			0.3000	2.1		15.0			
1,1,1,2-Tetrachloroethane	0.3260 0.3371	0.3274	0.3251	0.3256	0.3359	Ave		0.3295				1.7		15.0			
Ethylbenzene	0.5064 0.4957	0.5011	0.4823	0.4955	0.4939	Ave		0.4958				1.6		15.0			
m-Xylene & p-Xylene	0.6292 0.6215	0.6094	0.6004	0.6209	0.6169	Ave		0.6164				1.6		15.0			
o-Xylene	0.6243 0.6252	0.6043	0.6016	0.6140	0.6187	Ave		0.6147				1.6		15.0			
Styrene	0.9381 1.0159	0.9504	0.9419	0.9932	0.9975	Ave		0.9728			0.3000	3.4		15.0			
Bromoform	0.1632 0.2063	0.1645	0.1721	0.1874	0.1986	Ave		0.1820			0.1000	10.0		15.0			
Isopropylbenzene	1.6147 1.6860	1.5898	1.5513	1.6099	1.6605	Ave		1.6187			0.1000	3.0		15.0			
1,1,2,2-Tetrachloroethane	0.5333 0.5596	0.5116	0.5282	0.5479	0.5583	Ave		0.5398			0.3000	3.5		15.0			
Bromobenzene	0.6529 0.6798	0.6842	0.6558	0.6754	0.6708	Ave		0.6698				1.9		15.0			
1,2,3-Trichloropropane	0.1807 0.1854	0.1717	0.1772	0.1867	0.1839	Ave		0.1809				3.1		15.0			
trans-1,4-Dichloro-2-butene	0.1370 0.1791	0.1386	0.1524	0.1630	0.1776	Ave		0.1580				12.0		15.0			
N-Propylbenzene	0.7026 0.7789	0.7350	0.7186	0.7608	0.7476	Ave		0.7406				3.8		15.0			
2-Chlorotoluene	0.6347 0.6511	0.6436	0.6256	0.6430	0.6435	Ave		0.6402				1.4		15.0			
1,3,5-Trimethylbenzene	2.0564 2.3932	2.1199	2.1145	2.2765	2.2962	Ave		2.2095				5.9		15.0			
4-Chlorotoluene	0.6512 0.6798	0.6715	0.6531	0.6824	0.6626	Ave		0.6668				2.0		15.0			
tert-Butylbenzene	1.8314 2.0767	1.8513	1.8431	1.9884	2.0086	Ave		1.9332				5.4		15.0			
1,2,4-Trimethylbenzene	2.1662 2.5065	2.2638	2.2108	2.3707	2.4062	Ave		2.3207				5.6		15.0			
sec-Butylbenzene	2.4320 2.8708	2.5721	2.4472	2.7018	2.7748	Ave		2.6331				6.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI

GC/MS VOA INITIAL CALIBRATION DATA

INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	1.3366 1.3205	1.3324	1.2710	1.3072	1.3175	Ave		1.3142			0.6000	1.8		15.0			
4-Isopropyltoluene	2.1208 2.5218	2.2477	2.1782	2.4228	2.4882	Ave		2.3299				7.3		15.0			
1,4-Dichlorobenzene	1.3782 1.3694	1.3746	1.3226	1.3523	1.3650	Ave		1.3603			0.5000	1.5		15.0			
n-Butylbenzene	1.7854 2.0843	1.8813	1.7710	1.9656	2.0342	Ave		1.9203				6.7		15.0			
1,2-Dichlorobenzene	1.2887 1.2790	1.2840	1.2095	1.2647	1.2692	Ave		1.2659			0.4000	2.3		15.0			
1,2-Dibromo-3-Chloropropane	0.1012 0.1201	0.1016	0.1029	0.1160	0.1237	Ave		0.1109			0.0500	9.2		15.0			
1,2,4-Trichlorobenzene	0.7975 0.8215	0.8025	0.7548	0.8660	0.8742	Ave		0.8194			0.2000	5.5		15.0			
Hexachlorobutadiene	0.3065 0.3056	0.3179	0.2840	0.3308	0.3308	Ave		0.3126				5.7		15.0			
Naphthalene	1.8389 1.8848	1.8338	1.7252	1.9783	2.0783	Ave		1.8899				6.5		15.0			
1,2,3-Trichlorobenzene	0.7013 0.6991	0.6930	0.6526	0.7889	0.7862	Ave		0.7202				7.7		15.0			
Dibromofluoromethane (Surr)	0.2112 0.2079	0.2038	0.2068	0.2038	0.2081	Ave		0.2069				1.4		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2471 0.2456	0.2387	0.2474	0.2432	0.2507	Ave		0.2454				1.7		15.0			
Toluene-d8 (Surr)	1.2187 1.1966	1.1473	1.2073	1.1634	1.2068	Ave		1.1900				2.4		15.0			
4-Bromofluorobenzene (Surr)	0.4722 0.4518	0.4510	0.4414	0.4512	0.4460	Ave		0.4523				2.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 11:18 Calibration End Date: 03/13/2014 13:09 Calibration ID: 21116

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-122371/13	UXX8845.D
Level 2	STDA9 240-122371/12	UXX8844.D
Level 3	STDA9 240-122371/11	UXX8843.D
Level 4	STDA9 240-122371/10	UXX8842.D
Level 5	STDA9 240-122371/9	UXX8841.D
Level 6	STDA9 240-122371/8	UXX8840.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0227 0.0245	0.0219	0.0223	0.0185	0.0252	Ave		0.0225				11.0		15.0			
Diisopropyl ether	0.2177 0.2201	0.2183	0.2123	0.2133	0.2250	Ave		0.2178				2.1		15.0			
2-Chloro-1,3-butadiene	0.3647 0.3652	0.3481	0.3469	0.3558	0.3624	Ave		0.3572				2.3		15.0			
Ethyl tert-butyl ether	0.7083 0.7249	0.6903	0.6829	0.6918	0.7248	Ave		0.7038				2.6		15.0			
Ethyl acetate	0.1150 0.1043	0.1099	0.1092	0.0938	0.1071	Ave		0.1066				6.7		15.0			
Propionitrile	0.0233 0.0248	0.0241	0.0250	0.0223	0.0257	Ave		0.0242				5.2		15.0			
Methacrylonitrile	0.1098 0.1101	0.1083	0.1113	0.1044	0.1118	Ave		0.1093				2.5		15.0			
Tert-amyl methyl ether	0.6180 0.6591	0.5989	0.6201	0.6160	0.6565	Ave		0.6281				3.9		15.0			
n-Butanol	0.0060 0.0062	0.0057	0.0059	0.0044	0.0064	Ave		0.0057				13.0		15.0			
Ethyl acrylate	0.1489 0.1706	0.1580	0.1770	0.1508	0.1720	Ave		0.1629				7.3		15.0			
Methyl methacrylate	0.1284 0.1333	0.1267	0.1341	0.1186	0.1341	Ave		0.1292				4.7		15.0			
2-Nitropropane	0.0408 0.0420	0.0381	0.0411	0.0364	0.0418	Ave		0.0400				5.6		15.0			
Cyclohexanone	0.0121 0.0120	0.0125	0.0122	0.0094	0.0124	Ave		0.0118				10.0		15.0			
1,2,3-Trimethylbenzene	2.1275 2.4014	2.1642	2.2349	2.2068	2.3640	Ave		2.2498				4.9		15.0			
1,3,5-Trichlorobenzene	0.8974 0.9436	0.9033	0.8899	0.8322	0.9266	Ave		0.8988				4.3		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI

GC/MS VOA INITIAL CALIBRATION DATA

INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 11:18 Calibration End Date: 03/13/2014 13:09 Calibration ID: 21116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Methylnaphthalene	0.9795 0.8616	0.9780	0.9449	0.8458	0.9983	Ave		0.9347				7.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab File ID: BFB578.D BFB Injection Date: 04/21/2014

Instrument ID: A3UX10 BFB Injection Time: 10:36

Analysis Batch No.: 127251

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.3	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.2	(0.2)1
174	50.0 - 120.00 % of mass 95	75.4	
175	5.0 - 9.0 % of mass 174	5.7	(7.6)1
176	95.0 - 101.0 % of mass 174	73.3	(97.2)1
177	5.0 - 9.0 % of mass 176	5.0	(6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-127251/2	UXX9847.D	04/21/2014	10:59
	CCV 240-127251/3	UXX9848.D	04/21/2014	11:21
	CCV 240-127251/4	UXX9849.D	04/21/2014	11:44
	LCS 240-127251/5	UXX9850.D	04/21/2014	12:06
	MB 240-127251/7	UXX9852.D	04/21/2014	12:51
MSA-MW-14I-040914	240-36043-1	UXX9855.D	04/21/2014	14:31
MSA-MW-14D-040914	240-36043-2	UXX9856.D	04/21/2014	14:54
MSA-MW-48I-040914	240-36043-3	UXX9857.D	04/21/2014	15:17
MSA-MW-48D-040914	240-36043-4	UXX9858.D	04/21/2014	15:39
TB-040914	240-36043-5	UXX9859.D	04/21/2014	16:02

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCVIS 240-127251/2 Calibration Date: 04/21/2014 10:59

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9847.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2420	0.2529	0.1000	0.310	0.0100	4.5	20.0
Chloromethane	Ave	0.2908	0.2971	0.1000	0.300	0.0100	2.2	20.0
Vinyl chloride	Ave	0.2848	0.2887	0.1000	0.220	0.0100	1.4	20.0
Bromomethane	Lin1		0.1319	0.0500	0.410	0.0100	13.4	20.0
Chloroethane	Ave	0.1577	0.1467	0.0500	0.290	0.0100	-7.0	20.0
Dichlorofluoromethane	Ave	0.3248	0.3391		0.420	0.0100	4.4	20.0
Trichlorofluoromethane	Ave	0.2807	0.2232	0.1000	0.210	0.0100	-20.5*	20.0
Ethyl ether	Ave	0.1703	0.1725		0.310	0.0100	1.3	20.0
Acrolein	Ave	0.0258	0.0221		2.20	0.0500	-14.7	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1841	0.1764	0.0500	0.280	0.0100	-4.2	20.0
1,1-Dichloroethene	Ave	0.2175	0.2302	0.1000	0.190	0.0100	5.8	20.0
Acetone	Ave	0.0587	0.0599	0.0500	1.10	0.0200	2.0	20.0
Iodomethane	Ave	0.3583	0.3062		0.180	0.0100	-14.5	20.0
Carbon disulfide	Ave	0.7045	0.7141	0.1000	0.130	0.0100	1.4	20.0
3-Chloro-1-propene	Ave	0.1510	0.1477		0.350	0.0100	-2.2	20.0
Methyl acetate	Ave	0.1374	0.1474	0.1000	0.380	0.0500	7.3	20.0
Methylene Chloride	Lin1		0.2579	0.1000	0.330	0.0100	6.1	20.0
tert-Butyl alcohol	Lin1		0.0157		3.90	0.100	-10.1	20.0
Acrylonitrile	Ave	0.0683	0.0732		2.00	0.100	7.1	20.0
Methyl tert-butyl ether	Ave	0.6796	0.6727	0.1000	0.170	0.0100	-1.0	20.0
trans-1,2-Dichloroethene	Ave	0.2478	0.2523	0.1000	0.190	0.0100	1.8	20.0
Hexane	Ave	0.0592	0.0575		0.260	0.0100	-2.8	20.0
1,1-Dichloroethane	Ave	0.4104	0.4280	0.1000	0.150	0.0100	4.3	20.0
Vinyl acetate	Ave	0.2581	0.2277		0.190	0.00960	-11.8	20.0
2,2-Dichloropropane	Ave	0.3310	0.2729		0.130	0.0100	-17.6	20.0
cis-1,2-Dichloroethene	Ave	0.2631	0.2611	0.1000	0.170	0.0100	-0.8	20.0
2-Butanone (MEK)	Ave	0.0729	0.0787	0.0500	0.570	0.0200	8.0	20.0
Bromochloromethane	Ave	0.1208	0.1216		0.290	0.0100	0.6	20.0
Tetrahydrofuran	Ave	0.0549	0.0508		0.420	0.0200	-7.4	20.0
Chloroform	Ave	0.3979	0.4330	0.2000	0.160	0.0100	8.8	20.0
1,1,1-Trichloroethane	Ave	0.3613	0.3569	0.1000	0.220	0.0100	-1.2	20.0
Cyclohexane	Ave	0.3887	0.3673	0.1000	0.120	0.0100	-5.5	20.0
1,1-Dichloropropene	Ave	0.3001	0.3163		0.130	0.0100	5.4	20.0
Carbon tetrachloride	Ave	0.3117	0.2814	0.1000	0.130	0.0100	-9.7	20.0
Isobutyl alcohol	Lin1		0.0085		8.20	0.250	6.1	20.0
Benzene	Ave	0.9438	1.031	0.5000	0.130	0.0100	9.2	20.0
1,2-Dichloroethane	Ave	0.2960	0.3184	0.1000	0.220	0.0100	7.6	20.0
n-Heptane	Ave	0.0517	0.0512		0.180	0.0100	-0.9	20.0
Trichloroethene	Ave	0.2479	0.2355	0.2000	0.170	0.0100	-5.0	20.0
Methylcyclohexane	Ave	0.3823	0.3672	0.1000	0.130	0.0100	-3.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCVIS 240-127251/2 Calibration Date: 04/21/2014 10:59

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9847.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2081	0.2286	0.1000	0.180	0.0100	9.8	20.0
Dibromomethane	Ave	0.1211	0.1284		0.280	0.0100	6.0	20.0
1,4-Dioxane	Qua		0.0016		19.0	0.200	-13.6	20.0
Bromodichloromethane	Ave	0.2862	0.2895	0.1000	0.150	0.0100	1.2	20.0
2-Chloroethyl vinyl ether	Lin1		0.0691		0.990	0.0200	-14.8	20.0
cis-1,3-Dichloropropene	Ave	0.3254	0.3188	0.1500	0.140	0.0100	-2.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1518	0.1542	0.0500	0.320	0.0200	1.6	20.0
Toluene	Ave	1.411	1.644	0.4000	0.130	0.0100	16.5	20.0
trans-1,3-Dichloropropene	Ave	0.3981	0.4140	0.1000	0.190	0.0100	4.0	20.0
Ethyl methacrylate	Ave	0.3155	0.3687		0.140	0.0100	16.9	20.0
1,1,2-Trichloroethane	Ave	0.2484	0.2981	0.1000	0.270	0.0100	20.0	20.0
Tetrachloroethene	Ave	0.2881	0.2984	0.2000	0.290	0.0100	3.6	20.0
1,3-Dichloropropane	Ave	0.4429	0.5354		0.160	0.0100	20.9*	20.0
2-Hexanone	Ave	0.1468	0.1645	0.0500	0.410	0.0200	12.1	20.0
Chlorodibromomethane	Ave	0.2842	0.2874		0.180	0.0100	1.1	20.0
1,2-Dibromoethane	Ave	0.2453	0.2603		0.240	0.0100	6.1	20.0
Chlorobenzene	Ave	0.9008	0.9406	0.3000	0.150	0.0100	4.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3295	0.3468		0.230	0.0100	5.2	20.0
Ethylbenzene	Ave	0.4958	0.5150		0.170	0.0100	3.9	20.0
m-Xylene & p-Xylene	Ave	0.6164	0.6585		0.240	0.0100	6.8	20.0
o-Xylene	Ave	0.6147	0.6406		0.140	0.0100	4.2	20.0
Styrene	Ave	0.9728	1.031	0.3000	0.110	0.0100	6.0	20.0
Bromoform	Ave	0.1820	0.1515	0.1000	0.640	0.0100	-16.7	20.0
Isopropylbenzene	Ave	1.619	1.683	0.1000	0.130	0.0100	4.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5398	0.6824	0.3000	0.180	0.0100	26.4*	20.0
Bromobenzene	Ave	0.6698	0.7085		0.130	0.0100	5.8	20.0
1,2,3-Trichloropropane	Ave	0.1809	0.2210		0.430	0.0100	22.1*	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1580	0.1072		0.150	0.0100	32.2*	20.0
N-Propylbenzene	Ave	0.7406	0.8180		0.140	0.0100	10.4	20.0
2-Chlorotoluene	Ave	0.6402	0.7172		0.110	0.0100	12.0	20.0
1,3,5-Trimethylbenzene	Ave	2.209	2.617		0.0960	0.0100	18.4	20.0
4-Chlorotoluene	Ave	0.6668	0.7213		0.180	0.0100	8.2	20.0
tert-Butylbenzene	Ave	1.933	2.222		0.130	0.0100	14.9	20.0
1,2,4-Trimethylbenzene	Ave	2.321	2.783		0.120	0.0100	19.9	20.0
sec-Butylbenzene	Ave	2.633	3.083		0.130	0.0100	17.1	20.0
1,3-Dichlorobenzene	Ave	1.314	1.387	0.6000	0.140	0.0100	5.6	20.0
4-Isopropyltoluene	Ave	2.330	2.687		0.0120	0.0100	15.3	20.0
1,4-Dichlorobenzene	Ave	1.360	1.423	0.5000	0.130	0.0100	4.6	20.0
n-Butylbenzene	Ave	1.920	2.218		0.120	0.0100	15.5	20.0
1,2-Dichlorobenzene	Ave	1.266	1.388	0.4000	0.130	0.0100	9.6	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1109	0.1127	0.0500	0.670	0.0100	1.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCVIS 240-127251/2 Calibration Date: 04/21/2014 10:59

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9847.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Ave	0.8194	0.8612	0.2000	0.150	0.0100	5.1	20.0
Hexachlorobutadiene	Ave	0.3126	0.3288		0.300	0.0100	5.2	20.0
Naphthalene	Ave	1.890	1.940		0.240	0.0100	2.7	20.0
1,2,3-Trichlorobenzene	Ave	0.7202	0.7830		0.170	0.0100	8.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2069	0.1844		0.0110	0.0123	-10.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2454	0.2345		0.0118	0.0123	-4.5	20.0
Toluene-d8 (Surr)	Ave	1.190	1.220		0.0126	0.0123	2.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4523	0.4203		0.0114	0.0123	-7.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-127251/3 Calibration Date: 04/21/2014 11:21

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 11:18

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 13:09

Lab File ID: UXX9848.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0225	0.0259		3.50	0.100	14.9	20.0
Diisopropyl ether	Ave	0.2178	0.2087		1.50	0.0100	-4.2	20.0
2-Chloro-1,3-butadiene	Ave	0.3572	0.3329		0.290	0.0100	-6.8	20.0
Ethyl tert-butyl ether	Ave	0.7038	0.6352		0.110	0.0100	-9.8	20.0
Ethyl acetate	Ave	0.1066	0.1093		0.500	0.0200	2.6	20.0
Propionitrile	Ave	0.0242	0.0265		1.20	0.100	9.5	20.0
Methacrylonitrile	Ave	0.1093	0.1147		0.510	0.100	5.0	20.0
Tert-amyl methyl ether	Ave	0.6281	0.5684		0.0670	0.0100	-9.5	20.0
n-Butanol	Ave	0.0057	0.0049		7.30	0.250	-14.4	20.0
Ethyl acrylate	Ave	0.1629	0.1717		0.250	0.0100	5.4	20.0
Methyl methacrylate	Ave	0.1292	0.1344		0.490	0.0200	4.0	20.0
2-Nitropropane	Ave	0.0400	0.0236		0.700	0.0200	-41.0*	20.0
Cyclohexanone	Ave	0.0118	0.0105		5.80	0.100	-10.9	20.0
1,2,3-Trimethylbenzene	Ave	2.250	2.550		0.0113	0.0100	13.3	20.0
1,3,5-Trichlorobenzene	Ave	0.8988	0.9263		0.110	0.0100	3.1	20.0
2-Methylnaphthalene	Ave	0.9347	0.6055		0.470	0.0200	-35.2*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab File ID: BFB2547.D BFB Injection Date: 03/18/2014

Instrument ID: A3UX12 BFB Injection Time: 17:23

Analysis Batch No.: 123039

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.5	
75	30.0 - 60.0 % of mass 95	51.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	69.3	
175	5.0 - 9.0 % of mass 174	5.6	(8.0)1
176	95.0 - 101.0 % of mass 174	66.4	(95.8)1
177	5.0 - 9.0 % of mass 176	4.5	(6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-123039/3	U1236334.D	03/18/2014	17:53
	STD8260 240-123039/4	U1236335.D	03/18/2014	18:18
	STD8260 240-123039/5	U1236336.D	03/18/2014	18:42
	STD8260 240-123039/6	U1236337.D	03/18/2014	19:07
	STD8260 240-123039/7	U1236338.D	03/18/2014	19:31
	STD8260 240-123039/8	U1236339.D	03/18/2014	19:56
	STD 240-123039/13	U1236344.D	03/18/2014	21:56
	STD 240-123039/14	U1236345.D	03/18/2014	22:21
	STD 240-123039/15	U1236346.D	03/18/2014	22:44
	STD 240-123039/16	U1236347.D	03/18/2014	23:09
	STD 240-123039/17	U1236348.D	03/18/2014	23:33
	STD 240-123039/18	U1236349.D	03/18/2014	23:58

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-123039/8	U1236339.D
Level 2	STD8260 240-123039/7	U1236338.D
Level 3	STD8260 240-123039/6	U1236337.D
Level 4	STD8260 240-123039/5	U1236336.D
Level 5	STD8260 240-123039/4	U1236335.D
Level 6	STD8260 240-123039/3	U1236334.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.5344 0.5037	0.5482	0.4736	0.4481	0.4847	Ave		0.4988			0.1000	7.6		15.0			
Chloromethane	0.5548 0.5203	0.4941	0.4787	0.5026	0.4615	Ave		0.5020			0.1000	6.5		15.0			
Vinyl chloride	0.6018 0.5213	0.4945	0.4958	0.4867	0.4761	Ave		0.5127			0.1000	9.0		15.0			
Bromomethane	0.2193 0.2899	0.2045	0.2459	0.2648	0.2544	Ave		0.2464			0.0500	13.0		15.0			
Chloroethane	0.3033 0.3389	0.2806	0.2921	0.3217	0.3071	Ave		0.3073				6.8		15.0			
Dichlorofluoromethane	0.5609 0.7093	0.5861	0.6018	0.6515	0.6113	Ave		0.6201				8.5		15.0			
Trichlorofluoromethane	+++++ 0.5269	0.2817	0.4322	0.4446	0.4751	Lin1	-0.305	0.5045			0.1000				0.9960		0.9900
Ethyl ether	0.3032 0.2882	0.2907	0.2519	0.2786	0.2610	Ave		0.2789				6.9		15.0			
Acrolein	0.0515 0.0491	0.0375	0.0429	0.0480	0.0456	Ave		0.0458				11.0		15.0			
1,1,2-Trichlorotrifluoroethane	0.3320 0.3359	0.3222	0.3336	0.3136	0.3318	Ave		0.3282			0.0500	2.6		15.0			
1,1-Dichloroethene	0.7910 0.6719	0.6581	0.6096	0.6244	0.6161	Ave		0.6619			0.1000	10.0		15.0			
Acetone	+++++ 0.1001	0.2185	0.1045	0.0981	0.0901	Lin1	0.2349	0.0943			0.0500				0.9970		0.9900
Iodomethane	0.4769 0.4952	0.4880	0.4499	0.4888	0.4663	Ave		0.4775				3.5		15.0			
Carbon disulfide	1.1951 1.3615	1.1225	1.2245	1.2583	1.2782	Ave		1.2400			0.1000	6.5		15.0			
3-Chloro-1-propene	+++++ 0.2030	0.2178	0.1733	0.1834	0.1773	Ave		0.1910				9.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl acetate	0.3031 0.2545	0.2745	0.2318	0.2393	0.2392	Ave		0.2571			0.1000	11.0		15.0			
Methylene Chloride	0.6765 0.5132	0.5933	0.4925	0.5139	0.4835	Ave		0.5455			0.1000	14.0		15.0			
tert-Butyl alcohol	0.0202 0.0257	0.0324	0.0268	0.0282	0.0278	Ave		0.0269				15.0		15.0			
Acrylonitrile	0.1341 0.1327	0.1320	0.1163	0.1261	0.1281	Ave		0.1282				5.1		15.0			
Methyl tert-butyl ether	1.0062 0.9932	0.9235	0.9091	0.9545	0.9132	Ave		0.9500			0.1000	4.4		15.0			
trans-1,2-Dichloroethene	0.5271 0.5012	0.4980	0.4592	0.4640	0.4537	Ave		0.4839			0.1000	6.0		15.0			
Hexane	+++++ 0.2954	0.4135	0.3254	0.2694	0.3140	Lin1	0.1168	0.2958							0.9970		0.9900
1,1-Dichloroethane	0.6779 0.6169	0.4973	0.5423	0.5740	0.5766	Ave		0.5808			0.1000	11.0		15.0			
Vinyl acetate	+++++ 0.4525	0.4327	0.3948	0.4055	0.4261	Ave		0.4223				5.4		15.0			
cis-1,2-Dichloroethene	0.4179 0.4827	0.4437	0.4224	0.4587	0.4536	Ave		0.4465			0.1000	5.4		15.0			
2-Butanone (MEK)	0.2587 0.1551	0.1857	0.1436	0.1418	0.1443	Lin1	0.0864	0.1486			0.0500				0.9980		0.9900
2,2-Dichloropropane	0.2676 0.2152	0.1894	0.2086	0.2096	0.2130	Ave		0.2172				12.0		15.0			
Bromochloromethane	0.2758 0.2868	0.2301	0.2520	0.2560	0.2586	Ave		0.2599				7.6		15.0			
Tetrahydrofuran	+++++ 0.0953	0.1822	0.0998	0.0931	0.0901	Lin1	0.1722	0.0916							0.9990		0.9900
Chloroform	0.6928 0.5875	0.5420	0.5287	0.5342	0.5248	Ave		0.5683				11.0		15.0			
1,1,1-Trichloroethane	0.2746 0.3435	0.3102	0.3127	0.3304	0.3187	Ave		0.3150			0.1000	7.4		15.0			
Cyclohexane	0.4181 0.4385	0.4958	0.4312	0.4020	0.4233	Ave		0.4348			0.1000	7.4		15.0			
1,1-Dichloropropene	0.4031 0.4327	0.3936	0.4016	0.3893	0.4041	Ave		0.4041				3.8		15.0			
Carbon tetrachloride	0.1984 0.2686	0.2307	0.2255	0.2395	0.2486	Ave		0.2352			0.1000	10.0		15.0			
Isobutyl alcohol	0.0045 0.0054	0.0057	0.0046	0.0053	0.0056	Ave		0.0052				10.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzene	1.2944 1.4547	1.2963	1.2921	1.3280	1.3370	Ave		1.3337			0.5000	4.7		15.0			
1,2-Dichloroethane	0.4248 0.4542	0.4749	0.4145	0.4376	0.4186	Ave		0.4374			0.1000	5.3		15.0			
n-Heptane	+++++ 0.0662	0.1969	0.0896	0.0818	0.0795	Lin1	0.1399	0.0696							0.9920		0.9900
Trichloroethene	0.3045 0.3247	0.3258	0.3052	0.3092	0.3076	Ave		0.3128			0.2000	3.1		15.0			
Methylcyclohexane	0.4881 0.3641	0.4436	0.3691	0.3342	0.3743	Ave		0.3956			0.1000	15.0		15.0			
1,2-Dichloropropane	0.3334 0.3447	0.3482	0.3093	0.3256	0.3132	Ave		0.3291			0.1000	4.9		15.0			
Dibromomethane	0.1765 0.1949	0.1618	0.1583	0.1793	0.1739	Ave		0.1741				7.6		15.0			
1,4-Dioxane	+++++ 0.0038	0.0041	0.0041	0.0035	0.0039	Ave		0.0039				6.5		15.0			
Bromodichloromethane	0.3572 0.4374	0.3124	0.3800	0.4088	0.4032	Ave		0.3832			0.1000	11.0		15.0			
2-Chloroethyl vinyl ether	0.2301 0.2460	0.2276	0.2192	0.2322	0.2293	Ave		0.2307				3.8		15.0			
cis-1,3-Dichloropropene	0.4629 0.5280	0.4272	0.4389	0.4776	0.4865	Ave		0.4702			0.1500	7.7		15.0			
4-Methyl-2-pentanone (MIBK)	0.3482 0.3206	0.3018	0.2959	0.2975	0.3034	Ave		0.3112			0.0500	6.5		15.0			
Toluene	1.9139 2.0526	1.8706	1.7880	1.9419	1.8871	Ave		1.9090			0.4000	4.6		15.0			
trans-1,3-Dichloropropene	0.4264 0.5793	0.3714	0.4536	0.5264	0.5367	Lin1	-0.140	0.5564			0.1000				0.9960		0.9900
Ethyl methacrylate	0.5082 0.5962	0.4790	0.4960	0.5638	0.5701	Ave		0.5356				8.8		15.0			
1,1,2-Trichloroethane	0.4068 0.4106	0.4633	0.3730	0.3988	0.3856	Ave		0.4064			0.1000	7.7		15.0			
Tetrachloroethene	0.4136 0.3782	0.3907	0.3287	0.3598	0.3525	Ave		0.3706			0.2000	8.1		15.0			
1,3-Dichloropropane	0.8469 0.7831	0.7392	0.7278	0.7778	0.7406	Ave		0.7692				5.7		15.0			
2-Hexanone	0.3156 0.3048	0.3117	0.2900	0.2927	0.2889	Ave		0.3006			0.0500	3.9		15.0			
Chlorodibromomethane	0.2944 0.3839	0.2962	0.3175	0.3459	0.3528	Ave		0.3318				11.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dibromoethane	0.3244 0.4134	0.3551	0.3575	0.3902	0.3885	Ave		0.3715				8.6		15.0			
Chlorobenzene	1.2565 1.2815	1.1770	1.1292	1.2390	1.1758	Ave		1.2098			0.3000	4.8		15.0			
1,1,1,2-Tetrachloroethane	0.2981 0.3700	0.3435	0.3033	0.3406	0.3344	Ave		0.3316				8.1		15.0			
Ethylbenzene	0.5132 0.6643	0.6084	0.5658	0.6503	0.6141	Ave		0.6027				9.3		15.0			
m-Xylene & p-Xylene	0.7032 0.8380	0.7202	0.7202	0.8049	0.7681	Ave		0.7591				7.1		15.0			
o-Xylene	0.6982 0.8523	0.6109	0.7218	0.8168	0.7765	Ave		0.7461				12.0		15.0			
Styrene	1.3247 1.5928	1.2622	1.2631	1.4995	1.4228	Ave		1.3942			0.3000	9.7		15.0			
Bromoform	+++++ 0.2322	0.1706	0.1834	0.2065	0.2183	Ave		0.2022			0.1000	12.0		15.0			
Isopropylbenzene	1.6638 1.9849	1.7715	1.6596	1.8529	1.7872	Ave		1.7867			0.1000	6.9		15.0			
1,1,2,2-Tetrachloroethane	1.2337 1.1786	1.2869	1.1354	1.1574	1.1978	Ave		1.1983			0.3000	4.6		15.0			
Bromobenzene	1.0408 0.9784	0.9261	0.9050	0.9222	0.9629	Ave		0.9559				5.2		15.0			
1,2,3-Trichloropropane	0.4346 0.3752	0.3379	0.3702	0.3656	0.4000	Ave		0.3806				8.7		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.3290	0.2219	0.3251	0.2995	0.3428	Lin1	-0.118	0.3317							0.9980		0.9900
N-Propylbenzene	0.9948 0.9153	0.9570	0.8646	0.8716	0.9092	Ave		0.9188				5.4		15.0			
2-Chlorotoluene	0.9043 0.8650	0.9134	0.7867	0.8180	0.8665	Ave		0.8590				5.7		15.0			
1,3,5-Trimethylbenzene	2.9225 2.9576	2.9760	2.8291	2.8643	2.9472	Ave		2.9161				2.0		15.0			
4-Chlorotoluene	0.9026 0.9528	0.9436	0.8795	0.9312	0.9220	Ave		0.9220				2.9		15.0			
tert-Butylbenzene	2.2905 2.3478	2.5249	2.1963	2.2569	2.4046	Ave		2.3368				5.0		15.0			
1,2,4-Trimethylbenzene	3.3154 3.2157	3.1289	2.9041	3.0536	3.1626	Ave		3.1300				4.5		15.0			
sec-Butylbenzene	3.6452 3.3155	3.5969	3.1772	3.2733	3.3970	Ave		3.4008				5.4		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	1.7868 1.7316	1.9264	1.6377	1.6501	1.7030	Ave		1.7393			0.6000	6.1		15.0			
4-Isopropyltoluene	3.0928 2.8938	3.2329	2.7355	2.7788	2.9119	Ave		2.9410				6.4		15.0			
1,4-Dichlorobenzene	2.5229 1.8330	1.9959	1.7496	1.7493	1.7858	Ave		1.9394			0.5000	15.0		15.0			
n-Butylbenzene	3.0017 2.5834	2.9769	2.4071	2.5189	2.6067	Ave		2.6825				9.2		15.0			
1,2-Dichlorobenzene	1.9814 1.7212	1.7245	1.6875	1.6633	1.7263	Ave		1.7507			0.4000	6.6		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1943	0.1038	0.1650	0.1665	0.1956	Lin1	-0.114	0.1922			0.0500				0.9970		0.9900
1,2,4-Trichlorobenzene	1.2300 0.8935	1.2187	0.9363	0.9162	0.9077	Lin1	0.2252	0.8974			0.2000				1.0000		0.9900
Hexachlorobutadiene	0.9001 0.3264	0.9868	0.4256	0.3916	0.3694	Lin1	0.4220	0.3425							0.9900		0.9900
Naphthalene	3.0738 3.1787	3.7993	3.0910	3.0797	3.2159	Ave		3.2397				8.7		15.0			
1,2,3-Trichlorobenzene	1.3764 0.8208	1.1441	0.8784	0.8429	0.8752	Lin1	0.2925	0.8342							0.9990		0.9900
Dibromofluoromethane (Surr)	+++++ 0.2732	0.2622	0.2400	0.2643	0.2584	Ave		0.2596				4.7		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3571	0.3041	0.3481	0.3572	0.3335	Ave		0.3400				6.6		15.0			
Toluene-d8 (Surr)	+++++ 1.5610	1.4174	1.3869	1.4974	1.4676	Ave		1.4661				4.7		15.0			
4-Bromofluorobenzene (Surr)	+++++ 0.6491	0.6096	0.5569	0.6072	0.5858	Ave		0.6017				5.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 21:56 Calibration End Date: 03/18/2014 23:58 Calibration ID: 21227

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-123039/18	U1236349.D
Level 2	STD 240-123039/17	U1236348.D
Level 3	STD 240-123039/16	U1236347.D
Level 4	STD 240-123039/15	U1236346.D
Level 5	STD 240-123039/14	U1236345.D
Level 6	STD 240-123039/13	U1236344.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0592 0.0472	0.0446	0.0487	0.0407	0.0439	Ave		0.0474				14.0		15.0			
Diisopropyl ether	+++++ 0.2622	0.2492	0.2676	0.3004	0.2624	Ave		0.2684				7.1		15.0			
2-Chloro-1,3-butadiene	0.4604 0.4608	0.5033	0.4658	0.4744	0.4645	Ave		0.4715				3.5		15.0			
Ethyl tert-butyl ether	1.0262 0.9257	0.9913	0.9547	0.9862	0.9131	Ave		0.9662				4.4		15.0			
Ethyl acetate	0.2147 0.1938	0.2302	0.1962	0.1996	0.1918	Ave		0.2044				7.4		15.0			
Propionitrile	0.0585 0.0486	0.0469	0.0464	0.0449	0.0476	Ave		0.0488				10.0		15.0			
Methacrylonitrile	0.2151 0.2129	0.2165	0.2035	0.2053	0.2044	Ave		0.2096				2.8		15.0			
Tert-amyl methyl ether	0.9067 0.9000	0.9204	0.9043	0.9438	0.8652	Ave		0.9067				2.9		15.0			
n-Butanol	+++++ 0.0051	0.0036	0.0039	0.0041	0.0047	Ave		0.0043				15.0		15.0			
Ethyl acrylate	0.3625 0.3819	0.3734	0.3632	0.3770	0.3774	Ave		0.3726				2.1		15.0			
Methyl methacrylate	0.2500 0.2863	0.2273	0.2635	0.2724	0.2703	Ave		0.2616				7.9		15.0			
2-Nitropropane	+++++ 0.0322	0.0246	0.0274	0.0297	0.0312	Ave		0.0291				11.0		15.0			
1-Chlorohexane	0.5509 0.4531	0.5751	0.4340	0.4167	0.4562	Ave		0.4810				14.0		15.0			
Cyclohexanone	0.0144 0.0169	0.0183	0.0144	0.0147	0.0155	Ave		0.0157				10.0		15.0			
1,2,3-Trimethylbenzene	3.5667 3.3327	3.4143	3.0988	3.2900	3.2610	Ave		3.3273				4.7		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 21:56 Calibration End Date: 03/18/2014 23:58 Calibration ID: 21227

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3,5-Trichlorobenzene	1.4560 0.9277	1.2303	0.9863	0.9772	0.9452	Lin1	0.2861	0.9351							1.0000		0.9900
2-Methylnaphthalene	2.1272 1.5052	2.3901	1.5625	1.5493	1.6024	Lin1	0.9808	1.5289							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: STD8260 240-126390/2 Calibration Date: 04/14/2014 12:16

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1236990.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4988	0.4927	0.1000	0.310	0.0200	-1.2	20.0
Chloromethane	Ave	0.5020	0.6015	0.1000	0.300	0.0200	19.8	20.0
Vinyl chloride	Ave	0.5127	0.6056	0.1000	0.220	0.0200	18.1	20.0
Bromomethane	Ave	0.2464	0.3137	0.0500	0.410	0.0200	27.3*	20.0
Chloroethane	Ave	0.3073	0.3612	0.0500	0.290	0.0200	17.5	20.0
Dichlorofluoromethane	Ave	0.6201	0.6926		0.420	0.0200	11.7	20.0
Trichlorofluoromethane	Lin1		0.5982	0.1000	0.210	0.0200	21.6*	20.0
Ethyl ether	Ave	0.2789	0.2949		0.310	0.0200	5.7	20.0
Acrolein	Ave	0.0458	0.0362		2.20	0.100	-20.9*	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3282	0.3345	0.0500	0.280	0.0200	1.9	20.0
1,1-Dichloroethene	Ave	0.6619	0.7066	0.1000	0.190	0.0200	6.8	20.0
Acetone	Lin1		0.1043	0.0500	1.10	0.0400	4.3	20.0
Iodomethane	Ave	0.4775	0.5772		0.180	0.0200	20.9*	20.0
Carbon disulfide	Ave	1.240	1.482	0.1000	0.130	0.0200	19.5	20.0
3-Chloro-1-propene	Ave	0.1910	0.1988		0.350	0.0200	4.1	20.0
Methyl acetate	Ave	0.2571	0.2715	0.1000	0.380	0.100	5.6	20.0
Methylene Chloride	Ave	0.5455	0.5727	0.1000	0.330	0.0200	5.0	20.0
tert-Butyl alcohol	Ave	0.0269	0.0361		3.90	0.200	34.5*	20.0
Acrylonitrile	Ave	0.1282	0.1498		2.00	0.200	16.8	20.0
Methyl tert-butyl ether	Ave	0.9500	0.9401	0.1000	0.170	0.0200	-1.0	20.0
trans-1,2-Dichloroethene	Ave	0.4839	0.5049	0.1000	0.190	0.0200	4.3	20.0
Hexane	Lin1		0.2968		0.260	0.0200	-1.6	20.0
1,1-Dichloroethane	Ave	0.5808	0.5717	0.1000	0.150	0.0200	-1.6	20.0
Vinyl acetate	Ave	0.4223	0.3770		0.190	0.0192	-10.7	20.0
2,2-Dichloropropane	Ave	0.2172	0.2055		0.130	0.0200	-5.4	20.0
2-Butanone (MEK)	Lin1		0.1606	0.0500	0.570	0.0400	6.7	20.0
cis-1,2-Dichloroethene	Ave	0.4465	0.4622	0.1000	0.170	0.0200	3.5	20.0
Bromochloromethane	Ave	0.2599	0.2746		0.290	0.0200	5.7	20.0
Tetrahydrofuran	Lin1		0.1018		0.420	0.0400	6.4	20.0
Chloroform	Ave	0.5683	0.5095	0.2000	0.160	0.0200	-10.3	20.0
1,1,1-Trichloroethane	Ave	0.3150	0.2998	0.1000	0.220	0.0200	-4.8	20.0
Cyclohexane	Ave	0.4348	0.2989	0.1000	0.120	0.0200	-31.3*	20.0
1,1-Dichloropropene	Ave	0.4041	0.4041		0.130	0.0200	0.0	20.0
Carbon tetrachloride	Ave	0.2352	0.2489	0.1000	0.130	0.0200	5.8	20.0
Isobutyl alcohol	Ave	0.0052	0.0073		8.20	0.500	40.1*	20.0
1,2-Dichloroethane	Ave	0.4374	0.4020	0.1000	0.220	0.0200	-8.1	20.0
Benzene	Ave	1.334	1.350	0.5000	0.130	0.0200	1.2	20.0
n-Heptane	Lin1		0.0628		0.180	0.0200	-19.8	20.0
Trichloroethene	Ave	0.3128	0.3294	0.2000	0.170	0.0200	5.3	20.0
Methylcyclohexane	Ave	0.3956	0.2893	0.1000	0.130	0.0200	-26.9*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab File ID: BFB2574.D BFB Injection Date: 04/14/2014

Instrument ID: A3UX12 BFB Injection Time: 11:52

Analysis Batch No.: 126390

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.8	
75	30.0 - 60.0 % of mass 95	47.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.1	
173	Less than 2.0 % of mass 174	0.3	(0.4)1
174	50.0 - 120.00 % of mass 95	82.9	
175	5.0 - 9.0 % of mass 174	6.1	(7.4)1
176	95.0 - 101.0 % of mass 174	80.5	(97.1)1
177	5.0 - 9.0 % of mass 176	5.3	(6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-126390/2	U1236990.D	04/14/2014	12:16
	CCV 240-126390/3	U1236991.D	04/14/2014	12:39
	LCS 240-126390/4	U1236992.D	04/14/2014	13:03
	MB 240-126390/6	U1236994.D	04/14/2014	13:51
TB-040714	240-35913-1	U1237006.D	04/14/2014	18:41
MSA-DMW7S-040714	240-35913-2	U1237007.D	04/14/2014	19:05
MSA-MW5-040714	240-35913-3	U1237008.D	04/14/2014	19:29
TB-040814	240-36010-1	U1237009.D	04/14/2014	19:52
MSA-MW17S-040814	240-36010-2	U1237010.D	04/14/2014	20:16
MSA-MW17I-040814	240-36010-3	U1237011.D	04/14/2014	20:39
MSA-MW17D-040814	240-36010-4	U1237012.D	04/14/2014	21:03
MSA-MW47D-040814	240-36010-5	U1237013.D	04/14/2014	21:26
MSA-MW17D-040814 MS	240-36010-4 MS	U1237015.D	04/14/2014	22:13
MSA-MW17D-040814 MSD	240-36010-4 MSD	U1237016.D	04/14/2014	22:37

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: STD8260 240-126390/2 Calibration Date: 04/14/2014 12:16

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1236990.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3291	0.3513	0.1000	0.180	0.0200	6.8	20.0
1,4-Dioxane	Ave	0.0039	0.0032		19.0	0.400	-17.5	20.0
Dibromomethane	Ave	0.1741	0.2124		0.280	0.0200	-22.0	20.0
Bromodichloromethane	Ave	0.3832	0.3896	0.1000	0.150	0.0200	1.7	20.0
2-Chloroethyl vinyl ether	Ave	0.2307	0.2164		0.990	0.0400	-6.2	20.0
cis-1,3-Dichloropropene	Ave	0.4702	0.4521	0.1500	0.140	0.0200	-3.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3112	0.3139	0.0500	0.320	0.0400	0.9	20.0
Toluene	Ave	1.909	1.818	0.4000	0.130	0.0200	-4.7	20.0
trans-1,3-Dichloropropene	Lin1		0.4696	0.1000	0.190	0.0200	-14.3	20.0
Ethyl methacrylate	Ave	0.5356	0.4963		0.140	0.0200	-7.3	20.0
1,1,2-Trichloroethane	Ave	0.4064	0.3776	0.1000	0.270	0.0200	-7.1	20.0
Tetrachloroethene	Ave	0.3706	0.4033	0.2000	0.290	0.0200	8.8	20.0
1,3-Dichloropropane	Ave	0.7692	0.7524		0.160	0.0200	-2.2	20.0
2-Hexanone	Ave	0.3006	0.3043	0.0500	0.410	0.0400	1.2	20.0
Chlorodibromomethane	Ave	0.3318	0.3223		0.180	0.0200	-2.9	20.0
1,2-Dibromoethane	Ave	0.3715	0.3767		0.240	0.0200	1.4	20.0
Chlorobenzene	Ave	1.210	1.213	0.3000	0.150	0.0200	0.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3316	0.3333		0.230	0.0200	0.5	20.0
Ethylbenzene	Ave	0.6027	0.6205		0.170	0.0200	3.0	20.0
m-Xylene & p-Xylene	Ave	0.7591	0.7472		0.240	0.0200	-1.6	20.0
o-Xylene	Ave	0.7461	0.7621		0.140	0.0200	2.1	20.0
Styrene	Ave	1.394	1.365	0.3000	0.110	0.0200	-2.1	20.0
Bromoform	Ave	0.2022	0.1881	0.1000	0.640	0.0200	-6.9	20.0
Isopropylbenzene	Ave	1.787	1.670	0.1000	0.130	0.0200	-6.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.198	1.042	0.3000	0.180	0.0200	-13.0	20.0
Bromobenzene	Ave	0.9559	0.9216		0.130	0.0200	-3.6	20.0
1,2,3-Trichloropropane	Ave	0.3806	0.3284		0.430	0.0200	-13.7	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.1498		0.150	0.0200	-53.1*	20.0
N-Propylbenzene	Ave	0.9188	0.7820		0.140	0.0200	-14.9	20.0
2-Chlorotoluene	Ave	0.8590	0.7556		0.110	0.0200	-12.0	20.0
1,3,5-Trimethylbenzene	Ave	2.916	2.369		0.0960	0.0200	-18.8	20.0
4-Chlorotoluene	Ave	0.9220	0.8455		0.180	0.0200	-8.3	20.0
tert-Butylbenzene	Ave	2.337	1.987		0.130	0.0200	-15.0	20.0
1,2,4-Trimethylbenzene	Ave	3.130	2.570		0.120	0.0200	-17.9	20.0
sec-Butylbenzene	Ave	3.401	2.663		0.130	0.0200	-21.7*	20.0
1,3-Dichlorobenzene	Ave	1.739	1.679	0.6000	0.140	0.0200	-3.5	20.0
4-Isopropyltoluene	Ave	2.941	2.406		0.0164	0.0200	-18.2	20.0
1,4-Dichlorobenzene	Ave	1.939	1.683	0.5000	0.130	0.0200	-13.2	20.0
n-Butylbenzene	Ave	2.682	1.982		0.120	0.0200	-26.1*	20.0
1,2-Dichlorobenzene	Ave	1.751	1.621	0.4000	0.130	0.0200	-7.4	20.0
1,2-Dibromo-3-Chloropropane	Lin1		0.1640	0.0500	0.670	0.0200	-11.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: STD8260 240-126390/2 Calibration Date: 04/14/2014 12:16

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1236990.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Lin1		0.8907	0.2000	0.150	0.0200	-2.0	20.0
Hexachlorobutadiene	Lin1		0.3235		0.300	0.0200	-11.7	20.0
Naphthalene	Ave	3.240	2.779		0.240	0.0200	-14.2	20.0
1,2,3-Trichlorobenzene	Lin1		0.8239		0.170	0.0200	-3.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2596	0.2510		0.0160	0.0165	-3.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3400	0.3386		0.0165	0.0165	-0.4	20.0
Toluene-d8 (Surr)	Ave	1.466	1.498		0.0169	0.0165	2.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6017	0.5401		0.0148	0.0165	-10.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126390/3 Calibration Date: 04/14/2014 12:39

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 21:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 23:58

Lab File ID: U1236991.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0474	0.0553		3.50	0.200	16.7	20.0
Diisopropyl ether	Ave	0.2684	0.2887		1.50	0.0200	7.6	20.0
2-Chloro-1,3-butadiene	Ave	0.4715	0.4639		0.290	0.0200	-1.6	20.0
Ethyl tert-butyl ether	Ave	0.9662	0.9833		0.110	0.0200	1.8	20.0
Ethyl acetate	Ave	0.2044	0.2071		0.500	0.0400	1.3	20.0
Propionitrile	Ave	0.0488	0.0542		1.20	0.200	11.0	20.0
Methacrylonitrile	Ave	0.2096	0.2209		0.510	0.200	5.4	20.0
Tert-amyl methyl ether	Ave	0.9067	0.9219		0.0670	0.0200	1.7	20.0
n-Butanol	Ave	0.0043	0.0047		7.30	0.500	10.6	20.0
Ethyl acrylate	Ave	0.3726	0.3705		0.250	0.0200	-0.6	20.0
Methyl methacrylate	Ave	0.2616	0.2752		0.490	0.0400	5.2	20.0
2-Nitropropane	Ave	0.0291	0.0355		0.700	0.0400	22.2*	20.0
Cyclohexanone	Ave	0.0157	0.0156		5.80	0.200	-0.6	20.0
1,2,3-Trimethylbenzene	Ave	3.327	2.721		0.0164	0.0200	-18.2	20.0
1,3,5-Trichlorobenzene	Lin1		0.9239		0.110	0.0200	-2.7	20.0
2-Methylnaphthalene	Lin1		1.004		0.470	0.0400	-35.9*	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab File ID: U1236994.D Lab Sample ID: MB 240-126390/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 04/14/2014 13:51

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-126390/4	U1236992.D	04/14/2014 13:03
TB-040714	240-35913-1	U1237006.D	04/14/2014 18:41
MSA-DMW7S-040714	240-35913-2	U1237007.D	04/14/2014 19:05
MSA-MW5-040714	240-35913-3	U1237008.D	04/14/2014 19:29
TB-040814	240-36010-1	U1237009.D	04/14/2014 19:52
MSA-MW17S-040814	240-36010-2	U1237010.D	04/14/2014 20:16
MSA-MW17I-040814	240-36010-3	U1237011.D	04/14/2014 20:39
MSA-MW17D-040814	240-36010-4	U1237012.D	04/14/2014 21:03
MSA-MW47D-040814	240-36010-5	U1237013.D	04/14/2014 21:26
MSA-MW17D-040814 MS	240-36010-4 MS	U1237015.D	04/14/2014 22:13
MSA-MW17D-040814 MSD	240-36010-4 MSD	U1237016.D	04/14/2014 22:37

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126390/6

Matrix: Water | Lab File ID: U1236994.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 13:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126390/6

Matrix: Water | Lab File ID: U1236994.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 13:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-126390/6

Matrix: Water Lab File ID: U1236994.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/14/2014 13:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126390 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	94		75-121
460-00-4	4-Bromofluorobenzene (Surr)	85		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126390/6

Matrix: Water | Lab File ID: U1236994.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 13:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1236992.D

Lab ID: LCS 240-126390/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	20.3	102	72-120	
1,1,1-Trichloroethane	20.0	20.3	101	74-120	
1,1,2,2-Tetrachloroethane	20.0	17.9	89	68-120	
1,1,2-Trichlorotrifluoroethane	20.0	21.5	107	74-151	
1,1-Dichloroethane	20.0	20.7	104	80-120	
1,1-Dichloroethene	20.0	23.1	115	78-131	
1,1-Dichloropropene	20.0	21.9	109	80-120	
1,2,3-Trichlorobenzene	20.0	19.5	98	54-126	
1,2,3-Trichloropropane	20.0	18.3	92	73-129	
1,2,4-Trichlorobenzene	20.0	20.6	103	48-135	
1,2,4-Trimethylbenzene	20.0	16.5	83	76-120	
1,2-Dibromo-3-Chloropropane	20.0	19.7	99	42-136	
1,2-Dichlorobenzene	20.0	19.0	95	80-120	
1,2-Dichloroethane	20.0	18.7	94	71-127	
1,2-Dichloropropane	20.0	21.1	105	80-120	
1,3-Dichlorobenzene	20.0	19.7	98	80-120	
1,3-Dichloropropane	20.0	19.6	98	79-120	
1,4-Dichlorobenzene	20.0	18.3	91	80-120	
2,2-Dichloropropane	20.0	19.2	96	50-129	
2-Butanone (MEK)	40.0	43.9	110	60-126	
2-Chloroethyl vinyl ether	24.0	22.9	95	52-131	
2-Chlorotoluene	20.0	17.9	89	76-120	
2-Hexanone	40.0	42.2	106	55-133	
4-Chlorotoluene	20.0	18.7	93	77-120	
4-Isopropyltoluene	20.0	16.4	82	74-120	
4-Methyl-2-pentanone (MIBK)	40.0	42.7	107	63-128	
Acetone	40.0	41.6	104	43-136	
Benzene	20.0	20.6	103	80-120	
Bromobenzene	20.0	19.9	99	76-120	
Bromoform	20.0	17.2	86	40-131	
Bromomethane	20.0	24.7	124	11-185	
Carbon disulfide	20.0	25.9	129	62-142	
Carbon tetrachloride	20.0	22.6	113	66-128	
Chlorobenzene	20.0	20.9	104	80-120	
Chlorodibromomethane	20.0	19.2	96	64-120	
Chloroethane	20.0	22.9	115	25-153	
Chloroform	20.0	18.7	94	79-120	
Chloromethane	20.0	20.1	101	44-126	
cis-1,2-Dichloroethene	20.0	21.0	105	80-120	
cis-1,3-Dichloropropene	20.0	20.1	101	61-120	
Dibromomethane	20.0	26.0	130	80-120	*
Bromochloromethane	20.0	22.2	111	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1236992.D

Lab ID: LCS 240-126390/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	11.4	57	19-129	
Bromodichloromethane	20.0	20.3	101	72-121	
tert-Butyl alcohol	200	198	99	70-130	
Ethylbenzene	20.0	20.9	105	80-120	
Hexachlorobutadiene	20.0	16.7	84	36-134	
Isopropylbenzene	20.0	19.4	97	75-120	
Methyl tert-butyl ether	20.0	21.2	106	52-144	
Methylene Chloride	20.0	22.4	112	66-131	
m-Xylene & p-Xylene	20.0	20.4	102	80-120	
Naphthalene	20.0	17.4	87	32-141	
n-Butylbenzene	20.0	14.6	73	66-125	
N-Propylbenzene	20.0	16.9	84	74-121	
o-Xylene	20.0	21.2	106	80-120	
sec-Butylbenzene	20.0	15.8	79	70-120	
Styrene	20.0	19.3	97	79-120	
Tetrachloroethene	20.0	22.8	114	79-120	
Toluene	20.0	20.2	101	80-120	
trans-1,2-Dichloroethene	20.0	22.4	112	80-120	
trans-1,3-Dichloropropene	20.0	19.3	97	58-120	
Trichloroethene	20.0	21.9	110	76-120	
Trichlorofluoromethane	20.0	22.2	111	49-157	
Vinyl acetate	16.0	22.4	140	46-161	
Vinyl chloride	20.0	20.5	102	53-127	
Xylenes, Total	40.0	41.6	104	80-120	
tert-Butylbenzene	20.0	17.0	85	71-120	
1,2-Dibromoethane	20.0	21.0	105	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab File ID: UXX9852.D Lab Sample ID: MB 240-127251/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX10 Date Analyzed: 04/21/2014 12:51

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-127251/5	UXX9850.D	04/21/2014 12:06
MSA-MW-14I-040914	240-36043-1	UXX9855.D	04/21/2014 14:31
MSA-MW-14D-040914	240-36043-2	UXX9856.D	04/21/2014 14:54
MSA-MW-48I-040914	240-36043-3	UXX9857.D	04/21/2014 15:17
MSA-MW-48D-040914	240-36043-4	UXX9858.D	04/21/2014 15:39
TB-040914	240-36043-5	UXX9859.D	04/21/2014 16:02

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127251/7

Matrix: Water | Lab File ID: UXX9852.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 12:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127251/7

Matrix: Water | Lab File ID: UXX9852.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 12:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-127251/7

Matrix: Water Lab File ID: UXX9852.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 12:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		74-120
1868-53-7	Dibromofluoromethane (Surr)	90		75-121
460-00-4	4-Bromofluorobenzene (Surr)	89		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-127251/7

Matrix: Water Lab File ID: UXX9852.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 12:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9850.D

Lab ID: LCS 240-127251/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	9.82	98	72-120	
1,1,1-Trichloroethane	10.0	9.28	93	74-120	
1,1,2,2-Tetrachloroethane	10.0	11.9	119	68-120	
1,1,2-Trichlorotrifluoroethane	10.0	9.72	97	74-151	
1,1-Dichloroethane	10.0	10.5	105	80-120	
1,1-Dichloroethene	10.0	10.7	107	78-131	
1,1-Dichloropropene	10.0	11.0	110	80-120	
1,2,3-Trichlorobenzene	10.0	10.8	108	54-126	
1,2,3-Trichloropropane	10.0	11.6	116	73-129	
1,2,4-Trichlorobenzene	10.0	10.5	105	48-135	
1,2,4-Trimethylbenzene	10.0	11.1	111	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.90	99	42-136	
1,2-Dichlorobenzene	10.0	10.4	104	80-120	
1,2-Dichloroethane	10.0	10.3	103	71-127	
1,2-Dichloropropane	10.0	10.6	106	80-120	
1,3-Dichlorobenzene	10.0	9.85	99	80-120	
1,3-Dichloropropane	10.0	11.6	116	79-120	
1,4-Dichlorobenzene	10.0	10.0	100	80-120	
2,2-Dichloropropane	10.0	7.44	74	50-129	
2-Butanone (MEK)	20.0	21.4	107	60-126	
2-Chloroethyl vinyl ether	12.0	11.0	91	52-131	
2-Chlorotoluene	10.0	10.6	106	76-120	
2-Hexanone	20.0	20.5	102	55-133	
4-Chlorotoluene	10.0	10.2	102	77-120	
4-Isopropyltoluene	10.0	10.8	108	74-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.7	98	63-128	
Acetone	20.0	20.5	103	43-136	
Benzene	10.0	10.6	106	80-120	
Bromobenzene	10.0	9.84	98	76-120	
Bromoform	10.0	7.35	73	40-131	
Bromomethane	10.0	11.6	116	11-185	
Carbon disulfide	10.0	10.3	103	62-142	
Carbon tetrachloride	10.0	8.36	84	66-128	
Chlorobenzene	10.0	10.2	102	80-120	
Chlorodibromomethane	10.0	9.25	92	64-120	
Chloroethane	10.0	9.34	93	25-153	
Chloroform	10.0	10.6	106	79-120	
Chloromethane	10.0	9.40	94	44-126	
cis-1,2-Dichloroethene	10.0	9.69	97	80-120	
cis-1,3-Dichloropropene	10.0	9.80	98	61-120	
Dibromomethane	10.0	10.3	103	80-120	
Bromochloromethane	10.0	9.63	96	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9850.D

Lab ID: LCS 240-127251/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	10.0	8.84	88	19-129	
Bromodichloromethane	10.0	9.63	96	72-121	
tert-Butyl alcohol	100	88.6	89	70-130	
Ethylbenzene	10.0	10.1	101	80-120	
Hexachlorobutadiene	10.0	10.5	105	36-134	
Isopropylbenzene	10.0	10.3	103	75-120	
Methyl tert-butyl ether	10.0	9.51	95	52-144	
Methylene Chloride	10.0	10.7	107	66-131	
m-Xylene & p-Xylene	10.0	10.4	104	80-120	
Naphthalene	10.0	10.4	104	32-141	
n-Butylbenzene	10.0	11.1	111	66-125	
N-Propylbenzene	10.0	10.5	105	74-121	
o-Xylene	10.0	10.3	103	80-120	
sec-Butylbenzene	10.0	11.1	111	70-120	
Styrene	10.0	9.78	98	79-120	
Tetrachloroethene	10.0	9.90	99	79-120	
Toluene	10.0	11.3	113	80-120	
trans-1,2-Dichloroethene	10.0	9.89	99	80-120	
trans-1,3-Dichloropropene	10.0	10.8	108	58-120	
Trichloroethene	10.0	9.40	94	76-120	
Trichlorofluoromethane	10.0	7.39	74	49-157	
Vinyl acetate	8.00	10.2	127	46-161	
Vinyl chloride	10.0	10.5	105	53-127	
Xylenes, Total	20.0	20.7	104	80-120	
tert-Butylbenzene	10.0	11.1	111	71-120	
1,2-Dibromoethane	10.0	10.4	104	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1237015.D

Lab ID: 240-36010-4 MS Client ID: MSA-MW17D-040814 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	0.23 U	18.9	94	64-120	
1,1,1-Trichloroethane	20.0	0.22 U	19.7	98	68-121	
1,1,2,2-Tetrachloroethane	20.0	0.18 U	16.8	84	63-122	
1,1,2-Trichlorotrifluoroethane	20.0	0.28 U	20.0	100	70-152	
1,1-Dichloroethane	20.0	0.15 U	20.4	102	79-120	
1,1-Dichloroethene	20.0	0.19 U	23.0	115	74-135	
1,1-Dichloropropene	20.0	0.13 U	21.2	106	80-120	
1,2,3-Trichlorobenzene	20.0	0.17 U	18.8	94	45-129	
1,2,3-Trichloropropane	20.0	0.43 U	16.9	84	67-132	
1,2,4-Trichlorobenzene	20.0	0.15 U	18.9	94	38-138	
1,2,4-Trimethylbenzene	20.0	0.12 U	15.8	79	67-124	
1,2-Dibromo-3-Chloropropane	20.0	0.67 U	15.9	80	32-139	
1,2-Dichlorobenzene	20.0	0.13 U	18.2	91	75-120	
1,2-Dichloroethane	20.0	0.22 U	18.6	93	68-129	
1,2-Dichloropropane	20.0	0.18 U	21.4	107	78-120	
1,3-Dichlorobenzene	20.0	0.14 U	17.8	89	73-120	
1,3-Dichloropropane	20.0	0.16 U	19.7	98	74-120	
1,4-Dichlorobenzene	20.0	0.13 U	17.4	87	75-120	
2,2-Dichloropropane	20.0	0.13 U	16.9	85	38-127	
2-Butanone (MEK)	40.0	0.57 U	41.6	104	54-129	
2-Chloroethyl vinyl ether	24.0	0.99 U	0.99 U	0	10-150	F1
2-Chlorotoluene	20.0	0.11 U	17.1	85	69-120	
2-Hexanone	40.0	0.41 U	40.7	102	47-139	
4-Chlorotoluene	20.0	0.18 U	17.8	89	71-120	
4-Isopropyltoluene	20.0	0.12 U	14.9	75	64-122	
4-Methyl-2-pentanone (MIBK)	40.0	0.32 U	41.2	103	56-131	
Acetone	40.0	1.1 U	41.7	104	33-145	
Benzene	20.0	0.13 U	21.5	107	72-121	
Bromobenzene	20.0	0.13 U	18.7	94	71-120	
Bromoform	20.0	0.64 U	16.2	81	32-128	
Bromomethane	20.0	0.41 U	23.5	117	10-186	
Carbon disulfide	20.0	0.13 U	25.9	129	57-147	
Carbon tetrachloride	20.0	0.13 U	20.5	103	59-129	
Chlorobenzene	20.0	0.15 U	21.0	105	80-120	
Chlorodibromomethane	20.0	0.18 U	17.9	90	56-120	
Chloroethane	20.0	0.29 U	21.7	109	21-165	
Chloroform	20.0	0.16 U	19.2	96	76-120	
Chloromethane	20.0	0.30 U	19.9	99	33-132	
cis-1,2-Dichloroethene	20.0	0.17 U	21.2	106	70-120	
cis-1,3-Dichloropropene	20.0	0.14 U	18.9	94	51-120	
Dibromomethane	20.0	0.28 U	26.3	131	77-121	F1
Bromochloromethane	20.0	0.29 U	22.4	112	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1237015.D

Lab ID: 240-36010-4 MS Client ID: MSA-MW17D-040814 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	0.31 U	10.4	52	17-128	
Bromodichloromethane	20.0	0.15 U	19.5	97	67-120	
tert-Butyl alcohol	200	3.9 U	230	115	70-130	
Ethylbenzene	20.0	0.17 U	20.1	101	75-120	
Hexachlorobutadiene	20.0	0.30 U	15.4	77	27-132	
Isopropylbenzene	20.0	0.13 U	19.0	95	68-120	
Methyl tert-butyl ether	20.0	0.17 U	21.0	105	46-144	
Methylene Chloride	20.0	0.33 U	22.2	111	63-128	
m-Xylene & p-Xylene	20.0	0.24 U	20.5	103	75-120	
Naphthalene	20.0	0.24 U	16.4	82	15-158	
n-Butylbenzene	20.0	0.12 U	13.5	67	56-127	
N-Propylbenzene	20.0	0.14 U	15.5	78	64-124	
o-Xylene	20.0	0.14 U	20.7	104	76-120	
sec-Butylbenzene	20.0	0.13 U	14.6	73	60-120	
Styrene	20.0	0.11 U	19.6	98	71-120	
Tetrachloroethene	20.0	0.29 U	23.2	116	70-120	
Toluene	20.0	0.13 U	20.0	100	78-120	
trans-1,2-Dichloroethene	20.0	0.19 U	22.9	114	80-120	
trans-1,3-Dichloropropene	20.0	0.19 U	17.7	89	46-120	
Trichloroethene	20.0	0.45 J	23.9	117	66-120	
Trichlorofluoromethane	20.0	0.21 U	22.1	111	46-157	
Vinyl acetate	16.0	0.19 U	20.6	129	43-157	
Vinyl chloride	20.0	0.22 U	20.5	103	49-130	
Xylenes, Total	40.0	0.14 U	41.2	103	76-120	
tert-Butylbenzene	20.0	0.13 U	15.8	79	61-120	
1,2-Dibromoethane	20.0	0.24 U	19.5	98	74-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1237016.D

Lab ID: 240-36010-4 MSD Client ID: MSA-MW17D-040814 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	16.7	83	12	30	64-120	
1,1,1-Trichloroethane	20.0	18.6	93	5	30	68-121	
1,1,2,2-Tetrachloroethane	20.0	15.6	78	7	30	63-122	
1,1,2-Trichlorotrifluoroethane	20.0	22.0	110	9	30	70-152	
1,1-Dichloroethane	20.0	19.4	97	5	30	79-120	
1,1-Dichloroethene	20.0	21.2	106	8	30	74-135	
1,1-Dichloropropene	20.0	20.0	100	6	30	80-120	
1,2,3-Trichlorobenzene	20.0	17.5	88	7	30	45-129	
1,2,3-Trichloropropane	20.0	15.9	80	6	30	67-132	
1,2,4-Trichlorobenzene	20.0	17.6	88	7	30	38-138	
1,2,4-Trimethylbenzene	20.0	14.6	73	8	30	67-124	
1,2-Dibromo-3-Chloropropane	20.0	15.1	75	5	30	32-139	
1,2-Dichlorobenzene	20.0	17.3	87	5	30	75-120	
1,2-Dichloroethane	20.0	17.3	87	7	30	68-129	
1,2-Dichloropropane	20.0	19.0	95	12	30	78-120	
1,3-Dichlorobenzene	20.0	16.7	84	6	30	73-120	
1,3-Dichloropropane	20.0	17.4	87	13	30	74-120	
1,4-Dichlorobenzene	20.0	16.0	80	8	30	75-120	
2,2-Dichloropropane	20.0	15.7	78	8	30	38-127	
2-Butanone (MEK)	40.0	39.6	99	5	30	54-129	
2-Chloroethyl vinyl ether	24.0	0.99 U	0	NC	30	10-150	F1
2-Chlorotoluene	20.0	15.8	79	8	30	69-120	
2-Hexanone	40.0	36.2	90	12	30	47-139	
4-Chlorotoluene	20.0	16.3	81	9	30	71-120	
4-Isopropyltoluene	20.0	14.3	72	4	30	64-122	
4-Methyl-2-pentanone (MIBK)	40.0	37.4	93	10	30	56-131	
Acetone	40.0	39.4	98	6	30	33-145	
Benzene	20.0	19.7	99	8	30	72-121	
Bromobenzene	20.0	17.2	86	8	30	71-120	
Bromoform	20.0	14.2	71	14	30	32-128	
Bromomethane	20.0	21.1	105	11	30	10-186	
Carbon disulfide	20.0	23.9	119	8	30	57-147	
Carbon tetrachloride	20.0	20.1	100	2	30	59-129	
Chlorobenzene	20.0	18.2	91	14	30	80-120	
Chlorodibromomethane	20.0	15.9	80	12	30	56-120	
Chloroethane	20.0	21.0	105	4	30	21-165	
Chloroform	20.0	17.0	85	12	30	76-120	
Chloromethane	20.0	18.2	91	9	30	33-132	
cis-1,2-Dichloroethene	20.0	19.6	98	8	30	70-120	
cis-1,3-Dichloropropene	20.0	17.4	87	8	30	51-120	
Dibromomethane	20.0	23.5	117	11	30	77-121	
Bromochloromethane	20.0	20.3	101	10	30	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1237016.D

Lab ID: 240-36010-4 MSD Client ID: MSA-MW17D-040814 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	11.3	56	8	30	17-128	
Bromodichloromethane	20.0	17.3	86	12	30	67-120	
tert-Butyl alcohol	200	207	104	10	30	70-130	
Ethylbenzene	20.0	18.4	92	9	30	75-120	
Hexachlorobutadiene	20.0	14.6	73	5	30	27-132	
Isopropylbenzene	20.0	16.6	83	14	30	68-120	
Methyl tert-butyl ether	20.0	19.6	98	7	30	46-144	
Methylene Chloride	20.0	20.9	104	6	30	63-128	
m-Xylene & p-Xylene	20.0	17.5	88	16	30	75-120	
Naphthalene	20.0	15.5	78	5	30	15-158	
n-Butylbenzene	20.0	13.2	66	2	30	56-127	
N-Propylbenzene	20.0	14.6	73	6	30	64-124	
o-Xylene	20.0	18.1	91	13	30	76-120	
sec-Butylbenzene	20.0	13.8	69	5	30	60-120	
Styrene	20.0	17.2	86	13	30	71-120	
Tetrachloroethene	20.0	19.2	96	19	30	70-120	
Toluene	20.0	17.5	87	13	30	78-120	
trans-1,2-Dichloroethene	20.0	21.1	106	8	30	80-120	
trans-1,3-Dichloropropene	20.0	16.1	81	9	30	46-120	
Trichloroethene	20.0	21.1	103	12	30	66-120	
Trichlorofluoromethane	20.0	21.2	106	4	30	46-157	
Vinyl acetate	16.0	19.6	122	5	30	43-157	
Vinyl chloride	20.0	19.2	96	7	30	49-130	
Xylenes, Total	40.0	35.6	89	15	30	76-120	
tert-Butylbenzene	20.0	14.6	73	8	30	61-120	
1,2-Dibromoethane	20.0	18.2	91	7	30	74-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-040714	240-35913-1	94	91	99	85
MSA-DMW7S-040714	240-35913-2	100	90	100	90
MSA-MW5-040714	240-35913-3	102	94	101	88
TB-040814	240-36010-1	92	88	93	85
MSA-MW17S-040814	240-36010-2	103	100	106	89
MSA-MW17I-040814	240-36010-3	100	96	103	89
MSA-MW17D-040814	240-36010-4	99	92	100	89
MSA-MW47D-040814	240-36010-5	100	91	95	84
MSA-MW-14I-040914	240-36043-1	86	98	95	86
MSA-MW-14D-040914	240-36043-2	88	98	96	88
MSA-MW-48I-040914	240-36043-3	88	97	97	89
MSA-MW-48D-040914	240-36043-4	88	98	98	90
TB-040914	240-36043-5	89	98	97	90
	MB 240-126390/6	94	91	97	85
	MB 240-127251/7	90	96	99	89
	LCS 240-126390/4	97	90	99	87
	LCS 240-127251/5	87	95	101	96
MSA-MW17D-040814 MS	240-36010-4 MS	105	95	103	95
MSA-MW17D-040814 MSD	240-36010-4 MSD	102	88	97	88

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-120
BFB = 4-Bromofluorobenzene (Surr)	66-120

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: STD8260 240-122371/4 Date Analyzed: 03/13/2014 09:48

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX8836.D Heated Purge: (Y/N) N

Calibration ID: 21114

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1491749	5.55	1027785	8.23	613728	10.47
UPPER LIMIT		2983498	6.05	2055570	8.73	1227456	10.97
LOWER LIMIT		745875	5.05	513893	7.73	306864	9.97
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-122371/14		1457730	5.54	947218	8.23	600605	10.47
ICV 240-122371/15		1408930	5.55	916360	8.23	581640	10.47
CCVIS 240-127251/2		1217690	5.54	732854	8.23	413632	10.47

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII

GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: CCVIS 240-127251/2 Date Analyzed: 04/21/2014 10:59

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX9847.D Heated Purge: (Y/N) N

Calibration ID: 21354

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1217690	5.54	732854	8.23	413632	10.47
UPPER LIMIT		2435380	6.04	1465708	8.73	827264	10.97
LOWER LIMIT		608845	5.04	366427	7.73	206816	9.97
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-127251/3		1076932	5.55	700854	8.23	384997	10.47
CCV 240-127251/4		1075980	5.55	685773	8.23	359531	10.47
LCS 240-127251/5		1112563	5.55	690045	8.23	393513	10.47
MB 240-127251/7		1082201	5.55	655373	8.23	350184	10.47
240-36043-1	MSA-MW-14I-040914	1074404	5.54	654273	8.23	342341	10.48
240-36043-2	MSA-MW-14D-040914	1022730	5.54	634805	8.23	386501	10.47
240-36043-3	MSA-MW-48I-040914	1063322	5.54	657144	8.23	352032	10.47
240-36043-4	MSA-MW-48D-040914	1028682	5.54	625924	8.23	335411	10.48
240-36043-5	TB-040914	1024445	5.54	627017	8.23	340230	10.48

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: STD8260 240-123039/5 Date Analyzed: 03/18/2014 18:42

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1236336.D Heated Purge: (Y/N) N

Calibration ID: 21224

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1086536	5.40	799126	8.22	433029	10.61
UPPER LIMIT		2173072	5.90	1598252	8.72	866058	11.11
LOWER LIMIT		543268	4.90	399563	7.72	216515	10.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD8260 240-126390/2 CCVIS		1040225	5.40	775617	8.22	454450	10.61

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: STD8260 240-126390/2 Date Analyzed: 04/14/2014 12:16

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1236990.D Heated Purge: (Y/N) N

Calibration ID: 21227

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1040225	5.40	775617	8.22	454450	10.61
UPPER LIMIT		2080450	5.90	1551234	8.72	908900	11.11
LOWER LIMIT		520113	4.90	387809	7.72	227225	10.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-126390/3		1032772	5.40	792195	8.22	447520	10.61
LCS 240-126390/4		1022243	5.40	763704	8.22	448054	10.61
MB 240-126390/6		1028289	5.42	780395	8.22	426068	10.61
240-35913-1	TB-040714	1027726	5.40	768667	8.22	424535	10.61
240-35913-2	MSA-DMW7S-040714	1021755	5.40	773141	8.22	440858	10.61
240-35913-3	MSA-MW5-040714	1041315	5.40	791212	8.22	454409	10.61
240-36010-1	TB-040814	1064652	5.42	812294	8.22	454296	10.61
240-36010-2	MSA-MW17S-040814	964259	5.42	726475	8.22	416850	10.61
240-36010-3	MSA-MW17I-040814	996404	5.40	764592	8.22	433133	10.61
240-36010-4	MSA-MW17D-040814	1005965	5.40	774386	8.22	426143	10.61
240-36010-5	MSA-MW47D-040814	1022052	5.42	790510	8.22	439223	10.61
240-36010-4 MS	MSA-MW17D-040814 MS	1046060	5.40	792872	8.22	483566	10.61
240-36010-4 MSD	MSA-MW17D-040814 MSD	1059165	5.40	823631	8.22	479885	10.61

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

Method 8270C

Semivolatile Organic Compounds (GC/MS) by Method 8270C

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab File ID: 0404001.D DFTPP Injection Date: 04/04/2014

Instrument ID: A4AG2 DFTPP Injection Time: 14:47

Analysis Batch No.: 125316

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	60.6	
68	Less than 2.0% of mass 69	0.1	(0.1)1
69	Mass 69 relative abundance	59.1	
70	Less than 2.0% of mass 69	0.1	(0.2)1
127	25.0 - 75.0% of mass 198	67.2	
197	Less than 1.0% of mass 198	0.4	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	19.2	
365	Greater than 0.75% of mass 198	2.1	
441	Present, but less than mass 443	8.9	
442	40.0 - 110.0% of mass 198	63.1	
443	15.0 - 24.0% of mass 442	11.5	(18.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-125316/2	0404002.D	04/04/2014	15:04
	STD8 240-125316/3	0404003.D	04/04/2014	15:27
	STD7 240-125316/4	0404004.D	04/04/2014	15:51
	STD6 240-125316/5	0404005.D	04/04/2014	16:14
	STD5 240-125316/6	0404006.D	04/04/2014	16:37
	STD4 240-125316/7	0404007.D	04/04/2014	17:01
	STD3 240-125316/8	0404008.D	04/04/2014	17:24
	STD2 240-125316/9	0404009.D	04/04/2014	17:48
	STD1 240-125316/10	0404010.D	04/04/2014	18:11
	ICV 240-125316/11	0404011.D	04/04/2014	18:34

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 125316

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/04/2014 15:04 Calibration End Date: 04/04/2014 18:11 Calibration ID: 21592

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-125316/10	0404010.D
Level 2	STD2 240-125316/9	0404009.D
Level 3	STD3 240-125316/8	0404008.D
Level 4	STD4 240-125316/7	0404007.D
Level 5	STD5 240-125316/6	0404006.D
Level 6	STD6 240-125316/5	0404005.D
Level 7	STD7 240-125316/4	0404004.D
Level 8	STD8 240-125316/3	0404003.D
Level 9	STD9 240-125316/2	0404002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.6573	0.6619 0.6104	0.6103 0.6270	0.6276 0.6193	0.6426	Ave		0.6321				3.2		15.0			
N-Nitrosodimethylamine	0.7452	+++++ 0.8168	0.3012 0.8234	0.5034 0.8535	0.6711	Lin1	-65.11	0.8555							0.9980		0.9900
Pyridine	1.5281	1.2597 1.4066	1.3142 1.4957	1.3268 1.4333	1.3831	Ave		1.3935				6.6		15.0			
Benzaldehyde	0.8068	1.2776 0.6856	1.1886 0.6722	0.7716 0.6021	0.7735	Qua	24.602	0.8552	0						0.9970		0.9900
Phenol	2.0484	2.0042 1.9234	1.8042 1.9570	1.6150 1.9558	1.8987	Ave		1.9008				7.2		15.0			
Aniline	1.4904	1.2511 1.3351	1.2723 1.2928	0.9752 1.2617	1.3485	Ave		1.2784				11.0		15.0			
Bis(2-chloroethyl)ether	1.5715	1.5093 1.4979	1.5507 1.5601	1.4830 1.5579	1.4564	Ave		1.5233				2.8		15.0			
2-Chlorophenol	1.4460	1.4197 1.3523	1.3599 1.4056	1.2924 1.4031	1.4085	Ave		1.3860				3.5		15.0			
n-Decane	1.8131	1.8330 1.7341	1.8508 1.7790	1.7632 1.7668	1.7894	Ave		1.7912				2.2		15.0			
1,3-Dichlorobenzene	1.5101	1.4783 1.4052	1.4744 1.4565	1.4872 1.4545	1.4674	Ave		1.4667				2.1		15.0			
1,4-Dichlorobenzene	1.5241	1.5019 1.4436	1.5336 1.4841	1.5097 1.4637	1.4955	Ave		1.4945				2.0		15.0			
Benzyl alcohol	0.9879	0.8154 0.9397	0.7593 0.9798	0.6369 0.9842	0.8688	Ave		0.8715				15.0		15.0			
1,2-Dichlorobenzene	1.4316	1.3613 1.3769	1.4603 1.4098	1.4317 1.4099	1.4043	Ave		1.4107				2.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab File ID: 0411001.D DFTPP Injection Date: 04/11/2014

Instrument ID: A4AG2 DFTPP Injection Time: 07:54

Analysis Batch No.: 126084

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	56.2	
68	Less than 2.0% of mass 69	0.6	(1.0)1
69	Mass 69 relative abundance	58.3	
70	Less than 2.0% of mass 69	0.4	(0.6)1
127	25.0 - 75.0% of mass 198	66.6	
197	Less than 1.0% of mass 198	0.3	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	20.6	
365	Greater than 0.75% of mass 198	2.3	
441	Present, but less than mass 443	9.4	
442	40.0 - 110.0% of mass 198	64.0	
443	15.0 - 24.0% of mass 442	12.7	(19.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-126084/2	0411002.D	04/11/2014	08:11
	MB 240-125993/3-A	0411005.D	04/11/2014	09:20
	LCS 240-125993/4-A	0411006.D	04/11/2014	09:43
MSA-MW5-040714	240-35913-3	0411015.D	04/11/2014	13:09
MSA-DMW7S-040714	240-35913-2	0411030.D	04/11/2014	19:01

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: STD6 240-126084/2 Calibration Date: 04/11/2014 08:11

Instrument ID: A4AG2 Calib Start Date: 04/04/2014 15:04

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/04/2014 18:11

Lab File ID: 0411002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6321	0.6533		1.03	1.00	3.4	50.0
N-Nitrosodimethylamine	Lin1		0.9219		1.15	1.00	15.4	50.0
Pyridine	Ave	1.393	1.625		1.17	1.00	16.6	50.0
Benzaldehyde	Qua		0.8190		2.17	2.00	8.3	50.0
Phenol	Ave	1.901	2.048		1.08	1.00	7.7	20.0
Aniline	Ave	1.278	1.631		1.28	1.00	27.6	50.0
Bis(2-chloroethyl)ether	Ave	1.523	1.534		1.01	1.00	0.7	50.0
2-Chlorophenol	Ave	1.386	1.449		1.05	1.00	4.5	50.0
n-Decane	Ave	1.791	1.758		0.981	1.00	-1.9	50.0
1,3-Dichlorobenzene	Ave	1.467	1.533		1.05	1.00	4.5	50.0
1,4-Dichlorobenzene	Ave	1.495	1.565		1.05	1.00	4.7	20.0
Benzyl alcohol	Ave	0.8715	0.9786		1.12	1.00	12.3	50.0
1,2-Dichlorobenzene	Ave	1.411	1.485		1.05	1.00	5.3	50.0
2-Methylphenol	Ave	1.257	1.364		1.08	1.00	8.5	50.0
bis (2-chloroisopropyl) ether	Ave	2.152	2.039		0.948	1.00	-5.2	50.0
Indene	Ave	2.607	2.708		2.08	2.00	3.9	50.0
3 & 4 Methylphenol	Ave	1.320	1.424		1.08	1.00	7.8	50.0
N-Nitrosodi-n-propylamine	Ave	1.085	1.155	0.0500	1.06	1.00	6.4	50.0
Acetophenone	Ave	2.006	2.111		1.05	1.00	5.2	50.0
Hexachloroethane	Ave	0.6271	0.6387		1.02	1.00	1.9	50.0
Nitrobenzene	Ave	0.4106	0.4194		1.02	1.00	2.2	50.0
Isophorone	Ave	0.6810	0.6586		0.967	1.00	-3.3	50.0
2-Nitrophenol	Ave	0.1566	0.1794		1.15	1.00	14.5	20.0
2,4-Dimethylphenol	Ave	0.2084	0.1972		0.946	1.00	-5.4	50.0
Benzoic acid	Ave	0.1893	0.1926		2.04	2.00	1.8	50.0
Bis(2-chloroethoxy)methane	Ave	0.4189	0.4297		1.03	1.00	2.6	50.0
2,4-Dichlorophenol	Ave	0.2241	0.2441		1.09	1.00	8.9	20.0
1,2,4-Trichlorobenzene	Ave	0.2478	0.2579		1.04	1.00	4.1	50.0
Naphthalene	Ave	0.998	1.009		1.01	1.00	1.1	50.0
4-Chloroaniline	Ave	0.1968	0.1979		1.01	1.00	0.5	50.0
Hexachlorobutadiene	Ave	0.1228	0.1264		1.03	1.00	2.9	20.0
Caprolactam	Lin1		0.1148		2.22	2.00	11.2	50.0
4-Chloro-3-methylphenol	Ave	0.2742	0.3022		1.10	1.00	10.2	20.0
2-Methylnaphthalene	Ave	0.6622	0.6526		0.985	1.00	-1.5	50.0
1-Methylnaphthalene	Ave	0.6193	0.6064		0.979	1.00	-2.1	50.0
Hexachlorocyclopentadiene	Ave	0.2100	0.2472	0.0500	1.18	1.00	17.7	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3828	0.4100		1.07	1.00	7.1	50.0
2,4,6-Trichlorophenol	Ave	0.2726	0.2999		1.10	1.00	10.0	20.0
2,4,5-Trichlorophenol	Ave	0.3036	0.3140		1.03	1.00	3.4	50.0
1,1'-Biphenyl	Ave	1.411	1.465		1.04	1.00	3.9	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab File ID: 0412001.D DFTPP Injection Date: 04/12/2014

Instrument ID: A4AG2 DFTPP Injection Time: 11:54

Analysis Batch No.: 126265

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	36.3	
68	Less than 2.0% of mass 69	0.5	(1.0)1
69	Mass 69 relative abundance	47.1	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	57.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.3	
275	10.0- 30.0% of mass 198	22.3	
365	Greater than 0.75% of mass 198	2.6	
441	Present, but less than mass 443	9.0	
442	40.0 - 110.0% of mass 198	64.7	
443	15.0 - 24.0% of mass 442	11.8	(18.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-126265/2	0412002.D	04/12/2014	12:17
	STD8 240-126265/3	0412003.D	04/12/2014	12:40
	STD7 240-126265/4	0412004.D	04/12/2014	13:03
	STD6 240-126265/5	0412005.D	04/12/2014	13:27
	STD5 240-126265/6	0412006.D	04/12/2014	13:50
	STD4 240-126265/7	0412007.D	04/12/2014	14:13
	STD3 240-126265/8	0412008.D	04/12/2014	14:36
	STD2 240-126265/9	0412009.D	04/12/2014	14:59
	STD1 240-126265/10	0412010.D	04/12/2014	15:22
	ICV 240-126265/11	0412011.D	04/12/2014	15:45
	MB 240-126143/19-A	0412013.D	04/12/2014	16:08
	LCS 240-126143/20-A	0412014.D	04/12/2014	16:31
MSA-MW17D-040814	240-36010-4	0412016.D	04/12/2014	17:18
MSA-MW17D-040814 MS	240-36010-4 MS	0412017.D	04/12/2014	17:41
MSA-MW17D-040814 MSD	240-36010-4 MSD	0412018.D	04/12/2014	18:04
MSA-MW47D-040814	240-36010-5	0412019.D	04/12/2014	18:27
MSA-MW17I-040814	240-36010-3	0412020.D	04/12/2014	18:50
MSA-MW17S-040814	240-36010-2	0412021.D	04/12/2014	19:13

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 126265

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2014 12:17 Calibration End Date: 04/12/2014 15:22 Calibration ID: 21681

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-126265/10	0412010.D
Level 2	STD2 240-126265/9	0412009.D
Level 3	STD3 240-126265/8	0412008.D
Level 4	STD4 240-126265/7	0412007.D
Level 5	STD5 240-126265/6	0412006.D
Level 6	STD6 240-126265/5	0412005.D
Level 7	STD7 240-126265/4	0412004.D
Level 8	STD8 240-126265/3	0412003.D
Level 9	STD9 240-126265/2	0412002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5835	0.7184 0.5974	0.6260 0.5920	0.5895 0.6237	0.5877	Ave		0.6148				7.3		15.0			
N-Nitrosodimethylamine	0.7476	0.4701 0.8272	0.5795 0.8409	0.5869 0.8883	0.7359	Lin1	-28.80	0.8520							0.9960		0.9900
Pyridine	1.4924	1.2117 1.5636	1.2319 1.5659	1.2146 1.6389	1.4711	Ave		1.4238				12.0		15.0			
Benzaldehyde	0.7541	1.1588 0.5799	1.1407 0.5870	0.9801 0.5841	0.8636	Qua	121.11	0.6691	0						0.9900		0.9900
Phenol	1.6457	1.4197 1.7699	1.3831 1.8010	1.3435 1.8573	1.5016	Ave		1.5902				13.0		15.0			
Aniline	1.8942	1.5746 2.0720	1.6290 2.1635	1.6172 2.2272	1.7499	Ave		1.8660				14.0		15.0			
Bis(2-chloroethyl)ether	1.4092	1.2998 1.4316	1.2692 1.4313	1.3224 1.4750	1.3395	Ave		1.3723				5.4		15.0			
2-Chlorophenol	1.3900	1.2913 1.4548	1.2463 1.4528	1.2111 1.4880	1.3138	Ave		1.3560				7.7		15.0			
n-Decane	1.3065	1.4793 1.3312	1.4298 1.3104	1.4191 1.3298	1.3091	Ave		1.3644				5.0		15.0			
1,3-Dichlorobenzene	1.5046	1.6449 1.5195	1.4845 1.5046	1.5004 1.5359	1.5243	Ave		1.5273				3.3		15.0			
1,4-Dichlorobenzene	1.5206	1.5042 1.5366	1.5630 1.5311	1.5400 1.5687	1.5144	Ave		1.5348				1.5		15.0			
Benzyl alcohol	0.7034	0.5481 0.8856	0.5446 0.8733	0.4976 0.9156	0.6399	Lin	-88.28	0.9267							0.9940		0.9900
1,2-Dichlorobenzene	1.4521	1.6590 1.4669	1.6123 1.4388	1.5208 1.4932	1.4356	Ave		1.5098				5.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: ICV 240-126265/11 Calibration Date: 04/12/2014 15:45

Instrument ID: A4AG2 Calib Start Date: 04/12/2014 12:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/12/2014 15:22

Lab File ID: 0412011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6148	0.5571		0.906	1.00	-9.4	50.0
N-Nitrosodimethylamine	Lin1		0.7514		0.916	1.00	-8.4	50.0
Pyridine	Ave	1.424	1.489		1.05	1.00	4.6	50.0
Benzaldehyde	Qua		0.6640		1.94	2.00	-2.9	50.0
Phenol	Ave	1.590	1.719		1.08	1.00	8.1	20.0
Aniline	Ave	1.866	1.892		1.01	1.00	1.4	50.0
Bis(2-chloroethyl)ether	Ave	1.372	1.372		1.00	1.00	0.0	50.0
2-Chlorophenol	Ave	1.356	1.387		1.02	1.00	2.3	50.0
n-Decane	Ave	1.364	1.256		0.920	1.00	-8.0	50.0
1,3-Dichlorobenzene	Ave	1.527	1.444		0.945	1.00	-5.5	50.0
1,4-Dichlorobenzene	Ave	1.535	1.493		0.973	1.00	-2.7	20.0
Benzyl alcohol	Lin		0.7986		0.957	1.00	-4.3	50.0
1,2-Dichlorobenzene	Ave	1.510	1.384		0.917	1.00	-8.3	50.0
2-Methylphenol	Ave	1.201	1.252		1.04	1.00	4.3	50.0
bis (2-chloroisopropyl) ether	Ave	1.376	1.372		0.718	0.720	-0.3	50.0
Indene	Ave	2.447	2.622		2.14	2.00	7.1	50.0
3 & 4 Methylphenol	Ave	1.199	1.219		1.02	1.00	1.7	50.0
N-Nitrosodi-n-propylamine	Ave	0.9749	1.003	0.0500	1.03	1.00	2.9	50.0
Acetophenone	Ave	1.851	1.867		1.01	1.00	0.8	50.0
Hexachloroethane	Ave	0.6220	0.5983		0.962	1.00	-3.8	50.0
Nitrobenzene	Ave	0.3820	0.3756		0.983	1.00	-1.7	50.0
Isophorone	Ave	0.5989	0.5994		1.00	1.00	0.0	50.0
2-Nitrophenol	Ave	0.1504	0.1570		1.04	1.00	4.4	20.0
2,4-Dimethylphenol	Ave	0.3088	0.2985		0.967	1.00	-3.3	50.0
Benzoic acid	Ave	0.1566	0.1458		1.86	2.00	-6.9	50.0
Bis(2-chloroethoxy)methane	Ave	0.3933	0.3754		0.955	1.00	-4.5	50.0
2,4-Dichlorophenol	Ave	0.2323	0.2300		0.990	1.00	-1.0	20.0
1,2,4-Trichlorobenzene	Ave	0.2737	0.2679		0.979	1.00	-2.1	50.0
Naphthalene	Ave	1.040	0.9903		0.952	1.00	-4.8	50.0
4-Chloroaniline	Qua		0.2904		0.875	1.00	-12.5	50.0
Hexachlorobutadiene	Ave	0.1335	0.1255		0.940	1.00	-6.0	20.0
Caprolactam	Lin1		0.1158		2.14	2.00	6.8	50.0
4-Chloro-3-methylphenol	Ave	0.3080	0.2822		0.916	1.00	-8.4	20.0
2-Methylnaphthalene	Ave	0.7353	0.6281		0.854	1.00	-14.6	50.0
1-Methylnaphthalene	Ave	0.6957	0.6007		0.863	1.00	-13.7	50.0
Hexachlorocyclopentadiene	Lin1		0.2285	0.0500	0.869	1.00	-13.1	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4270	0.3999		0.937	1.00	-6.3	50.0
2,4,6-Trichlorophenol	Ave	0.2791	0.2913		1.04	1.00	4.4	20.0
2,4,5-Trichlorophenol	Ave	0.3158	0.2998		0.949	1.00	-5.1	50.0
1,1'-Biphenyl	Ave	1.451	1.332		0.918	1.00	-8.2	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab File ID: 0415001.D DFTPP Injection Date: 04/15/2014

Instrument ID: A4AG2 DFTPP Injection Time: 10:15

Analysis Batch No.: 126502

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.5	
68	Less than 2.0% of mass 69	0.9	(1.8)1
69	Mass 69 relative abundance	51.8	
70	Less than 2.0% of mass 69	0.3	(0.6)1
127	25.0 - 75.0% of mass 198	63.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.3	
275	10.0- 30.0% of mass 198	21.8	
365	Greater than 0.75% of mass 198	2.4	
441	Present, but less than mass 443	8.1	
442	40.0 - 110.0% of mass 198	57.1	
443	15.0 - 24.0% of mass 442	11.1	(19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-126502/2	0415002.D	04/15/2014	10:38
	MB 240-126314/4-A	0415003.D	04/15/2014	11:01
	LCS 240-126314/5-A	0415004.D	04/15/2014	11:24
MSA-MW-14I-040914	240-36043-1	0415005.D	04/15/2014	11:47
MSA-MW-14D-040914	240-36043-2	0415006.D	04/15/2014	12:10
MSA-MW-48D-040914	240-36043-4	0415007.D	04/15/2014	12:33

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: STD6 240-126502/2 Calibration Date: 04/15/2014 10:38

Instrument ID: A4AG2 Calib Start Date: 04/12/2014 12:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/12/2014 15:22

Lab File ID: 0415002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6148	0.6104		0.993	1.00	-0.7	50.0
N-Nitrosodimethylamine	Lin1		0.8100		0.984	1.00	-1.6	50.0
Pyridine	Ave	1.424	1.506		1.06	1.00	5.8	50.0
Benzaldehyde	Qua		0.6800		2.00	2.00	-0.0	50.0
Phenol	Ave	1.590	1.758		1.11	1.00	10.6	20.0
Aniline	Ave	1.866	2.068		1.11	1.00	10.9	50.0
Bis(2-chloroethyl)ether	Ave	1.372	1.417		1.03	1.00	3.3	50.0
2-Chlorophenol	Ave	1.356	1.450		1.07	1.00	6.9	50.0
n-Decane	Ave	1.364	1.292		0.947	1.00	-5.3	50.0
1,3-Dichlorobenzene	Ave	1.527	1.514		0.991	1.00	-0.9	50.0
1,4-Dichlorobenzene	Ave	1.535	1.520		0.991	1.00	-0.9	20.0
Benzyl alcohol	Lin		0.8452		1.01	1.00	0.7	50.0
1,2-Dichlorobenzene	Ave	1.510	1.441		0.954	1.00	-4.6	50.0
2-Methylphenol	Ave	1.201	1.274		1.06	1.00	6.1	50.0
bis (2-chloroisopropyl) ether	Ave	1.376	1.367		0.993	1.00	-0.7	50.0
Indene	Ave	2.447	2.485		2.03	2.00	1.5	50.0
3 & 4 Methylphenol	Ave	1.199	1.336		1.11	1.00	11.4	50.0
N-Nitrosodi-n-propylamine	Ave	0.9749	1.125	0.0500	1.15	1.00	15.4	50.0
Acetophenone	Ave	1.851	2.031		1.10	1.00	9.7	50.0
Hexachloroethane	Ave	0.6220	0.6371		1.02	1.00	2.4	50.0
Nitrobenzene	Ave	0.3820	0.3799		0.994	1.00	-0.6	50.0
Isophorone	Ave	0.5989	0.6721		1.12	1.00	12.2	50.0
2-Nitrophenol	Ave	0.1504	0.1770		1.18	1.00	17.7	20.0
2,4-Dimethylphenol	Ave	0.3088	0.3278		1.06	1.00	6.1	50.0
Benzoic acid	Ave	0.1566	0.1858		2.37	2.00	18.6	50.0
Bis(2-chloroethoxy)methane	Ave	0.3933	0.4114		1.05	1.00	4.6	50.0
2,4-Dichlorophenol	Ave	0.2323	0.2524		1.09	1.00	8.7	20.0
1,2,4-Trichlorobenzene	Ave	0.2737	0.2754		1.01	1.00	0.6	50.0
Naphthalene	Ave	1.040	1.023		0.984	1.00	-1.6	50.0
4-Chloroaniline	Qua		0.2875		0.865	1.00	-13.5	50.0
Hexachlorobutadiene	Ave	0.1335	0.1275		0.954	1.00	-4.6	20.0
Caprolactam	Lin1		0.1080		2.00	2.00	-0.2	50.0
4-Chloro-3-methylphenol	Ave	0.3080	0.2833		0.920	1.00	-8.0	20.0
2-Methylnaphthalene	Ave	0.7353	0.6685		0.909	1.00	-9.1	50.0
1-Methylnaphthalene	Ave	0.6957	0.6184		0.889	1.00	-11.1	50.0
Hexachlorocyclopentadiene	Lin1		0.2671	0.0500	1.01	1.00	1.0	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4270	0.4407		1.03	1.00	3.2	50.0
2,4,6-Trichlorophenol	Ave	0.2791	0.2995		1.07	1.00	7.3	20.0
2,4,5-Trichlorophenol	Ave	0.3158	0.3299		1.04	1.00	4.5	50.0
1,1'-Biphenyl	Ave	1.451	1.422		0.981	1.00	-1.9	50.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab File ID: 0411005.D Lab Sample ID: MB 240-125993/3-A

Matrix: Water Date Extracted: 04/10/2014 10:18

Instrument ID: A4AG2 Date Analyzed: 04/11/2014 09:20

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-125993/4-A	0411006.D	04/11/2014 09:43
MSA-MW5-040714	240-35913-3	0411015.D	04/11/2014 13:09
MSA-DMW7S-040714	240-35913-2	0411030.D	04/11/2014 19:01

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-125993/3-A

Matrix: Water | Lab File ID: 0411005.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 04/10/2014 10:18

Sample wt/vol: 250(mL) | Date Analyzed: 04/11/2014 09:20

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	80		29-110
367-12-4	2-Fluorophenol (Surr)	72		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	87		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	81		31-110
4165-62-2	Phenol-d5 (Surr)	55		10-110
1718-51-0	Terphenyl-d14 (Surr)	98		31-115

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0411006.D

Lab ID: LCS 240-125993/4-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	40.0	22.0	55	40-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab File ID: 0412013.D Lab Sample ID: MB 240-126143/19-A

Matrix: Water Date Extracted: 04/11/2014 09:45

Instrument ID: A4AG2 Date Analyzed: 04/12/2014 16:08

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-126143/20-A	0412014.D	04/12/2014 16:31
MSA-MW17D-040814	240-36010-4	0412016.D	04/12/2014 17:18
MSA-MW17D-040814 MS	240-36010-4 MS	0412017.D	04/12/2014 17:41
MSA-MW17D-040814 MSD	240-36010-4 MSD	0412018.D	04/12/2014 18:04
MSA-MW47D-040814	240-36010-5	0412019.D	04/12/2014 18:27
MSA-MW17I-040814	240-36010-3	0412020.D	04/12/2014 18:50
MSA-MW17S-040814	240-36010-2	0412021.D	04/12/2014 19:13

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126143/19-A

Matrix: Water | Lab File ID: 0412013.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 04/11/2014 09:45

Sample wt/vol: 250(mL) | Date Analyzed: 04/12/2014 16:08

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126265 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	76		29-110
367-12-4	2-Fluorophenol (Surr)	64		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	66		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	80		31-110
4165-62-2	Phenol-d5 (Surr)	51		10-110
1718-51-0	Terphenyl-d14 (Surr)	99		31-115

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0412014.D

Lab ID: LCS 240-126143/20-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	40.0	15.3	38	40-160	*

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab File ID: 0415003.D Lab Sample ID: MB 240-126314/4-A

Matrix: Water Date Extracted: 04/14/2014 07:44

Instrument ID: A4AG2 Date Analyzed: 04/15/2014 11:01

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-126314/5-A	0415004.D	04/15/2014 11:24
MSA-MW-14I-040914	240-36043-1	0415005.D	04/15/2014 11:47
MSA-MW-14D-040914	240-36043-2	0415006.D	04/15/2014 12:10
MSA-MW-48D-040914	240-36043-4	0415007.D	04/15/2014 12:33

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126314/4-A

Matrix: Water | Lab File ID: 0415003.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 04/14/2014 07:44

Sample wt/vol: 250(mL) | Date Analyzed: 04/15/2014 11:01

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126502 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	71		29-110
367-12-4	2-Fluorophenol (Surr)	59		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	71		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	74		31-110
4165-62-2	Phenol-d5 (Surr)	43		10-110
1718-51-0	Terphenyl-d14 (Surr)	101		31-115

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0415004.D

Lab ID: LCS 240-126314/5-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	40.0	14.4	36	40-160	*

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0412017.D

Lab ID: 240-36010-4 MS Client ID: MSA-MW17D-040814 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	41.7	0.28 U	21.5	52	10-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0412018.D

Lab ID: 240-36010-4 MSD Client ID: MSA-MW17D-040814 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	41.7	20.5	49	5	30	10-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
MSA-DMW7S-040714	240-35913-2	70	53	86	87	98	104
MSA-MW5-040714	240-35913-3	69	54	81	80	98	95
MSA-MW17S-040814	240-36010-2	69	56	80	70	73	95
MSA-MW17I-040814	240-36010-3	71	55	83	75	75	95
MSA-MW17D-040814	240-36010-4	62	49	79	73	74	95
MSA-MW47D-040814	240-36010-5	75	65	82	69	74	96
MSA-MW-14I-040914	240-36043-1	68	58	77	71	85	97
MSA-MW-14D-040914	240-36043-2	66	55	72	65	70	97
MSA-MW-48D-040914	240-36043-4	63	54	70	66	76	95
	MB 240-125993/3-A	72	55	81	80	87	98
	MB 240-126143/19-A	64	51	80	76	66	99
	MB 240-126314/4-A	59	43	74	71	71	101
	LCS 240-125993/4-A	70	54	81	81	93	94
	LCS 240-126143/20-A	58	41	82	79	80	91
	LCS 240-126314/5-A	55	41	76	71	86	104
MSA-MW17D-040814 MS	240-36010-4 MS	72	60	77	70	81	86
MSA-MW17D-040814 MSD	240-36010-4 MSD	68	58	82	74	91	90

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	15-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	31-110
FBP = 2-Fluorobiphenyl (Surr)	29-110
TBP = 2,4,6-Tribromophenol (Surr)	21-128
TPH = Terphenyl-d14 (Surr)	31-115

Column to be used to flag recovery values

FORM II 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: STD6 240-125316/5 Date Analyzed: 04/04/2014 16:14

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0404005.D Heated Purge: (Y/N) N

Calibration ID: 21592

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		160340	6.25	692797	7.31	377054	8.79
UPPER LIMIT		320680	6.75	1385594	7.81	754108	9.29
LOWER LIMIT		80170	5.75	346399	6.81	188527	8.29
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-125316/11		172253	6.25	732915	7.31	387202	8.79
STD6 240-126084/2 CCVIS		194684	6.21	830022	7.28	446555	8.76

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: STD6 240-125316/5 Date Analyzed: 04/04/2014 16:14

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0404005.D Heated Purge: (Y/N) N

Calibration ID: 21592

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		568554	10.06	529016	12.66	413811	14.77
UPPER LIMIT		1137108	10.56	1058032	13.16	827622	15.27
LOWER LIMIT		284277	9.56	264508	12.16	206906	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-125316/11		594400	10.06	545063	12.66	405490	14.77
STD6 240-126084/2 CCVIS		687723	10.02	612436	12.60	490992	14.69

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: STD6 240-126084/2 Date Analyzed: 04/11/2014 08:11

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0411002.D Heated Purge: (Y/N) N

Calibration ID: 21592

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		194684	6.21	830022	7.28	446555	8.76
UPPER LIMIT		389368	6.71	1660044	7.78	893110	9.26
LOWER LIMIT		97342	5.71	415011	6.78	223278	8.26
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-125993/3-A		182667	6.21	734856	7.27	408064	8.76
LCS 240-125993/4-A		178134	6.21	757993	7.28	407854	8.76
240-35913-3	MSA-MW5-040714	178376	6.21	740557	7.27	388835	8.76
240-35913-2	MSA-DMW7S-040714	157936	6.21	626760	7.27	339966	8.76

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: STD6 240-126084/2 Date Analyzed: 04/11/2014 08:11

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0411002.D Heated Purge: (Y/N) N

Calibration ID: 21592

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		687723	10.02	612436	12.60	490992	14.69
UPPER LIMIT		1375446	10.52	1224872	13.10	981984	15.19
LOWER LIMIT		343862	9.52	306218	12.10	245496	14.19
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-125993/3-A		638278	10.02	568959	12.60	445279	14.69
LCS 240-125993/4-A		644142	10.02	580802	12.60	467300	14.69
240-35913-3	MSA-MW5-040714	644660	10.02	564086	12.60	442637	14.69
240-35913-2	MSA-DMW7S-040714	560363	10.02	486541	12.59	365647	14.68

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: STD6 240-126265/5 Date Analyzed: 04/12/2014 13:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0412005.D Heated Purge: (Y/N) N

Calibration ID: 21681

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		193016	6.26	759602	7.32	431499	8.80
UPPER LIMIT		386032	6.76	1519204	7.82	862998	9.30
LOWER LIMIT		96508	5.76	379801	6.82	215750	8.30
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-126265/11		178921	6.26	737697	7.32	417148	8.80
MB 240-126143/19-A		154790	6.25	609661	7.32	366523	8.80
LCS 240-126143/20-A		151825	6.26	635096	7.32	349728	8.80
240-36010-4	MSA-MW17D-040814	157644	6.26	624107	7.32	375485	8.80
240-36010-4 MS	MSA-MW17D-040814 MS	172801	6.26	734223	7.32	403433	8.80
240-36010-4 MSD	MSA-MW17D-040814 MSD	176881	6.26	709037	7.32	392387	8.80
240-36010-5	MSA-MW47D-040814	175194	6.26	696877	7.32	402688	8.80
240-36010-3	MSA-MW17I-040814	161160	6.26	630546	7.32	367410	8.80
240-36010-2	MSA-MW17S-040814	177703	6.25	704532	7.32	396107	8.80
STD6 240-126502/2 CCVIS		225089	6.26	935403	7.32	503714	8.80

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: STD6 240-126265/5 Date Analyzed: 04/12/2014 13:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0412005.D Heated Purge: (Y/N) N

Calibration ID: 21681

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		678754	10.06	621504	12.66	526227	14.77
UPPER LIMIT		1357508	10.56	1243008	13.16	1052454	15.27
LOWER LIMIT		339377	9.56	310752	12.16	263114	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-126265/11		637892	10.06	585188	12.66	478244	14.77
MB 240-126143/19-A		609059	10.06	529282	12.66	429962	14.77
LCS 240-126143/20-A		579226	10.06	524393	12.66	441903	14.77
240-36010-4	MSA-MW17D-040814	632011	10.06	550026	12.66	464320	14.77
240-36010-4 MS	MSA-MW17D-040814 MS	671378	10.06	615549	12.66	514926	14.77
240-36010-4 MSD	MSA-MW17D-040814 MSD	663224	10.06	613061	12.66	516759	14.77
240-36010-5	MSA-MW47D-040814	684414	10.06	582984	12.66	472050	14.77
240-36010-3	MSA-MW17I-040814	612949	10.06	526829	12.66	435479	14.77
240-36010-2	MSA-MW17S-040814	666730	10.06	570797	12.66	490852	14.77
STD6 240-126502/2 CCVIS		796320	10.06	731684	12.66	581045	14.77

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: STD6 240-126502/2 Date Analyzed: 04/15/2014 10:38

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0415002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		225089	6.26	935403	7.32	503714	8.80
UPPER LIMIT		450178	6.76	1870806	7.82	1007428	9.30
LOWER LIMIT		112545	5.76	467702	6.82	251857	8.30
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-126314/4-A		156463	6.26	653151	7.32	358550	8.80
LCS 240-126314/5-A		160267	6.26	666804	7.32	374544	8.80
240-36043-1	MSA-MW-14I-040914	165202	6.26	685437	7.32	378787	8.80
240-36043-2	MSA-MW-14D-040914	173587	6.26	707849	7.32	398131	8.80
240-36043-4	MSA-MW-48D-040914	178223	6.26	732955	7.32	393995	8.80

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: STD6 240-126502/2 Date Analyzed: 04/15/2014 10:38

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0415002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		796320	10.06	731684	12.66	581045	14.77
UPPER LIMIT		1592640	10.56	1463368	13.16	1162090	15.27
LOWER LIMIT		398160	9.56	365842	12.16	290523	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-126314/4-A		597948	10.06	513792	12.66	393981	14.77
LCS 240-126314/5-A		591772	10.07	535209	12.66	430120	14.77
240-36043-1	MSA-MW-14I-040914	616722	10.06	540670	12.66	442297	14.77
240-36043-2	MSA-MW-14D-040914	655157	10.06	563028	12.66	457764	14.77
240-36043-4	MSA-MW-48D-040914	659201	10.06	568093	12.66	444442	14.76

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

Method RSK-175

Dissolved Gases (GC) by Method RSK_175

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: ZPID Start Date: 03/17/2014 16:56

Analysis Batch Number: 122842 End Date: 03/17/2014 18:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-122842/3 IC		03/17/2014 16:56	1	Z0031703.D	
STD2 240-122842/4 IC		03/17/2014 17:08	1	Z0031704.D	
STD3 240-122842/5 IC		03/17/2014 17:21	1	Z0031705.D	
STD4 240-122842/6 IC		03/17/2014 17:33	1	Z0031706.D	
STD5 240-122842/7 IC		03/17/2014 17:45	1	Z0031707.D	
STD6 240-122842/8 ICRT		03/17/2014 17:57	1	Z0031708.D	
STD7 240-122842/9 IC		03/17/2014 18:09	1	Z0031709.D	
STD8 240-122842/10 IC		03/17/2014 18:22	1	Z0031710.D	
STD9 240-122842/11 IC		03/17/2014 18:34	1	Z0031711.D	
ICV 240-122842/12		03/17/2014 18:46	1	Z0031712.D	

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 122842

SDG No.:

Instrument ID: ZPID GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/17/2014 16:56 Calibration End Date: 03/17/2014 18:34 Calibration ID: 21168

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-122842/3	Z0031703.D
Level 2	STD2 240-122842/4	Z0031704.D
Level 3	STD3 240-122842/5	Z0031705.D
Level 4	STD4 240-122842/6	Z0031706.D
Level 5	STD5 240-122842/7	Z0031707.D
Level 6	STD6 240-122842/8	Z0031708.D
Level 7	STD8 240-122842/10	Z0031710.D
Level 8	STD7 240-122842/9	Z0031709.D
Level 9	STD9 240-122842/11	Z0031711.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Methane	140266 94273 95615	119991 96410	97680 76535	94339 90154	Ave		100584.625				18.0		30.0			
Ethene	74343 86774 85235	93331 89047	86325 76130	85914 82605	Ave		84411.4212				7.1		30.0			
Acetylene	14277 25400 27066	18994 25975	17915 25275	18719 24776	Ave		22044.2149				21.0		30.0			
Ethane	80140 95545 96236	101495 99453	95171 86844	95069 92052	Ave		93556.1842				7.0		30.0			
Propene	71790 84470 83091	92092 87426	83287 77980	83697 80870	Ave		82744.8531				6.9		30.0			
Propane	82094 98646 100490	103594 104028	97118 94621	97735 96241	Ave		97173.9876				6.7		30.0			
Propane, 2-methyl	92340 101656 103910	102100 107783	100758 99843	102648 99492	Ave		101169.978				4.1		30.0			
1,1,1-Trifluoroethane	45999 37705	41372 37435	38181	36615 34143	Ave		38778.5929				9.9		30.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI

GC VOA INITIAL CALIBRATION DATA

EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 122842

SDG No.:

Instrument ID: ZPID GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/17/2014 16:56 Calibration End Date: 03/17/2014 18:34 Calibration ID: 21168

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-122842/3	Z0031703.D
Level 2	STD2 240-122842/4	Z0031704.D
Level 3	STD3 240-122842/5	Z0031705.D
Level 4	STD4 240-122842/6	Z0031706.D
Level 5	STD5 240-122842/7	Z0031707.D
Level 6	STD6 240-122842/8	Z0031708.D
Level 7	STD8 240-122842/10	Z0031710.D
Level 8	STD7 240-122842/9	Z0031709.D
Level 9	STD9 240-122842/11	Z0031711.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
Methane	0.910	0.910	0.910	0.910	0.910	0.910	0.909	0.907	0.907		0.860 - 0.960	0.909
Ethene	1.413	1.410	1.410	1.410	1.410	1.410	1.405	1.407	1.397		1.360 - 1.460	1.408
Acetylene	1.503	1.503	1.500	1.500	1.500	1.500	1.499	1.497	1.494		1.450 - 1.550	1.500
Ethane	1.687	1.687	1.687	1.687	1.683	1.684	1.675	1.680	1.660		1.484 - 1.884	1.681
Propene	3.590	3.590	3.590	3.590	3.587	3.580	3.549	3.567	3.517		3.530 - 3.630	3.573
Propane	3.783	3.783	3.783	3.780	3.777	3.774	3.739	3.757	3.707		3.724 - 3.824	3.765
Propane, 2-methyl	5.420	5.420	5.420	5.417	5.413	5.407	5.362	5.390	5.324		5.307 - 5.507	5.397
1,1,1-Trifluoroethane	2.730	2.727	2.723	2.710	2.693	2.680		2.674			2.580 - 2.780	2.705

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 122842

SDG No.:

Instrument ID: ZPID GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/17/2014 16:56 Calibration End Date: 03/17/2014 18:34 Calibration ID: 21168

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-122842/3	Z0031703.D
Level 2	STD2 240-122842/4	Z0031704.D
Level 3	STD3 240-122842/5	Z0031705.D
Level 4	STD4 240-122842/6	Z0031706.D
Level 5	STD5 240-122842/7	Z0031707.D
Level 6	STD6 240-122842/8	Z0031708.D
Level 7	STD8 240-122842/10	Z0031710.D
Level 8	STD7 240-122842/9	Z0031709.D
Level 9	STD9 240-122842/11	Z0031711.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Methane	Ave	35182 11157475	115756 59048956	376929 31300270	1092114 147538837	3636709	0.251 116	0.965 772	3.86 347	11.6 1543	38.6
Ethene	Ave	32746 18099589	158113 103159980	584980 50370565	1746571 230996369	5879194	0.440 203	1.69 1355	6.78 610	20.3 2710	67.8
Acetylene	Ave	5819 4884920	29776 31689393	112340 13978522	352133 67869804	1592312	0.408 188	1.57 1254	6.27 564	18.8 2508	62.7
Ethane	Ave	37812 21653831	184184 126056907	690830 60127398	2070274 279378029	6934308	0.472 218	1.81 1452	7.26 653	21.8 2903	72.6
Propene	Ave	47377 26624305	233751 158318654	845611 73883074	2549327 337388038	8574715	0.660 305	2.54 2030	10.2 914	30.5 4060	102
Propane	Ave	56751 33185573	275437 201230778	1032874 92104169	3118306 427426552	10489583	0.691 319	2.66 2127	10.6 957	31.9 4253	106
Propane, 2-methyl	Ave	84100 45297400	357652 279735599	1411792 125438402	4314848 582261536	14240874	0.911 420	3.50 2802	14.0 1261	42.0 5604	140
1,1,1-Trifluoroethane	Ave	3027880 341196118	10474259	38665655 414917057	111238103	229104248	65.8 9114	253	1013 12152	3038	6076

Curve Type Legend:
Ave = Average

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: ZPID Start Date: 04/14/2014 11:30

Analysis Batch Number: 126354 End Date: 04/14/2014 13:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-126354/3		04/14/2014 11:30	1	Z0041403.D	
MB 240-126354/4		04/14/2014 11:42	1	Z0041404.D	
LCS 240-126354/5		04/14/2014 11:55	1	Z0041405.D	
ZZZZZ		04/14/2014 12:07	1		
240-36043-3	MSA-MW-48I-040914	04/14/2014 12:19	1	Z0041407.D	
240-36043-4	MSA-MW-48D-040914	04/14/2014 12:31	1	Z0041408.D	
ZZZZZ		04/14/2014 12:43	1		
ZZZZZ		04/14/2014 12:56	1		
ZZZZZ		04/14/2014 13:08	1		
CCV 240-126354/12		04/14/2014 13:20	1	Z0041412.D	

RSK-175

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCVRT 240-126354/3 Calibration Date: 04/14/2014 11:30

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0041403.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	100585	103102		119	116	2.5	30.0
Ethene	Ave	84411	95856		231	203	13.6	30.0
Acetylene	Ave	22044	27958		239	188	26.8	30.0
Ethane	Ave	93556	106586		248	218	13.9	30.0
Propene	Ave	82745	94050		346	305	13.7	30.0
Propane	Ave	97174	112077		368	319	15.3	30.0
Propane, 2-methyl	Ave	101170	116756		485	420	15.4	30.0
1,1,1-Trifluoroethane	Ave	38779	42390		2660	2440	9.3	30.0

FORM VII

GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCVRT 240-126354/3 Calibration Date: 04/14/2014 11:30

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0041403.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	0.91	0.86	0.96
Ethene	1.41	1.36	1.46
Acetylene	1.50	1.45	1.55
Ethane	1.69	1.49	1.89
Propene	3.59	3.54	3.64
Propane	3.78	3.73	3.83
Propane, 2-methyl	5.41	5.31	5.51
1,1,1-Trifluoroethane	2.71	2.61	2.81

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126354/12 Calibration Date: 04/14/2014 13:20

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0041412.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	100585	96879		111	116	-3.7	30.0
Ethene	Ave	84411	86707		209	203	2.7	30.0
Acetylene	Ave	22044	25809		220	188	17.1	30.0
Ethane	Ave	93556	99697		232	218	6.6	30.0
Propene	Ave	82745	84597		311	305	2.2	30.0
Propane	Ave	97174	105513		346	319	8.6	30.0
Propane, 2-methyl	Ave	101170	110806		460	420	9.5	30.0
1,1,1-Trifluoroethane	Ave	38779	36949		2320	2440	-4.7	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126354/12 Calibration Date: 04/14/2014 13:20

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0041412.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	0.91	0.86	0.96
Ethene	1.41	1.36	1.46
Acetylene	1.50	1.45	1.55
Ethane	1.69	1.49	1.89
Propene	3.58	3.53	3.63
Propane	3.77	3.72	3.82
Propane, 2-methyl	5.41	5.31	5.51
1,1,1-Trifluoroethane	2.71	2.61	2.81

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: MB 240-126354/4

Matrix: Water Date Extracted:

Lab File ID:(1) Z0041404.D Lab File ID:(2)

Date Analyzed:(1) 04/14/2014 11:42 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) ID: GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-126354/5	04/14/2014 11:55	
MSA-MW-48I-040914	240-36043-3	04/14/2014 12:19	
MSA-MW-48D-040914	240-36043-4	04/14/2014 12:31	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-126354/4

Matrix: Water Lab File ID: Z0041404.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 17(mL) Date Analyzed: 04/14/2014 11:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ID:

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126354 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.104		0.10	0.070
74-84-0	Ethane	0.19	U	0.26	0.19
74-85-1	Ethene	0.18	U	0.31	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	110		66-132

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z0041405.D

Lab ID: LCS 240-126354/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methane	116	126	109	76-120	
Ethane	218	248	114	80-120	
Ethene	203	233	115	81-120	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): ID:

Client Sample ID	Lab Sample ID	TFE1 #
MSA-MW-48I-040914	240-36043-3	104
MSA-MW-48D-040914	240-36043-4	104
	MB 240-126354/4	110
	LCS 240-126354/5	106

	QC LIMITS
TFE = 1,1,1-Trifluoroethane	66-132

Column to be used to flag recovery values

FORM II RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: STD6 240-122842/8 Date Analyzed: 03/17/2014 17:57

Instrument ID: ZPID GC Column: ID: ()

Lab File ID (Standard): Z0031708.D Heated Purge: (Y/N) N

Calibration ID: 21168

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE RT #		
INITIAL CALIBRATION SURROGATE				2.68		
UPPER LIMIT				2.73		
LOWER LIMIT				2.63		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD6 240-122842/8 ICRT		03/17/2014 17:57	Z0031708.D	2.68		
ICV 240-122842/12		03/17/2014 18:46	Z0031712.D	2.71		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: CCVRT 240-126354/3 Date Analyzed: 04/14/2014 11:30

Instrument ID: ZPID GC Column: ID: ()

Lab File ID (Standard): Z0041403.D Heated Purge: (Y/N) N

Calibration ID: 21168

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				2.71		
UPPER LIMIT				2.76		
LOWER LIMIT				2.66		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-126354/3		04/14/2014 11:30	Z0041403.D	2.71		
MB 240-126354/4		04/14/2014 11:42	Z0041404.D	2.71		
LCS 240-126354/5		04/14/2014 11:55	Z0041405.D	2.72		
240-36043-3	MSA-MW-48I-040914	04/14/2014 12:19	Z0041407.D	2.72		
240-36043-4	MSA-MW-48D-040914	04/14/2014 12:31	Z0041408.D	2.72		
CCV 240-126354/12		04/14/2014 13:20	Z0041412.D	2.71		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

Method 8015B - GRO

Gasoline Range Organics (GC) by Method 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: YPID Start Date: 04/01/2014 13:08

Analysis Batch Number: 124780 End Date: 04/01/2014 17:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-124780/4 IC		04/01/2014 13:08	1	YF040104.D	RTX-VRX 0.45(mm)
STD2 240-124780/5 IC		04/01/2014 13:46	1	YF040105.D	RTX-VRX 0.45(mm)
STD3 240-124780/6 IC		04/01/2014 14:25	1	YF040106.D	RTX-VRX 0.45(mm)
STD4 240-124780/7 ICRT		04/01/2014 15:04	1	YF040107.D	RTX-VRX 0.45(mm)
STD5 240-124780/8 IC		04/01/2014 15:43	1	YF040108.D	RTX-VRX 0.45(mm)
STD6 240-124780/9 IC		04/01/2014 16:22	1	YF040109.D	RTX-VRX 0.45(mm)
ICV 240-124780/10		04/01/2014 17:01	1	YF040110.D	RTX-VRX 0.45(mm)

FORM VI

GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Gasoline Range Organics [C6 - C10]	204584 184488	200740 176831	187062	178295	Ave		188666.715				6.1		20.0			
C6-C12	235895 200911	223834 193438	204656	194539	Ave		208878.888				8.2		20.0			
Trifluorotoluene (Surr)	256304 194760	219953 178223	216487	201472	Ave		211199.772				13.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Gasoline Range Organics [C6 - C10]	11.937	11.937	11.937	11.937	11.937	11.937					5.000 - 18.927	11.937
C6-C12	13.475	13.475	13.475	13.475	13.475	13.475					5.000 - 22.005	13.475
Trifluorotoluene (Surr)	9.775	9.786	9.784	9.782	9.784	9.783					9.532 - 10.032	9.782

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Gasoline Range Organics [C6 - C10]	Ave	20458395 282929804	40148085	74824833	142635995	221385250	100 1600	200	400	800	1200
C6-C12	Ave	23589536 309501068	44766859	81862354	155631080	241092921	100 1600	200	400	800	1200
Trifluorotoluene (Surr)	Ave	256304 8911159	439906	1082433	2014719	3895199	1.00 50.0	2.00	5.00	10.0	20.0

Curve Type Legend:
Ave = Average

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: YPID Start Date: 04/10/2014 11:37

Analysis Batch Number: 125978 End Date: 04/11/2014 13:21

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-125978/4		04/10/2014 11:37	1	YF041004.D	RTX-VRX 0.45(mm)
ZZZZZ		04/10/2014 13:33	10		RTX-VRX 0.45(mm)
ZZZZZ		04/10/2014 14:11	10		RTX-VRX 0.45(mm)
ZZZZZ		04/10/2014 14:50	10		RTX-VRX 0.45(mm)
CCV 240-125978/8		04/10/2014 15:29	1		RTX-VRX 0.45(mm)
CCV 240-125978/15		04/10/2014 20:00	1	YF041017.D	RTX-VRX 0.45(mm)
MB 240-125978/16		04/10/2014 20:38	1	YF041018.D	RTX-VRX 0.45(mm)
LCS 240-125978/17		04/10/2014 21:16	1	YF041019.D	RTX-VRX 0.45(mm)
ZZZZZ		04/10/2014 21:55	1		RTX-VRX 0.45(mm)
ZZZZZ		04/10/2014 22:34	1		RTX-VRX 0.45(mm)
ZZZZZ		04/10/2014 23:11	1		RTX-VRX 0.45(mm)
ZZZZZ		04/10/2014 23:49	1		RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 00:28	1		RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 01:07	1		RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 01:45	1		RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 02:23	1		RTX-VRX 0.45(mm)
CCV 240-125978/26		04/11/2014 03:02	1	YF041028.D	RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 03:40	1		RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 04:18	1		RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 04:57	1		RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 05:36	1		RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 06:14	1		RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 06:52	1		RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 07:31	1		RTX-VRX 0.45(mm)
240-35913-3	MSA-MW5-040714	04/11/2014 08:10	1	YF041036.D	RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 08:49	1		RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 09:27	1		RTX-VRX 0.45(mm)
CCV 240-125978/37		04/11/2014 10:06	1	YF041039.D	RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 10:45	1		RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 11:24	1		RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 12:03	1		RTX-VRX 0.45(mm)
ZZZZZ		04/11/2014 12:42	1		RTX-VRX 0.45(mm)
CCV 240-125978/42		04/11/2014 13:21	1		RTX-VRX 0.45(mm)

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-125978/15 Calibration Date: 04/10/2014 20:00

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041017.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	163353		693	800	-13.4	15.0
C6-C12	Ave	208879	260208		997	800	24.6*	15.0
Trifluorotoluene (Surr)	Ave	211200	173012		8.19	10.0	-18.1*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-125978/15 Calibration Date: 04/10/2014 20:00

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041017.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.94	4.99	18.90
C6-C12	13.48	4.99	21.98
Trifluorotoluene (Surr)	9.79	9.54	10.04

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-125978/26 Calibration Date: 04/11/2014 03:02

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041028.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	160295		680	800	-15.0	15.0
C6-C12	Ave	208879	178614		684	800	-14.5	15.0
Trifluorotoluene (Surr)	Ave	211200	172926		8.19	10.0	-18.1*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-125978/26 Calibration Date: 04/11/2014 03:02

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041028.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.94	4.99	18.90
C6-C12	13.48	4.99	21.98
Trifluorotoluene (Surr)	9.79	9.54	10.04

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-125978/37 Calibration Date: 04/11/2014 10:06

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041039.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	162049		687	800	-14.1	15.0
C6-C12	Ave	208879	177017		678	800	-15.3*	15.0
Trifluorotoluene (Surr)	Ave	211200	161112		7.63	10.0	-23.7*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-125978/37 Calibration Date: 04/11/2014 10:06

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041039.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.94	4.99	18.90
C6-C12	13.48	4.99	21.98
Trifluorotoluene (Surr)	9.79	9.54	10.04

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: YPID Start Date: 04/16/2014 14:20

Analysis Batch Number: 126686 End Date: 04/17/2014 17:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-126686/4		04/16/2014 14:20	1	YF041508.D	RTX-VRX 0.45(mm)
MB 240-126686/5		04/16/2014 14:58	1	YF041509.D	RTX-VRX 0.45(mm)
LCS 240-126686/6		04/16/2014 15:36	1	YF041510.D	RTX-VRX 0.45(mm)
ZZZZZ		04/16/2014 16:15	1		RTX-VRX 0.45(mm)
ZZZZZ		04/16/2014 16:53	1		RTX-VRX 0.45(mm)
ZZZZZ		04/16/2014 17:32	1		RTX-VRX 0.45(mm)
ZZZZZ		04/16/2014 18:09	50		RTX-VRX 0.45(mm)
ZZZZZ		04/16/2014 18:48	20		RTX-VRX 0.45(mm)
ZZZZZ		04/16/2014 19:26	1		RTX-VRX 0.45(mm)
CCV 240-126686/14		04/16/2014 20:42	1	YF041518.D	RTX-VRX 0.45(mm)
ZZZZZ		04/16/2014 23:14	1		RTX-VRX 0.45(mm)
ZZZZZ		04/16/2014 23:53	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 00:31	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 01:09	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 01:46	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 02:24	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 03:02	1		RTX-VRX 0.45(mm)
CCV 240-126686/25		04/17/2014 03:40	1	YF041529.D	RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 04:18	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 04:56	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 05:34	1		RTX-VRX 0.45(mm)
240-36010-2	MSA-MW17S-040814	04/17/2014 06:12	1	YF041533.D	RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 06:51	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 07:29	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 08:07	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 08:45	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 09:24	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 10:02	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 10:40	1		RTX-VRX 0.45(mm)
CCV 240-126686/37		04/17/2014 11:19	1	YF041541.D	RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 11:58	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 12:36	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 13:15	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 15:10	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 15:48	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 16:27	1		RTX-VRX 0.45(mm)
ZZZZZ		04/17/2014 17:05	1		RTX-VRX 0.45(mm)
CCV 240-126686/47		04/17/2014 17:43	1		RTX-VRX 0.45(mm)

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCVRT 240-126686/4 Calibration Date: 04/16/2014 14:20

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041508.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	180834		767	800	-4.2	15.0
C6-C12	Ave	208879	221179		847	800	5.9	15.0
Trifluorotoluene (Surr)	Ave	211200	179828		8.51	10.0	-14.9	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCVRT 240-126686/4 Calibration Date: 04/16/2014 14:20

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041508.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	5.05	18.91
C6-C12	13.51	5.05	21.96
Trifluorotoluene (Surr)	9.79	9.54	10.04

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126686/14 Calibration Date: 04/16/2014 20:42

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041518.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	169986		721	800	-9.9	15.0
C6-C12	Ave	208879	201362		771	800	-3.6	15.0
Trifluorotoluene (Surr)	Ave	211200	173456		8.21	10.0	-17.9*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126686/14 Calibration Date: 04/16/2014 20:42

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041518.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	5.05	18.91
C6-C12	13.51	5.05	21.96
Trifluorotoluene (Surr)	9.79	9.54	10.04

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126686/25 Calibration Date: 04/17/2014 03:40

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041529.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	171790		728	800	-8.9	15.0
C6-C12	Ave	208879	192581		738	800	-7.8	15.0
Trifluorotoluene (Surr)	Ave	211200	177339		8.40	10.0	-16.0*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126686/25 Calibration Date: 04/17/2014 03:40

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041529.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	5.05	18.91
C6-C12	13.51	5.05	21.96
Trifluorotoluene (Surr)	9.79	9.54	10.04

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126686/37 Calibration Date: 04/17/2014 11:19

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041541.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	176892		750	800	-6.2	15.0
C6-C12	Ave	208879	215001		823	800	2.9	15.0
Trifluorotoluene (Surr)	Ave	211200	182288		8.63	10.0	-13.7	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126686/37 Calibration Date: 04/17/2014 11:19

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041541.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	5.05	18.91
C6-C12	13.51	5.05	21.96
Trifluorotoluene (Surr)	9.79	9.54	10.04

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: YPID Start Date: 04/19/2014 14:54

Analysis Batch Number: 127165 End Date: 04/20/2014 03:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-127165/4		04/19/2014 14:54	1	YF041904.D	RTX-VRX 0.45(mm)
MB 240-127165/5		04/19/2014 15:33	1	YF041905.D	RTX-VRX 0.45(mm)
LCS 240-127165/6		04/19/2014 16:12	1	YF041906.D	RTX-VRX 0.45(mm)
240-35913-2	MSA-DMW7S-040714	04/19/2014 16:50	5	YF041907.D	RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 17:28	5		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 18:07	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 18:45	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 19:23	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 20:02	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 20:40	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 21:18	1		RTX-VRX 0.45(mm)
CCV 240-127165/15		04/19/2014 21:56	1	YF041915.D	RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 22:34	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 23:13	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 23:52	1		RTX-VRX 0.45(mm)
ZZZZZ		04/20/2014 00:30	1		RTX-VRX 0.45(mm)
ZZZZZ		04/20/2014 01:09	1		RTX-VRX 0.45(mm)
ZZZZZ		04/20/2014 01:47	1		RTX-VRX 0.45(mm)
ZZZZZ		04/20/2014 02:25	1		RTX-VRX 0.45(mm)
CCV 240-127165/23		04/20/2014 03:03	1		RTX-VRX 0.45(mm)

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCVRT 240-127165/4 Calibration Date: 04/19/2014 14:54

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041904.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	190894		809	800	1.2	15.0
C6-C12	Ave	208879	216046		827	800	3.4	15.0
Trifluorotoluene (Surr)	Ave	211200	172485		8.17	10.0	-18.3*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCVRT 240-127165/4 Calibration Date: 04/19/2014 14:54

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041904.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	5.02	18.94
C6-C12	13.50	5.02	21.98
Trifluorotoluene (Surr)	9.80	9.55	10.05

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-127165/15 Calibration Date: 04/19/2014 21:56

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041915.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	184832		784	800	-2.0	15.0
C6-C12	Ave	208879	224714		861	800	7.6	15.0
Trifluorotoluene (Surr)	Ave	211200	166632		7.89	10.0	-21.1*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-127165/15 Calibration Date: 04/19/2014 21:56

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041915.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	5.02	18.94
C6-C12	13.50	5.02	21.98
Trifluorotoluene (Surr)	9.79	9.55	10.05

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: MB 240-125978/16

Matrix: Water Date Extracted: 04/10/2014 20:38

Lab File ID:(1) YF041018.D Lab File ID:(2)

Date Analyzed:(1) 04/10/2014 20:38 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-125978/17	04/10/2014 21:16	
MSA-MW5-040714	240-35913-3	04/11/2014 08:10	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-125978/16

Matrix: Water | Lab File ID: YF041018.D

Analysis Method: 8015B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2014 20:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 125978 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	25	U	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	73		40-133

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF041019.D

Lab ID: LCS 240-125978/17 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	739	92	67-132	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: MB 240-126686/5

Matrix: Water Date Extracted: 04/16/2014 14:58

Lab File ID:(1) YF041509.D Lab File ID:(2)

Date Analyzed:(1) 04/16/2014 14:58 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-126686/6	04/16/2014 15:36	
MSA-MW17S-040814	240-36010-2	04/17/2014 06:12	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126686/5

Matrix: Water | Lab File ID: YF041509.D

Analysis Method: 8015B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/16/2014 14:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126686 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	25	U	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	75		40-133

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF041510.D

Lab ID: LCS 240-126686/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	748	93	67-132	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: MB 240-127165/5

Matrix: Water Date Extracted: 04/19/2014 15:33

Lab File ID:(1) YF041905.D Lab File ID:(2)

Date Analyzed:(1) 04/19/2014 15:33 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-127165/6	04/19/2014 16:12	
MSA-DMW7S-040714	240-35913-2	04/19/2014 16:50	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127165/5

Matrix: Water | Lab File ID: YF041905.D

Analysis Method: 8015B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2014 15:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127165 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	38.7	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	78		40-133

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF041906.D

Lab ID: LCS 240-127165/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	828	104	67-132	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1 #
MSA-DMW7S-040714	240-35913-2	80
MSA-MW5-040714	240-35913-3	68
MSA-MW17S-040814	240-36010-2	80
	MB 240-125978/16	73
	MB 240-126686/5	75
	MB 240-127165/5	78
	LCS 240-125978/17	83
	LCS 240-126686/6	82
	LCS 240-127165/6	90

	QC LIMITS
TFT = Trifluorotoluene (Surr)	40-133

Column to be used to flag recovery values

FORM II 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: STD4 240-124780/7 Date Analyzed: 04/01/2014 15:04

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF040107.D Heated Purge: (Y/N) N

Calibration ID: 21446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
INITIAL CALIBRATION SURROGATE				9.78		
UPPER LIMIT				9.88		
LOWER LIMIT				9.68		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD4 240-124780/7 ICRT		04/01/2014 15:04	YF040107.D	9.78		
ICV 240-124780/10		04/01/2014 17:01	YF040110.D	9.79		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: CCVRT 240-125978/4 Date Analyzed: 04/10/2014 11:37

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF041004.D Heated Purge: (Y/N) N

Calibration ID: 21446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
CONTINUING CALIBRATION SURROGATE				9.79		
UPPER LIMIT				9.89		
LOWER LIMIT				9.69		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-125978/4		04/10/2014 11:37	YF041004.D	9.79		
CCV 240-125978/15		04/10/2014 20:00	YF041017.D	9.79		
MB 240-125978/16		04/10/2014 20:38	YF041018.D	9.79		
LCS 240-125978/17		04/10/2014 21:16	YF041019.D	9.79		
CCV 240-125978/26		04/11/2014 03:02	YF041028.D	9.79		
240-35913-3	MSA-MW5-040714	04/11/2014 08:10	YF041036.D	9.79		
CCV 240-125978/37		04/11/2014 10:06	YF041039.D	9.79		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: CCVRT 240-126686/4 Date Analyzed: 04/16/2014 14:20

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF041508.D Heated Purge: (Y/N) N

Calibration ID: 21446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
CONTINUING CALIBRATION SURROGATE				9.79		
UPPER LIMIT				9.89		
LOWER LIMIT				9.69		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-126686/4		04/16/2014 14:20	YF041508.D	9.79		
MB 240-126686/5		04/16/2014 14:58	YF041509.D	9.79		
LCS 240-126686/6		04/16/2014 15:36	YF041510.D	9.79		
CCV 240-126686/14		04/16/2014 20:42	YF041518.D	9.79		
CCV 240-126686/25		04/17/2014 03:40	YF041529.D	9.79		
240-36010-2	MSA-MW17S-040814	04/17/2014 06:12	YF041533.D	9.79		
CCV 240-126686/37		04/17/2014 11:19	YF041541.D	9.79		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: CCVRT 240-127165/4 Date Analyzed: 04/19/2014 14:54

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF041904.D Heated Purge: (Y/N) N

Calibration ID: 21446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
CONTINUING CALIBRATION SURROGATE				9.80		
UPPER LIMIT				9.90		
LOWER LIMIT				9.70		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-127165/4		04/19/2014 14:54	YF041904.D	9.80		
MB 240-127165/5		04/19/2014 15:33	YF041905.D	9.79		
LCS 240-127165/6		04/19/2014 16:12	YF041906.D	9.80		
240-35913-2	MSA-DMW7S-040714	04/19/2014 16:50	YF041907.D	9.79		
CCV 240-127165/15		04/19/2014 21:56	YF041915.D	9.79		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

Method 8015B - DRO

Diesel Range Organics (DRO) (GC) by Method 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: A2HP14F Start Date: 11/25/2013 18:58

Analysis Batch Number: 111340 End Date: 11/25/2013 22:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-111340/8 IC		11/25/2013 18:58	1	P14F112508.D	RTX-5 0.53(mm)
STD2 240-111340/9 IC		11/25/2013 19:19	1	P14F112509.D	RTX-5 0.53(mm)
STD3 240-111340/10 ICRT		11/25/2013 19:40	1	P14F112510.D	RTX-5 0.53(mm)
STD4 240-111340/11 IC		11/25/2013 20:01	1	P14F112511.D	RTX-5 0.53(mm)
STD5 240-111340/12 IC		11/25/2013 20:22	1	P14F112512.D	RTX-5 0.53(mm)
ICV 240-111340/13		11/25/2013 20:42	1	P14F112513.D	RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:03	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:23	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:44	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 22:05	1		RTX-5 0.53(mm)
CCV 240-111340/18		11/25/2013 22:25	1		RTX-5 0.53(mm)

FORM VI

DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	501990 429809	458731	454837	433618	Ave		455796.921				6.3		20.0			
o-Terphenyl (Surr)	553837 517394	508292	537146	516618	Ave		526657.319				3.5		20.0			

Note: The ml coefficient is the same as Ave CF for an Ave curve type.

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel Range Organics [C10 - C28]	5.856	5.856	5.856	5.856	5.856						2.980 - 8.732	5.856
o-Terphenyl (Surr)	6.202	6.199	6.197	6.200	6.209						6.102 - 6.302	6.201

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel Range Organics [C10 - C28]	Ave	10040851	18351136	45488439	86732601	171941310	20.0	40.0	100	200	400
o-Terphenyl (Surr)	Ave	886139	1626533	4297171	8265892	16556593	1.60	3.20	8.00	16.0	32.0

Curve Type Legend:
Ave = Average

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: A2HP14F Start Date: 04/15/2014 13:05

Analysis Batch Number: 126527 End Date: 04/15/2014 17:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-126527/5 CCVRT		04/15/2014 13:05	1	P14F041505.D	RTX-5 0.53(mm)
MB 240-126317/5-A		04/15/2014 13:47	1	P14F041507.D	RTX-5 0.53(mm)
LCS 240-126317/6-A		04/15/2014 14:08	1	P14F041508.D	RTX-5 0.53(mm)
240-35913-2	MSA-DMW7S-040714	04/15/2014 14:28	1	P14F041509.D	RTX-5 0.53(mm)
240-35913-3	MSA-MW5-040714	04/15/2014 14:49	1	P14F041510.D	RTX-5 0.53(mm)
CCV 240-126527/13		04/15/2014 15:51	1	P14F041513.D	RTX-5 0.53(mm)
MB 240-126146/5-A		04/15/2014 16:12	1	P14F041514.D	RTX-5 0.53(mm)
LCS 240-126146/6-A		04/15/2014 16:33	1	P14F041515.D	RTX-5 0.53(mm)
ZZZZZ		04/15/2014 16:53	1		RTX-5 0.53(mm)
240-36010-2	MSA-MW17S-040814	04/15/2014 17:14	1	P14F041517.D	RTX-5 0.53(mm)
CCV 240-126527/18		04/15/2014 17:35	1	P14F041518.D	RTX-5 0.53(mm)

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126527/5 Calibration Date: 04/15/2014 13:05

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F041505.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	466197		102	100	2.3	
o-Terphenyl (Surr)	Ave	526657	523.9		7960	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126527/5 Calibration Date: 04/15/2014 13:05

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F041505.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.84	2.96	8.72
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126527/13 Calibration Date: 04/15/2014 15:51

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F041513.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	453499		99.5	100	-0.5	
o-Terphenyl (Surr)	Ave	526657	525.1		7980	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126527/13 Calibration Date: 04/15/2014 15:51

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F041513.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.84	2.96	8.72
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126527/18 Calibration Date: 04/15/2014 17:35

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F041518.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	453885		99.6	100	-0.4	
o-Terphenyl (Surr)	Ave	526657	496.4		7540	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126527/18 Calibration Date: 04/15/2014 17:35

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F041518.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.84	2.96	8.72
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: MB 240-126146/5-A

Matrix: Water Date Extracted: 04/11/2014 09:50

Lab File ID:(1) P14F041514.D Lab File ID:(2)

Date Analyzed:(1) 04/15/2014 16:12 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-126146/6-A	04/15/2014 16:33	
MSA-MW17S-040814	240-36010-2	04/15/2014 17:14	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126146/5-A

Matrix: Water | Lab File ID: P14F041514.D

Analysis Method: 8015B | Date Collected:

Extraction Method: 3510C | Date Extracted: 04/11/2014 09:50

Sample wt/vol: 250(mL) | Date Analyzed: 04/15/2014 16:12

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	84		40-160

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P14F041515.D

Lab ID: LCS 240-126146/6-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1310	66	40-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: MB 240-126317/5-A

Matrix: Water Date Extracted: 04/14/2014 07:55

Lab File ID:(1) P14F041507.D Lab File ID:(2)

Date Analyzed:(1) 04/15/2014 13:47 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-126317/6-A	04/15/2014 14:08	
MSA-DMW7S-040714	240-35913-2	04/15/2014 14:28	
MSA-MW5-040714	240-35913-3	04/15/2014 14:49	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126317/5-A

Matrix: Water | Lab File ID: P14F041507.D

Analysis Method: 8015B | Date Collected:

Extraction Method: 3510C | Date Extracted: 04/14/2014 07:55

Sample wt/vol: 250(mL) | Date Analyzed: 04/15/2014 13:47

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	85		40-160

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P14F041508.D

Lab ID: LCS 240-126317/6-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1790	90	40-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	OTPH1 #
MSA-DMW7S-040714	240-35913-2	66
MSA-MW5-040714	240-35913-3	80
MSA-MW17S-040814	240-36010-2	78
	MB 240-126146/5-A	84
	MB 240-126317/5-A	85
	LCS 240-126146/6-A	82
	LCS 240-126317/6-A	91

	QC LIMITS
OTPH = o-Terphenyl (Surr)	40-160

Column to be used to flag recovery values

FORM II 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Sample No.: CCV 240-126527/5 Date Analyzed: 04/15/2014 13:05

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P14F041505.D Heated Purge: (Y/N) N

Calibration ID: 19058

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				6.19		
UPPER LIMIT						
LOWER LIMIT						
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-126527/5 CCVRT		04/15/2014 13:05	P14F041505.D	6.19		
MB 240-126317/5-A		04/15/2014 13:47	P14F041507.D	6.19		
LCS 240-126317/6-A		04/15/2014 14:08	P14F041508.D	6.19		
240-35913-2	MSA-DMW7S-040714	04/15/2014 14:28	P14F041509.D	6.19		
240-35913-3	MSA-MW5-040714	04/15/2014 14:49	P14F041510.D	6.19		
CCV 240-126527/13		04/15/2014 15:51	P14F041513.D	6.19		
MB 240-126146/5-A		04/15/2014 16:12	P14F041514.D	6.19		
LCS 240-126146/6-A		04/15/2014 16:33	P14F041515.D	6.19		
240-36010-2	MSA-MW17S-040814	04/15/2014 17:14	P14F041517.D	6.19		
CCV 240-126527/18		04/15/2014 17:35	P14F041518.D	6.19		

Column used to flag values outside QC limits

FORM VIII 8015B

6850

Perchlorate by LC/MS or LC/MS/MS

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Instrument ID: A5 Start Date: 04/15/2014 23:19

Analysis Batch Number: 40660 End Date: 04/17/2014 01:45

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/15/2014 23:19	1		Anion HR 4.6(mm)
ICB 320-40660/2		04/15/2014 23:41	1	15APR14-Per-004 .d	Anion HR 4.6(mm)
STD01 320-40660/3 IC		04/16/2014 00:02	1	15APR14-Per-005 .d	Anion HR 4.6(mm)
STD02 320-40660/4 IC		04/16/2014 00:24	1	15APR14-Per-006 .d	Anion HR 4.6(mm)
STD03 320-40660/5 IC		04/16/2014 00:45	1	15APR14-Per-007 .d	Anion HR 4.6(mm)
STD04 320-40660/6 ICISAV		04/16/2014 01:06	1	15APR14-Per-008 .d	Anion HR 4.6(mm)
STD05 320-40660/7 IC		04/16/2014 01:28	1	15APR14-Per-009 .d	Anion HR 4.6(mm)
STD06 320-40660/8 IC		04/16/2014 01:49	1	15APR14-Per-010 .d	Anion HR 4.6(mm)
STD07 320-40660/9 IC		04/16/2014 02:11	1	15APR14-Per-011 .d	Anion HR 4.6(mm)
STD08 320-40660/10 IC		04/16/2014 02:32	1	15APR14-Per-012 .d	Anion HR 4.6(mm)
CCB 320-40660/11		04/16/2014 02:53	1		Anion HR 4.6(mm)
ICV 320-40660/12		04/16/2014 03:15	1	15APR14-Per-014 .d	Anion HR 4.6(mm)
CCV 320-40660/89		04/16/2014 03:36	1	15APR14-Per-015 .d	Anion HR 4.6(mm)
CCVL 320-40660/128		04/16/2014 03:57	1	15APR14-Per-016 .d	Anion HR 4.6(mm)
CCB 320-40660/91		04/16/2014 04:19	1		Anion HR 4.6(mm)
CCV 320-40660/130		04/16/2014 14:00	1		Anion HR 4.6(mm)
CCVL 320-40660/131		04/16/2014 14:21	1	16APR14-Per-016 .d	Anion HR 4.6(mm)
CCB 320-40660/129		04/16/2014 14:42	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 15:04	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 15:25	1		Anion HR 4.6(mm)
INF 320-40435/6-A		04/16/2014 15:46	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 16:08	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 16:29	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 16:51	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 17:12	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 17:33	1		Anion HR 4.6(mm)
INF 320-40565/3-A		04/16/2014 17:55	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 18:16	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 18:38	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 18:59	1		Anion HR 4.6(mm)
CCV 320-40660/108		04/16/2014 19:20	1	16APR14-Per-030 .d	Anion HR 4.6(mm)
CCV 320-40660/109		04/16/2014 19:42	1	16APR14-Per-031 .d	Anion HR 4.6(mm)
CCB 320-40660/110		04/16/2014 20:03	1	16APR14-Per-032 .d	Anion HR 4.6(mm)
MB 320-40527/1-A		04/16/2014 20:25	1	16APR14-Per-033 .d	Anion HR 4.6(mm)
LCS 320-40527/2-A		04/16/2014 20:46	1	16APR14-Per-034 .d	Anion HR 4.6(mm)
INF 320-40527/3-A		04/16/2014 21:07	1	16APR14-Per-035 .d	Anion HR 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Instrument ID: A5 Start Date: 04/15/2014 23:19

Analysis Batch Number: 40660 End Date: 04/17/2014 01:45

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
240-36010-3	MSA-MW17I-040814	04/16/2014 21:29	1	16APR14-Per-036.d	Anion HR 4.6(mm)
240-36010-3 MS	MSA-MW17I-040814 MS	04/16/2014 21:50	1	16APR14-Per-037.d	Anion HR 4.6(mm)
240-36010-3 MSD	MSA-MW17I-040814 MSD	04/16/2014 22:11	1	16APR14-Per-038.d	Anion HR 4.6(mm)
240-36010-5	MSA-MW47D-040814	04/16/2014 22:33	1	16APR14-Per-039.d	Anion HR 4.6(mm)
240-36043-3	MSA-MW-48I-040914	04/16/2014 22:54	1	16APR14-Per-040.d	Anion HR 4.6(mm)
240-36043-4	MSA-MW-48D-040914	04/16/2014 23:16	1	16APR14-Per-041.d	Anion HR 4.6(mm)
ZZZZZ		04/16/2014 23:37	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 23:58	1		Anion HR 4.6(mm)
ZZZZZ		04/17/2014 00:20	1		Anion HR 4.6(mm)
ZZZZZ		04/17/2014 00:41	1		Anion HR 4.6(mm)
CCV 320-40660/125		04/17/2014 01:03	1	16APR14-Per-046.d	Anion HR 4.6(mm)
CCVL 320-40660/126		04/17/2014 01:24	1	16APR14-Per-047.d	Anion HR 4.6(mm)
CCB 320-40660/127		04/17/2014 01:45	1	16APR14-Per-048.d	Anion HR 4.6(mm)

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1 Analy Batch No.: 40660

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/16/2014 00:02 Calibration End Date: 04/16/2014 02:32 Calibration ID: 7012

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-40660/3	15APR14-Per-005.d
Level 2	STD02 320-40660/4	15APR14-Per-006.d
Level 3	STD03 320-40660/5	15APR14-Per-007.d
Level 4	STD04 320-40660/6	15APR14-Per-008.d
Level 5	STD05 320-40660/7	15APR14-Per-009.d
Level 6	STD06 320-40660/8	15APR14-Per-010.d
Level 7	STD07 320-40660/9	15APR14-Per-011.d
Level 8	STD08 320-40660/10	15APR14-Per-012.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Perchlorate	0.7498 0.8472	0.7872 0.8832	0.7535 0.9504	0.8234	0.8204	Ave		0.8269				8.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI

LCMS INITIAL CALIBRATION DATA

INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1 Analy Batch No.: 40660

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/16/2014 00:02 Calibration End Date: 04/16/2014 02:32 Calibration ID: 7012

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-40660/3	15APR14-Per-005.d
Level 2	STD02 320-40660/4	15APR14-Per-006.d
Level 3	STD03 320-40660/5	15APR14-Per-007.d
Level 4	STD04 320-40660/6	15APR14-Per-008.d
Level 5	STD05 320-40660/7	15APR14-Per-009.d
Level 6	STD06 320-40660/8	15APR14-Per-010.d
Level 7	STD07 320-40660/9	15APR14-Per-011.d
Level 8	STD08 320-40660/10	15APR14-Per-012.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Perchlorate	18OP	Ave	8898603 292803763	16752867 694152024	29079407 1403974026	45599470	107899325	0.150 5.00	0.300 10.0	0.500 20.0	1.00	2.00

Curve Type Legend:

Ave = Average ISTD

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 320-40660/89 Calibration Date: 04/16/2014 03:36

Instrument ID: A5 Calib Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/16/2014 02:32

Lab File ID: 15APR14-Per-015.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8269	0.7988		0.966	1.00	-3.4	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCVL 320-40660/128 Calibration Date: 04/16/2014 03:57

Instrument ID: A5 Calib Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/16/2014 02:32

Lab File ID: 15APR14-Per-016.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8269	0.8200		1.98	2.00	-0.8	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCVL 320-40660/131 Calibration Date: 04/16/2014 14:21

Instrument ID: A5 Calib Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/16/2014 02:32

Lab File ID: 16APR14-Per-016.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8269	0.8347		2.02	2.00	0.9	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 320-40660/108 Calibration Date: 04/16/2014 19:20

Instrument ID: A5 Calib Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/16/2014 02:32

Lab File ID: 16APR14-Per-030.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8269	0.8444		1.02	1.00	2.1	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 320-40660/109 Calibration Date: 04/16/2014 19:42

Instrument ID: A5 Calib Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/16/2014 02:32

Lab File ID: 16APR14-Per-031.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8269	0.8418		2.04	2.00	1.8	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 320-40660/125 Calibration Date: 04/17/2014 01:03

Instrument ID: A5 Calib Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/16/2014 02:32

Lab File ID: 16APR14-Per-046.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8269	0.8173		0.988	1.00	-1.2	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCVL 320-40660/126 Calibration Date: 04/17/2014 01:24

Instrument ID: A5 Calib Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/16/2014 02:32

Lab File ID: 16APR14-Per-047.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8269	0.8350		2.02	2.00	1.0	50.0

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Client Sample ID: Lab Sample ID: ICB 320-40660/2

Matrix: Water Lab File ID: 15APR14-Per-004.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/15/2014 23:41

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-40660/110

Matrix: Water Lab File ID: 16APR14-Per-032.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/16/2014 20:03

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-40660/127

Matrix: Water Lab File ID: 16APR14-Per-048.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/17/2014 01:45

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Lab File ID: 16APR14-Per-033.d Lab Sample ID: MB 320-40527/1-A

Matrix: Water Date Extracted: 04/15/2014 13:56

Instrument ID: A5 Date Analyzed: 04/16/2014 20:25

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-40527/2-A	16APR14-Per-034.d	04/16/2014 20:46
MSA-MW17I-040814	240-36010-3	16APR14-Per-036.d	04/16/2014 21:29
MSA-MW17I-040814 MS	240-36010-3 MS	16APR14-Per-037.d	04/16/2014 21:50
MSA-MW17I-040814 MSD	240-36010-3 MSD	16APR14-Per-038.d	04/16/2014 22:11
MSA-MW47D-040814	240-36010-5	16APR14-Per-039.d	04/16/2014 22:33
MSA-MW-48I-040914	240-36043-3	16APR14-Per-040.d	04/16/2014 22:54
MSA-MW-48D-040914	240-36043-4	16APR14-Per-041.d	04/16/2014 23:16

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-35913-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 320-40527/1-A

Matrix: Water | Lab File ID: 16APR14-Per-033.d

Analysis Method: 6850 | Date Collected:

Extraction Method: Filtration | Date Extracted: 04/15/2014 13:56

Sample wt/vol: 4.00(mL) | Date Analyzed: 04/16/2014 20:25

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 16APR14-Per-034.d

Lab ID: LCS 320-40527/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.16	103	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 16APR14-Per-037.d

Lab ID: 240-36010-3 MS Client ID: MSA-MW17I-040814 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	5.00	0.16 J	5.50	107	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 16APR14-Per-038.d

Lab ID: 240-36010-3 MSD Client ID: MSA-MW17I-040814 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	5.00	5.26	102	4	15	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Instrument ID: A5 Calibration Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.6(mm) Calibration End Date: 04/16/2014 02:32

Calibration ID: 7012

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		717679314	15.07				
UPPER LIMIT		1076518971	16.07				
LOWER LIMIT		358839657	14.07				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 320-40660/12		676475218	15.10				
CCV 320-40660/89		767206178	15.10				
CCVL 320-40660/128		608507727	15.11				
CCVL 320-40660/131		502500983	15.16				
CCV 320-40660/108		467220810	15.11				
CCV 320-40660/109		665152243	15.13				
CCB 320-40660/110		624503303	15.17				
MB 320-40527/1-A		502326569	15.16				
LCS 320-40527/2-A		573550371	15.17				
INF 320-40527/3-A		486874437	15.06				
240-36010-3	MSA-MW17I-040814	528359178	15.11				
240-36010-3 MS	MSA-MW17I-040814 MS	386685918	15.13				
240-36010-3 MSD	MSA-MW17I-040814 MSD	843812785	15.10				
240-36010-5	MSA-MW47D-040814	900956821	15.10				
240-36043-3	MSA-MW-48I-040914	842283945	15.01				
240-36043-4	MSA-MW-48D-040914	758243632	14.98				
CCV 320-40660/125		508126674	14.95				
CCVL 320-40660/126		558552099	14.99				
CCB 320-40660/127		507593261	15.06				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-35913-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 16APR14-Per-035.d

Lab ID: INF 320-40527/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	5.22	104	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG No.:

Project: MSA Groundwater Sampling

Client Sample ID	Lab Sample ID
MSA-DMW7S-040714	240-35913-2
MSA-MW5-040714	240-35913-3
MSA-MW17S-040814	240-36010-2
MSA-MW17I-040814	240-36010-3
MSA-MW17D-040814	240-36010-4
MSA-MW47D-040814	240-36010-5
MSA-MW-14I-040914	240-36043-1
MSA-MW-14D-040914	240-36043-2
MSA-MW-48I-040914	240-36043-3
MSA-MW-48D-040914	240-36043-4

Comments:

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/11/2014 08:13 End Date: 04/11/2014 09:53

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-125976/1-A			08:13	X
IC 240-125976/2-A			08:14	X
IC 240-125976/3-A			08:16	X
IC 240-125976/4-A			08:17	X
IC 240-125976/5-A			08:19	X
IC 240-125976/6-A			08:21	X
ICV 240-125976/7-A	1		08:23	X
ICB 240-125976/8-A	1		08:24	X
CRA 240-125976/9-A	1		08:26	X
CCVL 240-125976/10-A	1		08:28	X
CCB 240-125976/11-A	1		08:31	X
ZZZZZZ			08:32	
ZZZZZZ			08:33	
ZZZZZZ			08:35	
ZZZZZZ			08:36	
ZZZZZZ			08:38	
ZZZZZZ			08:40	
ZZZZZZ			08:41	
MB 240-125939/1-A	1	T	08:43	X
LCS 240-125939/2-A	1	T	08:45	X
ZZZZZZ			08:47	
CCV 240-125976/12-A	1		08:48	X
CCB 240-125976/11-A	1		08:50	X
ZZZZZZ			08:51	
ZZZZZZ			08:53	
ZZZZZZ			08:54	
ZZZZZZ			08:56	
ZZZZZZ			08:57	
ZZZZZZ			08:59	
ZZZZZZ			09:00	
ZZZZZZ			09:02	
ZZZZZZ			09:03	
ZZZZZZ			09:05	
CCV 240-125976/12-A	1		09:06	X
CCB 240-125976/11-A	1		09:08	X
240-35913-3	1	T	09:09	X
240-35913-3	1	D	09:11	X
240-35913-2	1	T	09:12	X
240-35913-2	1	D	09:13	X
ZZZZZZ			09:15	
ZZZZZZ			09:16	
ZZZZZZ			09:17	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/11/2014 08:13 End Date: 04/11/2014 09:53

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			09:19	
ZZZZZZ			09:21	
CCV 240-125976/12-A	1		09:22	X
CCB 240-125976/11-A	1		09:24	X
ZZZZZZ			09:47	
ZZZZZZ			09:48	
ZZZZZZ			09:49	
CCV 240-125976/12-A			09:52	
CCB 240-125976/11-A			09:53	

Prep Types:
D = Dissolved
T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00610

Analyte	ICV 240-125976/7-A 04/11/2014 08:23				CCVL 240-125976/10-A 04/11/2014 08:28				CCV 240-125976/12-A 04/11/2014 08:48			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.37		2.50	95	4.93		5.00	99	4.97		5.00	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00610

Analyte	CCV 240-125976/12-A 04/11/2014 09:06				CCV 240-125976/12-A 04/11/2014 09:22							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.83		5.00	97	4.83		5.00	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-125976/8-A 04/11/2014 08:24		CCB 240-125976/11-A 04/11/2014 08:31		CCB 240-125976/11-A 04/11/2014 08:50		CCB 240-125976/11-A 04/11/2014 09:08	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-125976/11-A 04/11/2014 09:24							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U						

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/16/2014 09:32 End Date: 04/16/2014 15:09

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-126485/1-A			09:32	X
IC 240-126485/2-A			09:34	X
IC 240-126485/3-A			09:35	X
IC 240-126485/4-A			09:37	X
IC 240-126485/5-A			09:38	X
IC 240-126485/6-A			09:40	X
ICV 240-126485/7-A	1		09:46	X
ICB 240-126485/8-A	1		09:48	X
CRA 240-126485/9-A	1		09:50	X
CCVL 240-126485/10-A	1		11:46	X
CCB 240-126485/11-A			11:47	
ZZZZZZ			11:49	
ZZZZZZ			11:50	
ZZZZZZ			11:52	
ZZZZZZ			11:53	
ZZZZZZ			11:55	
ZZZZZZ			11:56	
ZZZZZZ			11:58	
ZZZZZZ			12:00	
CCV 240-126485/12-A			12:02	
CCB 240-126485/11-A			12:03	
ZZZZZZ			12:05	
ZZZZZZ			12:06	
ZZZZZZ			12:08	
ZZZZZZ			12:09	
ZZZZZZ			12:10	
ZZZZZZ			12:12	
ZZZZZZ			12:13	
ZZZZZZ			12:15	
ZZZZZZ			12:17	
ZZZZZZ			12:18	
CCV 240-126485/12-A	1		12:19	X
CCB 240-126485/11-A	1		12:21	X
ZZZZZZ			12:22	
ZZZZZZ			12:24	
ZZZZZZ			12:25	
ZZZZZZ			12:29	
MB 240-126518/1-A	1	T	12:30	X
LCS 240-126518/2-A	1	T	12:32	X
ZZZZZZ			12:33	
ZZZZZZ			12:35	
ZZZZZZ			12:36	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/16/2014 09:32 End Date: 04/16/2014 15:09

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			12:37	
CCV 240-126485/12-A	1		12:39	X
CCB 240-126485/11-A	1		12:41	X
ZZZZZZ			12:42	
ZZZZZZ			12:44	
ZZZZZZ			12:46	
ZZZZZZ			12:48	
ZZZZZZ			12:50	
240-36010-2	1	T	12:52	X
240-36010-2	1	D	12:53	X
240-36043-3	1	T	12:56	X
240-36043-3	1	D	12:57	X
240-36043-4	1	T	12:59	X
CCV 240-126485/12-A	1		13:00	X
CCB 240-126485/11-A	1		13:02	X
CCV 240-126485/12-A	1		13:04	X
CCB 240-126485/11-A	1		13:05	X
240-36043-4	1	D	13:07	X
240-36043-1	1	T	13:08	X
240-36043-1	1	D	13:09	X
240-36043-2	1	T	13:11	X
240-36043-2	1	D	13:13	X
ZZZZZZ			13:14	
ZZZZZZ			13:16	
ZZZZZZ			13:18	
ZZZZZZ			13:19	
ZZZZZZ			13:21	
CCV 240-126485/12-A	1		13:23	X
CCB 240-126485/11-A	1		13:24	X
ZZZZZZ			13:26	
ZZZZZZ			13:28	
ZZZZZZ			13:29	
ZZZZZZ			13:31	
ZZZZZZ			13:33	
ZZZZZZ			13:34	
ZZZZZZ			13:36	
ZZZZZZ			13:37	
ZZZZZZ			13:39	
ZZZZZZ			13:41	
CCV 240-126485/12-A			13:43	
CCB 240-126485/11-A			13:44	
ZZZZZZ			13:45	

FORM XIII-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00613

Analyte	ICV 240-126485/7-A 04/16/2014 09:46				CCVL 240-126485/10-A 04/16/2014 11:46				CCV 240-126485/12-A 04/16/2014 12:19			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.38		2.50	95	5.06		5.00	101	5.00		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00613

Analyte	CCV 240-126485/12-A 04/16/2014 12:39				CCV 240-126485/12-A 04/16/2014 13:00				CCV 240-126485/12-A 04/16/2014 13:04			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.94		5.00	99	4.94		5.00	99	5.03		5.00	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00613

Analyte	CCV 240-126485/12-A 04/16/2014 13:23											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.91		5.00	98								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-126485/8-A 04/16/2014 09:48		CCB 240-126485/11-A 04/16/2014 12:21		CCB 240-126485/11-A 04/16/2014 12:41		CCB 240-126485/11-A 04/16/2014 13:02	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-126485/11-A 04/16/2014 13:05		CCB 240-126485/11-A 04/16/2014 13:24					
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U				

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/17/2014 10:47 End Date: 04/17/2014 14:53

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-126900/1-A			10:47	X
IC 240-126900/2-A			10:48	X
IC 240-126900/3-A			10:50	X
IC 240-126900/4-A			10:51	X
IC 240-126900/5-A			10:53	X
IC 240-126900/6-A			10:54	X
ICV 240-126900/7-A	1		10:56	X
ICB 240-126900/8-A	1		10:57	X
CRA 240-126900/9-A	1		10:59	X
CCVL 240-126900/10-A	1		11:00	X
CCB 240-126900/12-A			11:02	
ZZZZZZ			11:04	
ZZZZZZ			11:06	
ZZZZZZ			11:07	
ZZZZZZ			11:09	
ZZZZZZ			11:10	
ZZZZZZ			11:12	
ZZZZZZ			11:14	
ZZZZZZ			11:15	
ZZZZZZ			11:17	
ZZZZZZ			11:18	
CCV 240-126900/11-A			11:20	
CCB 240-126900/12-A			11:21	
ZZZZZZ			11:23	
ZZZZZZ			11:24	
ZZZZZZ			11:26	
ZZZZZZ			11:27	
ZZZZZZ			11:29	
ZZZZZZ			11:30	
ZZZZZZ			11:32	
ZZZZZZ			11:33	
ZZZZZZ			11:35	
ZZZZZZ			11:37	
CCV 240-126900/11-A			11:38	
CCB 240-126900/12-A			11:39	
ZZZZZZ			11:41	
ZZZZZZ			11:42	
ZZZZZZ			11:43	
ZZZZZZ			11:45	
ZZZZZZ			11:46	
ZZZZZZ			11:48	
ZZZZZZ			11:49	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/17/2014 10:47 End Date: 04/17/2014 14:53

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			11:52	
ZZZZZZ			11:53	
ZZZZZZ			11:55	
CCV 240-126900/11-A	1		11:56	X
CCB 240-126900/12-A	1		11:58	X
ZZZZZZ			12:00	
ZZZZZZ			12:01	
ZZZZZZ			12:04	
ZZZZZZ			12:05	
ZZZZZZ			12:07	
ZZZZZZ			12:09	
ZZZZZZ			12:10	
MB 240-126123/1-A	1	T	12:12	X
LCS 240-126123/2-A	1	T	12:13	X
ZZZZZZ			12:14	
CCV 240-126900/11-A	1		12:17	X
CCB 240-126900/12-A	1		12:19	X
ZZZZZZ			12:21	
ZZZZZZ			12:22	
240-36010-4	1	T	12:24	X
240-36010-4 MS	1	T	12:25	X
240-36010-4 MSD	1	T	12:27	X
240-36010-4	1	D	12:29	X
240-36010-4 MS	1	D	12:31	X
240-36010-4 MSD	1	D	12:32	X
ZZZZZZ			12:33	
ZZZZZZ			12:35	
CCV 240-126900/11-A	1		12:36	X
CCB 240-126900/12-A	1		12:39	X
ZZZZZZ			12:40	
ZZZZZZ			12:42	
ZZZZZZ			12:44	
ZZZZZZ			12:46	
ZZZZZZ			12:47	
ZZZZZZ			12:49	
240-36010-3	1	D	12:51	X
240-36010-3	1	T	12:52	X
240-36010-5	1	D	12:54	X
240-36010-5	1	T	12:55	X
CCV 240-126900/11-A	1		12:57	X
CCB 240-126900/12-A	1		12:59	X
ZZZZZZ			13:00	

FORM XIII-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00615

Analyte	ICV 240-126900/7-A 04/17/2014 10:56				CCVL 240-126900/10-A 04/17/2014 11:00				CCV 240-126900/11-A 04/17/2014 11:56			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.56		2.50	102	5.13		5.00	103	5.01		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00615

Analyte	CCV 240-126900/11-A 04/17/2014 12:17				CCV 240-126900/11-A 04/17/2014 12:36				CCV 240-126900/11-A 04/17/2014 12:57			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.95		5.00	99	4.98		5.00	100	4.94		5.00	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-126900/8-A 04/17/2014 10:57		CCB 240-126900/12-A 04/17/2014 11:58		CCB 240-126900/12-A 04/17/2014 12:19		CCB 240-126900/12-A 04/17/2014 12:39	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-126900/12-A 04/17/2014 12:59							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U						

Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Method: 7470A Instrument ID: H1

Lab Sample ID: CRA 240-125976/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00610

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.200		100	50-150

Lab Sample ID: CRA 240-126485/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00613

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.169	J	85	50-150

Lab Sample ID: CRA 240-126900/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00615

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.179	J	90	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-125939/1-A	04/10/2014 13:15	125939		50	50
LCS 240-125939/2-A	04/10/2014 13:15	125939		50	50
240-35913-3	04/10/2014 13:15	125939		50	50
240-35913-3	04/10/2014 13:15	125939		50	50
240-35913-2	04/10/2014 13:15	125939		50	50
240-35913-2	04/10/2014 13:15	125939		50	50

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-125939/1-A

Instrument Code: H1 Batch No.: 126149

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-125939/2-A

Lab Name: TestAmerica Canton Job No.: 240-35913-1

Sample Matrix: Water LCS Source: MTHGCALW_00610

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.77		95	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-126518/1-A	04/15/2014 14:40	126518		50	50
LCS 240-126518/2-A	04/15/2014 14:40	126518		50	50
240-36010-2	04/15/2014 14:40	126518		50	50
240-36010-2	04/15/2014 14:40	126518		50	50
240-36043-3	04/15/2014 14:40	126518		50	50
240-36043-3	04/15/2014 14:40	126518		50	50
240-36043-4	04/15/2014 14:40	126518		50	50
240-36043-4	04/15/2014 14:40	126518		50	50
240-36043-1	04/15/2014 14:40	126518		50	50
240-36043-1	04/15/2014 14:40	126518		50	50
240-36043-2	04/15/2014 14:40	126518		50	50
240-36043-2	04/15/2014 14:40	126518		50	50

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-126518/1-A

Instrument Code: H1 Batch No.: 126764

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-126518/2-A

Lab Name: TestAmerica Canton Job No.: 240-35913-1

Sample Matrix: Water LCS Source: MTHGCALW_00613

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.64		93	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-126123/1-A	04/11/2014 12:45	126123		50	50
LCS 240-126123/2-A	04/11/2014 12:45	126123		50	50
240-36010-4	04/11/2014 12:45	126123		50	50
240-36010-4 MS	04/11/2014 12:45	126123		50	50
240-36010-4 MSD	04/11/2014 12:45	126123		50	50
240-36010-4	04/11/2014 12:45	126123		50	50
240-36010-4 MS	04/11/2014 12:45	126123		50	50
240-36010-4 MSD	04/11/2014 12:45	126123		50	50
240-36010-3	04/11/2014 12:45	126123		50	50
240-36010-3	04/11/2014 12:45	126123		50	50
240-36010-5	04/11/2014 12:45	126123		50	50
240-36010-5	04/11/2014 12:45	126123		50	50

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-126123/1-A

Instrument Code: H1 Batch No.: 126897

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-126123/2-A

Lab Name: TestAmerica Canton Job No.: 240-35913-1

Sample Matrix: Water LCS Source: MTHGCALW_00611

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.05		101	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MSA-MW17D-040814 MS
Lab ID: 240-36010-4 MS
Lab Name: TestAmerica Canton
Job No.: 240-35913-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.00		0.12	U	1.00	100	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MSA-MW17D-040814 MSD Lab ID: 240-36010-4 MSD

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.992		1.00	99	69-134	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A XMDL Date: 02/08/2010 16:06

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A XMDL Date: 02/08/2010 16:06

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.12

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-35913-1

SDG No.:

Instrument ID: H1 Date: 12/10/2013 15:54

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/15/2014 08:42 End Date: 04/15/2014 14:18

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ca	K	Mg	Na	SiO2																									
ICIS 240-126579/1	1		08:42	X	X	X	X	X																									
CALSTD 240-126579/2 IC			08:46	X	X	X	X	X																									
CALSTD 240-126579/3 IC			08:50	X	X	X	X	X																									
ICV 240-126579/4	1		08:54	X	X	X	X	X																									
ICB 240-126579/5	1		08:58	X	X	X	X	X																									
CRI 240-126579/6			09:02																													
ZZZZZZ			09:06																													
ICSA 240-126579/8	1		09:10	X	X	X	X																									
ICSAB 240-126579/9	1		09:15	X	X	X	X																									
CCV 240-126579/10			09:18																													
CCB 240-126579/11			09:22																													
ZZZZZZ			09:26																													
ZZZZZZ			09:30																													
ZZZZZZ			09:35																													
ZZZZZZ			09:39																													
ZZZZZZ			09:43																													
ZZZZZZ			09:47																													
CCV 240-126579/18	1		09:51	X	X	X	X	X																									
CCB 240-126579/19	1		09:55	X	X	X	X	X																									
CRI 240-126579/20	1		10:00	X	X	X	X	X																									
MB 240-126346/1-A	1	R	10:05	X	X	X	X	X																									
LCS 240-126346/2-A	1	R	10:09	X	X	X	X	X																									
ZZZZZZ			10:12																													
ZZZZZZ			10:17																													
ZZZZZZ			10:21																													
ZZZZZZ			10:25																													
ZZZZZZ			10:28																													
ZZZZZZ			10:32																													
240-36043-3	1	R	10:36	X	X	X	X	X																									
CCV 240-126579/30	1		10:41	X	X	X	X	X																									
CCB 240-126579/31	1		10:44	X	X	X	X	X																									
240-36043-4	1	R	10:48	X	X	X	X	X																									
CRI 240-126579/33	1		10:52	X	X	X	X	X																									
ZZZZZZ			10:57																													
CCV 240-126579/35	1		11:02	X	X	X	X	X																									
CCB 240-126579/36	1		11:06	X	X	X	X	X																									
ZZZZZZ			11:10																													
ZZZZZZ			11:13																													
ZZZZZZ			11:17																													
ZZZZZZ			11:22																													

FORM XIII-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MT6500ICV_00017 Concentration Units: ug/L

CCV Source: MTICPCCV_00020

Analyte	ICV 240-126579/4 04/15/2014 08:54				CCV 240-126579/18 04/15/2014 09:51				CCV 240-126579/30 04/15/2014 10:41			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	25900		25000	104	51100		50000	102	51500		50000	103
Magnesium	25000		25000	100	50100		50000	100	50800		50000	102
Potassium	25300		25000	101	50300		50000	101	50500		50000	101
SiO2, Silica	6760		6420	105	11100		10700	104	11200		10700	105
Sodium	25200		25000	101	50500		50000	101	50600		50000	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MT6500ICV_00017 Concentration Units: ug/L

CCV Source: MTICPCCV_00020

Analyte	CCV 240-126579/35 04/15/2014 11:02											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	50600		50000	101								
Magnesium	50000		50000	100								
Potassium	49600		50000	99								
SiO2, Silica	11000		10700	103								
Sodium	49800		50000	100								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Method: 6010C Instrument ID: I12

Lab Sample ID: CRI 240-126579/20 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00019

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	5000	5260		105	70-130
Potassium	5000	5110		102	70-130
Sodium	5000	5080		102	70-130
SiO2, Silica	1070	1090	J	102	70-130
Magnesium	5000	5210		104	70-130

Lab Sample ID: CRI 240-126579/33 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00019

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	5000	5240		105	70-130
Potassium	5000	5120		102	70-130
Sodium	5000	5140		103	70-130
SiO2, Silica	1070	1090	J	101	70-130
Magnesium	5000	5210		104	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-126579/5 04/15/2014 08:58		CCB 240-126579/19 04/15/2014 09:55		CCB 240-126579/31 04/15/2014 10:44		CCB 240-126579/36 04/15/2014 11:06	
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	130	U	130	U	130	U	130	U
Magnesium	5000	34	U	34	U	34	U	34	U
Potassium	5000	89.5	J	72	U	102	J	75.7	J
SiO2, Silica	1100	17	U	17	U	17	U	17	U
Sodium	5000	590	U	590	U	590	U	590	U

Italicized analytes were not requested for this sequence.

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-126346/1-A	04/14/2014 09:05	126346		50	50
LCS 240-126346/2-A	04/14/2014 09:05	126346		50	50
240-36043-3	04/14/2014 09:05	126346		50	50
240-36043-4	04/14/2014 09:05	126346		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-126346/1-A

Instrument Code: I12 Batch No.: 126579

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	130	U		6010C
7440-09-7	Potassium	72	U		6010C
7440-23-5	Sodium	590	U		6010C
14808-60-7	SiO2, Silica	17	U		6010C
7439-95-4	Magnesium	34	U		6010C

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-126346/2-A

Lab Name: TestAmerica Canton Job No.: 240-35913-1

Sample Matrix: Water LCS Source: MTICP2A_00036

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	51900		104	80	120		6010C
Potassium	50000	51300		103	80	120		6010C
Sodium	50000	51600		103	80	120		6010C
SiO2, Silica	2140	2320		108	80	120		6010C
Magnesium	50000	51400		103	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: ICSA 240-126579/8 Instrument ID: I12

Lab File ID: I12041514A.asc ICS Source: MTTRICSAW_00022

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**480390**	**96**
Magnesium	**500000**	**508300**	**102**
Potassium		**95.1**	
Sodium		**24.0**	
Aluminum	*500000*	*508780*	*102*
Antimony		*0.572*	
Arsenic		*3.10*	
Barium		*0.614*	
Beryllium		*0.115*	
Boron		*4.76*	
Cadmium		*0.953*	
Chromium		*2.55*	
Cobalt		*-7.61*	
Copper		*-6.93*	
Iron	*200000*	*189180*	*95*
Lead		*-1.28*	
Lithium		*-3.84*	
Manganese		*2.50*	
Molybdenum		*-1.91*	
Nickel		*0.384*	
Selenium		*4.54*	
Silicon		*-5.68*	
Silver		*-1.49*	
Strontium		*20.5*	
Thallium		*-0.534*	
Tin		*5.78*	
Titanium		*-1.04*	
Vanadium		*-4.16*	
Zinc		*1.42*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: ICSAB 240-126579/9 Instrument ID: I12

Lab File ID: I12041514A.asc ICS Source: MTICPICSABW_00003

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Calcium	**500000**	**489890**	**98**
Magnesium	**500000**	**516400**	**103**
Potassium	**10000**	**10559**	**106**
Sodium	**10000**	**10560**	**106**
Aluminum	*500000*	*522470*	*104*
Antimony	*1000*	*1052*	*105*
Arsenic	*1000*	*1024*	*102*
Barium	*500*	*506*	*101*
Beryllium	*500*	*489*	*98*
Boron	*500*	*525*	*105*
Cadmium	*1000*	*1047*	*105*
Chromium	*500*	*480*	*96*
Cobalt	*500*	*494*	*99*
Copper	*500*	*537*	*107*
Iron	*200000*	*192910*	*96*
Lead	*1000*	*915*	*91*
Lithium	*500*	*529*	*106*
Manganese	*500*	*489*	*98*
Molybdenum	*1000*	*963*	*96*
Nickel	*1000*	*988*	*99*
Selenium	*1000*	*1031*	*103*
Silicon	*10000*	*10183*	*102*
Silver	*1000*	*1104*	*110*
Strontium	*1500*	*1447*	*96*
Thallium	*1000*	*957*	*96*
Tin	*500*	*517*	*103*
Titanium	*500*	*501*	*100*
Vanadium	*500*	*488*	*98*
Zinc	*1000*	*999*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C MDL Date: 02/05/2014 10:38

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	317.933	5000	130
Magnesium	279.078	5000	34
Potassium	766.491	5000	72
SiO2, Silica	251.6	1070	17.34
Sodium	330.232	5000	590

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C XMDL Date: 02/05/2014 10:39

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	317.933	5000	130
Magnesium	279.078	5000	34
Potassium	766.491	5000	72
SiO2, Silica	251.6	1070	17.34
Sodium	330.232	5000	590

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-35913-1

SDG No.:

Instrument ID: I12 Date: 01/30/2014 13:30

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		500000	6010C
Potassium		500000	6010C
Sodium		500000	6010C
SiO2, Silica		428000	6010C
Magnesium		500000	6010C

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/11/2014 09:43 End Date: 04/11/2014 14:48

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V							
ZZZZZZ			09:43																										
ICIS 240-126166/2			09:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-126166/3 IC	1		09:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-126166/4 IC	1		09:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-126166/5 IC	1		09:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-126166/6 IC	1		10:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-126166/7	1		10:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-126166/8	1		10:10	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
CRI 240-126166/9	1		10:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-126166/10	1		10:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSAB 240-126166/11	1		10:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-126166/12			10:26																										
CCB 240-126166/13			10:29																										
CCV 240-126166/14	1		10:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-126166/15	1		10:37	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
MB 240-125933/1-A	1	R	10:42	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
LCS 240-125933/2-A	1	R	10:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			10:49																										
ZZZZZZ			10:53																										
ZZZZZZ			10:57																										
CCV 240-126166/21	1		11:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-126166/22	1		11:04	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
ZZZZZZ			11:21																										
ZZZZZZ			11:25																										
ZZZZZZ			11:28																										
ZZZZZZ			11:31																										
ZZZZZZ			11:35																										
ZZZZZZ			11:39																										
ZZZZZZ			11:42																										
ZZZZZZ			11:46																										
ZZZZZZ			11:50																										
ZZZZZZ			11:53																										
CCV 240-126166/33	1		11:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-126166/34	1		12:01	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
ZZZZZZ			12:05																										
ZZZZZZ			12:08																										
ZZZZZZ			12:12																										
ZZZZZZ			12:16																										
ZZZZZZ			12:19																										
ZZZZZZ			12:23																										
ZZZZZZ			12:26																										
ZZZZZZ			12:30																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/11/2014 09:43 End Date: 04/11/2014 14:48

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V							
ZZZZZZ			12:34																										
ZZZZZZ			12:38																										
CCV 240-126166/45	1		12:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-126166/46	1		12:45	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
ZZZZZZ			12:49																										
ZZZZZZ			12:53																										
ZZZZZZ			12:57																										
ZZZZZZ			13:01																										
ZZZZZZ			13:05																										
ZZZZZZ			13:09																										
ZZZZZZ			13:12																										
ZZZZZZ			13:16																										
240-35913-3	1	R	13:20	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-35913-3	1	D	13:24	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
CCV 240-126166/57	1		13:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-126166/58	1		13:31	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-35913-2	1	R	13:35	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-35913-2	1	D	13:39	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
ZZZZZZ			13:43																										
ZZZZZZ			13:47																										
ZZZZZZ			13:50																										
ZZZZZZ			13:54																										
ZZZZZZ			13:58																										
ZZZZZZ			14:01																										
ZZZZZZ			14:05																										
ZZZZZZ			14:09																										
CCV 240-126166/69	1		14:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-126166/70	1		14:16	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
ZZZZZZ			14:20																										
ZZZZZZ			14:24																										
CCV 240-126166/73			14:28																										
CCB 240-126166/74			14:32																										
ZZZZZZ			14:35																										
ZZZZZZ			14:39																										
CCV 240-126166/77			14:44																										
CCB 240-126166/78			14:48																										

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	ICV 240-126166/7 04/11/2014 10:06				CCV 240-126166/14 04/11/2014 10:33				CCV 240-126166/21 04/11/2014 11:01			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.2		40.0	100	49.9		50.0	100	50.5		50.0	101
Arsenic	39.2		40.0	98	47.5		50.0	95	48.6		50.0	97
Barium	39.4		40.0	98	48.4		50.0	97	48.8		50.0	98
Beryllium	39.6		40.0	99	47.7		50.0	95	49.7		50.0	99
Cadmium	40.0		40.0	100	48.7		50.0	97	49.1		50.0	98
Calcium	20400		20000	102	25100		25000	100	24900		25000	99
Chromium	39.8		40.0	100	48.8		50.0	98	49.3		50.0	99
Cobalt	40.1		40.0	100	49.8		50.0	100	49.9		50.0	100
Copper	41.8		40.0	105	50.4		50.0	101	50.3		50.0	101
Iron	10000		10000	100	12500		12500	100	12700		12500	101
Lead	40.7		40.0	102	49.6		50.0	99	49.4		50.0	99
Magnesium	20000		20000	100	24300		25000	97	25100		25000	100
Manganese	206		200	103	252		250	101	255		250	102
Molybdenum	42.1		40.0	105	52.1		50.0	104	51.3		50.0	103
Nickel	41.7		40.0	104	50.6		50.0	101	50.7		50.0	101
Selenium	40.0		40.0	100	47.9		50.0	96	48.8		50.0	98
Silver	41.8		40.0	105	50.4		50.0	101	49.9		50.0	100
Thallium	39.9		40.0	100	49.8		50.0	100	49.8		50.0	100
Vanadium	40.0		40.0	100	48.7		50.0	97	49.2		50.0	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	CCV 240-126166/33 04/11/2014 11:57				CCV 240-126166/45 04/11/2014 12:42				CCV 240-126166/57 04/11/2014 13:28			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.0		50.0	100	50.5		50.0	101	51.1		50.0	102
Arsenic	48.0		50.0	96	48.0		50.0	96	48.9		50.0	98
Barium	48.0		50.0	96	48.5		50.0	97	49.2		50.0	98
Beryllium	49.0		50.0	98	50.0		50.0	100	48.2		50.0	96
Cadmium	48.5		50.0	97	49.1		50.0	98	49.6		50.0	99
Calcium	24900		25000	100	25100		25000	100	25400		25000	102
Chromium	48.3		50.0	97	48.9		50.0	98	49.4		50.0	99
Cobalt	48.8		50.0	98	49.7		50.0	99	49.7		50.0	99
Copper	49.4		50.0	99	50.1		50.0	100	50.7		50.0	101
Iron	12300		12500	98	12600		12500	101	12600		12500	101
Lead	49.7		50.0	99	49.2		50.0	98	49.4		50.0	99
Magnesium	24700		25000	99	25400		25000	102	25300		25000	101
Manganese	248		250	99	254		250	102	254		250	102
Molybdenum	51.2		50.0	102	50.8		50.0	102	51.7		50.0	103
Nickel	50.0		50.0	100	50.7		50.0	101	50.5		50.0	101
Selenium	48.3		50.0	97	48.2		50.0	96	49.3		50.0	99
Silver	50.2		50.0	100	49.6		50.0	99	50.8		50.0	102
Thallium	49.7		50.0	99	49.9		50.0	100	49.4		50.0	99
Vanadium	48.1		50.0	96	48.9		50.0	98	49.9		50.0	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	CCV 240-126166/69 04/11/2014 14:12											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.5		50.0	101								
Arsenic	47.3		50.0	95								
Barium	48.3		50.0	97								
Beryllium	49.6		50.0	99								
Cadmium	48.2		50.0	96								
Calcium	25100		25000	100								
Chromium	49.0		50.0	98								
Cobalt	49.4		50.0	99								
Copper	49.5		50.0	99								
Iron	12600		12500	100								
Lead	49.4		50.0	99								
Magnesium	25200		25000	101								
Manganese	255		250	102								
Molybdenum	51.4		50.0	103								
Nickel	49.6		50.0	99								
Selenium	47.9		50.0	96								
Silver	50.2		50.0	100								
Thallium	49.8		50.0	100								
Vanadium	48.8		50.0	98								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-126166/8 04/11/2014 10:10		CCB 240-126166/15 04/11/2014 10:37		CCB 240-126166/22 04/11/2014 11:04		CCB 240-126166/34 04/11/2014 12:01	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.512	J	0.399	J	0.350	J	0.623	J
Arsenic	5.0	0.063	U	0.063	U	0.063	U	0.063	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.031	U	0.031	U	0.0660	J
Cadmium	1.0	0.026	U	0.026	U	0.026	U	0.026	U
Calcium	1000	27	U	27	U	27	U	27	U
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	12	U	12	U	12	U
Lead	1.0	0.14	U	0.14	U	0.14	U	0.14	U
Magnesium	1000	15	U	15	U	15	U	15	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.0970	J	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0083	U	0.0110	J	0.0083	U	0.0190	J
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-126166/46 04/11/2014 12:45		CCB 240-126166/58 04/11/2014 13:31		CCB 240-126166/70 04/11/2014 14:16			
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.379	J	0.346	J	0.610	J		
Arsenic	5.0	0.063	U	0.063	U	0.063	U		
Barium	5.0	0.32	U	0.32	U	0.32	U		
Beryllium	1.0	0.0580	J	0.0330	J	0.0770	J		
Cadmium	1.0	0.026	U	0.026	U	0.026	U		
Calcium	1000	27	U	27	U	27	U		
Chromium	2.0	0.13	U	0.13	U	0.13	U		
Cobalt	1.0	0.020	U	0.020	U	0.020	U		
Copper	2.0	0.24	U	0.24	U	0.24	U		
Iron	100	12	U	12	U	12	U		
Lead	1.0	0.14	U	0.14	U	0.14	U		
Magnesium	1000	15	U	15	U	15	U		
Manganese	5.0	0.41	U	0.41	U	0.41	U		
Molybdenum	10	0.81	U	0.81	U	0.81	U		
Nickel	2.0	0.088	U	0.088	U	0.088	U		
Selenium	5.0	0.34	U	0.34	U	0.34	U		
Silver	1.0	0.0120	J	0.0120	J	0.0130	J		
Thallium	2.0	0.40	U	0.40	U	0.40	U		
Vanadium	5.0	0.15	U	0.15	U	0.15	U		

Italicized analytes were not requested for this sequence.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: ICSA 240-126166/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Antimony		**0.285**	
Arsenic		**0.164**	
Barium		**0.0840**	
Beryllium		**0.0050**	
Cadmium		**-0.0030**	
Calcium	**50000**	**48539**	**97**
Chromium		**0.547**	
Cobalt		**0.0050**	
Copper		**0.224**	
Iron	**50000**	**49540**	**99**
Lead		**0.0800**	
Magnesium	**50000**	**48651**	**97**
Manganese		**0.795**	
Molybdenum	**1000**	**1037**	**104**
Nickel		**1.66**	
Selenium		**0.107**	
Silver		**0.0290**	
Thallium		**0.0050**	
Vanadium		**0.127**	
Aluminum	*50000*	*46784*	*94*
Boron		*0.760*	
Potassium	*50000*	*48717*	*97*
Sodium	*50000*	*48832*	*98*
Strontium		*2.15*	
Tin		*0.297*	
Titanium	*1000*	*986*	*99*
Tungsten		*0.315*	
Zinc		*1.22*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: ICSAB 240-126166/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True	Found	
	Solution AB	Solution AB	Percent Recovery
Antimony	**100**	**97.2**	**97**
Arsenic	**100**	**97.2**	**97**
Barium	**100**	**97.2**	**97**
Beryllium	**100**	**96.4**	**96**
Cadmium	**100**	**96.9**	**97**
Calcium	**50000**	**48177**	**96**
Chromium	**100**	**98.4**	**98**
Cobalt	**100**	**101**	**101**
Copper	**100**	**101**	**101**
Iron	**50000**	**49887**	**100**
Lead	**100**	**97.9**	**98**
Magnesium	**50000**	**48659**	**97**
Manganese	**100**	**98.5**	**98**
Molybdenum	**1100**	**1136**	**103**
Nickel	**100**	**100.0**	**100**
Selenium	**100**	**97.0**	**97**
Silver	**100**	**99.9**	**100**
Thallium	**100**	**97.1**	**97**
Vanadium	**100**	**97.3**	**97**
Aluminum	*50000*	*47181*	*94*
Boron	*100*	*99.2*	*99*
Potassium	*50000*	*48638*	*97*
Sodium	*50000*	*49582*	*99*
Strontium	*100*	*101*	*101*
Tin	*100*	*95.6*	*96*
Titanium	*1100*	*1099*	*100*
Tungsten	*100*	*102*	*102*
Zinc	*100*	*101*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/14/2014 10:02 End Date: 04/14/2014 19:15

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V							
ZZZZZZ			10:02																										
ICIS 240-126457/2			10:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-126457/3 IC	1		10:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-126457/4 IC	1		10:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-126457/5 IC	1		10:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-126457/6 IC	1		10:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-126457/7	1		10:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-126457/8	1		10:29	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X								
CRI 240-126457/9	1		10:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-126457/10	1		10:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSAB 240-126457/11	1		10:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-126457/12			10:44																										
CCB 240-126457/13			10:48																										
ZZZZZZ			10:52																										
ZZZZZZ			10:56																										
ZZZZZZ			10:59																										
ZZZZZZ			11:03																										
ZZZZZZ			11:07																										
ZZZZZZ			11:11																										
CCV 240-126457/20			11:14																										
CCB 240-126457/21			11:18																										
ZZZZZZ			11:22																										
ZZZZZZ			11:26																										
ZZZZZZ			11:30																										
ZZZZZZ			11:34																										
CCV 240-126457/26			11:37																										
CCB 240-126457/27			11:41																										
ZZZZZZ			11:45																										
CCV 240-126457/29			11:49																										
CCB 240-126457/30			11:53																										
ZZZZZZ			12:36																										
ZZZZZZ			12:39																										
ZZZZZZ			12:43																										
ZZZZZZ			12:47																										
ZZZZZZ			12:51																										
ZZZZZZ			12:54																										
CCV 240-126457/37			12:58																										
CCB 240-126457/38			13:02																										
ZZZZZZ			13:06																										
ZZZZZZ			13:10																										
ZZZZZZ			13:13																										
ZZZZZZ			13:17																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/14/2014 10:02 End Date: 04/14/2014 19:15

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V							
CCV 240-126457/85	1		15:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-126457/86	1		16:03	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
ZZZZZZ			16:07																										
ZZZZZZ			16:11																										
ZZZZZZ			16:15																										
MB 240-126116/1-A	1	R	16:18	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
LCS 240-126116/3-A	1	R	16:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			16:26																										
240-36010-4	1	R	16:30	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36010-4 SD	5	R	16:33	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36010-4 MS	1	R	16:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-36010-4 MSD	1	R	16:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCV 240-126457/97	1		16:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-126457/98	1		16:48	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36010-4	1	D	16:52	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36010-4 MS	1	D	16:56	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36010-4 MSD	1	D	16:59	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
ZZZZZZ			17:02																										
ZZZZZZ			17:06																										
ZZZZZZ			17:10																										
ZZZZZZ			17:13																										
ZZZZZZ			17:17																										
ZZZZZZ			17:21																										
ZZZZZZ			17:25																										
CCV 240-126457/109	1		17:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-126457/110	1		17:32	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
ZZZZZZ			17:36																										
ZZZZZZ			17:40																										
ZZZZZZ			17:44																										
240-36010-3	1	R	17:48	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36010-3	1	D	17:51	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36010-5	1	R	17:55	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36010-5	1	D	17:59	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
ZZZZZZ			18:03																										
ZZZZZZ			18:07																										
ZZZZZZ			18:11																										
CCV 240-126457/121	1		18:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-126457/122	1		18:18	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
ZZZZZZ			18:22																										
ZZZZZZ			18:26																										
ZZZZZZ			18:30																										
ZZZZZZ			18:34																										

FORM XIII-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	ICV 240-126457/7 04/14/2014 10:25				CCV 240-126457/85 04/14/2014 15:59				CCV 240-126457/97 04/14/2014 16:44			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	41.8		40.0	105	49.1		50.0	98	49.1		50.0	98
Arsenic	40.8		40.0	102	48.5		50.0	97	47.8		50.0	96
Barium	40.2		40.0	101	48.7		50.0	97	48.5		50.0	97
Beryllium	41.0		40.0	103	51.0		50.0	102	51.8		50.0	104
Cadmium	41.0		40.0	102	48.4		50.0	97	48.0		50.0	96
Calcium	20700		20000	103	25000		25000	100	24900		25000	100
Chromium	41.8		40.0	105	49.1		50.0	98	48.8		50.0	98
Cobalt	40.5		40.0	101	48.5		50.0	97	48.1		50.0	96
Copper	42.8		40.0	107	49.4		50.0	99	49.0		50.0	98
Iron	10100		10000	101	12400		12500	99	12300		12500	98
Lead	41.2		40.0	103	49.9		50.0	100	49.2		50.0	98
Magnesium	20300		20000	102	25100		25000	100	24600		25000	98
Manganese	207		200	103	251		250	100	248		250	99
Molybdenum	42.3		40.0	106	50.7		50.0	101	50.6		50.0	101
Nickel	41.9		40.0	105	48.9		50.0	98	49.1		50.0	98
Selenium	41.3		40.0	103	48.4		50.0	97	48.3		50.0	97
Silver	41.9		40.0	105	49.5		50.0	99	49.1		50.0	98
Thallium	41.3		40.0	103	51.0		50.0	102	50.4		50.0	101
Vanadium	41.8		40.0	104	48.9		50.0	98	48.6		50.0	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	CCV 240-126457/109 04/14/2014 17:28				CCV 240-126457/121 04/14/2014 18:14							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	48.8		50.0	98	49.0		50.0	98				
Arsenic	47.2		50.0	94	47.5		50.0	95				
Barium	48.2		50.0	96	49.0		50.0	98				
Beryllium	51.2		50.0	102	51.4		50.0	103				
Cadmium	47.3		50.0	95	47.8		50.0	96				
Calcium	25300		25000	101	25300		25000	101				
Chromium	48.8		50.0	98	48.9		50.0	98				
Cobalt	48.0		50.0	96	48.2		50.0	96				
Copper	48.6		50.0	97	48.9		50.0	98				
Iron	12300		12500	99	12500		12500	100				
Lead	49.6		50.0	99	49.1		50.0	98				
Magnesium	24900		25000	100	24800		25000	99				
Manganese	250		250	100	253		250	101				
Molybdenum	51.0		50.0	102	50.7		50.0	101				
Nickel	48.8		50.0	98	48.9		50.0	98				
Selenium	48.2		50.0	96	48.8		50.0	98				
Silver	49.1		50.0	98	49.5		50.0	99				
Thallium	50.7		50.0	101	49.8		50.0	100				
Vanadium	48.5		50.0	97	48.4		50.0	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-126457/8 04/14/2014 10:29		CCB 240-126457/86 04/14/2014 16:03		CCB 240-126457/98 04/14/2014 16:48		CCB 240-126457/110 04/14/2014 17:32	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.355	J	0.608	J	0.802	J	0.774	J
Arsenic	5.0	0.063	U	0.111	J	0.192	J	0.239	J
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.0620	J	0.148	J	0.139	J
Cadmium	1.0	0.026	U	0.026	U	0.026	U	0.026	U
Calcium	1000	27	U	27	U	27	U	27	U
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.020	U	0.0210	J	0.0220	J	0.020	U
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	12.4	J	12	U	12	U
Lead	1.0	0.14	U	0.14	U	0.182	J	0.172	J
Magnesium	1000	15	U	15	U	15	U	15	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0083	U	0.0140	J	0.0140	J	0.0170	J
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-126457/122 04/14/2014 18:18							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.730	J						
Arsenic	5.0	0.185	J						
Barium	5.0	0.32	U						
Beryllium	1.0	0.0570	J						
Cadmium	1.0	0.026	U						
Calcium	1000	27	U						
Chromium	2.0	0.13	U						
Cobalt	1.0	0.020	U						
Copper	2.0	0.24	U						
Iron	100	12	U						
Lead	1.0	0.14	U						
Magnesium	1000	15	U						
Manganese	5.0	0.41	U						
Molybdenum	10	0.81	U						
Nickel	2.0	0.088	U						
Selenium	5.0	0.34	U						
Silver	1.0	0.0120	J						
Thallium	2.0	0.40	U						
Vanadium	5.0	0.15	U						

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/15/2014 09:55 End Date: 04/15/2014 19:43

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V							
ZZZZZZ			09:55																									
ICIS 240-126699/2			09:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
STD1 240-126699/3 IC			10:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
STD2 240-126699/4 IC			10:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
STD3 240-126699/5 IC			10:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
STD4 240-126699/6 IC	1		10:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ICV 240-126699/7	1		10:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ICB 240-126699/8	1		10:22	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
CRI 240-126699/9	1		10:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ICSA 240-126699/10	1		10:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ICSAB 240-126699/11	1		10:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCV 240-126699/12			10:37																									
CCB 240-126699/13			10:41																									
CCV 240-126699/14	1		10:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-126699/15	1		10:52	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
MB 240-126332/1-A	1	R	10:56	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
LCS 240-126332/2-A	1	R	11:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			11:04																									
ZZZZZZ			11:07																									
CCV 240-126699/20	1		11:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-126699/21	1		11:15	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
ZZZZZZ			11:26																									
CCV 240-126699/23			11:30																									
CCB 240-126699/24			11:34																									
ZZZZZZ			11:49																									
ZZZZZZ			11:53																									
ZZZZZZ			11:57																									
ZZZZZZ			12:01																									
ZZZZZZ			12:05																									
CCV 240-126699/30			12:09																									
CCB 240-126699/31			12:13																									
ZZZZZZ			12:18																									
ZZZZZZ			12:22																									
ZZZZZZ			12:26																									
ZZZZZZ			12:33																									
ZZZZZZ			12:36																									
ZZZZZZ			12:40																									
CCV 240-126699/38			12:44																									
CCB 240-126699/39			12:48																									
ZZZZZZ			12:52																									
ZZZZZZ			12:55																									
ZZZZZZ			12:59																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/15/2014 09:55 End Date: 04/15/2014 19:43

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V						
ZZZZZZ			13:02																									
ZZZZZZ			13:06																									
ZZZZZZ			13:10																									
ZZZZZZ			13:14																									
ZZZZZZ			13:18																									
ZZZZZZ			13:21																									
ZZZZZZ			13:25																									
CCV 240-126699/50			13:29																									
CCB 240-126699/51			13:33																									
ZZZZZZ			13:37																									
ZZZZZZ			13:41																									
CCV 240-126699/54			13:44																									
CCB 240-126699/55			13:48																									
ZZZZZZ			13:52																									
ZZZZZZ			13:56																									
ZZZZZZ			13:59																									
ZZZZZZ			14:03																									
ZZZZZZ			14:07																									
ZZZZZZ			14:11																									
ZZZZZZ			14:14																									
ZZZZZZ			14:18																									
ZZZZZZ			14:22																									
ZZZZZZ			14:25																									
CCV 240-126699/66	1		14:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCB 240-126699/67	1		14:33	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	X					
ZZZZZZ			14:37																									
ZZZZZZ			14:41																									
ZZZZZZ			14:45																									
ZZZZZZ			14:48																									
ZZZZZZ			14:52																									
ZZZZZZ			14:56																									
ZZZZZZ			15:00																									
ZZZZZZ			15:04																									
ZZZZZZ			15:07																									
ZZZZZZ			15:11																									
CCV 240-126699/78	1		15:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCB 240-126699/79	1		15:19	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	X					
ZZZZZZ			15:23																									
ZZZZZZ			15:26																									
ZZZZZZ			15:30																									
ZZZZZZ			15:33																									
240-36010-2	1	R	15:37	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	X					

FORM XIII-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: ICSA 240-126457/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Antimony		**0.220**	
Arsenic		**0.132**	
Barium		**0.0920**	
Beryllium		**-0.0050**	
Cadmium		**-0.0970**	
Calcium	**50000**	**49557**	**99**
Chromium		**0.524**	
Cobalt		**0.0160**	
Copper		**0.190**	
Iron	**50000**	**50224**	**100**
Lead		**0.0840**	
Magnesium	**50000**	**49484**	**99**
Manganese		**0.816**	
Molybdenum	**1000**	**1013**	**101**
Nickel		**1.88**	
Selenium		**0.0630**	
Silver		**0.0250**	
Thallium		**0.0050**	
Vanadium		**-0.106**	
Aluminum	*50000*	*47343*	*95*
Boron		*0.585*	
Potassium	*50000*	*49709*	*99*
Sodium	*50000*	*49463*	*99*
Strontium		*2.27*	
Tin		*0.237*	
Titanium	*1000*	*1025*	*102*
Tungsten		*0.238*	
Zinc		*1.02*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: ICSAB 240-126457/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**97.9**	**98**
Arsenic	**100**	**101**	**101**
Barium	**100**	**101**	**101**
Beryllium	**100**	**96.5**	**97**
Cadmium	**100**	**99.9**	**100**
Calcium	**50000**	**49427**	**99**
Chromium	**100**	**102**	**102**
Cobalt	**100**	**100**	**100**
Copper	**100**	**102**	**102**
Iron	**50000**	**50454**	**101**
Lead	**100**	**100**	**100**
Magnesium	**50000**	**50023**	**100**
Manganese	**100**	**103**	**103**
Molybdenum	**1100**	**1128**	**103**
Nickel	**100**	**102**	**102**
Selenium	**100**	**101**	**101**
Silver	**100**	**99.7**	**100**
Thallium	**100**	**98.6**	**99**
Vanadium	**100**	**100**	**100**
Aluminum	*50000*	*47491*	*95*
Boron	*100*	*96.2*	*96*
Potassium	*50000*	*50106*	*100*
Sodium	*50000*	*49443*	*99*
Strontium	*100*	*102*	*102*
Tin	*100*	*97.0*	*97*
Titanium	*1100*	*1116*	*101*
Tungsten	*100*	*100*	*100*
Zinc	*100*	*102*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/15/2014 09:55 End Date: 04/15/2014 19:43

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Mg	Mn	Mo	Ni	Pb	Sb	Se	Tl	V							
240-36010-2	1	D	15:41	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36043-1	1	R	15:45	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36043-1	1	D	15:49	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36043-2	1	R	15:53	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36043-2	1	D	15:56	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
CCV 240-126699/90	1		16:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-126699/91	1		16:04	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36043-3	1	R	16:08	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36043-3	1	D	16:12	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36043-4	1	R	16:15	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-36043-4	1	D	16:19	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
ZZZZZZ			16:23																										
ZZZZZZ			16:27																										
ZZZZZZ			16:31																										
ZZZZZZ			16:34																										
ZZZZZZ			16:38																										
ZZZZZZ			16:42																										
CCV 240-126699/102	1		16:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-126699/103	1		16:49	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
ZZZZZZ			16:53																										
ZZZZZZ			16:57																										
ZZZZZZ			17:01																										
ZZZZZZ			17:04																										
ZZZZZZ			17:08																										
ZZZZZZ			17:11																										
ZZZZZZ			17:15																										
ZZZZZZ			17:19																										
ZZZZZZ			17:23																										
ZZZZZZ			17:27																										
CCV 240-126699/114			17:30																										
CCB 240-126699/115			17:34																										
ZZZZZZ			17:38																										
ZZZZZZ			17:42																										
ZZZZZZ			17:46																										
ZZZZZZ			17:49																										
ZZZZZZ			17:53																										
ZZZZZZ			17:57																										
ZZZZZZ			18:01																										
ZZZZZZ			18:05																										
ZZZZZZ			18:09																										
ZZZZZZ			18:12																										
CCV 240-126699/126			18:16																										

FORM XIII-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	ICV 240-126699/7 04/15/2014 10:18				CCV 240-126699/14 04/15/2014 10:49				CCV 240-126699/20 04/15/2014 11:11			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.5		40.0	101	50.3		50.0	101	51.9		50.0	104
Arsenic	41.4		40.0	103	50.8		50.0	102	51.9		50.0	104
Barium	40.9		40.0	102	51.0		50.0	102	51.7		50.0	103
Beryllium	42.7		40.0	107	49.6		50.0	99	52.7		50.0	105
Cadmium	41.9		40.0	105	51.4		50.0	103	52.8		50.0	106
Calcium	20400		20000	102	25600		25000	103	25700		25000	103
Chromium	41.6		40.0	104	52.1		50.0	104	53.1		50.0	106
Cobalt	41.0		40.0	103	51.4		50.0	103	52.1		50.0	104
Copper	43.1		40.0	108	51.7		50.0	103	52.7		50.0	105
Iron	10300		10000	103	12800		12500	102	13000		12500	104
Lead	42.0		40.0	105	51.9		50.0	104	51.0		50.0	102
Magnesium	20400		20000	102	25400		25000	102	25800		25000	103
Manganese	212		200	106	259		250	104	261		250	104
Molybdenum	42.1		40.0	105	53.1		50.0	106	53.0		50.0	106
Nickel	42.1		40.0	105	51.7		50.0	103	52.7		50.0	105
Selenium	42.2		40.0	105	51.4		50.0	103	52.6		50.0	105
Silver	41.6		40.0	104	51.5		50.0	103	51.8		50.0	104
Thallium	41.2		40.0	103	51.0		50.0	102	50.5		50.0	101
Vanadium	41.4		40.0	103	51.3		50.0	103	52.7		50.0	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	CCV 240-126699/66 04/15/2014 14:29				CCV 240-126699/78 04/15/2014 15:15				CCV 240-126699/90 04/15/2014 16:00			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	52.8		50.0	106	53.0		50.0	106	52.2		50.0	104
Arsenic	51.6		50.0	103	49.5		50.0	99	50.0		50.0	100
Barium	52.6		50.0	105	53.3		50.0	107	53.4		50.0	107
Beryllium	53.2		50.0	106	52.1		50.0	104	52.2		50.0	104
Cadmium	52.6		50.0	105	52.8		50.0	106	52.5		50.0	105
Calcium	26600		25000	106	26500		25000	106	26700		25000	107
Chromium	53.9		50.0	108	53.3		50.0	107	53.7		50.0	107
Cobalt	53.1		50.0	106	52.6		50.0	105	53.2		50.0	106
Copper	54.0		50.0	108	53.7		50.0	107	53.6		50.0	107
Iron	13400		12500	107	13400		12500	107	13300		12500	107
Lead	52.6		50.0	105	54.2		50.0	108	54.9		50.0	110
Magnesium	26700		25000	107	26100		25000	104	26000		25000	104
Manganese	270		250	108	270		250	108	272		250	109
Molybdenum	53.8		50.0	108	54.6		50.0	109	53.1		50.0	106
Nickel	53.5		50.0	107	53.0		50.0	106	53.6		50.0	107
Selenium	52.0		50.0	104	50.3		50.0	101	50.8		50.0	102
Silver	52.2		50.0	104	52.7		50.0	105	51.9		50.0	104
Thallium	51.9		50.0	104	53.1		50.0	106	54.3		50.0	109
Vanadium	53.5		50.0	107	53.2		50.0	106	52.9		50.0	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	CCV 240-126699/102 04/15/2014 16:46											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	52.9		50.0	106								
Arsenic	49.7		50.0	99								
Barium	53.4		50.0	107								
Beryllium	52.3		50.0	105								
Cadmium	52.7		50.0	105								
Calcium	26700		25000	107								
Chromium	53.3		50.0	107								
Cobalt	53.2		50.0	106								
Copper	53.6		50.0	107								
Iron	13400		12500	107								
Lead	54.4		50.0	109								
Magnesium	26200		25000	105								
Manganese	272		250	109								
Molybdenum	55.7		50.0	111								
Nickel	53.4		50.0	107								
Selenium	50.7		50.0	101								
Silver	51.8		50.0	104								
Thallium	54.1		50.0	108								
Vanadium	53.0		50.0	106								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-126699/8 04/15/2014 10:22		CCB 240-126699/15 04/15/2014 10:52		CCB 240-126699/21 04/15/2014 11:15		CCB 240-126699/67 04/15/2014 14:33	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.542	J	0.319	J	0.284	J	0.289	J
Arsenic	5.0	0.063	U	0.063	U	0.063	U	0.063	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.031	U	0.0520	J	0.0660	J
Cadmium	1.0	0.026	U	0.026	U	0.026	U	0.026	U
Calcium	1000	27	U	27	U	27	U	27	U
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	12	U	12	U	12	U
Lead	1.0	0.14	U	0.14	U	0.14	U	0.14	U
Magnesium	1000	15	U	15	U	15	U	15	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0083	U	0.0100	J	0.0083	U	0.0083	U
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-126699/79 04/15/2014 15:19		CCB 240-126699/91 04/15/2014 16:04		CCB 240-126699/103 04/15/2014 16:49			
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.298	J	0.316	J	0.438	J		
Arsenic	5.0	0.063	U	0.063	U	0.063	U		
Barium	5.0	0.32	U	0.32	U	0.32	U		
Beryllium	1.0	0.0370	J	0.0530	J	0.0710	J		
Cadmium	1.0	0.026	U	0.026	U	0.026	U		
Calcium	1000	27	U	27	U	27	U		
Chromium	2.0	0.13	U	0.13	U	0.13	U		
Cobalt	1.0	0.020	U	0.020	U	0.0200	J		
Copper	2.0	0.24	U	0.24	U	0.24	U		
Iron	100	12	U	12	U	12	U		
Lead	1.0	0.14	U	0.14	U	0.14	U		
Magnesium	1000	15	U	15	U	15	U		
Manganese	5.0	0.41	U	0.41	U	0.41	U		
Molybdenum	10	1.12	J	0.81	U	1.63	J		
Nickel	2.0	0.088	U	0.088	U	0.088	U		
Selenium	5.0	0.34	U	0.34	U	0.34	U		
Silver	1.0	0.0083	U	0.0083	U	0.0083	U		
Thallium	2.0	0.40	U	0.40	U	0.40	U		
Vanadium	5.0	0.15	U	0.15	U	0.15	U		

Italicized analytes were not requested for this sequence.

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-125933/1-A	04/10/2014 06:51	125933		50	50
LCS 240-125933/2-A	04/10/2014 06:51	125933		50	50
240-35913-3	04/10/2014 06:51	125933		50	50
240-35913-3	04/10/2014 06:51	125933		50	50
240-35913-2	04/10/2014 06:51	125933		50	50
240-35913-2	04/10/2014 06:51	125933		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-125933/1-A

Instrument Code: I10 Batch No.: 126166

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.434	J		6020
7440-38-2	Arsenic	0.344	J		6020
7440-39-3	Barium	1.01	J		6020
7440-41-7	Beryllium	0.031	U		6020
7440-70-2	Calcium	199	J		6020
7440-43-9	Cadmium	0.026	U		6020
7440-48-4	Cobalt	0.020	U		6020
7440-47-3	Chromium	0.13	U		6020
7440-50-8	Copper	1.57	J		6020
7439-95-4	Magnesium	46.5	J		6020
7439-89-6	Iron	12	U		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-96-5	Manganese	0.41	U		6020
7440-02-0	Nickel	0.102	J		6020
7439-92-1	Lead	0.142	J		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-62-2	Vanadium	0.754	J		6020
7440-22-4	Silver	0.0240	J		6020

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-125933/2-A

Lab Name: TestAmerica Canton Job No.: 240-35913-1

Sample Matrix: Water LCS Source: MTICPMSB_00015

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	95.7		96	80	120		6020
Arsenic	1000	937		94	80	120		6020
Barium	1000	915		91	80	120		6020
Beryllium	1000	908		91	80	120		6020
Calcium	10000	10500		105	80	120		6020
Cadmium	1000	959		96	80	120		6020
Cobalt	1000	936		94	80	120		6020
Chromium	1000	915		91	80	120		6020
Copper	1000	958		96	80	120		6020
Magnesium	10000	9590		96	80	120		6020
Iron	10000	9580		96	80	120		6020
Molybdenum	100	94.0		94	80	120		6020
Manganese	1000	936		94	80	120		6020
Nickel	1000	956		96	80	120		6020
Lead	1000	941		94	80	120		6020
Selenium	1000	921		92	80	120		6020
Thallium	250	231		93	80	120		6020
Vanadium	1000	898		90	80	120		6020
Silver	100	96.1		96	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-126116/1-A	04/11/2014 08:27	126116		50	50
LCS 240-126116/3-A	04/11/2014 08:27	126116		50	50
240-36010-4	04/11/2014 08:27	126116		50	50
240-36010-4 MS	04/11/2014 08:27	126116		50	50
240-36010-4 MSD	04/11/2014 08:27	126116		50	50
240-36010-4	04/11/2014 08:27	126116		50	50
240-36010-4 MS	04/11/2014 08:27	126116		50	50
240-36010-4 MSD	04/11/2014 08:27	126116		50	50
240-36010-3	04/11/2014 08:27	126116		50	50
240-36010-3	04/11/2014 08:35	126116		50	50
240-36010-5	04/11/2014 08:35	126116		50	50
240-36010-5	04/11/2014 08:36	126116		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-126116/1-A

Instrument Code: I10 Batch No.: 126457

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.126	J		6020
7440-38-2	Arsenic	0.472	J		6020
7440-39-3	Barium	1.23	J		6020
7440-41-7	Beryllium	0.0490	J		6020
7440-70-2	Calcium	216	J		6020
7440-43-9	Cadmium	0.026	U		6020
7440-48-4	Cobalt	0.020	U		6020
7440-47-3	Chromium	0.13	U		6020
7440-50-8	Copper	0.911	J		6020
7439-95-4	Magnesium	60.8	J		6020
7439-89-6	Iron	58.5	J		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-96-5	Manganese	1.18	J		6020
7440-02-0	Nickel	0.088	U		6020
7439-92-1	Lead	0.197	J		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-62-2	Vanadium	0.445	J		6020
7440-22-4	Silver	0.0083	U		6020

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-126116/3-A

Lab Name: TestAmerica Canton Job No.: 240-35913-1

Sample Matrix: Water LCS Source: MTICPMSB_00015

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	90.7		91	80	120		6020
Arsenic	1000	880		88	80	120		6020
Barium	1000	897		90	80	120		6020
Beryllium	1000	936		94	80	120		6020
Calcium	10000	9880		99	80	120		6020
Cadmium	1000	906		91	80	120		6020
Cobalt	1000	876		88	80	120		6020
Chromium	1000	865		86	80	120		6020
Copper	1000	890		89	80	120		6020
Magnesium	10000	9340		93	80	120		6020
Iron	10000	9150		92	80	120		6020
Molybdenum	100	90.2		90	80	120		6020
Manganese	1000	905		91	80	120		6020
Nickel	1000	889		89	80	120		6020
Lead	1000	895		89	80	120		6020
Selenium	1000	876		88	80	120		6020
Thallium	250	224		89	80	120		6020
Vanadium	1000	854		85	80	120		6020
Silver	100	92.0		92	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-126332/1-A	04/14/2014 08:30	126332		50	50
LCS 240-126332/2-A	04/14/2014 08:30	126332		50	50
240-36010-2	04/14/2014 08:30	126332		50	50
240-36010-2	04/14/2014 08:30	126332		50	50
240-36043-1	04/14/2014 08:30	126332		50	50
240-36043-1	04/14/2014 08:30	126332		50	50
240-36043-2	04/14/2014 08:30	126332		50	50
240-36043-2	04/14/2014 08:30	126332		50	50
240-36043-3	04/14/2014 08:30	126332		50	50
240-36043-3	04/14/2014 08:30	126332		50	50
240-36043-4	04/14/2014 08:30	126332		50	50
240-36043-4	04/14/2014 08:30	126332		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-126332/1-A

Instrument Code: I10 Batch No.: 126699

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.315	J		6020
7440-38-2	Arsenic	0.652	J		6020
7440-39-3	Barium	1.48	J		6020
7440-41-7	Beryllium	0.031	U		6020
7440-70-2	Calcium	308	J		6020
7440-43-9	Cadmium	0.026	U		6020
7440-48-4	Cobalt	0.020	U		6020
7440-47-3	Chromium	0.13	U		6020
7440-50-8	Copper	0.961	J		6020
7439-95-4	Magnesium	67.4	J		6020
7439-89-6	Iron	15.0	J		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-96-5	Manganese	0.41	U		6020
7440-02-0	Nickel	0.112	J		6020
7439-92-1	Lead	0.207	J		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-62-2	Vanadium	0.752	J		6020
7440-22-4	Silver	0.0180	J		6020

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-126332/2-A

Lab Name: TestAmerica Canton Job No.: 240-35913-1

Sample Matrix: Water LCS Source: MTICPMSB_00015

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	96.0		96	80	120		6020
Arsenic	1000	952		95	80	120		6020
Barium	1000	952		95	80	120		6020
Beryllium	1000	875		87	80	120		6020
Calcium	10000	10400		104	80	120		6020
Cadmium	1000	989		99	80	120		6020
Cobalt	1000	952		95	80	120		6020
Chromium	1000	943		94	80	120		6020
Copper	1000	973		97	80	120		6020
Magnesium	10000	9940		99	80	120		6020
Iron	10000	9850		99	80	120		6020
Molybdenum	100	95.1		95	80	120		6020
Manganese	1000	963		96	80	120		6020
Nickel	1000	964		96	80	120		6020
Lead	1000	973		97	80	120		6020
Selenium	1000	967		97	80	120		6020
Thallium	250	242		97	80	120		6020
Vanadium	1000	922		92	80	120		6020
Silver	100	97.5		98	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Method: 6020 Instrument ID: I10

Lab Sample ID: CRI 240-126166/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.27		114	50-150
Arsenic	5.00	4.95	J	99	50-150
Barium	5.00	4.89	J	98	50-150
Beryllium	1.00	1.02		102	50-150
Calcium	1000	1010		101	50-150
Cadmium	1.00	0.973	J	97	50-150
Cobalt	1.00	1.06		106	50-150
Chromium	2.00	2.23		111	50-150
Copper	2.00	2.29		114	50-150
Magnesium	1000	1030		103	50-150
Iron	100	110		110	50-150
Molybdenum	10.0	10.2		102	50-150
Manganese	5.00	5.27		105	50-150
Nickel	2.00	2.32		116	50-150
Lead	1.00	1.12		112	50-150
Selenium	5.00	5.04		101	50-150
Thallium	2.00	2.05		103	50-150
Vanadium	5.00	5.00		100	50-150
Silver	1.00	1.08		108	50-150

Lab Sample ID: CRI 240-126457/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.10		105	50-150
Arsenic	5.00	4.97	J	99	50-150
Barium	5.00	4.94	J	99	50-150
Beryllium	1.00	1.02		102	50-150
Calcium	1000	1010		101	50-150
Cadmium	1.00	0.911	J	91	50-150
Cobalt	1.00	1.06		106	50-150
Chromium	2.00	2.21		111	50-150
Copper	2.00	2.21		110	50-150
Magnesium	1000	1030		103	50-150
Iron	100	109		109	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Method: 6020 Instrument ID: I10

Lab Sample ID: CRI 240-126457/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Molybdenum	10.0	10.1		101	50-150
Manganese	5.00	5.21		104	50-150
Nickel	2.00	2.24		112	50-150
Lead	1.00	1.11		111	50-150
Selenium	5.00	5.08		102	50-150
Thallium	2.00	2.09		104	50-150
Vanadium	5.00	4.90	J	98	50-150
Silver	1.00	1.08		108	50-150

Lab Sample ID: CRI 240-126699/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.24		112	50-150
Arsenic	5.00	5.10		102	50-150
Barium	5.00	5.14		103	50-150
Beryllium	1.00	1.11		111	50-150
Calcium	1000	1030		103	50-150
Cadmium	1.00	1.05		105	50-150
Cobalt	1.00	1.06		106	50-150
Chromium	2.00	2.27		114	50-150
Copper	2.00	2.21		111	50-150
Magnesium	1000	1030		103	50-150
Iron	100	110		110	50-150
Molybdenum	10.0	10.2		102	50-150
Manganese	5.00	5.32		106	50-150
Nickel	2.00	2.29		114	50-150
Lead	1.00	1.12		112	50-150
Selenium	5.00	5.19		104	50-150
Thallium	2.00	2.07		103	50-150
Vanadium	5.00	5.11		102	50-150
Silver	1.00	1.09		109	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW17D-040814 MS
Lab ID: 240-36010-4 MS
Lab Name: TestAmerica Canton
Job No.: 240-35913-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	90.0		0.37	J	100	90	44-153		6020
Arsenic	891		3.3	J	1000	89	82-123		6020
Barium	888		14		1000	87	45-144		6020
Beryllium	945		0.22	J	1000	94	77-124		6020
Calcium	11300		1500		10000	98	70-130		6020
Cadmium	894		0.026	U	1000	89	78-117		6020
Cobalt	871		8.4		1000	86	67-114		6020
Chromium	865		1.3	J	1000	86	72-110		6020
Copper	869		0.97	J	1000	87	60-123		6020
Iron	14900		6000		10000	90	22-169		6020
Magnesium	10100		850	J	10000	92	70-130		6020
Manganese	931		46		1000	89	10-172		6020
Molybdenum	91.5		0.81	U	100	91	80-110		6020
Nickel	879		10		1000	87	72-111		6020
Lead	895		0.49	J	1000	89	73-115		6020
Selenium	890		0.34	U	1000	89	72-148		6020
Thallium	223		0.40	U	250	89	69-117		6020
Vanadium	850		2.5	J	1000	85	70-112		6020
Silver	91.6		0.0083	U	100	92	10-139		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW17D-040814 MS
Lab ID: 240-36010-4 MS
Lab Name: TestAmerica Canton
Job No.: 240-35913-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	89.8		0.58	J	100	89	44-153		6020
Arsenic	893		3.1	J	1000	89	82-123		6020
Barium	891		12		1000	88	45-144		6020
Beryllium	943		0.25	J	1000	94	77-124		6020
Cadmium	898		0.026	U	1000	90	78-117		6020
Chromium	877		0.23	J	1000	88	72-110		6020
Cobalt	877		8.0		1000	87	67-114		6020
Copper	892		1.1	J	1000	89	60-123		6020
Lead	893		0.27	J	1000	89	73-115		6020
Molybdenum	91.3		0.81	U	100	91	80-110		6020
Nickel	898		12		1000	89	72-111		6020
Iron	13800		4900		10000	89	22-169		6020
Selenium	886		0.43	J	1000	89	72-148		6020
Manganese	949		44		1000	90	10-172		6020
Silver	92.8		0.0090	J	100	93	10-139		6020
Thallium	221		0.40	U	250	89	69-117		6020
Vanadium	858		0.86	J	1000	86	70-112		6020
Mercury	0.993		0.12	U	1.00	99	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW17D-040814 MSD Lab ID: 240-36010-4 MSD

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	94.1		100	94	44-153	5	20		6020
Arsenic	933		1000	93	82-123	5	20		6020
Barium	923		1000	91	45-144	4	20		6020
Beryllium	968		1000	97	77-124	2	20		6020
Calcium	11900		10000	104	70-130	5	20		6020
Cadmium	936		1000	94	78-117	5	20		6020
Cobalt	923		1000	91	67-114	6	20		6020
Chromium	917		1000	92	72-110	6	20		6020
Copper	930		1000	93	60-123	7	20		6020
Iron	15800		10000	98	22-169	6	20		6020
Magnesium	10600		10000	97	70-130	5	20		6020
Manganese	997		1000	95	10-172	7	20		6020
Molybdenum	96.6		100	97	80-110	5	20		6020
Nickel	941		1000	93	72-111	7	20		6020
Lead	924		1000	92	73-115	3	20		6020
Selenium	918		1000	92	72-148	3	20		6020
Thallium	234		250	93	69-117	5	20		6020
Vanadium	909		1000	91	70-112	7	20		6020
Silver	96.6		100	97	10-139	5	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW17D-040814 MSD
Lab ID: 240-36010-4 MSD
Lab Name: TestAmerica Canton
Job No.: 240-35913-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	91.6		100	91	44-153	2	20		6020
Arsenic	908		1000	90	82-123	2	20		6020
Barium	905		1000	89	45-144	2	20		6020
Beryllium	940		1000	94	77-124	0	20		6020
Cadmium	906		1000	91	78-117	1	20		6020
Chromium	891		1000	89	72-110	2	20		6020
Cobalt	902		1000	89	67-114	3	20		6020
Copper	911		1000	91	60-123	2	20		6020
Lead	900		1000	90	73-115	1	20		6020
Molybdenum	94.3		100	94	80-110	3	20		6020
Nickel	915		1000	90	72-111	2	20		6020
Iron	14400		10000	95	22-169	4	20		6020
Selenium	896		1000	90	72-148	1	20		6020
Manganese	967		1000	92	10-172	2	20		6020
Silver	93.9		100	94	10-139	1	20		6020
Thallium	225		250	90	69-117	1	20		6020
Vanadium	886		1000	89	70-112	3	20		6020
Mercury	1.01		1.00	101	69-134	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-36010-4

SDG No:

Lab Name: TestAmerica Canton Job No: 240-35913-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.37	J	1.05	J	NC		6020
Arsenic	3.3	J	4.82	J	NC		6020
Barium	14		18.2	J	NC		6020
Beryllium	0.22	J	0.525	J	NC		6020
Calcium	1500		1880	J	NC		6020
Cadmium	0.026	U	0.13	U	NC		6020
Cobalt	8.4		10.8		29% NC		6020
Chromium	1.3	J	1.61	J	NC		6020
Copper	0.97	J	1.67	J	NC		6020
Magnesium	850	J	1130	J	NC		6020
Iron	6000		7960		33% NC		6020
Molybdenum	0.81	U	4.1	U	NC		6020
Manganese	46		61.0		33% NC		6020
Nickel	10		13.1		31% NC		6020
Lead	0.49	J	0.935	J	NC		6020
Selenium	0.34	U	1.7	U	NC		6020
Thallium	0.40	U	2.0	U	NC		6020
Vanadium	2.5	J	2.96	J	NC		6020
Silver	0.0083	U	0.042	U	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/11/2014 End Date: 04/11/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-126166/3 IC	09:51	97		102		96		100		98	
STD2 240-126166/4 IC	09:55	95		100		97		97		96	
STD3 240-126166/5 IC	09:59	94		95		95		92		90	
STD4 240-126166/6 IC	10:03	99		98		96		99		98	
ICV 240-126166/7	10:06	99		98		95		96		95	
ICB 240-126166/8	10:10	99		96		96		99		96	
CRI 240-126166/9	10:14	99		98		99		100		97	
ICSA 240-126166/10	10:18	91		95		89		90		90	
ICSAB 240-126166/11	10:22	89		91		86		89		89	
CCV 240-126166/14	10:33	94		94		91		93		93	
CCB 240-126166/15	10:37	99		91		94		95		92	
MB 240-125933/1-A	10:42	98		97		99		99		95	
LCS 240-125933/2-A	10:46	93		95		92		97		93	
CCV 240-126166/21	11:01	96		104		102		103		101	
CCB 240-126166/22	11:04	98		104		103		106		104	
CCV 240-126166/33	11:57	94		101		95		99		98	
CCB 240-126166/34	12:01	98		97		98		99		97	
CCV 240-126166/45	12:42	96		104		101		103		102	
CCB 240-126166/46	12:45	104		103		108		105		103	
240-35913-3	13:20	84		95		95		92		91	
240-35913-3	13:24	86		99		97		95		94	
CCV 240-126166/57	13:28	102		107		109		105		104	
CCB 240-126166/58	13:31	102		109		107		111		110	
240-35913-2	13:35	91		101		99		93		93	
240-35913-2	13:39	88		100		100		94		94	
CCV 240-126166/69	14:12	98		105		102		103		103	
CCB 240-126166/70	14:16	100		102		103		104		103	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/11/2014 End Date: 04/11/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-126166/3 IC	09:51	101		102		113					
STD2 240-126166/4 IC	09:55	100		100		110					
STD3 240-126166/5 IC	09:59	96		97		102					
STD4 240-126166/6 IC	10:03	101		100		117					
ICV 240-126166/7	10:06	101		100		105					
ICB 240-126166/8	10:10	99		98		101					
CRI 240-126166/9	10:14	101		99		111					
ICSA 240-126166/10	10:18	97		95		105					
ICSAB 240-126166/11	10:22	95		96		102					
CCV 240-126166/14	10:33	98		98		112					
CCB 240-126166/15	10:37	98		98		94					
MB 240-125933/1-A	10:42	101		98		121	*				
LCS 240-125933/2-A	10:46	100		99		108					
CCV 240-126166/21	11:01	106		105		116					
CCB 240-126166/22	11:04	106		106		105					
CCV 240-126166/33	11:57	102		102		105					
CCB 240-126166/34	12:01	100		100		101					
CCV 240-126166/45	12:42	108		107		110					
CCB 240-126166/46	12:45	106		106		105					
240-35913-3	13:20	100		100		102					
240-35913-3	13:24	103		103		105					
CCV 240-126166/57	13:28	109		110		110					
CCB 240-126166/58	13:31	113		112		110					
240-35913-2	13:35	106		105		108					
240-35913-2	13:39	106		107		105					
CCV 240-126166/69	14:12	110		108		110					
CCB 240-126166/70	14:16	106		105		108					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/14/2014 End Date: 04/14/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-126457/3 IC	10:10	97		99		98		99		97	
STD2 240-126457/4 IC	10:14	97		97		95		94		94	
STD3 240-126457/5 IC	10:18	95		96		97		91		93	
STD4 240-126457/6 IC	10:21	101		98		94		98		98	
ICV 240-126457/7	10:25	98		96		98		94		95	
ICB 240-126457/8	10:29	103		97		101		98		97	
CRI 240-126457/9	10:33	101		100		100		99		99	
ICSA 240-126457/10	10:37	91		90		90		87		88	
ICSAB 240-126457/11	10:40	90		90		90		87		88	
CCV 240-126457/85	15:59	99		109		100		105		108	
CCB 240-126457/86	16:03	103		106		103		106		107	
MB 240-126116/1-A	16:18	88		106		95		106		104	
LCS 240-126116/3-A	16:22	86		101		91		100		101	
240-36010-4	16:30	92		105		99		105		105	
240-36010-4 SD	16:33	96		106		98		107		107	
240-36010-4 MS	16:37	88		105		98		103		104	
240-36010-4 MSD	16:41	91		105		99		103		105	
CCV 240-126457/97	16:44	97		107		98		103		106	
CCB 240-126457/98	16:48	102		104		99		104		107	
240-36010-4	16:52	93		99		94		100		100	
240-36010-4 MS	16:56	89		103		95		101		103	
240-36010-4 MSD	16:59	91		103		96		101		104	
CCV 240-126457/109	17:28	96		105		96		101		105	
CCB 240-126457/110	17:32	100		100		95		100		104	
240-36010-3	17:48	89		99		95		101		102	
240-36010-3	17:51	89		101		94		100		101	
240-36010-5	17:55	89		96		94		97		97	
240-36010-5	17:59	88		100		94		100		102	
CCV 240-126457/121	18:14	96		99		93		95		100	
CCB 240-126457/122	18:18	100		99		93		97		102	

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/14/2014 End Date: 04/14/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-126457/3 IC	10:10	101		101		109					
STD2 240-126457/4 IC	10:14	98		98		105					
STD3 240-126457/5 IC	10:18	99		97		103					
STD4 240-126457/6 IC	10:21	100		100		109					
ICV 240-126457/7	10:25	99		99		104					
ICB 240-126457/8	10:29	98		98		98					
CRI 240-126457/9	10:33	100		100		107					
ICSA 240-126457/10	10:37	95		93		101					
ICSAB 240-126457/11	10:40	95		94		100					
CCV 240-126457/85	15:59	110		109		114					
CCB 240-126457/86	16:03	108		107		115					
MB 240-126116/1-A	16:18	109		108		120					
LCS 240-126116/3-A	16:22	108		108		121	*				
240-36010-4	16:30	109		109		121	*				
240-36010-4 SD	16:33	109		107		125	*				
240-36010-4 MS	16:37	109		108		124	*				
240-36010-4 MSD	16:41	110		110		121	*				
CCV 240-126457/97	16:44	109		109		116					
CCB 240-126457/98	16:48	106		105		113					
240-36010-4	16:52	105		104		124	*				
240-36010-4 MS	16:56	108		109		121	*				
240-36010-4 MSD	16:59	109		109		118					
CCV 240-126457/109	17:28	107		107		113					
CCB 240-126457/110	17:32	103		103		111					
240-36010-3	17:48	104		104		114					
240-36010-3	17:51	106		104		116					
240-36010-5	17:55	99		100		112					
240-36010-5	17:59	105		105		116					
CCV 240-126457/121	18:14	102		103		111					
CCB 240-126457/122	18:18	101		102		111					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/15/2014 End Date: 04/15/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD4 240-126699/6 IC	10:14	105		99		99		100		99	
ICV 240-126699/7	10:18	102		98		101		96		98	
ICB 240-126699/8	10:22	102		100		102		100		101	
CRI 240-126699/9	10:26	100		99		104		98		99	
ICSA 240-126699/10	10:29	96		94		95		90		92	
ICSAB 240-126699/11	10:33	95		92		93		90		91	
CCV 240-126699/14	10:49	102		94		99		91		94	
CCB 240-126699/15	10:52	100		95		97		97		97	
MB 240-126332/1-A	10:56	95		91		92		94		94	
LCS 240-126332/2-A	11:00	91		88		90		90		90	
CCV 240-126699/20	11:11	98		93		96		91		92	
CCB 240-126699/21	11:15	99		94		98		96		97	
CCV 240-126699/66	14:29	93		83		88		84		86	
CCB 240-126699/67	14:33	93		85		88		88		89	
CCV 240-126699/78	15:15	88		73		78		76		79	
CCB 240-126699/79	15:19	81		73		68		79		82	
240-36010-2	15:37	79		71		74		74		76	
240-36010-2	15:41	78		70		77		73		75	
240-36043-1	15:45	77		70		78		72		74	
240-36043-1	15:49	76		73		78		75		76	
240-36043-2	15:53	80		76		81		81		81	
240-36043-2	15:56	80		75		80		80		81	
CCV 240-126699/90	16:00	86		76		80		78		80	
CCB 240-126699/91	16:04	87		76		81		81		81	
240-36043-3	16:08	75		75		72		74		77	
240-36043-3	16:12	78		74		79		75		77	
240-36043-4	16:15	78		74		79		74		75	
240-36043-4	16:19	78		76		81		76		77	
CCV 240-126699/102	16:46	84		72		78		75		78	
CCB 240-126699/103	16:49	86		72		77		79		79	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/15/2014 End Date: 04/15/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD4 240-126699/6 IC	10:14	97		100		103					
ICV 240-126699/7	10:18	97		98		92					
ICB 240-126699/8	10:22	97		99		99					
CRI 240-126699/9	10:26	98		101		101					
ICSA 240-126699/10	10:29	94		96		100					
ICSAB 240-126699/11	10:33	93		94		98					
CCV 240-126699/14	10:49	95		96		92					
CCB 240-126699/15	10:52	95		97		93					
MB 240-126332/1-A	10:56	94		97		117					
LCS 240-126332/2-A	11:00	94		95		101					
CCV 240-126699/20	11:11	96		98		85					
CCB 240-126699/21	11:15	94		96		95					
CCV 240-126699/66	14:29	87		91		80					
CCB 240-126699/67	14:33	89		91		87					
CCV 240-126699/78	15:15	81		86		79					
CCB 240-126699/79	15:19	84		85		96					
240-36010-2	15:37	81		83		84					
240-36010-2	15:41	81		82		82					
240-36043-1	15:45	80		82		79					
240-36043-1	15:49	83		86		83					
240-36043-2	15:53	85		86		91					
240-36043-2	15:56	86		87		91					
CCV 240-126699/90	16:00	82		84		84					
CCB 240-126699/91	16:04	83		85		82					
240-36043-3	16:08	89		91		91					
240-36043-3	16:12	89		92		83					
240-36043-4	16:15	88		90		82					
240-36043-4	16:19	89		92		83					
CCV 240-126699/102	16:46	81		83		76					
CCB 240-126699/103	16:49	82		83		82					

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: ICSA 240-126699/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.303**	
Arsenic		**0.175**	
Barium		**0.0880**	
Beryllium		**0.0010**	
Cadmium		**-0.0360**	
Calcium	**50000**	**49216**	**98**
Chromium		**0.550**	
Cobalt		**0.0090**	
Copper		**0.222**	
Iron	**50000**	**49437**	**99**
Lead		**0.0840**	
Magnesium	**50000**	**50293**	**101**
Manganese		**1.69**	
Molybdenum	**1000**	**1020**	**102**
Nickel		**1.76**	
Selenium		**-0.0040**	
Silver		**0.0250**	
Thallium		**0.0080**	
Vanadium		**0.0610**	
Aluminum	*50000*	*47059*	*94*
Boron		*0.833*	
Potassium	*50000*	*49429*	*99*
Sodium	*50000*	*50339*	*101*
Strontium		*2.24*	
Tin		*0.243*	
Titanium	*1000*	*1014*	*101*
Tungsten		*0.341*	
Zinc		*-4.32*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: ICSAB 240-126699/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**101**	**101**
Arsenic	**100**	**103**	**103**
Barium	**100**	**102**	**102**
Beryllium	**100**	**98.2**	**98**
Cadmium	**100**	**101**	**101**
Calcium	**50000**	**49458**	**99**
Chromium	**100**	**101**	**101**
Cobalt	**100**	**103**	**103**
Copper	**100**	**102**	**102**
Iron	**50000**	**50722**	**101**
Lead	**100**	**105**	**105**
Magnesium	**50000**	**50498**	**101**
Manganese	**100**	**104**	**104**
Molybdenum	**1100**	**1125**	**102**
Nickel	**100**	**102**	**102**
Selenium	**100**	**103**	**103**
Silver	**100**	**98.9**	**99**
Thallium	**100**	**103**	**103**
Vanadium	**100**	**100.0**	**100**
Aluminum	*50000*	*47361*	*95*
Boron	*100*	*99.6*	*100*
Potassium	*50000*	*50373*	*101*
Sodium	*50000*	*51096*	*102*
Strontium	*100*	*104*	*104*
Tin	*100*	*96.2*	*96*
Titanium	*1100*	*1124*	*102*
Tungsten	*100*	*103*	*103*
Zinc	*100*	*103*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-35913-1

SDG No.:

Instrument ID: I10 Date: 04/03/2014 09:02

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		300	6020
Arsenic		10000	6020
Barium		10000	6020
Beryllium		10000	6020
Cadmium		4000	6020
Cobalt		10000	6020
Chromium		10000	6020
Copper		10000	6020
Iron		200000	6020
Molybdenum		2000	6020
Manganese		10000	6020
Nickel		10000	6020
Lead		4000	6020
Selenium		10000	6020
Thallium		5000	6020
Vanadium		10000	6020
Silver		300	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-35913-1

SDG No.:

Instrument ID: I10 Date: 04/14/2014 15:35

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		300	6020
Arsenic		10000	6020
Barium		10000	6020
Beryllium		10000	6020
Calcium		500000	6020
Cadmium		4000	6020
Cobalt		10000	6020
Chromium		10000	6020
Copper		10000	6020
Magnesium		500000	6020
Iron		200000	6020
Molybdenum		2000	6020
Manganese		10000	6020
Nickel		10000	6020
Lead		4000	6020
Selenium		10000	6020
Thallium		5000	6020
Vanadium		10000	6020
Silver		300	6020

SDG 240-35913-1

Water ICP Interference

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interference	Validation Action	Validation Action
Sb	MSA-MW-14I-040914 /DISS.	0.11	U	Fe	50000	0.303	76000	0.46	na	na
As		26			50000	0.175	76000	0.27	na	na
Cd		0.026	U		50000	-0.036	76000	-0.05	na	UJ
Cr		0.93			50000	0.55	76000	0.84	J	na
Mn		2000			50000	1.69	76000	2.57	na	na
Ni		11			50000	1.76	76000	2.68	J	na
Ag		0.0083	U		50000	0.025	76000	0.04	na	na

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interference	Validation Action	Validation Action
Sb	MSA-MW-14I-040914 / total	0.12	u	Fe	50000	0.303	75000	0.45	na	na
As		26			50000	0.175	75000	0.26	na	na
Cd		0.098			50000	-0.036	75000	-0.05	J	na
Cr		1.8			50000	0.55	75000	0.83	J	na
Mn		2000			50000	1.69	75000	2.54	na	na
Ni		12			50000	1.76	75000	2.64	J	na
Ag		0.0083	u		50000	0.025	75000	0.04	na	na

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG No.:

Project: MSA Groundwater Sampling

Client Sample ID	Lab Sample ID
MSA-MW-48I-040914	240-36043-3
MSA-MW-48D-040914	240-36043-4

Comments:

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 03/19/2014 19:56 End Date: 03/19/2014 23:13

Lab Sample Id	D/F	Type	Time	Analytes																												
				CL-	SO4																											
RINSE 240-123157/1			19:56																													
STD1 240-123157/2 IC	1		20:12	X	X																											
STD2 240-123157/3 IC	1		20:29	X	X																											
STD3 240-123157/4 IC	1		20:45	X	X																											
STD4 240-123157/5 IC	1		21:02	X	X																											
STD5 240-123157/6 ICRT	1		21:18	X	X																											
STD6 240-123157/7 IC	1		21:34	X	X																											
STD7 240-123157/8 IC	1		21:51	X	X																											
STD8 240-123157/9 IC	1		22:07	X	X																											
STD9 240-123157/10 IC	1		22:24	X	X																											
ZZZZZZ			22:40																													
ICV 240-123157/12	1		22:57	X	X																											
ICB 240-123157/13			23:13																													

Prep Types:

=

FORM XIII-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Analyst: JMB Batch Start Date: 03/19/2014

Reporting Units: mg/L Analytical Batch No.: 123157

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
12	ICV	22:57	Chloride	50.8	50.0	102	90-110		WCICLCS_00279
			Sulfate	47.7	50.0	95	90-110		WCICLCS_00279

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 04/17/2014 15:26 End Date: 04/18/2014 04:01

| Lab Sample Id | D/F | Type | Time | Analytes | | |

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 04/17/2014 15:26 End Date: 04/18/2014 04:01

Lab Sample Id	D/F	Type	Time	Analytes																												
				Cl-	SO4																											
ZZZZZZ			02:39																													
ZZZZZZ			02:55																													
ZZZZZZ			03:12																													
ZZZZZZ			03:28																													
CCV 240-126964/46			03:44																													
CCB 240-126964/47			04:01																													

Prep Types:
T = Total/NA

FORM XIII-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Analyst: JMB Batch Start Date: 04/17/2014

Reporting Units: mg/L Analytical Batch No.: 126964

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	15:26	Chloride	50.3	50.0	101	90-110		WCICCCV_00397
			Sulfate	47.9	50.0	96	90-110		WCICCCV_00397
2	CCB	15:42	Chloride	0.10				U	
			Sulfate	0.12				U	
13	CCV	18:43	Chloride	50.1	50.0	100	90-110		WCICCCV_00397
			Sulfate	48.2	50.0	96	90-110		WCICCCV_00397
14	CCB	18:59	Chloride	0.10				U	
			Sulfate	0.12				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 04/21/2014 14:41 End Date: 04/21/2014 23:02

Lab Sample Id	D/F	Type	Time	Analytes																													
				Cl-	SO4																												
CCV 240-127316/11	1		14:41	X	X																												
CCB 240-127316/12	1		14:57	X	X																												
MB 240-127316/13	1	T	16:44	X	X																												
LCS 240-127316/14	1	T	17:01	X	X																												
ZZZZZZ			17:17																														
ZZZZZZ			17:34																														
ZZZZZZ			17:50																														
ZZZZZZ			18:06																														
240-36043-3	5	T	18:23		X																												
240-36043-4	5	T	18:39		X																												
ZZZZZZ			18:56																														
ZZZZZZ			19:12																														
CCV 240-127316/23	1		19:28	X	X																												
CCB 240-127316/24	1		19:45	X	X																												
ZZZZZZ			20:01																														
ZZZZZZ			20:18																														
ZZZZZZ			20:34																														
ZZZZZZ			20:51																														
ZZZZZZ			21:07																														
ZZZZZZ			21:23																														
ZZZZZZ			21:40																														
ZZZZZZ			21:56																														
ZZZZZZ			22:13																														
ZZZZZZ			22:29																														
CCV 240-127316/35	1		22:45	X	X																												
CCB 240-127316/36	1		23:02	X	X																												

Prep Types:
T = Total/NA

FORM XIII-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Analyst: JMB Batch Start Date: 04/21/2014

Reporting Units: mg/L Analytical Batch No.: 127316

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
11	CCV	14:41	Chloride	50.1	50.0	100	90-110		WCICCCV_00397
			Sulfate	48.0	50.0	96	90-110		WCICCCV_00397
12	CCB	14:57	Chloride	0.10				U	
			Sulfate	0.12				U	
23	CCV	19:28	Chloride	50.0	50.0	100	90-110		WCICCCV_00397
			Sulfate	48.0	50.0	96	90-110		WCICCCV_00397
24	CCB	19:45	Chloride	0.10				U	
			Sulfate	0.12				U	
35	CCV	22:45	Chloride	50.3	50.0	101	90-110		WCICCCV_00397
			Sulfate	48.5	50.0	97	90-110		WCICCCV_00397
36	CCB	23:02	Chloride	0.147				J	
			Sulfate	0.12				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: SIMON

Method: 300.0 MDL Date: 01/27/2010 17:40

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Chloride		1	0.1
Nitrate as N		0.1	0.023
Nitrite as N		0.1	0.012
Orthophosphate as P		0.5	0.044
Sulfate		1	0.12

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 03/19/2014 19:56 End Date: 03/19/2014 23:13

Lab Sample Id	D/F	Type	Time	Analytes																												
				N-No2	NO3	Orthophosasp																											
RINSE 240-123158/1			19:56																													
STD1 240-123158/2 IC	1		20:12	X	X	X																										
STD2 240-123158/3 IC	1		20:29	X	X	X																										
STD3 240-123158/4 IC	1		20:45	X	X	X																										
STD4 240-123158/5 IC	1		21:02	X	X	X																										
STD5 240-123158/6 ICRT	1		21:18	X	X	X																										
STD6 240-123158/7 IC	1		21:34	X	X	X																										
STD7 240-123158/8 IC	1		21:51	X	X	X																										
STD8 240-123158/9 IC	1		22:07	X	X	X																										
STD9 240-123158/10 IC	1		22:24	X	X	X																										
ZZZZZZ			22:40																													
ICV 240-123158/12	1		22:57	X	X	X																										
ICB 240-123158/13			23:13																													

Prep Types:

=

FORM XIII-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Analyst: JMB Batch Start Date: 03/19/2014

Reporting Units: mg/L Analytical Batch No.: 123158

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
12	ICV	22:57	Nitrite as N	2.51	2.50	100	90-110		WCICLCS_00279
			Nitrate as N	2.43	2.50	97	90-110		WCICLCS_00279
			Orthophosphate as P	2.58	2.50	103	90-110		WCICLCS_00279

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 04/11/2014 08:05 End Date: 04/11/2014 13:35

Lab Sample Id	D/F	Type	Time	Analytes		
				N-No2	NO3	Orthophosasp
CCV 240-126222/1	1		08:05	X	X	X
CCB 240-126222/2	1		08:21	X	X	X
LCS 240-126222/3	1	T	08:38	X	X	X
MB 240-126222/4	1	T	08:54	X	X	X
ZZZZZZ			09:11			
ZZZZZZ			09:27			
CCV 240-126222/7	1		09:43	X	X	X
CCB 240-126222/8	1		10:00		X	
ZZZZZZ			10:16			
ZZZZZZ			10:33			
ZZZZZZ			10:49			
ZZZZZZ			11:05			
ZZZZZZ			11:22			
ZZZZZZ			11:38			
ZZZZZZ			11:55			
ZZZZZZ			12:11			
ZZZZZZ			12:28			
240-36043-3	1	T	12:45	X	X	X
240-36043-4	1	T	13:02	X	X	X
CCV 240-126222/20	1		13:18	X	X	X
CCB 240-126222/21	1		13:35	X	X	X

Prep Types:
T = Total/NA

FORM XIII-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Analyst: LCN Batch Start Date: 04/11/2014

Reporting Units: mg/L Analytical Batch No.: 126222

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	08:05	Nitrite as N	2.45	2.50	98	90-110		WCICCCV_00395
			Nitrate as N	2.37	2.50	95	90-110		WCICCCV_00395
			Orthophosphate as P	2.54	2.50	102	90-110		WCICCCV_00395
2	CCB	08:21	Nitrite as N	0.012				U	
			Nitrate as N	0.023				U	
			Orthophosphate as P	0.044				U	
7	CCV	09:43	Nitrite as N	2.47	2.50	99	90-110		WCICCCV_00395
			Nitrate as N	2.38	2.50	95	90-110		WCICCCV_00395
			Orthophosphate as P	2.65	2.50	106	90-110		WCICCCV_00395
8	CCB	10:00	Nitrate as N	0.023				U	
20	CCV	13:18	Nitrite as N	2.41	2.50	97	90-110		WCICCCV_00395
			Nitrate as N	2.39	2.50	95	90-110		WCICCCV_00395
			Orthophosphate as P	2.61	2.50	104	90-110		WCICCCV_00395
21	CCB	13:35	Nitrite as N	0.012				U	
			Nitrate as N	0.023				U	
			Orthophosphate as P	0.044				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

9-IN

CALIBRATION BLANK DETECTION LIMITS

GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: SIMON

Method: 300.0 XMDL Date: 01/27/2010 17:40

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chloride		1	0.1
Nitrate as N		0.1	0.023
Nitrite as N		0.1	0.012
Orthophosphate as P		0.5	0.044
Sulfate		1	0.12

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: SPARKY Analysis Method: 9060

Start Date: 04/13/2014 09:55 End Date: 04/13/2014 19:29

Lab Sample Id	D/F	Type	Time	Analytes																										
				DOC																										
CCV 240-126300/1	1		09:55	X																										
CCB 240-126300/2	1		10:06	X																										
MB 240-126300/3	1	D	10:17	X																										
LCS 240-126300/4	1	D	10:28	X																										
240-36043-3	1	D	10:38	X																										
240-36043-3 MS	2	D	11:20	X																										
240-36043-3 MSD	2	D	11:31	X																										
240-36043-4	1	D	11:41	X																										
ZZZZZZ			12:23																											
ZZZZZZ			13:04																											
ZZZZZZ			13:46																											
ZZZZZZ			14:27																											
CCV 240-126300/13	1		15:09	X																										
CCB 240-126300/14	1		15:19	X																										
ZZZZZZ			15:30																											
ZZZZZZ			16:11																											
ZZZZZZ			16:53																											
ZZZZZZ			17:34																											
ZZZZZZ			18:16																											
ZZZZZZ			18:26																											
ZZZZZZ			18:37																											
CCV 240-126300/22			19:18																											
CCB 240-126300/23			19:29																											

Prep Types:
D = Dissolved

FORM XIII-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Analyst: TPH Batch Start Date: 04/13/2014

Reporting Units: mg/L Analytical Batch No.: 126300

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	09:55	Dissolved Organic Carbon	24.3	25.0	97	90-110		WC TOC CCV_00191
2	CCB	10:06	Dissolved Organic Carbon	0.24				U	
13	CCV	15:09	Dissolved Organic Carbon	24.7	25.0	99	90-110		WC TOC CCV_00191
14	CCB	15:19	Dissolved Organic Carbon	0.24				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: SPARKY

Method: 9060 MDL Date: 01/27/2010 15:20

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Dissolved Organic Carbon		1	0.24

9-IN

CALIBRATION BLANK DETECTION LIMITS

GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: SPARKY

Method: 9060 XMDL Date: 01/27/2010 15:20

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon		1	0.24

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: DAVE Analysis Method: 350.3

Start Date: 04/16/2014 12:24 End Date: 04/16/2014 14:32

Lab Sample Id	D/F	Type	Time	Analytes
				NH3
IC 240-126751/1			12:24	X
IC 240-126751/2			12:24	X
IC 240-126751/3			12:24	X
IC 240-126751/4			12:24	X
ICV 240-126751/5	10		12:24	X
ICB 240-126751/6	1		12:36	X
MB 240-126751/7	1	T	12:36	X
LCS 240-126751/8	10	T	12:36	X
240-36043-3	1	T	12:59	X
240-36043-4	1	T	12:59	X
ZZZZZZ			12:59	
ZZZZZZ			12:59	
ZZZZZZ			12:59	
ZZZZZZ			13:13	
ZZZZZZ			13:25	
ZZZZZZ			13:25	
CCV 240-126751/17	1		13:29	X
CCB 240-126751/18	1		13:46	X
ZZZZZZ			13:53	
ZZZZZZ			14:11	
CCV 240-126751/21			14:17	
CCB 240-126751/22			14:32	

Prep Types:
T = Total/NA

FORM XIII-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Analyst: JAK Batch Start Date: 04/16/2014

Reporting Units: mg/L Analytical Batch No.: 126751

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
5	ICV	12:24	Ammonia (as N)	10.2	10.1	101	90-110		WCWIBBYNUTRIE_00011
6	ICB	12:36	Ammonia (as N)	0.092				U	
17	CCV	13:29	Ammonia (as N)	2.54	2.50	102	90-110		WCNH31000_00028
18	CCB	13:46	Ammonia (as N)	0.092				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: DAVE

Method: 350.3 MDL Date: 04/11/2014 12:30

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Ammonia (as N)		0.2	0.092

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: DAVE

Method: 350.3 XMDL Date: 04/11/2014 12:31

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia (as N)		0.2	0.092

FORM IX - IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 160.1

Start Date: 04/14/2014 14:36 End Date: 04/14/2014 14:36

Lab Sample Id	D/F	Type	Time	Analytes
				TDS
MB 240-126426/1	1	T	14:36	X
LCS 240-126426/2	1	T	14:36	X
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
ZZZZZZ			14:36	
240-36043-3	1	T	14:36	X
240-36043-4	1	T	14:36	X
ZZZZZZ			14:36	

Prep Types:
T = Total/NA

FORM XIII-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 160.1 MDL Date: 01/28/2010 09:50

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN

CALIBRATION BLANK DETECTION LIMITS

GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 160.1 XMDL Date: 01/28/2010 09:51

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.4

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: STEVE Analysis Method: 310.1

Start Date: 04/15/2014 10:58 End Date: 04/15/2014 21:16

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
ZZZZZZ			10:58	
LCS 240-126654/2	1	T	11:07	X
MB 240-126654/3	1	T	11:14	X
ZZZZZZ			11:18	
ZZZZZZ			11:56	
ZZZZZZ			12:11	
ZZZZZZ			12:19	
ZZZZZZ			12:37	
ZZZZZZ			12:55	
ZZZZZZ			13:04	
ZZZZZZ			13:15	
ZZZZZZ			13:25	
ZZZZZZ			13:37	
ZZZZZZ			13:45	
ZZZZZZ			13:50	
ZZZZZZ			13:59	
ZZZZZZ			14:09	
240-36043-3	1	T	14:15	X
240-36043-4	1	T	14:20	X
ZZZZZZ			14:33	
ZZZZZZ			14:45	
ZZZZZZ			14:58	
ZZZZZZ			15:04	
ZZZZZZ			15:16	
ZZZZZZ			15:28	
ZZZZZZ			15:32	
ZZZZZZ			15:39	
ZZZZZZ			15:49	
ZZZZZZ			15:59	
ZZZZZZ			16:11	
ZZZZZZ			16:24	
ZZZZZZ			16:40	
ZZZZZZ			16:56	
ZZZZZZ			17:06	
ZZZZZZ			17:15	
ZZZZZZ			17:24	
ZZZZZZ			17:28	
ZZZZZZ			17:44	
ZZZZZZ			18:00	
ZZZZZZ			18:17	
ZZZZZZ			18:31	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: STEVE Analysis Method: 310.1

Start Date: 04/15/2014 10:58 End Date: 04/15/2014 21:16

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
ZZZZZZ			18:47	
ZZZZZZ			18:55	
ZZZZZZ			19:05	
ZZZZZZ			19:14	
ZZZZZZ			19:23	
ZZZZZZ			19:36	
ZZZZZZ			19:40	
ZZZZZZ			19:48	
ZZZZZZ			19:57	
ZZZZZZ			20:09	
ZZZZZZ			20:23	
ZZZZZZ			20:42	
ZZZZZZ			21:03	
ZZZZZZ			21:12	
ZZZZZZ			21:16	

Prep Types:
T = Total/NA

FORM XIII-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 310.1 MDL Date: 07/12/2013 09:18

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	1.9

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 310.1 XMDL Date: 07/12/2013 09:19

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	1.9

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 126426	Date: 04/14/2014 14:36						
160.1	MB 240-126426/1	Total Dissolved Solids	7.4	U	mg/L	10	1
Batch ID: 126222	Date: 04/11/2014 08:54						
300.0	MB 240-126222/4	Nitrite as N	0.012	U	mg/L	0.10	1
300.0	MB 240-126222/4	Nitrate as N	0.023	U	mg/L	0.10	1
300.0	MB 240-126222/4	Orthophosphate as P	0.044	U	mg/L	0.50	1
Batch ID: 126964	Date: 04/17/2014 15:59						
300.0	MB 240-126964/3	Chloride	0.10	U	mg/L	1.0	1
300.0	MB 240-126964/3	Sulfate	0.12	U	mg/L	1.0	1
Batch ID: 127316	Date: 04/21/2014 16:44						
300.0	MB 240-127316/13	Chloride	0.10	U	mg/L	1.0	1
300.0	MB 240-127316/13	Sulfate	0.12	U	mg/L	1.0	1
Batch ID: 126654	Date: 04/15/2014 11:14						
310.1	MB 240-126654/3	Alkalinity	1.92	J	mg/L	5.0	1
Batch ID: 126751	Date: 04/16/2014 12:36						
350.3	MB 240-126751/7	Ammonia (as N)	0.092	U	mg/L	0.20	1
Batch ID: 126300	Date: 04/13/2014 10:17						
9060	MB 240-126300/3	Dissolved Organic Carbon	0.24	U	mg/L	1.0	1

FORM III-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 126426	Date: 04/14/2014 14:36										
						LCS Source: WCWIBBYSOLIDS_00010					
160.1	LCS 240-126426/2	Total Dissolved Solids	586		mg/L	622	94	88-110			
Batch ID: 126222	Date: 04/11/2014 08:38										
						LCS Source: WCICLCS_00282					
300.0	LCS 240-126222/3	Nitrite as N	2.49		mg/L	2.50	100	90-110			
300.0	LCS 240-126222/3	Nitrate as N	2.44		mg/L	2.50	97	90-110			
300.0	LCS 240-126222/3	Orthophosphate as P	2.62		mg/L	2.50	105	90-110			
Batch ID: 126964	Date: 04/17/2014 16:15										
						LCS Source: WCICLCS_00284					
300.0	LCS 240-126964/4	Chloride	51.3		mg/L	50.0	103	90-110			
300.0	LCS 240-126964/4	Sulfate	48.5		mg/L	50.0	97	90-110			
Batch ID: 127316	Date: 04/21/2014 17:01										
						LCS Source: WCICLCS_00284					
300.0	LCS 240-127316/14	Chloride	50.7		mg/L	50.0	101	90-110			
300.0	LCS 240-127316/14	Sulfate	48.1		mg/L	50.0	96	90-110			
Batch ID: 126654	Date: 04/15/2014 11:07										
						LCS Source: WCPHENOMINER_00006					
310.1	LCS 240-126654/2	Alkalinity	128		mg/L	120	106	90-127			
Batch ID: 126751	Date: 04/16/2014 12:36										
						LCS Source: WCWIBBYNUTRIE_00011					
350.3	LCS 240-126751/8	Ammonia (as N)	9.97		mg/L	10.1	99	85-114			
Batch ID: 126300	Date: 04/13/2014 10:28										
						LCS Source: WC LCS_00019					
9060	LCS 240-126300/4	Dissolved Organic Carbon	38.1		mg/L	40.8	93	88-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 126964	Date: 04/17/2014 17:04										
300.0	240-36043-3	Chloride	110		mg/L						
300.0	240-36043-3 MS	Chloride	167		mg/L	50.0	120	80-120			
Batch ID: 126300	Date: 04/13/2014 11:20										
9060	240-36043-3	Dissolved Organic Carbon	2.4		mg/L						
9060	240-36043-3 MS	Dissolved Organic Carbon	26.6		mg/L	25.0	97	72-136			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 126964		Date: 04/17/2014 17:21									
300.0	240-36043-3 MSD	Chloride	166		mg/L	50.0	117	80-120	1	20	
Batch ID: 126300		Date: 04/13/2014 11:31									
9060	240-36043-3 MSD	Dissolved Organic Carbon	26.7		mg/L	25.0	97	72-136	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2340B-1997

Start Date: 04/16/2014 05:32 End Date: 04/16/2014 05:32

Lab Sample Id	D/F	Type	Time	Analytes																												
				CaCO3	HardCC	MgHARD																											
ZZZZZZ			05:32																													
ZZZZZZ			05:32																													
240-36043-3	1	R	05:32	X	X	X																										
240-36043-4	1	R	05:32	X	X	X																										
ZZZZZZ			05:32																													
ZZZZZZ			05:32																													
ZZZZZZ			05:32																													
ZZZZZZ			05:32																													
ZZZZZZ			05:32																													

Prep Types:
R = Total Recoverable

FORM XIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 MDL Date: 04/14/2011 14:06

Prep Method: None

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Calcium hardness as calcium carbonate		12	0.325
Hardness as calcium carbonate		33	0.465
Magnesium hardness as calcium carbonate		21	0.14

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-35913-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 XMDL Date: 04/14/2011 14:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium hardness as calcium carbonate		12000	325
Hardness as calcium carbonate		33000	465
Magnesium hardness as calcium carbonate		21000	140

VOC CALCULATION

	SAMPLE MSA-DMW7S-040714		
TARGET ANALYTE	**trichloroethene**		
ANALYTE RESPONSE	291579		
INTERNAL STANDARD	fluorobenzene		
I.S. RESPONSE	1021755		
I.S. CONCENTRATION	20	µg/l	
ANALYTE CAL. RF	0.3128		
DILUTION FACTOR (DF)	200		
INITIAL SAMPLE VOLUME - V1	5	ml	
FINAL SAMPLE VOLUME - V2	5	ml	

$$\frac{\text{(ANALYTE RESPONSE) x (I.S. CONCENTRATION) X DF x V2}}{\text{(I.S. RESPONSE) x (CAL. R.F.) x V1}} = \textbf{3649.24}\ \textbf{µg/l}$$

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-DMW7S-040714 | Lab Sample ID: 240-35913-2

Matrix: Water | Lab File ID: U1237007.D

Analysis Method: 8260C | Date Collected: 04/07/2014 13:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2014 19:05

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126390 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	58	U	200	58
67-66-3	Chloroform	32	U	200	32
74-87-3	Chloromethane	60	U	200	60
156-59-2	cis-1,2-Dichloroethene	14000		200	34
10061-01-5	cis-1,3-Dichloropropene	28	U	200	28
74-95-3	Dibromomethane	56	U *	200	56
74-97-5	Bromochloromethane	58	U	200	58
75-71-8	Dichlorodifluoromethane	62	U	200	62
75-27-4	Bromodichloromethane	30	U	200	30
75-65-0	tert-Butyl alcohol	780	U	10000	780
100-41-4	Ethylbenzene	34	U	200	34
87-68-3	Hexachlorobutadiene	60	U	200	60
108-20-3	Diisopropyl ether	300	U	2000	300
98-82-8	Isopropylbenzene	26	U	200	26
1634-04-4	Methyl tert-butyl ether	34	U	200	34
75-09-2	Methylene Chloride	66	U	200	66
179601-23-1	m-Xylene & p-Xylene	48	U	400	48
91-20-3	Naphthalene	48	U	200	48
104-51-8	n-Butylbenzene	24	U	200	24
103-65-1	N-Propylbenzene	28	U	200	28
95-47-6	o-Xylene	28	U	200	28
135-98-8	sec-Butylbenzene	26	U	200	26
100-42-5	Styrene	22	U	200	22
994-05-8	Tert-amyl methyl ether	13	U	1000	13
637-92-3	Ethyl tert-butyl ether	22	U	1000	22
127-18-4	Tetrachloroethene	58	U	200	58
108-88-3	Toluene	30	J	200	26
156-60-5	trans-1,2-Dichloroethene	100	J	200	38
10061-02-6	trans-1,3-Dichloropropene	38	U	200	38
79-01-6	Trichloroethene	3600		200	34
75-69-4	Trichlorofluoromethane	42	U	200	42
108-05-4	Vinyl acetate	38	U	400	38
75-01-4	Vinyl chloride	2100		200	44
1330-20-7	Xylenes, Total	28	U	400	28
98-06-6	tert-Butylbenzene	26	U	200	26
106-93-4	1,2-Dibromoethane	48	U	200	48

Report Date: 22-Apr-2014 17:29:02 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\A3UX12\20140414-29983.b\U1237007.D
Lims ID: 240-35913-A-2 Lab Sample ID: 240-35913-2
Client ID: MSA-DMW7S-040714
Sample Type: Client
Inject. Date: 14-Apr-2014 19:05:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 200.0000
Sample Info: 240-0029983-019
Operator ID: 001904 Instrument ID: A3UX12

Method: \\Ncchrom\ChromData\A3UX12\20140414-29983.b\8260_12.m
Limit Group: MSV 8260DOD ICAL
Last Update: 15-Apr-2014 07:26:50 Calib Date: 18-Mar-2014 23:58:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A3UX12\20140318-29119.b\U1236349.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK013

First Level Reviewer: quayler Date: 15-Apr-2014 08:04:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.404	5.404	0.000	99	1021755	20.0	
* 2 Chlorobenzene-d5	117	8.221	8.220	0.001	85	773141	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.611	10.611	0.000	93	440858	20.0	
$ 4 Dibromofluoromethane (Surr	113	4.824	4.824	0.000	59	218953	16.5	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.120	5.120	0.000	91	259215	14.9	
$ 6 Toluene-d8 (Surr)	98	6.836	6.836	0.000	92	939153	16.6	
$ 7 4-Bromofluorobenzene (Surr	95	9.404	9.404	0.000	90	343919	14.8	
9 Dichlorodifluoromethane	85		1.641					
10 Chloromethane	50		1.807					
11 Vinyl chloride	62	1.914	1.913	0.001	81	274964	10.5	
13 Bromomethane	94		2.221					
14 Chloroethane	64		2.316					
16 Trichlorofluoromethane	101		2.517					
22 1,1-Dichloroethene	61	2.967	2.967	0.000	57	16596	0.4908	
21 Acetone	43		2.967					
20 1,1,2-Trichloro-1,2,2-trif	101		2.967					
24 Carbon disulfide	76		3.180					
28 Methylene Chloride	49		3.393					
29 2-Methyl-2-propanol	59		3.416					
31 trans-1,2-Dichloroethene	61	3.594	3.570	0.024	56	12942	0.5235	
32 Methyl tert-butyl ether	73		3.570					
34 1,1-Dichloroethane	63	3.937	3.925	0.012	28	7324	0.2468	
35 Vinyl acetate	43		3.949					
36 Isopropyl ether	87		3.972					
38 Tert-butyl ethyl ether	59		4.280					
40 2-Butanone (MEK)	43		4.422					
39 cis-1,2-Dichloroethene	61	4.422	4.422	0.000	67	1597244	70.0	
41 2,2-Dichloropropane	77		4.422					
45 Chlorobromomethane	49		4.623					
47 Chloroform	83		4.682					
48 1,1,1-Trichloroethane	97	4.860	4.860	0.000	26	8193	0.5091	
50 1,1-Dichloropropene	75		4.990					

Report Date: 22-Apr-2014 17:29:02 Chrom Revision: 2.2 14-Apr-2014 13:40:08
Data File: \\Ncchrom\ChromData\A3UX12\20140414-29983.b\U1237007.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
51 Carbon tetrachloride	117		5.002					
54 1,2-Dichloroethane	62		5.179					
53 Benzene	78		5.179					
55 Tert-amyl methyl ether	73		5.250					
58 Trichloroethene	130	5.736	5.735	0.001	90	291579	18.2	
61 1,2-Dichloropropane	63		5.937					
64 Dibromomethane	174		6.043					
65 Dichlorobromomethane	83		6.173					
67 2-Chloroethyl vinyl ether	63		6.422					
68 cis-1,3-Dichloropropene	75		6.576					
69 4-Methyl-2-pentanone (MIBK	43		6.706					
70 Toluene	91	6.895	6.895	0.000	41	11012	0.1492	
71 trans-1,3-Dichloropropene	75		7.084					
75 Tetrachloroethene	166		7.416					
76 1,3-Dichloropropane	76		7.428					
77 2-Hexanone	43		7.499					
79 Chlorodibromomethane	129		7.652					
80 Ethylene Dibromide	107		7.771					
82 Chlorobenzene	112		8.256					
83 1,1,1,2-Tetrachloroethane	131		8.327					
84 Ethylbenzene	106		8.351					
85 m-Xylene & p-Xylene	106		8.469					
86 o-Xylene	106		8.871					
87 Styrene	104		8.883					
88 Bromoform	173		9.072					
89 Isopropylbenzene	105		9.238					
91 1,1,2,2-Tetrachloroethane	83		9.534					
92 Bromobenzene	156		9.569					
93 1,2,3-Trichloropropane	110		9.593					
95 N-Propylbenzene	120		9.664					
96 2-Chlorotoluene	126		9.759					
98 4-Chlorotoluene	126		9.877					
99 tert-Butylbenzene	119		10.185					
101 1,2,4-Trimethylbenzene	105		10.232					
102 sec-Butylbenzene	105		10.421					
103 1,3-Dichlorobenzene	146		10.540					
104 4-Isopropyltoluene	119		10.563					
105 1,4-Dichlorobenzene	146		10.634					
106 1,2,3-Trimethylbenzene	105		10.682					
108 n-Butylbenzene	91		11.001					
109 1,2-Dichlorobenzene	146		11.025					
110 1,2-Dibromo-3-Chloropropan	157		11.853					
112 1,2,4-Trichlorobenzene	180		12.741					
113 Hexachlorobutadiene	225		12.930					
114 Naphthalene	128		13.013					
115 1,2,3-Trichlorobenzene	180		13.273					
S 126 Xylenes, Total	106		16.530					
T 133 Chlorodifluoromethane TIC	51		1.650					

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: STD8260 240-126390/2 Calibration Date: 04/14/2014 12:16

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1236990.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4988	0.4927	0.1000	0.310	0.0200	-1.2	20.0
Chloromethane	Ave	0.5020	0.6015	0.1000	0.300	0.0200	19.8	20.0
Vinyl chloride	Ave	0.5127	0.6056	0.1000	0.220	0.0200	18.1	20.0
Bromomethane	Ave	0.2464	0.3137	0.0500	0.410	0.0200	27.3*	20.0
Chloroethane	Ave	0.3073	0.3612	0.0500	0.290	0.0200	17.5	20.0
Dichlorofluoromethane	Ave	0.6201	0.6926		0.420	0.0200	11.7	20.0
Trichlorofluoromethane	Lin1		0.5982	0.1000	0.210	0.0200	21.6*	20.0
Ethyl ether	Ave	0.2789	0.2949		0.310	0.0200	5.7	20.0
Acrolein	Ave	0.0458	0.0362		2.20	0.100	-20.9*	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3282	0.3345	0.0500	0.280	0.0200	1.9	20.0
1,1-Dichloroethene	Ave	0.6619	0.7066	0.1000	0.190	0.0200	6.8	20.0
Acetone	Lin1		0.1043	0.0500	1.10	0.0400	4.3	20.0
Iodomethane	Ave	0.4775	0.5772		0.180	0.0200	20.9*	20.0
Carbon disulfide	Ave	1.240	1.482	0.1000	0.130	0.0200	19.5	20.0
3-Chloro-1-propene	Ave	0.1910	0.1988		0.350	0.0200	4.1	20.0
Methyl acetate	Ave	0.2571	0.2715	0.1000	0.380	0.100	5.6	20.0
Methylene Chloride	Ave	0.5455	0.5727	0.1000	0.330	0.0200	5.0	20.0
tert-Butyl alcohol	Ave	0.0269	0.0361		3.90	0.200	34.5*	20.0
Acrylonitrile	Ave	0.1282	0.1498		2.00	0.200	16.8	20.0
Methyl tert-butyl ether	Ave	0.9500	0.9401	0.1000	0.170	0.0200	-1.0	20.0
trans-1,2-Dichloroethene	Ave	0.4839	0.5049	0.1000	0.190	0.0200	4.3	20.0
Hexane	Lin1		0.2968		0.260	0.0200	-1.6	20.0
1,1-Dichloroethane	Ave	0.5808	0.5717	0.1000	0.150	0.0200	-1.6	20.0
Vinyl acetate	Ave	0.4223	0.3770		0.190	0.0192	-10.7	20.0
2,2-Dichloropropane	Ave	0.2172	0.2055		0.130	0.0200	-5.4	20.0
2-Butanone (MEK)	Lin1		0.1606	0.0500	0.570	0.0400	6.7	20.0
cis-1,2-Dichloroethene	Ave	0.4465	0.4622	0.1000	0.170	0.0200	3.5	20.0
Bromochloromethane	Ave	0.2599	0.2746		0.290	0.0200	5.7	20.0
Tetrahydrofuran	Lin1		0.1018		0.420	0.0400	6.4	20.0
Chloroform	Ave	0.5683	0.5095	0.2000	0.160	0.0200	-10.3	20.0
1,1,1-Trichloroethane	Ave	0.3150	0.2998	0.1000	0.220	0.0200	-4.8	20.0
Cyclohexane	Ave	0.4348	0.2989	0.1000	0.120	0.0200	-31.3*	20.0
1,1-Dichloropropene	Ave	0.4041	0.4041		0.130	0.0200	0.0	20.0
Carbon tetrachloride	Ave	0.2352	0.2489	0.1000	0.130	0.0200	5.8	20.0
Isobutyl alcohol	Ave	0.0052	0.0073		8.20	0.500	40.1*	20.0
1,2-Dichloroethane	Ave	0.4374	0.4020	0.1000	0.220	0.0200	-8.1	20.0
Benzene	Ave	1.334	1.350	0.5000	0.130	0.0200	1.2	20.0
n-Heptane	Lin1		0.0628		0.180	0.0200	-19.8	20.0
Trichloroethene	Ave	0.3128	0.3294	0.2000	0.170	0.0200	5.3	20.0
Methylcyclohexane	Ave	0.3956	0.2893	0.1000	0.130	0.0200	-26.9*	20.0

FORM VII 8260C

SVOC CALCULATION LIQUIDS

	SAMPLE MSA-DMW7S-040714		
TARGET ANALYTE	1,4-dioxane		
ANALYTE RESPONSE	257680		
INTERNAL STANDARD	1,4-dichlorobenzene-d4		
I.S. RESPONSE	157936		
I.S. CONCENTRATION	400	ng/ml	
ANALYTE CAL. RELATIVE RESPONSE FACTOR (RRF)	0.6321		
VOLUME OF FINAL EXTRACT - V2	5	ml	
VOLUME OF INITIAL EXTRACT - V1	270	ml	
DILUTION FACTOR (DF)	5		
CONVERSION FACTOR - CF	1		

$$\frac{\text{(ANALYTE RESPONSE) X (I.S. CONCENTRATION) X DF X V2}}{\text{(I.S. RESPONSE) X (CAL. RRF) X (V1) X CF}} = 95.5983 \text{ ng/ml or ug/l}$$

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-DMW7S-040714 | Lab Sample ID: 240-35913-2

Matrix: Water | Lab File ID: 0411030.D

Analysis Method: 8270C | Date Collected: 04/07/2014 13:35

Extract. Method: 3510C | Date Extracted: 04/10/2014 10:18

Sample wt/vol: 270(mL) | Date Analyzed: 04/11/2014 19:01

Con. Extract Vol.: 5(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126084 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	96		4.6	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	87		29-110
367-12-4	2-Fluorophenol (Surr)	70		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	98		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	86		31-110
4165-62-2	Phenol-d5 (Surr)	53		10-110
1718-51-0	Terphenyl-d14 (Surr)	104		31-115

Report Date: 13-Apr-2014 07:56:31 Chrom Revision: 2.2 12-Mar-2014 11:19:24

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\A4AG2\20140411-29898.b\0411030.D
Lims ID: 240-35913-G-2-A Lab Sample ID: 240-35913-2
Client ID: MSA-DMW7S-040714
Sample Type: Client
Inject. Date: 11-Apr-2014 19:01:30 ALS Bottle#: 30 Worklist Smp#: 30
Injection Vol: 1.0 ul Dil. Factor: 5.0000
Sample Info: 240-0029898-030
Misc. Info.: 240-35913-G-2-A =240-35913-G-2-A
Operator ID: Instrument ID: A4AG2

Method: \\Ncchrom\ChromData\A4AG2\20140411-29898.b\LVI AG2 8270.m
Limit Group: MSS 8270C ICAL
Last Update: 13-Apr-2014 07:56:21 Calib Date: 04-Apr-2014 18:11:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A4AG2\20140404-29679.b\0404010.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: hulat Date: 12-Apr-2014 07:54:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.214	6.214	0.0	97	157936	400.0	
* 2 Naphthalene-d8	136	7.273	7.279	-0.006	100	626760	400.0	
* 3 Acenaphthene-d10	164	8.755	8.760	-0.005	91	339966	400.0	
* 4 Phenanthrene-d10	188	10.017	10.022	-0.005	97	560363	400.0	
* 5 Chrysene-d12	240	12.590	12.600	-0.010	96	486541	400.0	
* 6 Perylene-d12	264	14.681	14.692	-0.011	95	365647	400.0	
$ 7 2-Fluorophenol	112	5.112	5.112	0.0	92	158462	281.7	
$ 8 Phenol-d5	99	5.872	5.872	0.0	95	154360	213.1	
$ 9 Nitrobenzene-d5	82	6.663	6.663	0.0	86	236493	344.4	
$ 10 2-Fluorobiphenyl (Surr)	172	8.166	8.172	-0.006	99	353664	347.2	
$ 11 2,4,6-Tribromophenol	330	9.418	9.423	-0.005	77	35026	393.4	
$ 12 Terphenyl-d14	244	11.381	11.392	-0.011	97	347885	416.1	
26 1,4-Dioxane	88	3.502	3.502	0.0	95	257680	1032.5	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-35913-1 Analy Batch No.: 125316

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/04/2014 15:04 Calibration End Date: 04/04/2014 18:11 Calibration ID: 21592

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-125316/10	0404010.D
Level 2	STD2 240-125316/9	0404009.D
Level 3	STD3 240-125316/8	0404008.D
Level 4	STD4 240-125316/7	0404007.D
Level 5	STD5 240-125316/6	0404006.D
Level 6	STD6 240-125316/5	0404005.D
Level 7	STD7 240-125316/4	0404004.D
Level 8	STD8 240-125316/3	0404003.D
Level 9	STD9 240-125316/2	0404002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.6573	0.6619 0.6104	0.6103 0.6270	0.6276 0.6193	0.6426	Ave		0.6321				3.2		15.0			
N-Nitrosodimethylamine	0.7452	+++++ 0.8168	0.3012 0.8234	0.5034 0.8535	0.6711	Lin1	-65.11	0.8555							0.9980		0.9900
Pyridine	1.5281	1.2597 1.4066	1.3142 1.4957	1.3268 1.4333	1.3831	Ave		1.3935				6.6		15.0			
Benzaldehyde	0.8068	1.2776 0.6856	1.1886 0.6722	0.7716 0.6021	0.7735	Qua	24.602	0.8552	0						0.9970		0.9900
Phenol	2.0484	2.0042 1.9234	1.8042 1.9570	1.6150 1.9558	1.8987	Ave		1.9008				7.2		15.0			
Aniline	1.4904	1.2511 1.3351	1.2723 1.2928	0.9752 1.2617	1.3485	Ave		1.2784				11.0		15.0			
Bis(2-chloroethyl)ether	1.5715	1.5093 1.4979	1.5507 1.5601	1.4830 1.5579	1.4564	Ave		1.5233				2.8		15.0			
2-Chlorophenol	1.4460	1.4197 1.3523	1.3599 1.4056	1.2924 1.4031	1.4085	Ave		1.3860				3.5		15.0			
n-Decane	1.8131	1.8330 1.7341	1.8508 1.7790	1.7632 1.7668	1.7894	Ave		1.7912				2.2		15.0			
1,3-Dichlorobenzene	1.5101	1.4783 1.4052	1.4744 1.4565	1.4872 1.4545	1.4674	Ave		1.4667				2.1		15.0			
1,4-Dichlorobenzene	1.5241	1.5019 1.4436	1.5336 1.4841	1.5097 1.4637	1.4955	Ave		1.4945				2.0		15.0			
Benzyl alcohol	0.9879	0.8154 0.9397	0.7593 0.9798	0.6369 0.9842	0.8688	Ave		0.8715				15.0		15.0			
1,2-Dichlorobenzene	1.4316	1.3613 1.3769	1.4603 1.4098	1.4317 1.4099	1.4043	Ave		1.4107				2.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

TPH CALCULATION

	SAMPLE MSA-DMW7S-040714	
TARGET ANALYTE	TPH C6-C10	
ANALYTE RESPONSE	203654370	
ANALYTE AVERAGE RESPONSE	188667	
		ml
		ml
DILUTION FACTOR (DF)	5	

$$\frac{\text{(ANALYTE RESPONSE) X DF X Vol final X CF1}}{\text{(AVERAGE ANALYTE RESPONSE) X (vol. initial)}} = 5397.1911 \text{ ug/l}$$

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-DMW7S-040714 | Lab Sample ID: 240-35913-2

Matrix: Water | Lab File ID: YF041907.D

Analysis Method: 8015B | Date Collected: 04/07/2014 13:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2014 16:50

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127165 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	5400	B	500	130

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	80		40-133

Report Date: 20-Apr-2014 20:07:35 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\YPID\20140419-30164.b\YF041907.D				
Lims ID:	240-35913-E-2	Lab Sample ID:	240-35913-2		
Client ID:	MSA-DMW7S-040714				
Sample Type:	Client				
Inject. Date:	19-Apr-2014 16:50:12	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Sample Info:	240-0030164-007				
Operator ID:	431523	Instrument ID:	YPID		
Method:	\\Ncchrom\ChromData\YPID\20140419-30164.b\Y80158021.m				
Limit Group:	GCV 8015B GRO ICAL				
Last Update:	20-Apr-2014 20:07:33	Calib Date:	01-Apr-2014 16:22:10		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Ncchrom\ChromData\YPID\20140401-29543.b\YF040109.D				
Column 1 :			Det: GC FID1A		
Process Host:	XAWRK016				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	9.791	9.795	-0.004	1687598	7.99	
A 5 C6-C10	11.980	(5.023-18.936)		203654370	1079.4	

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCVRT 240-127165/4 Calibration Date: 04/19/2014 14:54

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041904.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	190894		809	800	1.2	15.0
C6-C12	Ave	208879	216046		827	800	3.4	15.0
Trifluorotoluene (Surr)	Ave	211200	172485		8.17	10.0	-18.3*	15.0

TPH CALCULATION

	SAMPLE MSA-DMW7S-040714	
TARGET ANALYTE	TPH C10-C32	
ANALYTE RESPONSE	13976051	
ANALYTE AVERAGE RESPONSE	455797	
VOLUME OF FINAL EXTRACT	5	ml
VOLUME OF INITIAL EXTRACT	280	ml
DILUTION FACTOR (DF)	1	
CORRECTION FACTOR - CF1	1000	ml to l

$$\frac{\text{(ANALYTE RESPONSE) X DF X Vol final X CF1}}{\text{(AVERAGE ANALYTE RESPONSE) X (vol. initial)}} = 547.5515 \text{ ug/l}$$

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-35913-1

SDG No.:

Client Sample ID: MSA-DMW7S-040714 | Lab Sample ID: 240-35913-2

Matrix: Water | Lab File ID: P14F041509.D

Analysis Method: 8015B | Date Collected: 04/07/2014 13:35

Extraction Method: 3510C | Date Extracted: 04/14/2014 07:55

Sample wt/vol: 280(mL) | Date Analyzed: 04/15/2014 14:28

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	550		450	210

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	66		40-160

Report Date: 16-Apr-2014 14:45:09 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\A2HP14F\20140415-30019.b\P14F041509.D
Lims ID: 240-35913-H-2-A Lab Sample ID: 240-35913-2
Client ID: MSA-DMW7S-040714
Sample Type: Client
Inject. Date: 15-Apr-2014 14:28:41 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: 402582 Instrument ID: A2HP14F

Method: \\Ncchrom\ChromData\A2HP14F\20140415-30019.b\TPH14F.m
Limit Group: GC TPH DIESEL ICAL
Last Update: 16-Apr-2014 14:45:03 Calib Date: 25-Nov-2013 20:22:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A2HP14F\20131125-26063.b\P14F112512.D

Column 1 : Det: GC FID1A
Process Host: XAWRK003

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/ul	Flags
A 15 Diesel					
5.835	(2.955-8.715)		13292929	29.2	
A 17 C10-C32					
6.331	(2.955-9.706)		13976051	30.7	
$ 35 o-Terphenyl					
6.192	6.190	0.002	2782944	5.28	

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-35913-1

SDG No.:

Lab Sample ID: CCV 240-126527/5 Calibration Date: 04/15/2014 13:05

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F041505.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	466197		102	100	2.3	
o-Terphenyl (Surr)	Ave	526657	523.9		7960	8000	-99.9	

Tetra Tech **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE:** **MAY 23, 2014**

FROM: **EDWARD SEDLMYER** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / 1,4-DIOXANE / GRO / DRO / PERCHLORATE, AND DISSOLVED GASES**
LOCKHEED – MARTIN STATE AIRPORT (MSA) SURFACE WATER
SDG 240-36112-1

SAMPLES: 19 / Aqueous / VOC

MSA-DMW-10I-041014	MSA-DMW-10S-041014	MSA-DMW-1A-041014
MSA-DMW-1B-041014	MSA-MW-23D-041114	MSA-MW-23S-041114
MSA-MW-24I-041114	MSA-MW-24S-041114	MSA-MW-25I-041114
MSA-MW-25S-041114	MSA-MW-32I-041014	MSA-MW-32S-041014
MSA-MW-36S-041114	MSA-MW-37S-041114	MSA-MW-48S-041014
MSA-MW-49I-041014	MSA-MW-49S-041014	MSA-MW-6-041014
TRIP BLANK		

18 / Aqueous / 1,4-Dioxane

MSA-DMW-10I-041014	MSA-DMW-10S-041014	MSA-DMW-1A-041014
MSA-DMW-1B-041014	MSA-MW-23D-041114	MSA-MW-23S-041114
MSA-MW-24I-041114	MSA-MW-24S-041114	MSA-MW-25I-041114
MSA-MW-25S-041114	MSA-MW-32I-041014	MSA-MW-32S-041014
MSA-MW-36S-041114	MSA-MW-37S-041114	MSA-MW-48S-041014
MSA-MW-49I-041014	MSA-MW-49S-041014	MSA-MW-6-041014

10 / Aqueous / GRO / DRO

MSA-DMW-10S-041014	MSA-MW-23S-041114	MSA-MW-24S-041114
MSA-MW-25S-041114	MSA-MW-32S-041014	MSA-MW-36S-041114
MSA-MW-37S-041114	MSA-MW-48S-041014	MSA-MW-49S-041014
MSA-MW-6-041014		

4 / Aqueous / Perchlorate

MSA-MW-24I-041114	MSA-MW-48S-041014	MSA-MW-49I-041014
MSA-MW-49S-041014		

1 / Aqueous / Dissolved Gases

MSA-MW-48S-041014

Overview

The sample set for Lockheed – MSA Surface Water, SDG 240-36112-1 consists of eighteen (18) aqueous environmental samples and one (1) trip blank sample. The samples were analyzed for volatile organic compounds (VOC), 1,4-dioxane, gasoline range organics (GRO), diesel range organics (DRO), perchlorate, and dissolved gases, as outlined above.

The samples were collected by Tetra Tech on April 10 and 11, 2014 and analyzed by Test America. All analyses were conducted in accordance with SW-846 Methods 8260C, 8270C, 8015B, 6850, and EPA Method RSK-175 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC and LC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, blank spike/blank spike duplicate results, internal standard recoveries, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

- The matrix spike / matrix spike duplicate (MS/MSD) performed on sample MSA-MW-25I-041114 had zero percent recoveries in the MS and MSD for 2-chloroethyl vinyl ether. The nondetected 2-chloroethyl vinyl ether result for sample MSA-MW-25I-041114 was rejected (UR).

Minor

- The following contaminant was detected in the trip blank at the following maximum concentration:

Analyte	Maximum Concentration	Action Level
Acetone	1.6 ug/L	16 ug/L

  An action level of 10X the maximum contaminant level for acetone has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Results less than the action level have been qualified (U) due to blank contamination.

- The VOC continuing calibration percent differences (%Ds) were greater than the quality control limit of 20% for trichlorofluoromethane, 1,3-dichloropropane, 1,1,2,2-tetrachloroethane, and 1,2,3-trichloropropane, for instrument A3UX10 on 04/21/14 @ 10:59. The detected and nondetected results for the aforementioned compounds in the affected samples were qualified as estimated (J) and (UJ), respectively.

- The VOC continuing calibration %D was greater than the quality control limit of 20% for 2,2-dichloropropane, for instrument A3UX10 on 04/22/14 @ 11:32. The nondetected results 2,2-dichloropropane in the affected samples were qualified as estimated (UJ).

- The TIC results for samples MSA-DMW-10S-041014 and MSA-MW-23S-041114 were qualified as presumptively present (NJ).

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) for the organic analyses were qualified as estimated, (J).

Notes

Nondetected results were reported to the MDL.

The MS/MSD performed on sample MSA-MW-25I-041114 had a relative percent difference (RPD) that exceeded the quality control limit. No action was taken on this basis because the MS and MSD had acceptable recoveries.

Samples MSA-DMW-1A-041014, MSA-DMW-1B-041014, MSA-MW-24I-041114, MSA-MW-48S-041014, MSA-MW-49I-041014, and MSA-MW-49S-041014 required dilutions due to VOC concentrations greater than the linear range of the instrument. This accounts for the elevated detection limits for the nondetected

compounds.

Samples MSA-DMW-1A-041014, MSA-DMW-1B-041014, MSA-MW-49I-041014, and MSA-MW-49S-041014 required dilutions due to 1,4-dioxane concentrations greater than the linear range of the instrument.

Executive Summary

Laboratory Performance: Blank contamination resulted in the qualification of VOC data. Continuing calibration %D noncompliances resulted in the qualification of VOC data.

Other Factors Affecting Data Quality: MS/MSD percent recovery noncompliance resulted in the rejection of one VOC compound. TIC results were qualified for the VOC fraction. Positive results less than the reporting limit (RL) were qualified as estimated, due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to USEPA National Functional Guidelines for Organic Data Validation (June 2008). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Edward Sedlmyer
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 06183	NSAMPLE	MSA-DMW-10I-041014			MSA-DMW-10S-041014			MSA-DMW-1A-041014			MSA-DMW-1B-041014		
SDG: 240-36112-1	LAB_ID	240-36112-7			240-36112-6			240-36112-9			240-36112-8		
FRACTION: OV	SAMP_DATE	4/10/2014			4/10/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	0.23	U		0.23	U		38	U		13	U	
1,1,1-TRICHLOROETHANE	0.22	U		0.22	U		37	U		12	U	
1,1,2,2-TETRACHLOROETHANE	0.18	UJ	C	0.18	UJ	C	30	UJ	C	10	UJ	C
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28	U		0.28	U		47	U		16	U	
1,1-DICHLOROETHANE	0.15	U		0.15	U		25	U		8.3	U	
1,1-DICHLOROETHENE	0.19	U		0.19	U		32	U		11	U	
1,1-DICHLOROPROPENE	0.13	U		0.13	U		22	U		7.2	U	
1,2,3-TRICHLOROBENZENE	0.17	U		0.17	U		28	U		9.4	U	
1,2,3-TRICHLOROPROPANE	0.43	UJ	C	0.43	UJ	C	72	UJ	C	24	UJ	C
1,2,3-TRIMETHYLBENZENE	0.0059	U		0.0059	U		0.98	U		0.33	U	
1,2,4-TRICHLOROBENZENE	0.15	U		0.15	U		25	U		8.3	U	
1,2,4-TRIMETHYLBENZENE	0.12	U		0.12	U		20	U		6.7	U	
1,2-DIBROMO-3-CHLOROPROPANE	0.67	U		0.67	U		110	U		37	U	
1,2-DIBROMOETHANE	0.24	U		0.24	U		40	U		13	U	
1,2-DICHLOROBENZENE	0.13	U		1.8			22	U		7.2	U	
1,2-DICHLOROETHANE	0.22	U		0.47	J	P	37	U		12	U	
1,2-DICHLOROPROPANE	0.18	U		0.18	U		30	U		10	U	
1,3-DICHLOROBENZENE	0.14	U		0.14	U		23	U		7.8	U	
1,3-DICHLOROPROPANE	0.16	UJ	C	0.59	J	CP	27	UJ	C	8.9	UJ	C
1,4-DICHLOROBENZENE	0.13	U		0.39	J	P	22	U		7.2	U	
2,2-DICHLOROPROPANE	0.13	U		0.13	U		22	U		7.2	U	
2-BUTANONE	0.57	U		0.57	U		95	U		32	U	
2-CHLOROETHYL VINYL ETHER	0.99	U		0.99	U		170	U		55	U	
2-CHLOROTOLUENE	0.11	U		0.11	U		18	U		6.1	U	
2-HEXANONE	0.41	U		0.41	U		68	U		23	U	
4-CHLOROTOLUENE	0.18	U		0.18	U		30	U		10	U	
4-ISOPROPYLTOLUENE	0.12	U		0.12	U		20	U		6.7	U	
4-METHYL-2-PENTANONE	0.32	U		0.32	U		53	U		18	U	
ACETONE	1.5	U	A	3.6	U	A	180	U		61	U	
BENZENE	0.13	U		2			22	U		14	J	P
BROMOBENZENE	0.13	U		0.13	U		22	U		7.2	U	
BROMOCHLOROMETHANE	0.29	U		0.29	U		48	U		16	U	
BROMODICHLOROMETHANE	0.15	U		0.15	U		25	U		8.3	U	
BROMOFORM	0.64	U		0.64	U		110	U		36	U	
BROMOMETHANE	0.41	U		0.41	U		68	U		23	U	
CARBON DISULFIDE	0.13	U		0.13	U		22	U		7.2	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-23D-041114			MSA-MW-23S-041114			MSA-MW-24I-041114			MSA-MW-24S-041114		
SDG: 240-36112-1	LAB_ID	240-36112-14			240-36112-13			240-36112-12			240-36112-11		
FRACTION: OV	SAMP_DATE	4/11/2014			4/11/2014			4/11/2014			4/11/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	0.23	U		0.23	U		0.77	U		0.23	U	
1,1,1-TRICHLOROETHANE	0.22	U		0.22	U		0.73	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE	0.18	U		0.18	UJ	C	0.6	UJ	C	0.18	UJ	C
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28	U		0.28	U		0.93	U		0.28	U	
1,1-DICHLOROETHANE	0.15	U		0.15	U		0.5	U		0.15	U	
1,1-DICHLOROETHENE	0.19	U		0.19	U		0.63	U		0.19	U	
1,1-DICHLOROPROPENE	0.13	U		0.13	U		0.43	U		0.13	U	
1,2,3-TRICHLOROBENZENE	0.17	U		0.17	U		0.57	U		0.17	U	
1,2,3-TRICHLOROPROPANE	0.43	U		0.43	UJ	C	1.4	UJ	C	0.43	UJ	C
1,2,3-TRIMETHYLBENZENE	0.0059	U		0.0059	U		0.02	U		0.0059	U	
1,2,4-TRICHLOROBENZENE	0.15	U		0.15	U		0.5	U		0.15	U	
1,2,4-TRIMETHYLBENZENE	0.12	U		0.12	U		0.4	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE	0.67	U		0.67	U		2.2	U		0.67	U	
1,2-DIBROMOETHANE	0.24	U		0.24	U		0.8	U		0.24	U	
1,2-DICHLOROBENZENE	0.13	U		0.13	U		0.43	U		0.13	U	
1,2-DICHLOROETHANE	0.22	U		0.22	U		0.73	U		0.22	U	
1,2-DICHLOROPROPANE	0.18	U		0.18	U		0.6	U		0.18	U	
1,3-DICHLOROBENZENE	0.14	U		0.15	J	P	0.47	U		0.14	U	
1,3-DICHLOROPROPANE	0.16	U		0.16	UJ	C	0.53	UJ	C	0.16	UJ	C
1,4-DICHLOROBENZENE	0.13	U		0.13	U		0.43	U		0.13	U	
2,2-DICHLOROPROPANE	0.13	UJ	C	0.13	U		0.43	U		0.13	U	
2-BUTANONE	0.57	U		0.57	U		1.9	U		0.57	U	
2-CHLOROETHYL VINYL ETHER	0.99	U		0.99	U		3.3	U		0.99	U	
2-CHLOROTOLUENE	0.11	U		0.11	U		0.37	U		0.11	U	
2-HEXANONE	0.41	U		0.41	U		1.4	U		0.41	U	
4-CHLOROTOLUENE	0.18	U		0.18	U		0.6	U		0.18	U	
4-ISOPROPYLTOLUENE	0.12	U		0.12	U		0.4	U		0.12	U	
4-METHYL-2-PENTANONE	0.32	U		0.32	U		1.1	U		0.32	U	
ACETONE	1.5	U	A	2.4	U	A	3.7	U		1.5	U	A
BENZENE	0.13	U		2			0.43	U		0.15	J	P
BROMOBENZENE	0.13	U		0.13	U		0.43	U		0.13	U	
BROMOCHLOROMETHANE	0.29	U		0.29	U		0.97	U		0.29	U	
BROMODICHLOROMETHANE	0.15	U		0.15	U		0.5	U		0.15	U	
BROMOFORM	0.64	U		0.64	U		2.1	U		0.64	U	
BROMOMETHANE	0.41	U		0.41	U		1.4	U		0.41	U	
CARBON DISULFIDE	0.13	U		0.13	U		0.43	U		0.13	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-25I-041114			MSA-MW-25S-041114			MSA-MW-32I-041014			MSA-MW-32S-041014		
SDG: 240-36112-1	LAB_ID	240-36112-17			240-36112-16			240-36112-2			240-36112-1		
FRACTION: OV	SAMP_DATE	4/11/2014			4/11/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	UJ	C	0.18	U		0.18	UJ	C	0.18	UJ	C
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	UJ	C	0.43	U		0.43	UJ	C	0.43	UJ	C
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	UJ	C	0.16	U		0.16	UJ	C	0.16	UJ	C
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	UJ	C	0.13	U		0.13	U	
2-BUTANONE		0.57	U		0.57	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	UR	D	0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		2.2	U	A	2.3	U	A	1.8	U	A	2.6	U	A
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U		0.13	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-36S-041114			MSA-MW-37S-041114			MSA-MW-48S-041014			MSA-MW-49I-041014		
SDG: 240-36112-1	LAB_ID	240-36112-15			240-36112-18			240-36112-3			240-36112-5		
FRACTION: OV	SAMP_DATE	4/11/2014			4/11/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		1.2	U		46	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		1.1	U		44	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.9	UJ	C	36	UJ	C
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		1.4	U		56	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.75	U		30	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.95	U		160	J	P
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.65	U		26	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.85	U		34	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		2.2	UJ	C	86	UJ	C
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.03	U		1.2	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.75	U		30	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.6	U		24	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		3.4	U		130	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		1.2	U		48	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.65	U		26	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		1.1	U		44	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.9	U		36	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.7	U		28	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.8	UJ	C	32	UJ	C
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.65	U		26	U	
2,2-DICHLOROPROPANE		0.13	UJ	C	0.13	UJ	C	0.65	U		26	U	
2-BUTANONE		0.57	U		0.57	U		2.9	U		110	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		5	U		200	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.55	U		22	U	
2-HEXANONE		0.41	U		0.41	U		2.1	U		82	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.9	U		36	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.6	U		24	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		1.6	U		64	U	
ACETONE		1.2	U	A	1.7	U	A	6.1	U	A	220	U	
BENZENE		0.13	U		0.13	U		0.65	U		26	U	
BROMOBENZENE		0.13	U		0.13	U		0.65	U		26	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		1.5	U		58	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.75	U		30	U	
BROMOFORM		0.64	U		0.64	U		3.2	U		130	U	
BROMOMETHANE		0.41	U		0.41	U		2.1	U		82	U	
CARBON DISULFIDE		0.13	U		0.13	U		0.65	U		26	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-49S-041014			MSA-MW-6-041014			TRIP BLANK		
SDG: 240-36112-1	LAB_ID	240-36112-4			240-36112-10			240-36112-19		
FRACTION: OV	SAMP_DATE	4/10/2014			4/10/2014			4/11/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	3.3	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE	3.1	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE	2.6	UJ	C	0.18	UJ	C	0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	4	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE	2.1	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE	7.4	J	P	0.19	U		0.19	U	
1,1-DICHLOROPROPENE	1.9	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE	2.4	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE	6.1	UJ	C	0.43	UJ	C	0.43	U	
1,2,3-TRIMETHYLBENZENE	0.084	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE	2.1	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE	1.7	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE	9.6	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE	3.4	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE	1.9	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE	8	J	P	0.22	U		0.22	U	
1,2-DICHLOROPROPANE	2.6	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE	2	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE	2.3	UJ	C	0.16	UJ	C	0.16	U	
1,4-DICHLOROBENZENE	1.9	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE	1.9	U		0.13	U		0.13	U	
2-BUTANONE	8.1	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER	14	U		0.99	U		0.99	U	
2-CHLOROTOLUENE	1.6	U		0.11	U		0.11	U	
2-HEXANONE	5.9	U		0.41	U		0.41	U	
4-CHLOROTOLUENE	2.6	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE	1.7	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE	4.6	U		0.32	U		0.32	U	
ACETONE	16	U		3	U	A	1.6	J	P
BENZENE	1.9	U		0.13	U		0.13	U	
BROMOBENZENE	1.9	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE	4.1	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE	2.1	U		0.15	U		0.15	U	
BROMOFORM	9.1	U		0.64	U		0.64	U	
BROMOMETHANE	5.9	U		0.41	U		0.41	U	
CARBON DISULFIDE	1.9	U		0.13	U		0.13	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW-10I-041014			MSA-DMW-10S-041014			MSA-DMW-1A-041014			MSA-DMW-1B-041014		
SDG: 240-36112-1	LAB_ID	240-36112-7			240-36112-6			240-36112-9			240-36112-8		
FRACTION: OV	SAMP_DATE	4/10/2014			4/10/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON TETRACHLORIDE		0.69	J	P	0.13	U		22	U		7.2	U	
CHLOROBENZENE		0.15	U		0.15	U		25	U		8.3	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		30	U		10	U	
CHLOROETHANE		0.29	U		0.29	U		48	U		16	U	
CHLOROFORM		0.69	J	P	0.16	U		27	U		8.9	U	
CHLOROMETHANE		0.3	U		0.3	U		50	U		17	U	
CIS-1,2-DICHLOROETHENE		5.5			0.17	U		2900			1700		
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		23	U		7.8	U	
DIBROMOMETHANE		0.28	U		0.28	U		47	U		16	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.49	J	P	52	U		17	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		250	U		83	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		18	U		6.1	U	
ETHYLBENZENE		0.17	U		0.17	U		28	U		9.4	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		50	U		17	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		22	U		7.2	U	
M+P-XYLENES		0.24	U		0.24	U		40	U		13	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		28	U		9.4	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		150	J	P	18	U	
NAPHTHALENE		0.24	U		0.24	U		40	U		13	U	
N-BUTYLBENZENE		0.12	U		0.12	U		20	U		6.7	U	
N-PROPYLBENZENE		0.14	U		0.14	U		23	U		7.8	U	
O-XYLENE		0.14	U		0.14	U		23	U		7.8	U	
SEC-BUTYLBENZENE		0.13	U		1			22	U		7.2	U	
STYRENE		0.11	U		0.11	U		18	U		6.1	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		11	U		3.7	U	
TERT-BUTYLBENZENE		0.13	U		0.74	J	P	22	U		7.2	U	
TERTIARY-BUTYL ALCOHOL		3.9	U		3.9	U		650	U		400	J	P
TETRACHLOROETHENE		0.29	U		0.29	U		48	U		16	U	
TOLUENE		0.13	U		0.13	U		100	J	P	7.2	U	
TOTAL XYLENES		0.14	U		0.14	U		23	U		7.8	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		1.1			32	U		12	J	P
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		32	U		11	U	
TRICHLOROETHENE		12			0.25	J	P	4800			970		
TRICHLOROFLUOROMETHANE		0.21	UJ	C	0.21	UJ	C	35	UJ	C	12	UJ	C
VINYL ACETATE		0.19	U		0.19	U		32	U		11	U	
VINYL CHLORIDE		0.42	J	P	21			1000			1500		

PROJ_NO: 06183	NSAMPLE	MSA-MW-23D-041114			MSA-MW-23S-041114			MSA-MW-24I-041114			MSA-MW-24S-041114		
SDG: 240-36112-1	LAB_ID	240-36112-14			240-36112-13			240-36112-12			240-36112-11		
FRACTION: OV	SAMP_DATE	4/11/2014			4/11/2014			4/11/2014			4/11/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON TETRACHLORIDE		4.8			0.13	U		12			0.13	U	
CHLOROBENZENE		0.15	U		0.21	J	P	0.5	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.6	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.97	U		0.29	U	
CHLOROFORM		3.2			0.16	U		1.5	J	P	0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		1	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		2			0.57	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.47	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.93	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		1	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.37	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.57	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		1	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.43	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.8	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.57	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		1.1	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.8	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.4	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.47	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.47	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.43	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.37	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.22	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.43	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	U		3.9	U		13	U		3.9	U	
TETRACHLOROETHENE		0.29	U		0.29	U		0.97	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.43	U		0.13	U	
TOTAL XYLENES		0.14	U		0.14	U		0.47	U		0.14	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.63	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.63	U		0.19	U	
TRICHLOROETHENE		1.1			0.32	J	P	110			0.17	U	
TRICHLOROFLUOROMETHANE		0.21	U		0.21	UJ	C	0.7	UJ	C	0.21	UJ	C
VINYL ACETATE		0.19	U		0.19	U		0.63	U		0.19	U	
VINYL CHLORIDE		0.22	U		5.8			0.73	U		0.22	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-25I-041114			MSA-MW-25S-041114			MSA-MW-32I-041014			MSA-MW-32S-041014		
SDG: 240-36112-1	LAB_ID	240-36112-17			240-36112-16			240-36112-2			240-36112-1		
FRACTION: OV	SAMP_DATE	4/11/2014			4/11/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		20			0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	U		3.9	U		3.9	U		3.9	U	
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.52	J	P	1.1		
TOTAL XYLENES		0.14	U		0.14	U		0.14	U		0.14	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		1.1			0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.17	U		0.29	J	P	0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		0.21	UJ	C	0.21	U		0.21	UJ	C	0.21	UJ	C
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.22	U		1.5			0.22	U		0.22	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-36S-041114			MSA-MW-37S-041114			MSA-MW-48S-041014			MSA-MW-49I-041014		
SDG: 240-36112-1	LAB_ID	240-36112-15			240-36112-18			240-36112-3			240-36112-5		
FRACTION: OV	SAMP_DATE	4/11/2014			4/11/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.65	U		26	U	
CHLOROBENZENE		0.15	U		0.15	U		0.75	U		30	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.9	U		36	U	
CHLOROETHANE		0.29	U		0.29	U		1.5	U		58	U	
CHLOROFORM		0.16	U		0.16	U		2.6	J	P	32	U	
CHLOROMETHANE		0.3	U		0.3	U		1.5	U		60	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U		24			1700		
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.7	U		28	U	
DIBROMOMETHANE		0.28	U		0.28	U		1.4	U		56	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		1.6	U		62	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		7.5	U		300	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.55	U		22	U	
ETHYLBENZENE		0.17	U		0.17	U		0.85	U		34	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		1.5	U		60	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.65	U		26	U	
M+P-XYLENES		0.24	U		0.24	U		1.2	U		48	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.85	U		34	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		1.7	U		66	U	
NAPHTHALENE		0.24	U		0.24	U		1.2	U		48	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.6	U		24	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.7	U		28	U	
O-XYLENE		0.14	U		0.14	U		0.7	U		28	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.65	U		26	U	
STYRENE		0.11	U		0.11	U		0.55	U		22	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.34	U		13	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.65	U		26	U	
TERTIARY-BUTYL ALCOHOL		3.9	U		3.9	U		20	U		780	U	
TETRACHLOROETHENE		0.29	U		0.29	U		1.5	U		58	U	
TOLUENE		0.13	U		0.13	U		1.4	J	P	26	U	
TOTAL XYLENES		0.14	U		0.14	U		0.7	U		28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.95	U		38	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.95	U		38	U	
TRICHLOROETHENE		0.17	U		0.17	U		0.85	U		4800		
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		1.1	UJ	C	42	UJ	C
VINYL ACETATE		0.19	U		0.19	U		0.95	U		38	U	
VINYL CHLORIDE		0.22	U		0.22	U		120			1600		

PROJ_NO: 06183	NSAMPLE	MSA-MW-49S-041014			MSA-MW-6-041014			TRIP BLANK		
SDG: 240-36112-1	LAB_ID	240-36112-4			240-36112-10			240-36112-19		
FRACTION: OV	SAMP_DATE	4/10/2014			4/10/2014			4/11/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON TETRACHLORIDE		1.9	U		0.13	U		0.13	U	
CHLOROBENZENE		2.8	J	P	0.15	U		0.15	U	
CHLORODIBROMOMETHANE		2.6	U		0.18	U		0.18	U	
CHLOROETHANE		4.1	U		0.29	U		0.29	U	
CHLOROFORM		2.3	U		0.16	U		0.16	U	
CHLOROMETHANE		4.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		56			0.35	J	P	0.17	U	
CIS-1,3-DICHLOROPROPENE		2	U		0.14	U		0.14	U	
DIBROMOMETHANE		4	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		4.4	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		21	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		1.6	U		0.11	U		0.11	U	
ETHYLBENZENE		2.4	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		4.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		1.9	U		0.13	U		0.13	U	
M+P-XYLENES		3.4	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		2.4	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		4.7	U		0.33	U		0.33	U	
NAPHTHALENE		3.4	U		0.24	U		0.24	U	
N-BUTYLBENZENE		1.7	U		0.12	U		0.12	U	
N-PROPYLBENZENE		2	U		0.14	U		0.14	U	
O-XYLENE		2	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		1.9	U		0.13	U		0.13	U	
STYRENE		1.6	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.96	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		1.9	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		56	U		3.9	U		3.9	U	
TETRACHLOROETHENE		4.1	U		0.29	U		0.29	U	
TOLUENE		1.9	U		0.13	U		0.13	U	
TOTAL XYLENES		2	U		0.14	U		0.14	U	
TRANS-1,2-DICHLOROETHENE		2.7	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		2.7	U		0.19	U		0.19	U	
TRICHLOROETHENE		440			0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		3	UJ	C	0.21	UJ	C	0.21	U	
VINYL ACETATE		2.7	U		0.19	U		0.19	U	
VINYL CHLORIDE		29			0.22	U		0.22	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW-10S-041014			MSA-MW-23S-041114		
SDG: 240-36112-1	LAB_ID	240-36112-6			240-36112-13		
FRACTION: TICOV	SAMP_DATE	4/10/2014			4/11/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1H-INDENE, 2,3-DIHYDRO-4,7-DIMETHYL-		2.3	NJ	Z1			
BENZENE, 1-METHYL-3-(1-METHYLETHYL)-		1.9	NJ	Z1			
BUTANE, 2-METHYL-		3	NJ	Z1			
CYCLOHEXANE		2.2	NJ	Z1			
CYCLOHEXANE, METHYL-		2.8	NJ	Z1			
CYCLOHEXANE, PROPYL-		1	NJ	Z1			
CYCLOPENTANE, 1,2,3-TRIMETHYL-, (1.ALPHA		1.1	NJ	Z1			
DI-SEC-BUTYL ETHER					0.9	NJ	Z1
N-BUTYL ETHER		1.3	NJ	Z1			
PENTANE, 2,3,3-TRIMETHYL-		1.5	NJ	Z1			
PENTANE, 2-METHYL-		2.6	NJ	Z1			

PROJ_NO: 06183	NSAMPLE	MSA-DMW-10I-041014			MSA-DMW-10S-041014			MSA-DMW-1A-041014			MSA-DMW-1B-041014		
SDG: 240-36112-1	LAB_ID	240-36112-7			240-36112-6			240-36112-9			240-36112-8		
FRACTION: OS	SAMP_DATE	4/10/2014			4/10/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.99			11			180			56		

PROJ_NO: 06183	NSAMPLE	MSA-MW-23D-041114			MSA-MW-23S-041114			MSA-MW-24I-041114			MSA-MW-24S-041114		
SDG: 240-36112-1	LAB_ID	240-36112-14			240-36112-13			240-36112-12			240-36112-11		
FRACTION: OS	SAMP_DATE	4/11/2014			4/11/2014			4/11/2014			4/11/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.25	U		3.4			0.23	U		1.2		

PROJ_NO: 06183	NSAMPLE	MSA-MW-25I-041114			MSA-MW-25S-041114			MSA-MW-32I-041014			MSA-MW-32S-041014		
SDG: 240-36112-1	LAB_ID	240-36112-17			240-36112-16			240-36112-2			240-36112-1		
FRACTION: OS	SAMP_DATE	4/11/2014			4/11/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.25	U		0.26	U		0.26	U		0.26	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-36S-041114			MSA-MW-37S-041114			MSA-MW-48S-041014			MSA-MW-49I-041014		
SDG: 240-36112-1	LAB_ID	240-36112-15			240-36112-18			240-36112-3			240-36112-5		
FRACTION: OS	SAMP_DATE	4/11/2014			4/11/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.26	U		0.26	U		1.8			88		

PROJ_NO: 06183	NSAMPLE	MSA-MW-49S-041014			MSA-MW-6-041014		
SDG: 240-36112-1	LAB_ID	240-36112-4			240-36112-10		
FRACTION: OS	SAMP_DATE	4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		60			0.93	J	P

PROJ_NO: 06183	NSAMPLE	MSA-DMW-10S-041014			MSA-MW-23S-041114			MSA-MW-24S-041114			MSA-MW-25S-041114		
SDG: 240-36112-1	LAB_ID	240-36112-6			240-36112-13			240-36112-11			240-36112-16		
FRACTION: PET	SAMP_DATE	4/10/2014			4/11/2014			4/11/2014			4/11/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		96	J	P	39	J	P	26	J	P	42	J	P
TPH (C10-C32)		1300			240	U		240	U		240	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-32S-041014			MSA-MW-36S-041114			MSA-MW-37S-041114			MSA-MW-48S-041014		
SDG: 240-36112-1	LAB_ID	240-36112-1			240-36112-15			240-36112-18			240-36112-3		
FRACTION: PET	SAMP_DATE	4/10/2014			4/11/2014			4/11/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		25	U		27	J	P	30	J	P	45	J	P
TPH (C10-C32)		240	U		240	U		240	U		240	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-49S-041014			MSA-MW-6-041014		
SDG: 240-36112-1	LAB_ID	240-36112-4			240-36112-10		
FRACTION: PET	SAMP_DATE	4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		260			25	U	
TPH (C10-C32)		240	U		240	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-24I-041114			MSA-MW-48S-041014			MSA-MW-49I-041014			MSA-MW-49S-041014		
SDG: 240-36112-1	LAB_ID	240-36112-12			240-36112-3			240-36112-5			240-36112-4		
FRACTION: MISCO	SAMP_DATE	4/11/2014			4/10/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.12	J	P	0.082	U		4.2			0.082	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-48S-041014		
SDG: 240-36112-1	LAB_ID	240-36112-3		
FRACTION: OVG	SAMP_DATE	4/10/2014		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ETHANE		40		
ETHENE		32		
METHANE		470		

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-10I-041014 | Lab Sample ID: 240-36112-7

Matrix: Water | Lab File ID: UXX9866.D

Analysis Method: 8260C | Date Collected: 04/10/2014 10:09

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 18:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.5	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.69	J	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-10I-041014 | Lab Sample ID: 240-36112-7

Matrix: Water | Lab File ID: UXX9866.D

Analysis Method: 8260C | Date Collected: 04/10/2014 10:09

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 18:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.69	J	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	5.5		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	12		1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.42	J	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-10I-041014 | Lab Sample ID: 240-36112-7

Matrix: Water | Lab File ID: UXX9866.D

Analysis Method: 8260C | Date Collected: 04/10/2014 10:09

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 18:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	91		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-10I-041014 | Lab Sample ID: 240-36112-7

Matrix: Water | Lab File ID: UXX9866.D

Analysis Method: 8260C | Date Collected: 04/10/2014 10:09

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 18:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-10S-041014 | Lab Sample ID: 240-36112-6

Matrix: Water | Lab File ID: UXX9865.D

Analysis Method: 8260C | Date Collected: 04/10/2014 08:53

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 18:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.8		1.0	0.13
107-06-2	1,2-Dichloroethane	0.47	J	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.59	J	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.39	J	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	3.6	J	10	1.1
71-43-2	Benzene	2.0		1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-10S-041014 | Lab Sample ID: 240-36112-6

Matrix: Water | Lab File ID: UXX9865.D

Analysis Method: 8260C | Date Collected: 04/10/2014 08:53

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 18:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.49	J	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0		1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.1		1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.25	J	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	21		1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.74	J	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-10S-041014 Lab Sample ID: 240-36112-6

Matrix: Water Lab File ID: UXX9865.D

Analysis Method: 8260C Date Collected: 04/10/2014 08:53

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 18:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		74-120
1868-53-7	Dibromofluoromethane (Surr)	85		75-121
460-00-4	4-Bromofluorobenzene (Surr)	94		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-10S-041014 | Lab Sample ID: 240-36112-6

Matrix: Water | Lab File ID: UXX9865.D

Analysis Method: 8260C | Date Collected: 04/10/2014 08:53

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 18:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

Number TICs Found: 10 | TIC Result Total: 19.7

CAS NO.	COMPOUND NAME	RT	RESULT	Q
78-78-4	Butane, 2-methyl-	2.36	3.0	T J N
107-83-5	Pentane, 2-methyl-	3.44	2.6	T J N
110-82-7	Cyclohexane	5.05	2.2	T J N
108-87-2	Cyclohexane, methyl-	6.00	2.8	T J N
15890-40-1	Cyclopentane, 1,2,3-trimethyl-, (1.alpha	6.36	1.1	T J N
560-21-4	Pentane, 2,3,3-trimethyl-	6.48	1.5	T J N
142-96-1	n-Butyl ether	8.32	1.3	T J N
1678-92-8	Cyclohexane, propyl-	8.99	1.0	T J N
535-77-3	Benzene, 1-methyl-3-(1-methylethyl)-	10.64	1.9	T J N
6682-71-9	1H-Indene, 2,3-dihydro-4,7-dimethyl-	11.48	2.3	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-1A-041014 | Lab Sample ID: 240-36112-9

Matrix: Water | Lab File ID: UXX9868.D

Analysis Method: 8260C | Date Collected: 04/10/2014 12:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 19:24

Soil Aliquot Vol: | Dilution Factor: 166.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	38	U	170	38
71-55-6	1,1,1-Trichloroethane	37	U	170	37
79-34-5	1,1,2,2-Tetrachloroethane	30	U	170	30
76-13-1	1,1,2-Trichlorotrifluoroethane	47	U	170	47
75-34-3	1,1-Dichloroethane	25	U	170	25
75-35-4	1,1-Dichloroethene	32	U	170	32
563-58-6	1,1-Dichloropropene	22	U	170	22
87-61-6	1,2,3-Trichlorobenzene	28	U	170	28
96-18-4	1,2,3-Trichloropropane	72	U	170	72
526-73-8	1,2,3-Trimethylbenzene	0.98	U	830	0.98
120-82-1	1,2,4-Trichlorobenzene	25	U	170	25
95-63-6	1,2,4-Trimethylbenzene	20	U	170	20
96-12-8	1,2-Dibromo-3-Chloropropane	110	U	330	110
95-50-1	1,2-Dichlorobenzene	22	U	170	22
107-06-2	1,2-Dichloroethane	37	U	170	37
78-87-5	1,2-Dichloropropane	30	U	170	30
541-73-1	1,3-Dichlorobenzene	23	U	170	23
142-28-9	1,3-Dichloropropane	27	U	170	27
106-46-7	1,4-Dichlorobenzene	22	U	170	22
594-20-7	2,2-Dichloropropane	22	U	170	22
78-93-3	2-Butanone (MEK)	95	U	1700	95
110-75-8	2-Chloroethyl vinyl ether	170	U	1700	170
95-49-8	2-Chlorotoluene	18	U	170	18
591-78-6	2-Hexanone	68	U	1700	68
106-43-4	4-Chlorotoluene	30	U	170	30
99-87-6	4-Isopropyltoluene	20	U	170	20
108-10-1	4-Methyl-2-pentanone (MIBK)	53	U	1700	53
67-64-1	Acetone	180	U	1700	180
71-43-2	Benzene	22	U	170	22
108-86-1	Bromobenzene	22	U	170	22
75-25-2	Bromoform	110	U	170	110
74-83-9	Bromomethane	68	U	170	68
75-15-0	Carbon disulfide	22	U	170	22
56-23-5	Carbon tetrachloride	22	U	170	22
108-90-7	Chlorobenzene	25	U	170	25
124-48-1	Chlorodibromomethane	30	U	170	30

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-1A-041014 | Lab Sample ID: 240-36112-9

Matrix: Water | Lab File ID: UXX9868.D

Analysis Method: 8260C | Date Collected: 04/10/2014 12:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 19:24

Soil Aliquot Vol: | Dilution Factor: 166.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	48	U	170	48
67-66-3	Chloroform	27	U	170	27
74-87-3	Chloromethane	50	U	170	50
156-59-2	cis-1,2-Dichloroethene	2900		170	28
10061-01-5	cis-1,3-Dichloropropene	23	U	170	23
74-95-3	Dibromomethane	47	U	170	47
74-97-5	Bromochloromethane	48	U	170	48
75-71-8	Dichlorodifluoromethane	52	U	170	52
75-27-4	Bromodichloromethane	25	U	170	25
75-65-0	tert-Butyl alcohol	650	U	8300	650
100-41-4	Ethylbenzene	28	U	170	28
87-68-3	Hexachlorobutadiene	50	U	170	50
108-20-3	Diisopropyl ether	250	U	1700	250
98-82-8	Isopropylbenzene	22	U	170	22
1634-04-4	Methyl tert-butyl ether	28	U	170	28
75-09-2	Methylene Chloride	150	J	170	55
179601-23-1	m-Xylene & p-Xylene	40	U	330	40
91-20-3	Naphthalene	40	U	170	40
104-51-8	n-Butylbenzene	20	U	170	20
103-65-1	N-Propylbenzene	23	U	170	23
95-47-6	o-Xylene	23	U	170	23
135-98-8	sec-Butylbenzene	22	U	170	22
100-42-5	Styrene	18	U	170	18
994-05-8	Tert-amyl methyl ether	11	U	830	11
637-92-3	Ethyl tert-butyl ether	18	U	830	18
127-18-4	Tetrachloroethene	48	U	170	48
108-88-3	Toluene	100	J	170	22
156-60-5	trans-1,2-Dichloroethene	32	U	170	32
10061-02-6	trans-1,3-Dichloropropene	32	U	170	32
79-01-6	Trichloroethene	4800		170	28
75-69-4	Trichlorofluoromethane	35	U	170	35
108-05-4	Vinyl acetate	32	U	330	32
75-01-4	Vinyl chloride	1000		170	37
1330-20-7	Xylenes, Total	23	U	330	23
98-06-6	tert-Butylbenzene	22	U	170	22
106-93-4	1,2-Dibromoethane	40	U	170	40

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-1A-041014 Lab Sample ID: 240-36112-9

Matrix: Water Lab File ID: UXX9868.D

Analysis Method: 8260C Date Collected: 04/10/2014 12:45

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 19:24

Soil Aliquot Vol: Dilution Factor: 166.67

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	91		75-121
460-00-4	4-Bromofluorobenzene (Surr)	92		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-1A-041014 Lab Sample ID: 240-36112-9

Matrix: Water Lab File ID: UXX9868.D

Analysis Method: 8260C Date Collected: 04/10/2014 12:45

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 19:24

Soil Aliquot Vol: Dilution Factor: 166.67

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-1B-041014 | Lab Sample ID: 240-36112-8

Matrix: Water | Lab File ID: UXX9867.D

Analysis Method: 8260C | Date Collected: 04/10/2014 11:29

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 19:02

Soil Aliquot Vol: | Dilution Factor: 55.56

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	13	U	56	13
71-55-6	1,1,1-Trichloroethane	12	U	56	12
79-34-5	1,1,2,2-Tetrachloroethane	10	U	56	10
76-13-1	1,1,2-Trichlorotrifluoroethane	16	U	56	16
75-34-3	1,1-Dichloroethane	8.3	U	56	8.3
75-35-4	1,1-Dichloroethene	11	U	56	11
563-58-6	1,1-Dichloropropene	7.2	U	56	7.2
87-61-6	1,2,3-Trichlorobenzene	9.4	U	56	9.4
96-18-4	1,2,3-Trichloropropane	24	U	56	24
526-73-8	1,2,3-Trimethylbenzene	0.33	U	280	0.33
120-82-1	1,2,4-Trichlorobenzene	8.3	U	56	8.3
95-63-6	1,2,4-Trimethylbenzene	6.7	U	56	6.7
96-12-8	1,2-Dibromo-3-Chloropropane	37	U	110	37
95-50-1	1,2-Dichlorobenzene	7.2	U	56	7.2
107-06-2	1,2-Dichloroethane	12	U	56	12
78-87-5	1,2-Dichloropropane	10	U	56	10
541-73-1	1,3-Dichlorobenzene	7.8	U	56	7.8
142-28-9	1,3-Dichloropropane	8.9	U	56	8.9
106-46-7	1,4-Dichlorobenzene	7.2	U	56	7.2
594-20-7	2,2-Dichloropropane	7.2	U	56	7.2
78-93-3	2-Butanone (MEK)	32	U	560	32
110-75-8	2-Chloroethyl vinyl ether	55	U	560	55
95-49-8	2-Chlorotoluene	6.1	U	56	6.1
591-78-6	2-Hexanone	23	U	560	23
106-43-4	4-Chlorotoluene	10	U	56	10
99-87-6	4-Isopropyltoluene	6.7	U	56	6.7
108-10-1	4-Methyl-2-pentanone (MIBK)	18	U	560	18
67-64-1	Acetone	61	U	560	61
71-43-2	Benzene	14	J	56	7.2
108-86-1	Bromobenzene	7.2	U	56	7.2
75-25-2	Bromoform	36	U	56	36
74-83-9	Bromomethane	23	U	56	23
75-15-0	Carbon disulfide	7.2	U	56	7.2
56-23-5	Carbon tetrachloride	7.2	U	56	7.2
108-90-7	Chlorobenzene	8.3	U	56	8.3
124-48-1	Chlorodibromomethane	10	U	56	10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-1B-041014 | Lab Sample ID: 240-36112-8

Matrix: Water | Lab File ID: UXX9867.D

Analysis Method: 8260C | Date Collected: 04/10/2014 11:29

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 19:02

Soil Aliquot Vol: | Dilution Factor: 55.56

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	16	U	56	16
67-66-3	Chloroform	8.9	U	56	8.9
74-87-3	Chloromethane	17	U	56	17
156-59-2	cis-1,2-Dichloroethene	1700		56	9.4
10061-01-5	cis-1,3-Dichloropropene	7.8	U	56	7.8
74-95-3	Dibromomethane	16	U	56	16
74-97-5	Bromochloromethane	16	U	56	16
75-71-8	Dichlorodifluoromethane	17	U	56	17
75-27-4	Bromodichloromethane	8.3	U	56	8.3
75-65-0	tert-Butyl alcohol	400	J	2800	220
100-41-4	Ethylbenzene	9.4	U	56	9.4
87-68-3	Hexachlorobutadiene	17	U	56	17
108-20-3	Diisopropyl ether	83	U	560	83
98-82-8	Isopropylbenzene	7.2	U	56	7.2
1634-04-4	Methyl tert-butyl ether	9.4	U	56	9.4
75-09-2	Methylene Chloride	18	U	56	18
179601-23-1	m-Xylene & p-Xylene	13	U	110	13
91-20-3	Naphthalene	13	U	56	13
104-51-8	n-Butylbenzene	6.7	U	56	6.7
103-65-1	N-Propylbenzene	7.8	U	56	7.8
95-47-6	o-Xylene	7.8	U	56	7.8
135-98-8	sec-Butylbenzene	7.2	U	56	7.2
100-42-5	Styrene	6.1	U	56	6.1
994-05-8	Tert-amyl methyl ether	3.7	U	280	3.7
637-92-3	Ethyl tert-butyl ether	6.1	U	280	6.1
127-18-4	Tetrachloroethene	16	U	56	16
108-88-3	Toluene	7.2	U	56	7.2
156-60-5	trans-1,2-Dichloroethene	12	J	56	11
10061-02-6	trans-1,3-Dichloropropene	11	U	56	11
79-01-6	Trichloroethene	970		56	9.4
75-69-4	Trichlorofluoromethane	12	U	56	12
108-05-4	Vinyl acetate	11	U	110	11
75-01-4	Vinyl chloride	1500		56	12
1330-20-7	Xylenes, Total	7.8	U	110	7.8
98-06-6	tert-Butylbenzene	7.2	U	56	7.2
106-93-4	1,2-Dibromoethane	13	U	56	13

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-1B-041014 | Lab Sample ID: 240-36112-8

Matrix: Water | Lab File ID: UXX9867.D

Analysis Method: 8260C | Date Collected: 04/10/2014 11:29

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 19:02

Soil Aliquot Vol: | Dilution Factor: 55.56

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	87		75-121
460-00-4	4-Bromofluorobenzene (Surr)	89		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-1B-041014 Lab Sample ID: 240-36112-8

Matrix: Water Lab File ID: UXX9867.D

Analysis Method: 8260C Date Collected: 04/10/2014 11:29

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 19:02

Soil Aliquot Vol: Dilution Factor: 55.56

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-23D-041114 | Lab Sample ID: 240-36112-14

Matrix: Water | Lab File ID: UXX9888.D

Analysis Method: 8260C | Date Collected: 04/11/2014 14:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 16:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.5	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	4.8		1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-23D-041114 Lab Sample ID: 240-36112-14

Matrix: Water Lab File ID: UXX9888.D

Analysis Method: 8260C Date Collected: 04/11/2014 14:45

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 16:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	3.2		1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	1.1		1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-23D-041114 Lab Sample ID: 240-36112-14

Matrix: Water Lab File ID: UXX9888.D

Analysis Method: 8260C Date Collected: 04/11/2014 14:45

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 16:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	90		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-23D-041114 | Lab Sample ID: 240-36112-14

Matrix: Water | Lab File ID: UXX9888.D

Analysis Method: 8260C | Date Collected: 04/11/2014 14:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 16:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-23S-041114 | Lab Sample ID: 240-36112-13

Matrix: Water | Lab File ID: UXX9872.D

Analysis Method: 8260C | Date Collected: 04/11/2014 11:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 20:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.15	J	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	2.4	J	10	1.1
71-43-2	Benzene	2.0		1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.21	J	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-23S-041114 | Lab Sample ID: 240-36112-13

Matrix: Water | Lab File ID: UXX9872.D

Analysis Method: 8260C | Date Collected: 04/11/2014 11:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 20:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	2.0		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.32	J	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	5.8		1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-23S-041114 | Lab Sample ID: 240-36112-13

Matrix: Water | Lab File ID: UXX9872.D

Analysis Method: 8260C | Date Collected: 04/11/2014 11:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 20:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	91		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-23S-041114 Lab Sample ID: 240-36112-13

Matrix: Water Lab File ID: UXX9872.D

Analysis Method: 8260C Date Collected: 04/11/2014 11:35

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 20:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 1 TIC Result Total: 0.9

CAS NO.	COMPOUND NAME	RT	RESULT	Q
6863-58-7	Di-sec-butyl ether	7.15	0.90	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-24I-041114 | Lab Sample ID: 240-36112-12

Matrix: Water | Lab File ID: UXX9871.D

Analysis Method: 8260C | Date Collected: 04/11/2014 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 20:32

Soil Aliquot Vol: | Dilution Factor: 3.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.77	U	3.3	0.77
71-55-6	1,1,1-Trichloroethane	0.73	U	3.3	0.73
79-34-5	1,1,2,2-Tetrachloroethane	0.60	U	3.3	0.60
76-13-1	1,1,2-Trichlorotrifluoroethane	0.93	U	3.3	0.93
75-34-3	1,1-Dichloroethane	0.50	U	3.3	0.50
75-35-4	1,1-Dichloroethene	0.63	U	3.3	0.63
563-58-6	1,1-Dichloropropene	0.43	U	3.3	0.43
87-61-6	1,2,3-Trichlorobenzene	0.57	U	3.3	0.57
96-18-4	1,2,3-Trichloropropane	1.4	U	3.3	1.4
526-73-8	1,2,3-Trimethylbenzene	0.020	U	17	0.020
120-82-1	1,2,4-Trichlorobenzene	0.50	U	3.3	0.50
95-63-6	1,2,4-Trimethylbenzene	0.40	U	3.3	0.40
96-12-8	1,2-Dibromo-3-Chloropropane	2.2	U	6.7	2.2
95-50-1	1,2-Dichlorobenzene	0.43	U	3.3	0.43
107-06-2	1,2-Dichloroethane	0.73	U	3.3	0.73
78-87-5	1,2-Dichloropropane	0.60	U	3.3	0.60
541-73-1	1,3-Dichlorobenzene	0.47	U	3.3	0.47
142-28-9	1,3-Dichloropropane	0.53	U	3.3	0.53
106-46-7	1,4-Dichlorobenzene	0.43	U	3.3	0.43
594-20-7	2,2-Dichloropropane	0.43	U	3.3	0.43
78-93-3	2-Butanone (MEK)	1.9	U	33	1.9
110-75-8	2-Chloroethyl vinyl ether	3.3	U	33	3.3
95-49-8	2-Chlorotoluene	0.37	U	3.3	0.37
591-78-6	2-Hexanone	1.4	U	33	1.4
106-43-4	4-Chlorotoluene	0.60	U	3.3	0.60
99-87-6	4-Isopropyltoluene	0.40	U	3.3	0.40
108-10-1	4-Methyl-2-pentanone (MIBK)	1.1	U	33	1.1
67-64-1	Acetone	3.7	U	33	3.7
71-43-2	Benzene	0.43	U	3.3	0.43
108-86-1	Bromobenzene	0.43	U	3.3	0.43
75-25-2	Bromoform	2.1	U	3.3	2.1
74-83-9	Bromomethane	1.4	U	3.3	1.4
75-15-0	Carbon disulfide	0.43	U	3.3	0.43
56-23-5	Carbon tetrachloride	12		3.3	0.43
108-90-7	Chlorobenzene	0.50	U	3.3	0.50
124-48-1	Chlorodibromomethane	0.60	U	3.3	0.60

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-24I-041114 | Lab Sample ID: 240-36112-12

Matrix: Water | Lab File ID: UXX9871.D

Analysis Method: 8260C | Date Collected: 04/11/2014 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 20:32

Soil Aliquot Vol: | Dilution Factor: 3.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.97	U	3.3	0.97
67-66-3	Chloroform	1.5	J	3.3	0.53
74-87-3	Chloromethane	1.0	U	3.3	1.0
156-59-2	cis-1,2-Dichloroethene	0.57	U	3.3	0.57
10061-01-5	cis-1,3-Dichloropropene	0.47	U	3.3	0.47
74-95-3	Dibromomethane	0.93	U	3.3	0.93
74-97-5	Bromochloromethane	0.97	U	3.3	0.97
75-71-8	Dichlorodifluoromethane	1.0	U	3.3	1.0
75-27-4	Bromodichloromethane	0.50	U	3.3	0.50
75-65-0	tert-Butyl alcohol	13	U	170	13
100-41-4	Ethylbenzene	0.57	U	3.3	0.57
87-68-3	Hexachlorobutadiene	1.0	U	3.3	1.0
108-20-3	Diisopropyl ether	5.0	U	33	5.0
98-82-8	Isopropylbenzene	0.43	U	3.3	0.43
1634-04-4	Methyl tert-butyl ether	0.57	U	3.3	0.57
75-09-2	Methylene Chloride	1.1	U	3.3	1.1
179601-23-1	m-Xylene & p-Xylene	0.80	U	6.7	0.80
91-20-3	Naphthalene	0.80	U	3.3	0.80
104-51-8	n-Butylbenzene	0.40	U	3.3	0.40
103-65-1	N-Propylbenzene	0.47	U	3.3	0.47
95-47-6	o-Xylene	0.47	U	3.3	0.47
135-98-8	sec-Butylbenzene	0.43	U	3.3	0.43
100-42-5	Styrene	0.37	U	3.3	0.37
994-05-8	Tert-amyl methyl ether	0.22	U	17	0.22
637-92-3	Ethyl tert-butyl ether	0.37	U	17	0.37
127-18-4	Tetrachloroethene	0.97	U	3.3	0.97
108-88-3	Toluene	0.43	U	3.3	0.43
156-60-5	trans-1,2-Dichloroethene	0.63	U	3.3	0.63
10061-02-6	trans-1,3-Dichloropropene	0.63	U	3.3	0.63
79-01-6	Trichloroethene	110		3.3	0.57
75-69-4	Trichlorofluoromethane	0.70	U	3.3	0.70
108-05-4	Vinyl acetate	0.63	U	6.7	0.63
75-01-4	Vinyl chloride	0.73	U	3.3	0.73
1330-20-7	Xylenes, Total	0.47	U	6.7	0.47
98-06-6	tert-Butylbenzene	0.43	U	3.3	0.43
106-93-4	1,2-Dibromoethane	0.80	U	3.3	0.80

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-24I-041114 | Lab Sample ID: 240-36112-12

Matrix: Water | Lab File ID: UXX9871.D

Analysis Method: 8260C | Date Collected: 04/11/2014 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 20:32

Soil Aliquot Vol: | Dilution Factor: 3.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	90		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-24I-041114 Lab Sample ID: 240-36112-12

Matrix: Water Lab File ID: UXX9871.D

Analysis Method: 8260C Date Collected: 04/11/2014 09:55

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 20:32

Soil Aliquot Vol: Dilution Factor: 3.33

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-24S-041114 | Lab Sample ID: 240-36112-11

Matrix: Water | Lab File ID: UXX9870.D

Analysis Method: 8260C | Date Collected: 04/11/2014 08:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 20:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.5	J	10	1.1
71-43-2	Benzene	0.15	J	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-24S-041114 Lab Sample ID: 240-36112-11

Matrix: Water Lab File ID: UXX9870.D

Analysis Method: 8260C Date Collected: 04/11/2014 08:45

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 20:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-24S-041114 | Lab Sample ID: 240-36112-11

Matrix: Water | Lab File ID: UXX9870.D

Analysis Method: 8260C | Date Collected: 04/11/2014 08:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 20:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	92		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-24S-041114 Lab Sample ID: 240-36112-11

Matrix: Water Lab File ID: UXX9870.D

Analysis Method: 8260C Date Collected: 04/11/2014 08:45

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 20:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-25I-041114 | Lab Sample ID: 240-36112-17

Matrix: Water | Lab File ID: UXX9853.D

Analysis Method: 8260C | Date Collected: 04/11/2014 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 13:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	2.2	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-25I-041114 Lab Sample ID: 240-36112-17

Matrix: Water Lab File ID: UXX9853.D

Analysis Method: 8260C Date Collected: 04/11/2014 11:45

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 13:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-25I-041114 Lab Sample ID: 240-36112-17

Matrix: Water Lab File ID: UXX9853.D

Analysis Method: 8260C Date Collected: 04/11/2014 11:45

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 13:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		74-120
1868-53-7	Dibromofluoromethane (Surr)	87		75-121
460-00-4	4-Bromofluorobenzene (Surr)	91		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-25I-041114 Lab Sample ID: 240-36112-17

Matrix: Water Lab File ID: UXX9853.D

Analysis Method: 8260C Date Collected: 04/11/2014 11:45

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 13:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-25S-041114 | Lab Sample ID: 240-36112-16

Matrix: Water | Lab File ID: UXX9890.D

Analysis Method: 8260C | Date Collected: 04/11/2014 10:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 16:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	2.3	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-25S-041114 | Lab Sample ID: 240-36112-16

Matrix: Water | Lab File ID: UXX9890.D

Analysis Method: 8260C | Date Collected: 04/11/2014 10:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 16:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	20		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.1		1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.29	J	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	1.5		1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-25S-041114 Lab Sample ID: 240-36112-16

Matrix: Water Lab File ID: UXX9890.D

Analysis Method: 8260C Date Collected: 04/11/2014 10:25

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 16:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		74-120
1868-53-7	Dibromofluoromethane (Surr)	89		75-121
460-00-4	4-Bromofluorobenzene (Surr)	89		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-25S-041114 Lab Sample ID: 240-36112-16

Matrix: Water Lab File ID: UXX9890.D

Analysis Method: 8260C Date Collected: 04/11/2014 10:25

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 16:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-32I-041014 | Lab Sample ID: 240-36112-2

Matrix: Water | Lab File ID: UXX9861.D

Analysis Method: 8260C | Date Collected: 04/10/2014 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 16:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.8	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-32I-041014 | Lab Sample ID: 240-36112-2

Matrix: Water | Lab File ID: UXX9861.D

Analysis Method: 8260C | Date Collected: 04/10/2014 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 16:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.52	J	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-32I-041014 | Lab Sample ID: 240-36112-2

Matrix: Water | Lab File ID: UXX9861.D

Analysis Method: 8260C | Date Collected: 04/10/2014 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 16:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		74-120
1868-53-7	Dibromofluoromethane (Surr)	90		75-121
460-00-4	4-Bromofluorobenzene (Surr)	92		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-32I-041014 Lab Sample ID: 240-36112-2

Matrix: Water Lab File ID: UXX9861.D

Analysis Method: 8260C Date Collected: 04/10/2014 10:10

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 16:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-32S-041014 | Lab Sample ID: 240-36112-1

Matrix: Water | Lab File ID: UXX9860.D

Analysis Method: 8260C | Date Collected: 04/10/2014 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 16:24

Soil Aliquot Vol: 5 (mL) | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	2.6	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-32S-041014 | Lab Sample ID: 240-36112-1

Matrix: Water | Lab File ID: UXX9860.D

Analysis Method: 8260C | Date Collected: 04/10/2014 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 16:24

Soil Aliquot Vol: 5 (mL) | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	1.1		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-32S-041014 | Lab Sample ID: 240-36112-1

Matrix: Water | Lab File ID: UXX9860.D

Analysis Method: 8260C | Date Collected: 04/10/2014 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 16:24

Soil Aliquot Vol: 5 (mL) | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	88		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-32S-041014 Lab Sample ID: 240-36112-1

Matrix: Water Lab File ID: UXX9860.D

Analysis Method: 8260C Date Collected: 04/10/2014 09:00

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 16:24

Soil Aliquot Vol: 5 (mL) Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-36S-041114 | Lab Sample ID: 240-36112-15

Matrix: Water | Lab File ID: UXX9889.D

Analysis Method: 8260C | Date Collected: 04/11/2014 09:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 16:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.2	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-36S-041114 | Lab Sample ID: 240-36112-15

Matrix: Water | Lab File ID: UXX9889.D

Analysis Method: 8260C | Date Collected: 04/11/2014 09:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 16:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-36S-041114 Lab Sample ID: 240-36112-15

Matrix: Water Lab File ID: UXX9889.D

Analysis Method: 8260C Date Collected: 04/11/2014 09:05

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 16:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	111		74-120
1868-53-7	Dibromofluoromethane (Surr)	92		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-36S-041114 Lab Sample ID: 240-36112-15

Matrix: Water Lab File ID: UXX9889.D

Analysis Method: 8260C Date Collected: 04/11/2014 09:05

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 16:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-37S-041114 | Lab Sample ID: 240-36112-18

Matrix: Water | Lab File ID: UXX9891.D

Analysis Method: 8260C | Date Collected: 04/11/2014 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 17:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.7	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-37S-041114 | Lab Sample ID: 240-36112-18

Matrix: Water | Lab File ID: UXX9891.D

Analysis Method: 8260C | Date Collected: 04/11/2014 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 17:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-37S-041114 | Lab Sample ID: 240-36112-18

Matrix: Water | Lab File ID: UXX9891.D

Analysis Method: 8260C | Date Collected: 04/11/2014 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 17:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		74-120
1868-53-7	Dibromofluoromethane (Surr)	91		75-121
460-00-4	4-Bromofluorobenzene (Surr)	90		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-37S-041114 | Lab Sample ID: 240-36112-18

Matrix: Water | Lab File ID: UXX9891.D

Analysis Method: 8260C | Date Collected: 04/11/2014 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 17:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-48S-041014 Lab Sample ID: 240-36112-3

Matrix: Water Lab File ID: UXX9862.D

Analysis Method: 8260C Date Collected: 04/10/2014 11:30

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 17:10

Soil Aliquot Vol: Dilution Factor: 5

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U	5.0	1.2
71-55-6	1,1,1-Trichloroethane	1.1	U	5.0	1.1
79-34-5	1,1,2,2-Tetrachloroethane	0.90	U	5.0	0.90
76-13-1	1,1,2-Trichlorotrifluoroethane	1.4	U	5.0	1.4
75-34-3	1,1-Dichloroethane	0.75	U	5.0	0.75
75-35-4	1,1-Dichloroethene	0.95	U	5.0	0.95
563-58-6	1,1-Dichloropropene	0.65	U	5.0	0.65
87-61-6	1,2,3-Trichlorobenzene	0.85	U	5.0	0.85
96-18-4	1,2,3-Trichloropropane	2.2	U	5.0	2.2
526-73-8	1,2,3-Trimethylbenzene	0.030	U	25	0.030
120-82-1	1,2,4-Trichlorobenzene	0.75	U	5.0	0.75
95-63-6	1,2,4-Trimethylbenzene	0.60	U	5.0	0.60
96-12-8	1,2-Dibromo-3-Chloropropane	3.4	U	10	3.4
95-50-1	1,2-Dichlorobenzene	0.65	U	5.0	0.65
107-06-2	1,2-Dichloroethane	1.1	U	5.0	1.1
78-87-5	1,2-Dichloropropane	0.90	U	5.0	0.90
541-73-1	1,3-Dichlorobenzene	0.70	U	5.0	0.70
142-28-9	1,3-Dichloropropane	0.80	U	5.0	0.80
106-46-7	1,4-Dichlorobenzene	0.65	U	5.0	0.65
594-20-7	2,2-Dichloropropane	0.65	U	5.0	0.65
78-93-3	2-Butanone (MEK)	2.9	U	50	2.9
110-75-8	2-Chloroethyl vinyl ether	5.0	U	50	5.0
95-49-8	2-Chlorotoluene	0.55	U	5.0	0.55
591-78-6	2-Hexanone	2.1	U	50	2.1
106-43-4	4-Chlorotoluene	0.90	U	5.0	0.90
99-87-6	4-Isopropyltoluene	0.60	U	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	1.6	U	50	1.6
67-64-1	Acetone	6.1	J	50	5.5
71-43-2	Benzene	0.65	U	5.0	0.65
108-86-1	Bromobenzene	0.65	U	5.0	0.65
75-25-2	Bromoform	3.2	U	5.0	3.2
74-83-9	Bromomethane	2.1	U	5.0	2.1
75-15-0	Carbon disulfide	0.65	U	5.0	0.65
56-23-5	Carbon tetrachloride	0.65	U	5.0	0.65
108-90-7	Chlorobenzene	0.75	U	5.0	0.75
124-48-1	Chlorodibromomethane	0.90	U	5.0	0.90

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-48S-041014 | Lab Sample ID: 240-36112-3

Matrix: Water | Lab File ID: UXX9862.D

Analysis Method: 8260C | Date Collected: 04/10/2014 11:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 17:10

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	1.5	U	5.0	1.5
67-66-3	Chloroform	2.6	J	5.0	0.80
74-87-3	Chloromethane	1.5	U	5.0	1.5
156-59-2	cis-1,2-Dichloroethene	24		5.0	0.85
10061-01-5	cis-1,3-Dichloropropene	0.70	U	5.0	0.70
74-95-3	Dibromomethane	1.4	U	5.0	1.4
74-97-5	Bromochloromethane	1.5	U	5.0	1.5
75-71-8	Dichlorodifluoromethane	1.6	U	5.0	1.6
75-27-4	Bromodichloromethane	0.75	U	5.0	0.75
75-65-0	tert-Butyl alcohol	20	U	250	20
100-41-4	Ethylbenzene	0.85	U	5.0	0.85
87-68-3	Hexachlorobutadiene	1.5	U	5.0	1.5
108-20-3	Diisopropyl ether	7.5	U	50	7.5
98-82-8	Isopropylbenzene	0.65	U	5.0	0.65
1634-04-4	Methyl tert-butyl ether	0.85	U	5.0	0.85
75-09-2	Methylene Chloride	1.7	U	5.0	1.7
179601-23-1	m-Xylene & p-Xylene	1.2	U	10	1.2
91-20-3	Naphthalene	1.2	U	5.0	1.2
104-51-8	n-Butylbenzene	0.60	U	5.0	0.60
103-65-1	N-Propylbenzene	0.70	U	5.0	0.70
95-47-6	o-Xylene	0.70	U	5.0	0.70
135-98-8	sec-Butylbenzene	0.65	U	5.0	0.65
100-42-5	Styrene	0.55	U	5.0	0.55
994-05-8	Tert-amyl methyl ether	0.34	U	25	0.34
637-92-3	Ethyl tert-butyl ether	0.55	U	25	0.55
127-18-4	Tetrachloroethene	1.5	U	5.0	1.5
108-88-3	Toluene	1.4	J	5.0	0.65
156-60-5	trans-1,2-Dichloroethene	0.95	U	5.0	0.95
10061-02-6	trans-1,3-Dichloropropene	0.95	U	5.0	0.95
79-01-6	Trichloroethene	0.85	U	5.0	0.85
75-69-4	Trichlorofluoromethane	1.1	U	5.0	1.1
108-05-4	Vinyl acetate	0.95	U	10	0.95
75-01-4	Vinyl chloride	120		5.0	1.1
1330-20-7	Xylenes, Total	0.70	U	10	0.70
98-06-6	tert-Butylbenzene	0.65	U	5.0	0.65
106-93-4	1,2-Dibromoethane	1.2	U	5.0	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-48S-041014 Lab Sample ID: 240-36112-3

Matrix: Water Lab File ID: UXX9862.D

Analysis Method: 8260C Date Collected: 04/10/2014 11:30

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 17:10

Soil Aliquot Vol: Dilution Factor: 5

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	94		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-48S-041014 Lab Sample ID: 240-36112-3

Matrix: Water Lab File ID: UXX9862.D

Analysis Method: 8260C Date Collected: 04/10/2014 11:30

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 17:10

Soil Aliquot Vol: Dilution Factor: 5

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-49I-041014 | Lab Sample ID: 240-36112-5

Matrix: Water | Lab File ID: UXX9864.D

Analysis Method: 8260C | Date Collected: 04/10/2014 15:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 17:55

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	46	U	200	46
71-55-6	1,1,1-Trichloroethane	44	U	200	44
79-34-5	1,1,2,2-Tetrachloroethane	36	U	200	36
76-13-1	1,1,2-Trichlorotrifluoroethane	56	U	200	56
75-34-3	1,1-Dichloroethane	30	U	200	30
75-35-4	1,1-Dichloroethene	160	J	200	38
563-58-6	1,1-Dichloropropene	26	U	200	26
87-61-6	1,2,3-Trichlorobenzene	34	U	200	34
96-18-4	1,2,3-Trichloropropane	86	U	200	86
526-73-8	1,2,3-Trimethylbenzene	1.2	U	1000	1.2
120-82-1	1,2,4-Trichlorobenzene	30	U	200	30
95-63-6	1,2,4-Trimethylbenzene	24	U	200	24
96-12-8	1,2-Dibromo-3-Chloropropane	130	U	400	130
95-50-1	1,2-Dichlorobenzene	26	U	200	26
107-06-2	1,2-Dichloroethane	44	U	200	44
78-87-5	1,2-Dichloropropane	36	U	200	36
541-73-1	1,3-Dichlorobenzene	28	U	200	28
142-28-9	1,3-Dichloropropane	32	U	200	32
106-46-7	1,4-Dichlorobenzene	26	U	200	26
594-20-7	2,2-Dichloropropane	26	U	200	26
78-93-3	2-Butanone (MEK)	110	U	2000	110
110-75-8	2-Chloroethyl vinyl ether	200	U	2000	200
95-49-8	2-Chlorotoluene	22	U	200	22
591-78-6	2-Hexanone	82	U	2000	82
106-43-4	4-Chlorotoluene	36	U	200	36
99-87-6	4-Isopropyltoluene	24	U	200	24
108-10-1	4-Methyl-2-pentanone (MIBK)	64	U	2000	64
67-64-1	Acetone	220	U	2000	220
71-43-2	Benzene	26	U	200	26
108-86-1	Bromobenzene	26	U	200	26
75-25-2	Bromoform	130	U	200	130
74-83-9	Bromomethane	82	U	200	82
75-15-0	Carbon disulfide	26	U	200	26
56-23-5	Carbon tetrachloride	26	U	200	26
108-90-7	Chlorobenzene	30	U	200	30
124-48-1	Chlorodibromomethane	36	U	200	36

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-49I-041014 | Lab Sample ID: 240-36112-5

Matrix: Water | Lab File ID: UXX9864.D

Analysis Method: 8260C | Date Collected: 04/10/2014 15:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 17:55

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	58	U	200	58
67-66-3	Chloroform	32	U	200	32
74-87-3	Chloromethane	60	U	200	60
156-59-2	cis-1,2-Dichloroethene	1700		200	34
10061-01-5	cis-1,3-Dichloropropene	28	U	200	28
74-95-3	Dibromomethane	56	U	200	56
74-97-5	Bromochloromethane	58	U	200	58
75-71-8	Dichlorodifluoromethane	62	U	200	62
75-27-4	Bromodichloromethane	30	U	200	30
75-65-0	tert-Butyl alcohol	780	U	10000	780
100-41-4	Ethylbenzene	34	U	200	34
87-68-3	Hexachlorobutadiene	60	U	200	60
108-20-3	Diisopropyl ether	300	U	2000	300
98-82-8	Isopropylbenzene	26	U	200	26
1634-04-4	Methyl tert-butyl ether	34	U	200	34
75-09-2	Methylene Chloride	66	U	200	66
179601-23-1	m-Xylene & p-Xylene	48	U	400	48
91-20-3	Naphthalene	48	U	200	48
104-51-8	n-Butylbenzene	24	U	200	24
103-65-1	N-Propylbenzene	28	U	200	28
95-47-6	o-Xylene	28	U	200	28
135-98-8	sec-Butylbenzene	26	U	200	26
100-42-5	Styrene	22	U	200	22
994-05-8	Tert-amyl methyl ether	13	U	1000	13
637-92-3	Ethyl tert-butyl ether	22	U	1000	22
127-18-4	Tetrachloroethene	58	U	200	58
108-88-3	Toluene	26	U	200	26
156-60-5	trans-1,2-Dichloroethene	38	U	200	38
10061-02-6	trans-1,3-Dichloropropene	38	U	200	38
79-01-6	Trichloroethene	4800		200	34
75-69-4	Trichlorofluoromethane	42	U	200	42
108-05-4	Vinyl acetate	38	U	400	38
75-01-4	Vinyl chloride	1600		200	44
1330-20-7	Xylenes, Total	28	U	400	28
98-06-6	tert-Butylbenzene	26	U	200	26
106-93-4	1,2-Dibromoethane	48	U	200	48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-49I-041014 Lab Sample ID: 240-36112-5

Matrix: Water Lab File ID: UXX9864.D

Analysis Method: 8260C Date Collected: 04/10/2014 15:40

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 17:55

Soil Aliquot Vol: Dilution Factor: 200

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		74-120
1868-53-7	Dibromofluoromethane (Surr)	89		75-121
460-00-4	4-Bromofluorobenzene (Surr)	84		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-49I-041014 | Lab Sample ID: 240-36112-5

Matrix: Water | Lab File ID: UXX9864.D

Analysis Method: 8260C | Date Collected: 04/10/2014 15:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 17:55

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-49S-041014 | Lab Sample ID: 240-36112-4

Matrix: Water | Lab File ID: UXX9863.D

Analysis Method: 8260C | Date Collected: 04/10/2014 14:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 17:32

Soil Aliquot Vol: | Dilution Factor: 14.29

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.3	U	14	3.3
71-55-6	1,1,1-Trichloroethane	3.1	U	14	3.1
79-34-5	1,1,2,2-Tetrachloroethane	2.6	U	14	2.6
76-13-1	1,1,2-Trichlorotrifluoroethane	4.0	U	14	4.0
75-34-3	1,1-Dichloroethane	2.1	U	14	2.1
75-35-4	1,1-Dichloroethene	7.4	J	14	2.7
563-58-6	1,1-Dichloropropene	1.9	U	14	1.9
87-61-6	1,2,3-Trichlorobenzene	2.4	U	14	2.4
96-18-4	1,2,3-Trichloropropane	6.1	U	14	6.1
526-73-8	1,2,3-Trimethylbenzene	0.084	U	71	0.084
120-82-1	1,2,4-Trichlorobenzene	2.1	U	14	2.1
95-63-6	1,2,4-Trimethylbenzene	1.7	U	14	1.7
96-12-8	1,2-Dibromo-3-Chloropropane	9.6	U	29	9.6
95-50-1	1,2-Dichlorobenzene	1.9	U	14	1.9
107-06-2	1,2-Dichloroethane	8.0	J	14	3.1
78-87-5	1,2-Dichloropropane	2.6	U	14	2.6
541-73-1	1,3-Dichlorobenzene	2.0	U	14	2.0
142-28-9	1,3-Dichloropropane	2.3	U	14	2.3
106-46-7	1,4-Dichlorobenzene	1.9	U	14	1.9
594-20-7	2,2-Dichloropropane	1.9	U	14	1.9
78-93-3	2-Butanone (MEK)	8.1	U	140	8.1
110-75-8	2-Chloroethyl vinyl ether	14	U	140	14
95-49-8	2-Chlorotoluene	1.6	U	14	1.6
591-78-6	2-Hexanone	5.9	U	140	5.9
106-43-4	4-Chlorotoluene	2.6	U	14	2.6
99-87-6	4-Isopropyltoluene	1.7	U	14	1.7
108-10-1	4-Methyl-2-pentanone (MIBK)	4.6	U	140	4.6
67-64-1	Acetone	16	U	140	16
71-43-2	Benzene	1.9	U	14	1.9
108-86-1	Bromobenzene	1.9	U	14	1.9
75-25-2	Bromoform	9.1	U	14	9.1
74-83-9	Bromomethane	5.9	U	14	5.9
75-15-0	Carbon disulfide	1.9	U	14	1.9
56-23-5	Carbon tetrachloride	1.9	U	14	1.9
108-90-7	Chlorobenzene	2.8	J	14	2.1
124-48-1	Chlorodibromomethane	2.6	U	14	2.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-49S-041014 | Lab Sample ID: 240-36112-4

Matrix: Water | Lab File ID: UXX9863.D

Analysis Method: 8260C | Date Collected: 04/10/2014 14:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 17:32

Soil Aliquot Vol: | Dilution Factor: 14.29

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	4.1	U	14	4.1
67-66-3	Chloroform	2.3	U	14	2.3
74-87-3	Chloromethane	4.3	U	14	4.3
156-59-2	cis-1,2-Dichloroethene	56		14	2.4
10061-01-5	cis-1,3-Dichloropropene	2.0	U	14	2.0
74-95-3	Dibromomethane	4.0	U	14	4.0
74-97-5	Bromochloromethane	4.1	U	14	4.1
75-71-8	Dichlorodifluoromethane	4.4	U	14	4.4
75-27-4	Bromodichloromethane	2.1	U	14	2.1
75-65-0	tert-Butyl alcohol	56	U	710	56
100-41-4	Ethylbenzene	2.4	U	14	2.4
87-68-3	Hexachlorobutadiene	4.3	U	14	4.3
108-20-3	Diisopropyl ether	21	U	140	21
98-82-8	Isopropylbenzene	1.9	U	14	1.9
1634-04-4	Methyl tert-butyl ether	2.4	U	14	2.4
75-09-2	Methylene Chloride	4.7	U	14	4.7
179601-23-1	m-Xylene & p-Xylene	3.4	U	29	3.4
91-20-3	Naphthalene	3.4	U	14	3.4
104-51-8	n-Butylbenzene	1.7	U	14	1.7
103-65-1	N-Propylbenzene	2.0	U	14	2.0
95-47-6	o-Xylene	2.0	U	14	2.0
135-98-8	sec-Butylbenzene	1.9	U	14	1.9
100-42-5	Styrene	1.6	U	14	1.6
994-05-8	Tert-amyl methyl ether	0.96	U	71	0.96
637-92-3	Ethyl tert-butyl ether	1.6	U	71	1.6
127-18-4	Tetrachloroethene	4.1	U	14	4.1
108-88-3	Toluene	1.9	U	14	1.9
156-60-5	trans-1,2-Dichloroethene	2.7	U	14	2.7
10061-02-6	trans-1,3-Dichloropropene	2.7	U	14	2.7
79-01-6	Trichloroethene	440		14	2.4
75-69-4	Trichlorofluoromethane	3.0	U	14	3.0
108-05-4	Vinyl acetate	2.7	U	29	2.7
75-01-4	Vinyl chloride	29		14	3.1
1330-20-7	Xylenes, Total	2.0	U	29	2.0
98-06-6	tert-Butylbenzene	1.9	U	14	1.9
106-93-4	1,2-Dibromoethane	3.4	U	14	3.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-49S-041014 Lab Sample ID: 240-36112-4

Matrix: Water Lab File ID: UXX9863.D

Analysis Method: 8260C Date Collected: 04/10/2014 14:35

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 17:32

Soil Aliquot Vol: Dilution Factor: 14.29

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	91		75-121
460-00-4	4-Bromofluorobenzene (Surr)	92		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-49S-041014 | Lab Sample ID: 240-36112-4

Matrix: Water | Lab File ID: UXX9863.D

Analysis Method: 8260C | Date Collected: 04/10/2014 14:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 17:32

Soil Aliquot Vol: | Dilution Factor: 14.29

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-6-041014 | Lab Sample ID: 240-36112-10

Matrix: Water | Lab File ID: UXX9869.D

Analysis Method: 8260C | Date Collected: 04/10/2014 15:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 19:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	3.0	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-6-041014 Lab Sample ID: 240-36112-10

Matrix: Water Lab File ID: UXX9869.D

Analysis Method: 8260C Date Collected: 04/10/2014 15:30

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 19:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.35	J	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-6-041014 Lab Sample ID: 240-36112-10

Matrix: Water Lab File ID: UXX9869.D

Analysis Method: 8260C Date Collected: 04/10/2014 15:30

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 19:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	89		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-6-041014 Lab Sample ID: 240-36112-10

Matrix: Water Lab File ID: UXX9869.D

Analysis Method: 8260C Date Collected: 04/10/2014 15:30

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 19:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: TRIP BLANK | Lab Sample ID: 240-36112-19

Matrix: Water | Lab File ID: UXX9892.D

Analysis Method: 8260C | Date Collected: 04/11/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 17:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.6	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: TRIP BLANK | Lab Sample ID: 240-36112-19

Matrix: Water | Lab File ID: UXX9892.D

Analysis Method: 8260C | Date Collected: 04/11/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 17:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: TRIP BLANK Lab Sample ID: 240-36112-19

Matrix: Water Lab File ID: UXX9892.D

Analysis Method: 8260C Date Collected: 04/11/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 17:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		74-120
1868-53-7	Dibromofluoromethane (Surr)	91		75-121
460-00-4	4-Bromofluorobenzene (Surr)	88		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: TRIP BLANK | Lab Sample ID: 240-36112-19

Matrix: Water | Lab File ID: UXX9892.D

Analysis Method: 8260C | Date Collected: 04/11/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 17:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-10I-041014 | Lab Sample ID: 240-36112-7

Matrix: Water | Lab File ID: 0417030.D

Analysis Method: 8270C | Date Collected: 04/10/2014 10:09

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 260(mL) | Date Analyzed: 04/17/2014 17:58

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126796 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.99		0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	63		29-110
367-12-4	2-Fluorophenol (Surr)	63		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	76		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	70		31-110
4165-62-2	Phenol-d5 (Surr)	53		10-110
1718-51-0	Terphenyl-d14 (Surr)	84		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-10S-041014 | Lab Sample ID: 240-36112-6

Matrix: Water | Lab File ID: 0416009.D

Analysis Method: 8270C | Date Collected: 04/10/2014 08:53

Extract. Method: 3510C | Date Extracted: 04/15/2014 10:15

Sample wt/vol: 240(mL) | Date Analyzed: 04/16/2014 10:06

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126622 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	11		1.0	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	75		29-110
367-12-4	2-Fluorophenol (Surr)	79		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	85		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	81		31-110
4165-62-2	Phenol-d5 (Surr)	72		10-110
1718-51-0	Terphenyl-d14 (Surr)	93		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-1A-041014 | Lab Sample ID: 240-36112-9

Matrix: Water | Lab File ID: 0421006.D

Analysis Method: 8270C | Date Collected: 04/10/2014 12:45

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 250(mL) | Date Analyzed: 04/21/2014 14:00

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127269 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	180		5.0	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	78		29-110
367-12-4	2-Fluorophenol (Surr)	73		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	85		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	85		31-110
4165-62-2	Phenol-d5 (Surr)	64		10-110
1718-51-0	Terphenyl-d14 (Surr)	94		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-1B-041014 | Lab Sample ID: 240-36112-8

Matrix: Water | Lab File ID: 0421005.D

Analysis Method: 8270C | Date Collected: 04/10/2014 11:29

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 250(mL) | Date Analyzed: 04/21/2014 13:37

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127269 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	56		2.0	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	72		29-110
367-12-4	2-Fluorophenol (Surr)	72		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	80		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	83		31-110
4165-62-2	Phenol-d5 (Surr)	59		10-110
1718-51-0	Terphenyl-d14 (Surr)	85		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-23D-041114 | Lab Sample ID: 240-36112-14

Matrix: Water | Lab File ID: 0417023.D

Analysis Method: 8270C | Date Collected: 04/11/2014 14:45

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 260(mL) | Date Analyzed: 04/17/2014 15:16

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126796 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.25	U	0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	68		29-110
367-12-4	2-Fluorophenol (Surr)	59		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	85		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	71		31-110
4165-62-2	Phenol-d5 (Surr)	50		10-110
1718-51-0	Terphenyl-d14 (Surr)	87		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-23S-041114 | Lab Sample ID: 240-36112-13

Matrix: Water | Lab File ID: 0417024.D

Analysis Method: 8270C | Date Collected: 04/11/2014 11:35

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 15:39

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126796 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	3.4		1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	70		29-110
367-12-4	2-Fluorophenol (Surr)	72		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	83		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	81		31-110
4165-62-2	Phenol-d5 (Surr)	62		10-110
1718-51-0	Terphenyl-d14 (Surr)	93		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-24I-041114 | Lab Sample ID: 240-36112-12

Matrix: Water | Lab File ID: 0417025.D

Analysis Method: 8270C | Date Collected: 04/11/2014 09:55

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 280(mL) | Date Analyzed: 04/17/2014 16:02

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126796 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.23	U	0.89	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	72		29-110
367-12-4	2-Fluorophenol (Surr)	68		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	78		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	80		31-110
4165-62-2	Phenol-d5 (Surr)	58		10-110
1718-51-0	Terphenyl-d14 (Surr)	91		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-24S-041114 | Lab Sample ID: 240-36112-11

Matrix: Water | Lab File ID: 0417026.D

Analysis Method: 8270C | Date Collected: 04/11/2014 08:45

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 16:26

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126796 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.2		1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	67		29-110
367-12-4	2-Fluorophenol (Surr)	67		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	77		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	73		31-110
4165-62-2	Phenol-d5 (Surr)	59		10-110
1718-51-0	Terphenyl-d14 (Surr)	93		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-25I-041114 | Lab Sample ID: 240-36112-17

Matrix: Water | Lab File ID: 0417018.D

Analysis Method: 8270C | Date Collected: 04/11/2014 11:45

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 260(mL) | Date Analyzed: 04/17/2014 13:21

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126796 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.25	U	0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	61		29-110
367-12-4	2-Fluorophenol (Surr)	69		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	75		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	74		31-110
4165-62-2	Phenol-d5 (Surr)	60		10-110
1718-51-0	Terphenyl-d14 (Surr)	82		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-25S-041114 | Lab Sample ID: 240-36112-16

Matrix: Water | Lab File ID: 0417021.D

Analysis Method: 8270C | Date Collected: 04/11/2014 10:25

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 14:30

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126796 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	52		29-110
367-12-4	2-Fluorophenol (Surr)	59		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	65		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	62		31-110
4165-62-2	Phenol-d5 (Surr)	53		10-110
1718-51-0	Terphenyl-d14 (Surr)	80		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-32I-041014 | Lab Sample ID: 240-36112-2

Matrix: Water | Lab File ID: 0416006.D

Analysis Method: 8270C | Date Collected: 04/10/2014 10:10

Extract. Method: 3510C | Date Extracted: 04/15/2014 10:15

Sample wt/vol: 250(mL) | Date Analyzed: 04/16/2014 08:57

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126622 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	77		29-110
367-12-4	2-Fluorophenol (Surr)	82		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	79		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	86		31-110
4165-62-2	Phenol-d5 (Surr)	74		10-110
1718-51-0	Terphenyl-d14 (Surr)	93		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-32S-041014 | Lab Sample ID: 240-36112-1

Matrix: Water | Lab File ID: 0416005.D

Analysis Method: 8270C | Date Collected: 04/10/2014 09:00

Extract. Method: 3510C | Date Extracted: 04/15/2014 10:15

Sample wt/vol: 250(mL) | Date Analyzed: 04/16/2014 08:34

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126622 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	71		29-110
367-12-4	2-Fluorophenol (Surr)	76		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	78		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	79		31-110
4165-62-2	Phenol-d5 (Surr)	66		10-110
1718-51-0	Terphenyl-d14 (Surr)	88		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-36S-041114 | Lab Sample ID: 240-36112-15

Matrix: Water | Lab File ID: 0417022.D

Analysis Method: 8270C | Date Collected: 04/11/2014 09:05

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 14:53

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126796 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	63		29-110
367-12-4	2-Fluorophenol (Surr)	73		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	78		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	78		31-110
4165-62-2	Phenol-d5 (Surr)	63		10-110
1718-51-0	Terphenyl-d14 (Surr)	81		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-37S-041114 | Lab Sample ID: 240-36112-18

Matrix: Water | Lab File ID: 0417017.D

Analysis Method: 8270C | Date Collected: 04/11/2014 14:50

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 12:57

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126796 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	63		29-110
367-12-4	2-Fluorophenol (Surr)	72		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	76		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	75		31-110
4165-62-2	Phenol-d5 (Surr)	64		10-110
1718-51-0	Terphenyl-d14 (Surr)	85		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-48S-041014 | Lab Sample ID: 240-36112-3

Matrix: Water | Lab File ID: 0416007.D

Analysis Method: 8270C | Date Collected: 04/10/2014 11:30

Extract. Method: 3510C | Date Extracted: 04/15/2014 10:15

Sample wt/vol: 240(mL) | Date Analyzed: 04/16/2014 09:20

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126622 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.8		1.0	0.27

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	78		29-110
367-12-4	2-Fluorophenol (Surr)	80		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	82		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	83		31-110
4165-62-2	Phenol-d5 (Surr)	71		10-110
1718-51-0	Terphenyl-d14 (Surr)	95		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-49I-041014 | Lab Sample ID: 240-36112-5

Matrix: Water | Lab File ID: 0416024.D

Analysis Method: 8270C | Date Collected: 04/10/2014 15:40

Extract. Method: 3510C | Date Extracted: 04/15/2014 10:15

Sample wt/vol: 230(mL) | Date Analyzed: 04/16/2014 15:52

Con. Extract Vol.: 5(mL) | Dilution Factor: 4

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126622 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	88		4.3	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	70		29-110
367-12-4	2-Fluorophenol (Surr)	72		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	75		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	75		31-110
4165-62-2	Phenol-d5 (Surr)	66		10-110
1718-51-0	Terphenyl-d14 (Surr)	82		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-49S-041014 | Lab Sample ID: 240-36112-4

Matrix: Water | Lab File ID: 0416023.D

Analysis Method: 8270C | Date Collected: 04/10/2014 14:35

Extract. Method: 3510C | Date Extracted: 04/15/2014 10:15

Sample wt/vol: 250(mL) | Date Analyzed: 04/16/2014 15:29

Con. Extract Vol.: 5(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126622 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	60		2.0	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	65		29-110
367-12-4	2-Fluorophenol (Surr)	71		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	71		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	73		31-110
4165-62-2	Phenol-d5 (Surr)	63		10-110
1718-51-0	Terphenyl-d14 (Surr)	82		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-6-041014 | Lab Sample ID: 240-36112-10

Matrix: Water | Lab File ID: 0417027.D

Analysis Method: 8270C | Date Collected: 04/10/2014 15:30

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 16:49

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126796 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.93	J	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	69		29-110
367-12-4	2-Fluorophenol (Surr)	71		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	79		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	77		31-110
4165-62-2	Phenol-d5 (Surr)	61		10-110
1718-51-0	Terphenyl-d14 (Surr)	91		31-115

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-10S-041014 Lab Sample ID: 240-36112-6

Matrix: Water Lab File ID: YF041816.D

Analysis Method: 8015B Date Collected: 04/10/2014 08:53

Sample wt/vol: 5(mL) Date Analyzed: 04/18/2014 18:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126994 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	96	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	83		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-23S-041114 | Lab Sample ID: 240-36112-13

Matrix: Water | Lab File ID: YF041819.D

Analysis Method: 8015B | Date Collected: 04/11/2014 11:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/18/2014 19:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126994 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	39	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	80		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-24S-041114 | Lab Sample ID: 240-36112-11

Matrix: Water | Lab File ID: YF041818.D

Analysis Method: 8015B | Date Collected: 04/11/2014 08:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/18/2014 19:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126994 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	26	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	71		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-25S-041114 | Lab Sample ID: 240-36112-16

Matrix: Water | Lab File ID: YF041821.D

Analysis Method: 8015B | Date Collected: 04/11/2014 10:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/18/2014 21:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126994 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	42	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	75		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-32S-041014 Lab Sample ID: 240-36112-1

Matrix: Water Lab File ID: YF041810.D

Analysis Method: 8015B Date Collected: 04/10/2014 09:00

Sample wt/vol: 5(mL) Date Analyzed: 04/18/2014 14:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126994 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	25	U	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	78		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-36S-041114 | Lab Sample ID: 240-36112-15

Matrix: Water | Lab File ID: YF041820.D

Analysis Method: 8015B | Date Collected: 04/11/2014 09:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/18/2014 20:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126994 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	27	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	76		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-37S-041114 | Lab Sample ID: 240-36112-18

Matrix: Water | Lab File ID: YF041822.D

Analysis Method: 8015B | Date Collected: 04/11/2014 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/18/2014 21:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126994 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	30	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	76		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-48S-041014 | Lab Sample ID: 240-36112-3

Matrix: Water | Lab File ID: YF041813.D

Analysis Method: 8015B | Date Collected: 04/10/2014 11:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/18/2014 16:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126994 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	45	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	73		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-49S-041014 Lab Sample ID: 240-36112-4

Matrix: Water Lab File ID: YF041815.D

Analysis Method: 8015B Date Collected: 04/10/2014 14:35

Sample wt/vol: 5(mL) Date Analyzed: 04/18/2014 17:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126994 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	260		100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	80		40-133

FORM I

GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-6-041014 | Lab Sample ID: 240-36112-10

Matrix: Water | Lab File ID: YF041817.D

Analysis Method: 8015B | Date Collected: 04/10/2014 15:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/18/2014 18:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 126994 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	25	U	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	79		40-133

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-DMW-10S-041014 | Lab Sample ID: 240-36112-6

Matrix: Water | Lab File ID: P14F041716.D

Analysis Method: 8015B | Date Collected: 04/10/2014 08:53

Extraction Method: 3510C | Date Extracted: 04/15/2014 09:58

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 18:36

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126912 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	1300		500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	82		40-160

FORM I

DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-23S-041114 Lab Sample ID: 240-36112-13

Matrix: Water Lab File ID: P14F041719.D

Analysis Method: 8015B Date Collected: 04/11/2014 11:35

Extraction Method: 3510C Date Extracted: 04/15/2014 09:58

Sample wt/vol: 250(mL) Date Analyzed: 04/17/2014 19:38

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 126912 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	82		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-24S-041114 | Lab Sample ID: 240-36112-11

Matrix: Water | Lab File ID: P14F041718.D

Analysis Method: 8015B | Date Collected: 04/11/2014 08:45

Extraction Method: 3510C | Date Extracted: 04/15/2014 09:58

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 19:18

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126912 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	81		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-25S-041114 | Lab Sample ID: 240-36112-16

Matrix: Water | Lab File ID: P14F041721.D

Analysis Method: 8015B | Date Collected: 04/11/2014 10:25

Extraction Method: 3510C | Date Extracted: 04/15/2014 09:58

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 20:20

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126912 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	77		40-160

FORM I

DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-32S-041014 | Lab Sample ID: 240-36112-1

Matrix: Water | Lab File ID: P14F041713.D

Analysis Method: 8015B | Date Collected: 04/10/2014 09:00

Extraction Method: 3510C | Date Extracted: 04/15/2014 09:58

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 17:34

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126912 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	80		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-36S-041114 | Lab Sample ID: 240-36112-15

Matrix: Water | Lab File ID: P14F041720.D

Analysis Method: 8015B | Date Collected: 04/11/2014 09:05

Extraction Method: 3510C | Date Extracted: 04/15/2014 09:58

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 19:59

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126912 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	83		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-37S-041114 Lab Sample ID: 240-36112-18

Matrix: Water Lab File ID: P14F041723.D

Analysis Method: 8015B Date Collected: 04/11/2014 14:50

Extraction Method: 3510C Date Extracted: 04/15/2014 09:58

Sample wt/vol: 250(mL) Date Analyzed: 04/17/2014 21:01

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 126912 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	75		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-48S-041014 | Lab Sample ID: 240-36112-3

Matrix: Water | Lab File ID: P14F041714.D

Analysis Method: 8015B | Date Collected: 04/10/2014 11:30

Extraction Method: 3510C | Date Extracted: 04/15/2014 09:58

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 17:54

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126912 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	73		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-49S-041014 | Lab Sample ID: 240-36112-4

Matrix: Water | Lab File ID: P14F041715.D

Analysis Method: 8015B | Date Collected: 04/10/2014 14:35

Extraction Method: 3510C | Date Extracted: 04/15/2014 09:58

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 18:15

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126912 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	83		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-6-041014 | Lab Sample ID: 240-36112-10

Matrix: Water | Lab File ID: P14F041717.D

Analysis Method: 8015B | Date Collected: 04/10/2014 15:30

Extraction Method: 3510C | Date Extracted: 04/15/2014 09:58

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 18:57

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126912 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	81		40-160

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-24I-041114 Lab Sample ID: 240-36112-12

Matrix: Water Lab File ID: 16APR14-Per-045.d

Analysis Method: 6850 Date Collected: 04/11/2014 09:55

Extraction Method: Filtration Date Extracted: 04/15/2014 13:56

Sample wt/vol: 4.00(mL) Date Analyzed: 04/17/2014 00:41

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.12	J	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-48S-041014 Lab Sample ID: 240-36112-3

Matrix: Water Lab File ID: 16APR14-Per-042.d

Analysis Method: 6850 Date Collected: 04/10/2014 11:30

Extraction Method: Filtration Date Extracted: 04/15/2014 13:56

Sample wt/vol: 4.00(mL) Date Analyzed: 04/16/2014 23:37

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-49I-041014 | Lab Sample ID: 240-36112-5

Matrix: Water | Lab File ID: 16APR14-Per-044.d

Analysis Method: 6850 | Date Collected: 04/10/2014 15:40

Extraction Method: Filtration | Date Extracted: 04/15/2014 13:56

Sample wt/vol: 4.00(mL) | Date Analyzed: 04/17/2014 00:20

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	4.2		0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-49S-041014 | Lab Sample ID: 240-36112-4

Matrix: Water | Lab File ID: 16APR14-Per-043.d

Analysis Method: 6850 | Date Collected: 04/10/2014 14:35

Extraction Method: Filtration | Date Extracted: 04/15/2014 13:56

Sample wt/vol: 4.00(mL) | Date Analyzed: 04/16/2014 23:58

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: MSA-MW-48S-041014 | Lab Sample ID: 240-36112-3

Matrix: Water | Lab File ID: Z0042306.D

Analysis Method: RSK-175 | Date Collected: 04/10/2014 11:30

Sample wt/vol: 17(mL) | Date Analyzed: 04/23/2014 16:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ID:

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127618 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	470		0.10	0.070
74-84-0	Ethane	40		0.26	0.19
74-85-1	Ethene	32		0.31	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	104		66-132

Appendix C

Support Documentation

HOLDTIME

PROJ_NO 06183

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	HG	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	HG	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36135-1	HG	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	HG	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	HG	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	HG	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	HG	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	HG	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36112-1	M	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/18/2014	6	2	8
240-36112-1	M	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/16/2014	04/18/2014	6	2	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	M	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	M	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/16/2014	04/18/2014	6	2	8
240-36112-1	M	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36135-1	M	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/24/2014	4	6	10
240-36135-1	M	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	M	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/24/2014	4	6	10
240-36135-1	M	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	M	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	M	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	M	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	M	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	M	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	M	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/16/2014	04/18/2014	6	2	8
240-36112-1	MF	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/18/2014	6	2	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	MF	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36135-1	MF	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	MF	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	MF	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	MF	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	MF	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/24/2014	4	6	10
240-36135-1	MF	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/24/2014	4	6	10
240-36135-1	MF	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	MF	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	MF	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36112-1	ALK	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/16/2014	6	0	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	ALK	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/16/2014	2	0	2
240-36112-1	CL	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/12/2014	04/12/2014	2	0	2
240-36135-1	CL	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/24/2014	04/24/2014	10	0	10
240-36112-1	HARD	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/16/2014	6	0	6
240-36135-1	HARD	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/21/2014	04/21/2014	7	0	7
240-36112-1	NH3	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/16/2014	6	0	6
240-36135-1	NH3	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/16/2014	2	0	2
240-36112-1	NTA	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/12/2014	04/12/2014	2	0	2
240-36135-1	NTA	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/15/2014	04/15/2014	1	0	1
240-36112-1	NTI	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/12/2014	04/12/2014	2	0	2
240-36135-1	NTI	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/15/2014	04/15/2014	1	0	1
240-36112-1	OPO4	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/12/2014	04/12/2014	2	0	2
240-36135-1	OPO4	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/15/2014	04/15/2014	1	0	1
240-36112-1	PCL	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	PCL	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	PCL	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	PCL	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36135-1	PCL	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	PCL	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/21/2014	04/23/2014	7	2	9

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	PCL	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36135-1	PCL	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36135-1	PCL	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	PCL	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	PCL	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36112-1	SO4	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/29/2014	04/29/2014	19	0	19
240-36135-1	SO4	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/24/2014	04/24/2014	10	0	10
240-36112-1	TDS	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/16/2014	6	0	6
240-36135-1	TDS	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/16/2014	2	0	2
240-36112-1	DOC	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/28/2014	04/28/2014	18	0	18
240-36135-1	DOC	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/28/2014	04/28/2014	14	0	14
240-36112-1	OS	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-MW-49I-041014	240-36112-5	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OS	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-25I-041114	240-36112-17	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	OS	UG/L	MSA-DMW-10I-041014	240-36112-7	SUR	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	OS	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-1B-041014	240-36112-8	SUR	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	OS	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24I-041114	240-36112-12	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OS	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	OS	UG/L	MSA-MW-23D-041114	240-36112-14	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32I-041014	240-36112-2	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-1A-041014	240-36112-9	SUR	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-51I-041614	240-36320-8	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-48I-041414	240-36233-6	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	OS	UG/L	MSA-MW-21I-041414	240-36233-3	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	OS	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-11I-041414	240-36135-3	SUR	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	OS	UG/L	MSA-MW-21D-041414	240-36233-5	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	OS	UG/L	MSA-MW-48I-041414	240-36233-6	SUR	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	OS	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-DMW-7I-041614	240-36320-2	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-8I-041614	240-36320-4	SUR	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	OS	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	OS	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-50I-041414	240-36233-4	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-50D-041614	240-36320-6	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	OS	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-7D-041614	240-36320-3	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	OS	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36112-1	OV	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OV	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-32I-041014	240-36112-2	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-25I-041114	240-36112-17	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-23D-041114	240-36112-14	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1B-041014	240-36112-8	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OV	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-10I-041014	240-36112-7	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1A-041014	240-36112-9	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49I-041014	240-36112-5	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-24I-041114	240-36112-12	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36135-1	OV	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-50D-041614	240-36320-6	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/22/2014	6	0	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	OV	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-51I-041614	240-36320-8	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-DMW-8I-041614	240-36320-4	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-DMW-7D-041614	240-36320-3	SUR	04/16/2014	04/22/2014	04/22/2014	6	0	6
240-36135-1	OV	UG/L	MSA-DMW-7I-041614	240-36320-2	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-21D-041414	240-36233-5	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-50I-041414	240-36233-4	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-21I-041414	240-36233-3	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-DMW-11I-041414	240-36135-3	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	OV	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36112-1	ETHA	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	ETHA	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	ETHE	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	ETHE	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	METH	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	METH	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	OVG	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	OVG	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	DRO	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	DRO	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	DRO	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	DRO	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	DRO	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	DRO	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36135-1	DRO	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	DRO	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	DRO	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	DRO	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36112-1	GRO	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36135-1	GRO	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36135-1	GRO	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/20/2014	04/20/2014	4	0	4

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	GRO	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36135-1	GRO	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/20/2014	04/20/2014	4	0	4
240-36112-1	TPH	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	TPH	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	TPH	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	TPH	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	TPH	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	TPH	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36135-1	TPH	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36135-1	TPH	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	TPH	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	TPH	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36135-1	TPH	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/20/2014	04/20/2014	4	0	4
240-36135-1	TPH	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	TPH	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36135-1	TPH	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/20/2014	04/20/2014	4	0	4

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-36112-1

Job Description: MSA GW 2014

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Tony Apanavage

Approved for release.
John McFadden
Project Manager I
4/30/2014 10:26 AM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
04/30/2014

cc: Samantha Brenner
Final Data Tracking

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	This flag indicates the presumptive evidence of a compound.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
U	Indicates the analyte was analyzed for but not detected.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
F1	MS and/or MSD Recovery exceeds the control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2014

Report Number: 240-36112-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 6850 Perchlorate analysis was performed at TestAmerica Sacramento.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 4/12/2014 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 1.6° C, 1.8° C, 2.6° C, 1.4° C and 3.4° C.

The laboratory received a trip blank for analysis that is not listed on the chain of custody. The laboratory will run the sample for VOCs.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-32I-041014 (240-36112-2), MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-MW-49I-041014 (240-36112-5), MSA-DMW-10S-041014 (240-36112-6), MSA-DMW-10I-041014 (240-36112-7), MSA-DMW-1B-041014 (240-36112-8), MSA-DMW-1A-041014 (240-36112-9), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-24I-041114 (240-36112-12), MSA-MW-23S-041114 (240-36112-13), MSA-MW-23D-041114 (240-36112-14), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16), MSA-MW-25I-041114 (240-36112-17), MSA-MW-37S-041114 (240-36112-18) and TRIP BLANK (240-36112-19) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 04/21/2014 and 04/22/2014.

Samples MSA-MW-48S-041014 (240-36112-3)[5X], MSA-MW-49S-041014 (240-36112-4)[14.29X], MSA-MW-49I-041014 (240-36112-5) [200X], MSA-DMW-1B-041014 (240-36112-8)[55.56X], MSA-DMW-1A-041014 (240-36112-9)[166.67X] and MSA-MW-24I-041114 (240-36112-12)[3.33X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) for analytical batch 127251 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The continuing calibration verification (CCV) for analytical batch 127413 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

No other difficulties were encountered during the VOCs analysis. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-32I-041014 (240-36112-2), MSA-MW-48S-041014 (240-36112-3),

MSA-MW-49S-041014 (240-36112-4), MSA-MW-49I-041014 (240-36112-5), MSA-DMW-10S-041014 (240-36112-6), MSA-DMW-10I-041014 (240-36112-7), MSA-DMW-1B-041014 (240-36112-8), MSA-DMW-1A-041014 (240-36112-9), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-24I-041114 (240-36112-12), MSA-MW-23S-041114 (240-36112-13), MSA-MW-23D-041114 (240-36112-14), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16), MSA-MW-25I-041114 (240-36112-17) and MSA-MW-37S-041114 (240-36112-18) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 04/15/2014 and 04/16/2014 and analyzed on 04/16/2014, 04/17/2014 and 04/21/2014.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Samples MSA-MW-49S-041014 (240-36112-4)[2X], MSA-MW-49I-041014 (240-36112-5)[4X], MSA-DMW-1B-041014 (240-36112-8)[2X] and MSA-DMW-1A-041014 (240-36112-9)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch (126515)

No other difficulties were encountered during the SVOCs analysis. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-DMW-10S-041014 (240-36112-6), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-23S-041114 (240-36112-13), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16) and MSA-MW-37S-041114 (240-36112-18) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/18/2014.

No difficulties were encountered during the GRO analysis. All quality control parameters were within the acceptance limits.

DISSOLVED GASES

Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 04/23/2014.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 127618.

No other difficulties were encountered during the dissolved gases analysis. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-DMW-10S-041014 (240-36112-6), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-23S-041114 (240-36112-13), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16) and MSA-MW-37S-041114 (240-36112-18) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 04/15/2014 and analyzed on 04/17/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch (126508)

No other difficulties were encountered during the DRO analysis. All other quality control parameters were within the acceptance limits.

PERCHLORATE

Samples MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-MW-49I-041014 (240-36112-5) and MSA-MW-24I-041114 (240-36112-12) were analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 04/15/2014 and analyzed on 04/16/2014 and 04/17/2014.

No difficulties were encountered during the perchlorate analysis. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/15/2014 and analyzed on 04/16/2014.

Calcium and Magnesium were detected in method blank MB 240-126489/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-32I-041014 (240-36112-2), MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-MW-49I-041014 (240-36112-5), MSA-DMW-10S-041014 (240-36112-6), MSA-DMW-10I-041014 (240-36112-7), MSA-DMW-1B-041014 (240-36112-8), MSA-DMW-1A-041014 (240-36112-9), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-24I-041114 (240-36112-12), MSA-MW-23S-041114 (240-36112-13), MSA-MW-23D-041114 (240-36112-14), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16), MSA-MW-25I-041114 (240-36112-17) and MSA-MW-37S-041114 (240-36112-18) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/16/2014 and 04/17/2014 and analyzed on 04/17/2014 and 04/18/2014.

The following samples were diluted due to the nature of the sample matrix: MSA-MW-49I-041014 (240-36112-5) and MSA-MW-24S-041114 (240-36112-11). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-32I-041014 (240-36112-2), MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-MW-49I-041014 (240-36112-5), MSA-DMW-10S-041014 (240-36112-6), MSA-DMW-10I-041014 (240-36112-7), MSA-DMW-1B-041014 (240-36112-8), MSA-DMW-1A-041014 (240-36112-9), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-24I-041114 (240-36112-12), MSA-MW-23S-041114 (240-36112-13), MSA-MW-23D-041114 (240-36112-14), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16), MSA-MW-25I-041114 (240-36112-17) and MSA-MW-37S-041114 (240-36112-18) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/16/2014 and 04/17/2014 and analyzed on 04/17/2014 and 04/18/2014.

Several analytes were detected in method blank MB 240-126664/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 240-126840/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples MSA-MW-49I-041014 (240-36112-5)[5X] and MSA-MW-24S-041114 (240-36112-11)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-32I-041014 (240-36112-2), MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-MW-49I-041014 (240-36112-5), MSA-DMW-10S-041014 (240-36112-6), MSA-DMW-10I-041014 (240-36112-7), MSA-DMW-1B-041014 (240-36112-8), MSA-DMW-1A-041014 (240-36112-9), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-24I-041114 (240-36112-12), MSA-MW-23S-041114 (240-36112-13), MSA-MW-23D-041114 (240-36112-14), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16), MSA-MW-25I-041114 (240-36112-17) and MSA-MW-37S-041114 (240-36112-18) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/16/2014 and 04/17/2014 and analyzed on 04/17/2014 and 04/18/2014.

No difficulties were encountered during the mercury analysis. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-32I-041014 (240-36112-2), MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-MW-49I-041014 (240-36112-5), MSA-DMW-10S-041014 (240-36112-6), MSA-DMW-10I-041014 (240-36112-7), MSA-DMW-1B-041014 (240-36112-8), MSA-DMW-1A-041014 (240-36112-9), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-24I-041114 (240-36112-12), MSA-MW-23S-041114 (240-36112-13), MSA-MW-23D-041114 (240-36112-14), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16), MSA-MW-25I-041114 (240-36112-17) and MSA-MW-37S-041114 (240-36112-18) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/16/2014 and 04/17/2014 and analyzed on 04/17/2014 and 04/18/2014.

No difficulties were encountered during the mercury analysis. All quality control parameters were within the acceptance limits.

HARDNESS

Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for hardness in accordance with SM 2340B. The samples were analyzed on 04/16/2014.

No difficulties were encountered during the hardness analysis. All quality control parameters were within the acceptance limits.

TOTAL DISSOLVED SOLIDS
Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for total dissolved solids in accordance with EPA Method 160.1. The samples were analyzed on 04/16/2014.

No difficulties were encountered during the TDS analysis. All quality control parameters were within the acceptance limits.

ANIONS
Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/12/2014.

Sample MSA-MW-48S-041014 was analyzed outside of the recommended hold time by 29 minutes for Nitrite, Nitrate, and Orthophosphate. The sample was collected on 4/10/14 at 1130 and was received at the laboratory on 4/12/14 at 0930. The laboratory was able to analyze the sample on 4/12/14 at 1159.

No difficulties were encountered during the anions analysis. All other quality control parameters were within the acceptance limits.

ANIONS
Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/12/2014 and 04/29/2014.

Sample MSA-MW-48S-041014 (240-36112-3)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the anions analysis. All other quality control parameters were within the acceptance limits.

ALKALINITY
Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for alkalinity in accordance with EPA Method 310.1. The samples were analyzed on 04/16/2014.

No difficulties were encountered during the alkalinity analysis. All quality control parameters were within the acceptance limits.

AMMONIA
Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for ammonia in accordance with EPA Method 350.3. The samples were analyzed on 04/16/2014.

No difficulties were encountered during the ammonia analysis. All quality control parameters were within the acceptance limits.

DISSOLVED ORGANIC CARBON
Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 04/28/2014.

No difficulties were encountered during the TOC analysis. All quality control parameters were within the acceptance limits.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2014

TestAmerica Job ID: 240-36112-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015B	Gasoline Range Organics - (GC)	SW846	TAL CAN
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CAN
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
2340B-1997	Total Hardness (as CaCO3) by calculation	SM	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
160.1	Solids, Total Dissolved (TDS)	MCAWW	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
310.1	Alkalinity	MCAWW	TAL CAN
350.3	Nitrogen, Ammonia	MCAWW	TAL CAN
9060	Organic Carbon, Dissolved (DOC)	SW846	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2014

TestAmerica Job ID: 240-36112-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-36112-1	MSA-MW-32S-041014	Water	04/10/14 09:00	04/12/14 09:45
240-36112-2	MSA-MW-32I-041014	Water	04/10/14 10:10	04/12/14 09:45
240-36112-3	MSA-MW-48S-041014	Water	04/10/14 11:30	04/12/14 09:45
240-36112-4	MSA-MW-49S-041014	Water	04/10/14 14:35	04/12/14 09:45
240-36112-5	MSA-MW-49I-041014	Water	04/10/14 15:40	04/12/14 09:45
240-36112-6	MSA-DMW-10S-041014	Water	04/10/14 08:53	04/12/14 09:45
240-36112-7	MSA-DMW-10I-041014	Water	04/10/14 10:09	04/12/14 09:45
240-36112-8	MSA-DMW-1B-041014	Water	04/10/14 11:29	04/12/14 09:45
240-36112-9	MSA-DMW-1A-041014	Water	04/10/14 12:45	04/12/14 09:45
240-36112-10	MSA-MW-6-041014	Water	04/10/14 15:30	04/12/14 09:45
240-36112-11	MSA-MW-24S-041114	Water	04/11/14 08:45	04/12/14 09:45
240-36112-12	MSA-MW-24I-041114	Water	04/11/14 09:55	04/12/14 09:45
240-36112-13	MSA-MW-23S-041114	Water	04/11/14 11:35	04/12/14 09:45
240-36112-14	MSA-MW-23D-041114	Water	04/11/14 14:45	04/12/14 09:45
240-36112-15	MSA-MW-36S-041114	Water	04/11/14 09:05	04/12/14 09:45
240-36112-16	MSA-MW-25S-041114	Water	04/11/14 10:25	04/12/14 09:45
240-36112-17	MSA-MW-25I-041114	Water	04/11/14 11:45	04/12/14 09:45
240-36112-18	MSA-MW-37S-041114	Water	04/11/14 14:50	04/12/14 09:45
240-36112-19	TRIP BLANK	Water	04/11/14 00:00	04/12/14 09:45

TestAmerica Canton 2.6, 3.4,

4101 Shuffel Street, N. W.

North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

Chain of Custody Record

1.6, 1.8, 1.4
042319

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Tony Apanavage	Site Contact: Josh Mullis	Date: 4/10/14	COC No:
Company Name:	Tetra Tech	Tel/Fax: 301-528-3000	Lab Contact: Pat O'meara	Carrier: Fed Ex	1 of 1 COCs
Address:	20251 Century Blvd. Ste. 200	Analysis Turnaround Time			Sampler:
City/State/Zip:	Germantown, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	301-528-3000	TAT if different from Below 21 DAYS			Walk-in Client:
Fax:		☐ 2 weeks			Lab Sampling:
Project Name:	MSA GW 2014	☐ 1 week			
Site:	MSA	☐ 2 days			Job / SDG No.:
PO #	112IC06183	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	1-4 dioxane	Total Metals	Dissolved Metals	Perchlorate	TPH-GRO	TPH-DRO	MEE	Dissolved Gasses	Ammonia	Alkalinity, Anions, TDS	DOC	Sample Specific Notes:
MSA-MW-32S-041014	4/10/14	0900	G	Aq	11			3	2	1	1		2	2						
MSA-MW-32I-041014	4/10/14	1010			7			3	2	1	1									
MSA-MW-48S-041014	4/10/14	1130			20			3	2	1	1	1	2	2	2	2	1	1	2	
MSA-MW-49S-041014	4/10/14	1435			12			3	2	1	1	1	2	2						
MSA-MW-49I-041014	4/10/14	1540			8			3	2	1	1	1								
MSA-DMW-10S-041014	↓	0853			11			3	2	1	1		2	2						
MSA-DMW-10I-041014		1009			7			3	2	1	1									
MSA-DMW-1B-041014		1129			7			3	2	1	1									
MSA-DMW-1A-041014		1245			7			3	2	1	1									
MSA-MW-6-041014	↓	1530			11			3	2	1	1		2	2						

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: Dissolved Metals and Perchlorate Filtered in Field

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt Pry TD	TT Inc	4-11-14 / 1610	[signature]	TestAmerica	4/11/14 / 1610
[signature]	TestAmerica	4/11/14 / 1730			
			Received in Laboratory by: [signature]	TA Canton	4/12/14 9:45

TestAmerica Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

Chain of Custody Record

042307

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Tony Apanavage	Site Contact: Josh Mullis	Date: 4/11/14	COC No:
Company Name:	Tetra Tech	Tel/Fax:	Lab Contact: Pat O'Neill	Carrier: Fed Ex	2 of 2 COCs
Address:	20251 Century Blvd. Ste. 200	Analysis Turnaround Time			Sampler:
City/State/Zip:	Germantown, MD 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	301-528-3000	TAT if different from Below			Walk-in Client:
Fax:		☐ 2 weeks 21 days			Lab Sampling:
Project Name:	MSA GW 2014	☐ 1 week			
Site:	MSA	☐ 2 days			Job / SDG No.:
P O #	12IC06183	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	VOCs	1-4 dioxane	TPH-DRO	TPH-GRO	Total Metals	Dissolved Metals	Perchlorate	Sample Specific Notes:
MSA-MW-24S-041114	4/11/14	0845	G	Aq	11			X	X	X	X	X	X		
MSA-MW-24I-041114	4/11/14	0955			8			X	X			X	X	X	
MSA-MW-23S-041114	4/11/14	1135			11			X	X	X	X	X	X		
MSA-MW-23D-041114	4/11/14	1445			7			X	X			X	X		
MSA-MW-36S-041114		0905			11			X	X	X	X	X	X		
MSA-MW-25S-041114		1025			11			X	X	X	X	X	X		
MSA-MW-25I-041114		1145			21			X	X			X	X		(* MS/MSD)
MSA-MW-37S-041114		1450			11			X	X	X	X	X	X		

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: Dissolved Metals and Perchlorate filtered in field

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Nathe [signature]	TT Inc	4-11-14 / 1610	Paul [signature]	TestAmerica	4/11/14 / 1610
[signature]	TestAmerica	4/11/14 / 1750			
			Received in Laboratory by: [signature]	TA Canton	4/12/14 9:45

TestAmerica Canton Sample Receipt Form/Narrative Login # : 36112
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 4/12/14 Opened on 4/12/14

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C) Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	
IR GUN# 4	(CF -1 °C) Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	☒ See Multiple Cooler Form
IR GUN# 5	(CF +1 °C) Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	
~~IR GUN# 8~~	~~(CF +1 °C) Observed Cooler Temp._____°C~~	~~Corrected Cooler Temp._____°C~~	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 5 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Did all bottles arrive in good condition (Unbroken)? Yes No
7. Could all bottle labels be reconciled with the COC? Yes No
8. Were correct bottle(s) used for the test(s) indicated? Yes No
9. Sufficient quantity received to perform indicated analyses? Yes No
10. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? Yes No
12. Were air bubbles >6 mm in any VOA vials? Yes No NA
13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM JWM Date 4/14/14 by AN via Verbal Voice Mail Other
Concerning #14

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples ~~processed~~ by:

Received 2x40ml Trip Blank not on COC. Will log.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

TestAmerica Multiple Cooler Receipt Form/Narrative
Canton Facility

Login # : 36112

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
L915	4	2.6	2.6	ICE
102		1.8	1.8	
Client		1.6	1.6	
K633		2.6	2.6	
Client		3.4	3.4	

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW-32S-041014	240-36112-J-1	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-32S-041014	240-36112-K-1	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-32I-041014	240-36112-F-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-32I-041014	240-36112-G-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-48S-041014	240-36112-L-3	Plastic 250ml - with Sulfuric Acid	<2		
MSA-MW-48S-041014	240-36112-Q-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-48S-041014	240-36112-R-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-49S-041014	240-36112-K-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-49S-041014	240-36112-L-4	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-49I-041014	240-36112-G-5	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-49I-041014	240-36112-H-5	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-10S-041014	240-36112-J-6	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-10S-041014	240-36112-K-6	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-10I-041014	240-36112-F-7	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-10I-041014	240-36112-G-7	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-1B-041014	240-36112-F-8	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-1B-041014	240-36112-G-8	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-1A-041014	240-36112-F-9	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-1A-041014	240-36112-G-9	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-6-041014	240-36112-J-10	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-6-041014	240-36112-K-10	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-24S-041014	240-36112-J-11	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-24S-041014	240-36112-K-11	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-24I-041014	240-36112-G-12	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-24I-041014	240-36112-H-12	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-23S-041014	240-36112-J-13	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-23S-041014	240-36112-K-13	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-23I-041014	240-36112-F-14	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-23I-041014	240-36112-G-14	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-36S-041014	240-36112-J-15	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-36S-041014	240-36112-K-15	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-25S-041014	240-36112-J-16	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-25S-041014	240-36112-K-16	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-25I-041014	240-36112-P-17	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-25I-041014	240-36112-Q-17	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-25I-041014	240-36112-R-17	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-25I-041014	240-36112-S-17	Plastic 500ml - with Nitric Acid	<2		

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW-25I-041014	240-36112-T-17	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-25I-041014	240-36112-U-17	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-37S-041014	240-36112-J-18	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-37S-041014	240-36112-K-18	Plastic 500ml - with Nitric Acid	<2		

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-36112-1

Login Number: 36112
List Number: 1
Creator: Nelson, Kym D

List Source: TestAmerica Sacramento
List Creation: 04/15/14 12:45 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MSA-MW-32S-041014	240-36112-1	88	98	96	88
MSA-MW-32I-041014	240-36112-2	90	100	98	92
MSA-MW-48S-041014	240-36112-3	88	97	97	94
MSA-MW-49S-041014	240-36112-4	91	101	96	92
MSA-MW-49I-041014	240-36112-5	89	98	92	84
MSA-DMW-10S-041014	240-36112-6	85	96	94	94
MSA-DMW-10I-041014	240-36112-7	88	98	96	91
MSA-DMW-1B-041014	240-36112-8	87	97	96	89
MSA-DMW-1A-041014	240-36112-9	91	101	96	92
MSA-MW-6-041014	240-36112-10	88	98	95	89
MSA-MW-24S-041114	240-36112-11	88	99	95	92
MSA-MW-24I-041114	240-36112-12	88	100	95	90
MSA-MW-23S-041114	240-36112-13	88	98	94	91
MSA-MW-23D-041114	240-36112-14	90	99	97	87
MSA-MW-36S-041114	240-36112-15	92	99	111	87
MSA-MW-25S-041114	240-36112-16	89	99	93	89
MSA-MW-25I-041114	240-36112-17	87	97	100	91
MSA-MW-37S-041114	240-36112-18	91	101	95	90
TRIP BLANK	240-36112-19	91	100	94	88
	MB 240-127251/7	90	96	99	89
	MB 240-127413/6	88	97	97	88
	LCS 240-127251/5	87	95	101	96
	LCS 240-127413/4	85	95	100	96
MSA-MW-25I-041114 MS	240-36112-17 MS	86	93	102	97
MSA-MW-25I-041114 MSD	240-36112-17 MSD	86	93	97	96

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-120
BFB = 4-Bromofluorobenzene (Surr)	66-120

Column to be used to flag recovery values

FORM II 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: A3UX10 Start Date: 03/13/2014 08:39

Analysis Batch Number: 122371 End Date: 03/13/2014 15:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-122371/1		03/13/2014 08:39	1	BFB5580.D	DB-624 0.18(mm)
STD8260 240-122371/2 IC		03/13/2014 09:02	1	UXX8834.D	DB-624 0.18(mm)
STD8260 240-122371/3 IC		03/13/2014 09:24	1	UXX8835.D	DB-624 0.18(mm)
STD8260 240-122371/4 ICIS		03/13/2014 09:48	1	UXX8836.D	DB-624 0.18(mm)
STD8260 240-122371/5 IC		03/13/2014 10:10	1	UXX8837.D	DB-624 0.18(mm)
STD8260 240-122371/6 IC		03/13/2014 10:33	1	UXX8838.D	DB-624 0.18(mm)
STD8260 240-122371/7 IC		03/13/2014 10:55	1	UXX8839.D	DB-624 0.18(mm)
STDA9 240-122371/8 IC		03/13/2014 11:18	1	UXX8840.D	DB-624 0.18(mm)
STDA9 240-122371/9 IC		03/13/2014 11:40	1	UXX8841.D	DB-624 0.18(mm)
STDA9 240-122371/10 IC		03/13/2014 12:02	1	UXX8842.D	DB-624 0.18(mm)
STDA9 240-122371/11 IC		03/13/2014 12:25	1	UXX8843.D	DB-624 0.18(mm)
STDA9 240-122371/12 IC		03/13/2014 12:47	1	UXX8844.D	DB-624 0.18(mm)
STDA9 240-122371/13 IC		03/13/2014 13:09	1	UXX8845.D	DB-624 0.18(mm)
ICV 240-122371/14		03/13/2014 13:50	1	UXX8846.D	DB-624 0.18(mm)
ICV 240-122371/15		03/13/2014 14:12	1	UXX8847.D	DB-624 0.18(mm)
ZZZZZ		03/13/2014 14:35	1		DB-624 0.18(mm)
ZZZZZ		03/13/2014 15:19	1		DB-624 0.18(mm)
ZZZZZ		03/13/2014 15:42	1		DB-624 0.18(mm)
ZZZZZ		03/13/2014 15:42	1		DB-624 0.18(mm)

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab File ID: BFB5580.D BFB Injection Date: 03/13/2014

Instrument ID: A3UX10 BFB Injection Time: 08:39

Analysis Batch No.: 122371

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.3	
75	30.0 - 60.0 % of mass 95	49.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.1	(0.1)1
174	50.0 - 120.00 % of mass 95	86.9	
175	5.0 - 9.0 % of mass 174	6.5	(7.5)1
176	95.0 - 101.0 % of mass 174	83.3	(95.8)1
177	5.0 - 9.0 % of mass 176	5.7	(6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-122371/2	UXX8834.D	03/13/2014	09:02
	STD8260 240-122371/3	UXX8835.D	03/13/2014	09:24
	STD8260 240-122371/4	UXX8836.D	03/13/2014	09:48
	STD8260 240-122371/5	UXX8837.D	03/13/2014	10:10
	STD8260 240-122371/6	UXX8838.D	03/13/2014	10:33
	STD8260 240-122371/7	UXX8839.D	03/13/2014	10:55
	STDA9 240-122371/8	UXX8840.D	03/13/2014	11:18
	STDA9 240-122371/9	UXX8841.D	03/13/2014	11:40
	STDA9 240-122371/10	UXX8842.D	03/13/2014	12:02
	STDA9 240-122371/11	UXX8843.D	03/13/2014	12:25
	STDA9 240-122371/12	UXX8844.D	03/13/2014	12:47
	STDA9 240-122371/13	UXX8845.D	03/13/2014	13:09
	ICV 240-122371/14	UXX8846.D	03/13/2014	13:50
	ICV 240-122371/15	UXX8847.D	03/13/2014	14:12

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36112-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-122371/7	UXX8839.D
Level 2	STD8260 240-122371/6	UXX8838.D
Level 3	STD8260 240-122371/5	UXX8837.D
Level 4	STD8260 240-122371/4	UXX8836.D
Level 5	STD8260 240-122371/3	UXX8835.D
Level 6	STD8260 240-122371/2	UXX8834.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2351 0.2522	0.2412	0.2233	0.2482	0.2522	Ave		0.2420			0.1000	4.7		15.0			
Chloromethane	0.3337 0.2770	0.3055	0.2809	0.2718	0.2761	Ave		0.2908			0.1000	8.3		15.0			
Vinyl chloride	0.2986 0.2843	0.2917	0.2749	0.2772	0.2823	Ave		0.2848			0.1000	3.1		15.0			
Bromomethane	0.1623 0.1036	0.1528	0.1378	0.1183	0.1263	Lin1	0.0764	0.1096			0.0500				0.9900		0.9900
Chloroethane	0.1738 0.1443	0.1643	0.1606	0.1470	0.1562	Ave		0.1577				7.0		15.0			
Dichlorofluoromethane	0.3860 0.2893	0.3416	0.3193	0.3006	0.3122	Ave		0.3248				11.0		15.0			
Trichlorofluoromethane	0.2911 0.2690	0.2877	0.2724	0.2839	0.2803	Ave		0.2807			0.1000	3.1		15.0			
Ethyl ether	0.1766 0.1775	0.1636	0.1606	0.1726	0.1710	Ave		0.1703				4.0		15.0			
Acrolein	0.0265 0.0260	0.0260	0.0244	0.0255	0.0267	Ave		0.0258				3.2		15.0			
1,1-Dichloroethene	0.2302 0.2164	0.2257	0.2045	0.2099	0.2186	Ave		0.2175			0.1000	4.4		15.0			
1,1,2-Trichlorotrifluoroethane	0.1862 0.1940	0.1959	0.1601	0.1824	0.1859	Ave		0.1841			0.0500	7.0		15.0			
Acetone	0.0617 0.0612	0.0527	0.0531	0.0617	0.0619	Ave		0.0587			0.0500	7.7		15.0			
Iodomethane	0.3782 0.3597	0.3626	0.3430	0.3520	0.3540	Ave		0.3583				3.3		15.0			
Carbon disulfide	0.7303 0.7175	0.7152	0.6643	0.6891	0.7109	Ave		0.7045			0.1000	3.4		15.0			
3-Chloro-1-propene	0.1611 0.1518	0.1494	0.1430	0.1476	0.1531	Ave		0.1510				4.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36112-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl acetate	0.1415 0.1427	0.1313	0.1280	0.1366	0.1443	Ave		0.1374			0.1000	4.8		15.0			
Methylene Chloride	0.3443 0.2359	0.2861	0.2451	0.2408	0.2412	Lin1	0.1037	0.2332			0.1000				1.0000		0.9900
tert-Butyl alcohol	0.0124 0.0185	0.0112	0.0115	0.0177	0.0193	Lin1	-0.118	0.0188							0.9910		0.9900
Acrylonitrile	0.0686 0.0713	0.0647	0.0637	0.0691	0.0727	Ave		0.0683				5.2		15.0			
Methyl tert-butyl ether	0.7053 0.7033	0.6530	0.6488	0.6670	0.7001	Ave		0.6796			0.1000	3.9		15.0			
trans-1,2-Dichloroethene	0.2715 0.2373	0.2550	0.2346	0.2414	0.2467	Ave		0.2478			0.1000	5.5		15.0			
Hexane	0.0622 0.0621	0.0576	0.0519	0.0604	0.0608	Ave		0.0592				6.6		15.0			
1,1-Dichloroethane	0.4200 0.4123	0.4127	0.3962	0.4073	0.4136	Ave		0.4104			0.1000	2.0		15.0			
Vinyl acetate	0.2499 0.2755	0.2458	0.2461	0.2668	0.2648	Ave		0.2581				4.9		15.0			
2,2-Dichloropropane	0.3404 0.3338	0.3346	0.3152	0.3274	0.3346	Ave		0.3310				2.6		15.0			
cis-1,2-Dichloroethene	0.2844 0.2570	0.2691	0.2526	0.2566	0.2589	Ave		0.2631			0.1000	4.5		15.0			
2-Butanone (MEK)	0.0717 0.0776	0.0661	0.0658	0.0765	0.0798	Ave		0.0729			0.0500	8.2		15.0			
Bromochloromethane	0.1277 0.1212	0.1199	0.1166	0.1182	0.1214	Ave		0.1208				3.2		15.0			
Tetrahydrofuran	0.0628 0.0532	0.0561	0.0513	0.0525	0.0532	Ave		0.0549				7.7		15.0			
Chloroform	0.4091 0.3998	0.3965	0.3883	0.3936	0.4001	Ave		0.3979				1.8		15.0			
1,1,1-Trichloroethane	0.3758 0.3613	0.3620	0.3441	0.3590	0.3657	Ave		0.3613			0.1000	2.9		15.0			
Cyclohexane	0.3882 0.4002	0.4071	0.3482	0.3903	0.3980	Ave		0.3887			0.1000	5.4		15.0			
1,1-Dichloropropene	0.3153 0.3039	0.2969	0.2821	0.2999	0.3027	Ave		0.3001				3.6		15.0			
Carbon tetrachloride	0.3030 0.3273	0.3113	0.2889	0.3134	0.3260	Ave		0.3117			0.1000	4.6		15.0			
Isobutyl alcohol	0.0120 0.0080	0.0058	0.0066	0.0078	0.0084	Lin1	0.0127	0.0080							0.9900		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36112-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzene	0.9808 0.9463	0.9526	0.9016	0.9385	0.9429	Ave		0.9438			0.5000	2.7		15.0			
1,2-Dichloroethane	0.3005 0.2997	0.2897	0.2882	0.2961	0.3020	Ave		0.2960			0.1000	2.0		15.0			
n-Heptane	0.0505 0.0556	0.0518	0.0461	0.0536	0.0524	Ave		0.0517				6.3		15.0			
Trichloroethene	0.2524 0.2505	0.2456	0.2399	0.2491	0.2498	Ave		0.2479			0.2000	1.8		15.0			
Methylcyclohexane	0.3681 0.4035	0.3938	0.3403	0.3883	0.3998	Ave		0.3823			0.1000	6.3		15.0			
1,2-Dichloropropane	0.2019 0.2137	0.2038	0.2037	0.2136	0.2120	Ave		0.2081			0.1000	2.7		15.0			
Dibromomethane	0.1206 0.1236	0.1157	0.1190	0.1229	0.1246	Ave		0.1211				2.8		15.0			
1,4-Dioxane	0.0008 0.0018	0.0009	0.0009	0.0021	0.0020	Qua	-0.068	0.0024	0						0.9950		0.9900
Bromodichloromethane	0.2704 0.3046	0.2793	0.2780	0.2879	0.2969	Ave		0.2862			0.1000	4.5		15.0			
2-Chloroethyl vinyl ether	0.0585 0.0866	0.0595	0.0675	0.0807	0.0839	Lin1	-0.086	0.0862							0.9980		0.9900
cis-1,3-Dichloropropene	0.2912 0.3568	0.3047	0.3100	0.3419	0.3479	Ave		0.3254			0.1500	8.2		15.0			
4-Methyl-2-pentanone (MIBK)	0.1394 0.1665	0.1418	0.1396	0.1571	0.1664	Ave		0.1518			0.0500	8.6		15.0			
Toluene	1.4615 1.4216	1.4050	1.3791	1.3802	1.4160	Ave		1.4106			0.4000	2.2		15.0			
trans-1,3-Dichloropropene	0.3681 0.4292	0.3691	0.3915	0.4066	0.4240	Ave		0.3981			0.1000	6.6		15.0			
Ethyl methacrylate	0.2764 0.3465	0.2842	0.3048	0.3292	0.3516	Ave		0.3155				10.0		15.0			
1,1,2-Trichloroethane	0.2496 0.2460	0.2437	0.2522	0.2472	0.2515	Ave		0.2484			0.1000	1.3		15.0			
Tetrachloroethene	0.3038 0.2845	0.2924	0.2800	0.2816	0.2863	Ave		0.2881			0.2000	3.1		15.0			
1,3-Dichloropropane	0.4404 0.4501	0.4282	0.4405	0.4460	0.4519	Ave		0.4429				1.9		15.0			
2-Hexanone	0.1455 0.1559	0.1340	0.1386	0.1487	0.1580	Ave		0.1468			0.0500	6.4		15.0			
Chlorodibromomethane	0.2685 0.3074	0.2662	0.2766	0.2873	0.2992	Ave		0.2842				5.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36112-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dibromoethane	0.2466 0.2471	0.2388	0.2432	0.2450	0.2511	Ave		0.2453				1.7		15.0			
Chlorobenzene	0.9392 0.8969	0.8870	0.8903	0.8959	0.8955	Ave		0.9008			0.3000	2.1		15.0			
1,1,1,2-Tetrachloroethane	0.3260 0.3371	0.3274	0.3251	0.3256	0.3359	Ave		0.3295				1.7		15.0			
Ethylbenzene	0.5064 0.4957	0.5011	0.4823	0.4955	0.4939	Ave		0.4958				1.6		15.0			
m-Xylene & p-Xylene	0.6292 0.6215	0.6094	0.6004	0.6209	0.6169	Ave		0.6164				1.6		15.0			
o-Xylene	0.6243 0.6252	0.6043	0.6016	0.6140	0.6187	Ave		0.6147				1.6		15.0			
Styrene	0.9381 1.0159	0.9504	0.9419	0.9932	0.9975	Ave		0.9728			0.3000	3.4		15.0			
Bromoform	0.1632 0.2063	0.1645	0.1721	0.1874	0.1986	Ave		0.1820			0.1000	10.0		15.0			
Isopropylbenzene	1.6147 1.6860	1.5898	1.5513	1.6099	1.6605	Ave		1.6187			0.1000	3.0		15.0			
1,1,2,2-Tetrachloroethane	0.5333 0.5596	0.5116	0.5282	0.5479	0.5583	Ave		0.5398			0.3000	3.5		15.0			
Bromobenzene	0.6529 0.6798	0.6842	0.6558	0.6754	0.6708	Ave		0.6698				1.9		15.0			
1,2,3-Trichloropropane	0.1807 0.1854	0.1717	0.1772	0.1867	0.1839	Ave		0.1809				3.1		15.0			
trans-1,4-Dichloro-2-butene	0.1370 0.1791	0.1386	0.1524	0.1630	0.1776	Ave		0.1580				12.0		15.0			
N-Propylbenzene	0.7026 0.7789	0.7350	0.7186	0.7608	0.7476	Ave		0.7406				3.8		15.0			
2-Chlorotoluene	0.6347 0.6511	0.6436	0.6256	0.6430	0.6435	Ave		0.6402				1.4		15.0			
1,3,5-Trimethylbenzene	2.0564 2.3932	2.1199	2.1145	2.2765	2.2962	Ave		2.2095				5.9		15.0			
4-Chlorotoluene	0.6512 0.6798	0.6715	0.6531	0.6824	0.6626	Ave		0.6668				2.0		15.0			
tert-Butylbenzene	1.8314 2.0767	1.8513	1.8431	1.9884	2.0086	Ave		1.9332				5.4		15.0			
1,2,4-Trimethylbenzene	2.1662 2.5065	2.2638	2.2108	2.3707	2.4062	Ave		2.3207				5.6		15.0			
sec-Butylbenzene	2.4320 2.8708	2.5721	2.4472	2.7018	2.7748	Ave		2.6331				6.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36112-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	1.3366 1.3205	1.3324	1.2710	1.3072	1.3175	Ave		1.3142			0.6000	1.8		15.0			
4-Isopropyltoluene	2.1208 2.5218	2.2477	2.1782	2.4228	2.4882	Ave		2.3299				7.3		15.0			
1,4-Dichlorobenzene	1.3782 1.3694	1.3746	1.3226	1.3523	1.3650	Ave		1.3603			0.5000	1.5		15.0			
n-Butylbenzene	1.7854 2.0843	1.8813	1.7710	1.9656	2.0342	Ave		1.9203				6.7		15.0			
1,2-Dichlorobenzene	1.2887 1.2790	1.2840	1.2095	1.2647	1.2692	Ave		1.2659			0.4000	2.3		15.0			
1,2-Dibromo-3-Chloropropane	0.1012 0.1201	0.1016	0.1029	0.1160	0.1237	Ave		0.1109			0.0500	9.2		15.0			
1,2,4-Trichlorobenzene	0.7975 0.8215	0.8025	0.7548	0.8660	0.8742	Ave		0.8194			0.2000	5.5		15.0			
Hexachlorobutadiene	0.3065 0.3056	0.3179	0.2840	0.3308	0.3308	Ave		0.3126				5.7		15.0			
Naphthalene	1.8389 1.8848	1.8338	1.7252	1.9783	2.0783	Ave		1.8899				6.5		15.0			
1,2,3-Trichlorobenzene	0.7013 0.6991	0.6930	0.6526	0.7889	0.7862	Ave		0.7202				7.7		15.0			
Dibromofluoromethane (Surr)	0.2112 0.2079	0.2038	0.2068	0.2038	0.2081	Ave		0.2069				1.4		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2471 0.2456	0.2387	0.2474	0.2432	0.2507	Ave		0.2454				1.7		15.0			
Toluene-d8 (Surr)	1.2187 1.1966	1.1473	1.2073	1.1634	1.2068	Ave		1.1900				2.4		15.0			
4-Bromofluorobenzene (Surr)	0.4722 0.4518	0.4510	0.4414	0.4512	0.4460	Ave		0.4523				2.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICV 240-122371/14 Calibration Date: 03/13/2014 13:50

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX8846.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2420	0.2371	0.1000	0.310	0.0100	-2.0	20.0
Chloromethane	Ave	0.2908	0.2908	0.1000	0.300	0.0100	-0.0	20.0
Vinyl chloride	Ave	0.2848	0.2999	0.1000	0.220	0.0100	5.3	20.0
Bromomethane	Lin1		0.1380	0.0500	0.410	0.0100	18.9	20.0
Chloroethane	Ave	0.1577	0.1628	0.0500	0.290	0.0100	3.2	20.0
Dichlorofluoromethane	Ave	0.3248	0.3365		0.420	0.0100	3.6	20.0
Trichlorofluoromethane	Ave	0.2807	0.3051	0.1000	0.210	0.0100	8.7	20.0
Ethyl ether	Ave	0.1703	0.1728		0.310	0.0100	1.4	20.0
Acrolein	Ave	0.0258	0.0230		2.20	0.0500	-10.9	20.0
1,1-Dichloroethene	Ave	0.2175	0.2317	0.1000	0.190	0.0100	6.5	20.0
1,1,2-Trichlorotrifluoroetha ne	Ave	0.1841	0.1956	0.0500	0.280	0.0100	6.2	20.0
Acetone	Ave	0.0587	0.0600	0.0500	1.10	0.0200	2.2	20.0
Iodomethane	Ave	0.3583	0.4006		0.180	0.0100	11.8	20.0
Carbon disulfide	Ave	0.7045	0.7887	0.1000	0.130	0.0100	11.9	20.0
3-Chloro-1-propene	Ave	0.1510	0.1487		0.350	0.0100	-1.5	20.0
Methyl acetate	Ave	0.1374	0.1284	0.1000	0.380	0.0500	-6.5	20.0
Methylene Chloride	Lin1		0.2480	0.1000	0.330	0.0100	1.9	20.0
tert-Butyl alcohol	Lin1		0.0172		3.90	0.100	-2.0	20.0
Acrylonitrile	Ave	0.0683	0.0690		2.00	0.100	1.0	20.0
Methyl tert-butyl ether	Ave	0.6796	0.6731	0.1000	0.170	0.0100	-1.0	20.0
trans-1,2-Dichloroethene	Ave	0.2478	0.2606	0.1000	0.190	0.0100	5.2	20.0
Hexane	Ave	0.0592	0.0650		0.260	0.0100	9.8	20.0
1,1-Dichloroethane	Ave	0.4104	0.4339	0.1000	0.150	0.0100	5.7	20.0
Vinyl acetate	Ave	0.2581	0.3765		0.190	0.00800	45.8*	20.0
2,2-Dichloropropane	Ave	0.3310	0.3400		0.130	0.0100	2.7	20.0
cis-1,2-Dichloroethene	Ave	0.2631	0.2665	0.1000	0.170	0.0100	1.3	20.0
2-Butanone (MEK)	Ave	0.0729	0.0711	0.0500	0.570	0.0200	-2.6	20.0
Bromochloromethane	Ave	0.1208	0.1232		0.290	0.0100	1.9	20.0
Tetrahydrofuran	Ave	0.0549	0.0501		0.420	0.0200	-8.8	20.0
Chloroform	Ave	0.3979	0.4055	0.2000	0.160	0.0100	1.9	20.0
1,1,1-Trichloroethane	Ave	0.3613	0.3743	0.1000	0.220	0.0100	3.6	20.0
Cyclohexane	Ave	0.3887	0.4049	0.1000	0.120	0.0100	4.2	20.0
1,1-Dichloropropene	Ave	0.3001	0.3367		0.130	0.0100	12.2	20.0
Carbon tetrachloride	Ave	0.3117	0.3275	0.1000	0.130	0.0100	5.1	20.0
Isobutyl alcohol	Lin1		0.0076		8.20	0.250	-5.7	20.0
Benzene	Ave	0.9438	0.9570	0.5000	0.130	0.0100	1.4	20.0
1,2-Dichloroethane	Ave	0.2960	0.2952	0.1000	0.220	0.0100	-0.3	20.0
n-Heptane	Ave	0.0517	0.0563		0.180	0.0100	8.9	20.0
Trichloroethene	Ave	0.2479	0.2586	0.2000	0.170	0.0100	4.3	20.0
Methylcyclohexane	Ave	0.3823	0.3958	0.1000	0.130	0.0100	3.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICV 240-122371/14 Calibration Date: 03/13/2014 13:50

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX8846.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2081	0.2097	0.1000	0.180	0.0100	0.8	20.0
1,4-Dioxane	Qua		0.0019		19.0	0.200	-1.1	20.0
Dibromomethane	Ave	0.1211	0.1208		0.280	0.0100	-0.2	20.0
Bromodichloromethane	Ave	0.2862	0.2795	0.1000	0.150	0.0100	-2.3	20.0
2-Chloroethyl vinyl ether	Lin1		0.0705		0.990	0.0120	-10.0	20.0
cis-1,3-Dichloropropene	Ave	0.3254	0.3310	0.1500	0.140	0.0100	1.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1518	0.1402	0.0500	0.320	0.0200	-7.6	20.0
Toluene	Ave	1.411	1.439	0.4000	0.130	0.0100	2.0	20.0
trans-1,3-Dichloropropene	Ave	0.3981	0.4184	0.1000	0.190	0.0100	5.1	20.0
Ethyl methacrylate	Ave	0.3155	0.3038		0.140	0.0100	-3.7	20.0
1,1,2-Trichloroethane	Ave	0.2484	0.2429	0.1000	0.270	0.0100	-2.2	20.0
Tetrachloroethene	Ave	0.2881	0.3004	0.2000	0.290	0.0100	4.3	20.0
1,3-Dichloropropane	Ave	0.4429	0.4263		0.160	0.0100	-3.7	20.0
2-Hexanone	Ave	0.1468	0.1314	0.0500	0.410	0.0200	-10.5	20.0
Chlorodibromomethane	Ave	0.2842	0.2770		0.180	0.0100	-2.5	20.0
1,2-Dibromoethane	Ave	0.2453	0.2394		0.240	0.0100	-2.4	20.0
Chlorobenzene	Ave	0.9008	0.9001	0.3000	0.150	0.0100	-0.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3295	0.3405		0.230	0.0100	3.3	20.0
Ethylbenzene	Ave	0.4958	0.5034		0.170	0.0100	1.5	20.0
m-Xylene & p-Xylene	Ave	0.6164	0.6254		0.240	0.0100	1.5	20.0
o-Xylene	Ave	0.6147	0.6369		0.140	0.0100	3.6	20.0
Styrene	Ave	0.9728	0.9506	0.3000	0.110	0.0100	-2.3	20.0
Bromoform	Ave	0.1820	0.1722	0.1000	0.640	0.0100	-5.4	20.0
Isopropylbenzene	Ave	1.619	1.699	0.1000	0.130	0.0100	5.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5398	0.5036	0.3000	0.180	0.0100	-6.7	20.0
Bromobenzene	Ave	0.6698	0.6453		0.130	0.0100	-3.7	20.0
1,2,3-Trichloropropane	Ave	0.1809	0.1742		0.430	0.0100	-3.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1580	0.1509		0.150	0.0100	-4.5	20.0
N-Propylbenzene	Ave	0.7406	0.7385		0.140	0.0100	-0.3	20.0
2-Chlorotoluene	Ave	0.6402	0.6318		0.110	0.0100	-1.3	20.0
1,3,5-Trimethylbenzene	Ave	2.209	2.209		0.0960	0.0100	-0.0	20.0
4-Chlorotoluene	Ave	0.6668	0.6464		0.180	0.0100	-3.1	20.0
tert-Butylbenzene	Ave	1.933	1.977		0.130	0.0100	2.2	20.0
1,2,4-Trimethylbenzene	Ave	2.321	2.299		0.120	0.0100	-0.9	20.0
sec-Butylbenzene	Ave	2.633	2.660		0.130	0.0100	1.0	20.0
1,3-Dichlorobenzene	Ave	1.314	1.290	0.6000	0.140	0.0100	-1.8	20.0
4-Isopropyltoluene	Ave	2.330	2.354		0.0120	0.0100	1.0	20.0
1,4-Dichlorobenzene	Ave	1.360	1.338	0.5000	0.130	0.0100	-1.7	20.0
n-Butylbenzene	Ave	1.920	1.909		0.120	0.0100	-0.6	20.0
1,2-Dichlorobenzene	Ave	1.266	1.255	0.4000	0.130	0.0100	-0.9	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1109	0.1024	0.0500	0.670	0.0100	-7.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICV 240-122371/14 Calibration Date: 03/13/2014 13:50

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX8846.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Ave	0.8194	0.8136	0.2000	0.150	0.0100	-0.7	20.0
Hexachlorobutadiene	Ave	0.3126	0.3249		0.300	0.0100	3.9	20.0
Naphthalene	Ave	1.890	1.746		0.240	0.0100	-7.6	20.0
1,2,3-Trichlorobenzene	Ave	0.7202	0.7100		0.170	0.0100	-1.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2069	0.1839		0.0109	0.0123	-11.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2454	0.2083		0.0104	0.0123	-15.1	20.0
Toluene-d8 (Surr)	Ave	1.190	1.067		0.0110	0.0123	-10.4	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4523	0.4110		0.0112	0.0123	-9.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICV 240-122371/15 Calibration Date: 03/13/2014 14:12

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX8847.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2069	0.1857		0.0110	0.0123	-10.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2454	0.2139		0.0107	0.0123	-12.9	20.0
Toluene-d8 (Surr)	Ave	1.190	1.061		0.0110	0.0123	-10.8	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4523	0.4133		0.0112	0.0123	-8.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICV 240-122371/15 Calibration Date: 03/13/2014 14:12

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 11:18

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 13:09

Lab File ID: UXX8847.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0225	0.0176		3.50	0.100	-21.9*	20.0
Diisopropyl ether	Ave	0.2178	0.2248		1.50	0.0100	3.2	20.0
2-Chloro-1,3-butadiene	Ave	0.3572	0.3635		0.290	0.0100	1.8	20.0
Ethyl tert-butyl ether	Ave	0.7038	0.6942		0.110	0.0100	-1.4	20.0
Ethyl acetate	Ave	0.1066	0.1399		0.500	0.0200	31.3*	20.0
Propionitrile	Ave	0.0242	0.0231		1.20	0.100	-4.8	20.0
Methacrylonitrile	Ave	0.1093	0.1065		0.510	0.100	-2.6	20.0
Tert-amyl methyl ether	Ave	0.6281	0.6313		0.0670	0.0100	0.5	20.0
n-Butanol	Ave	0.0057	0.0048		7.30	0.250	-16.3	20.0
Ethyl acrylate	Ave	0.1629	0.1630		0.250	0.0100	0.0	20.0
Methyl methacrylate	Ave	0.1292	0.1265		0.490	0.0200	-2.1	20.0
2-Nitropropane	Ave	0.0400	0.0381		0.700	0.0200	-4.7	20.0
Cyclohexanone	Ave	0.0118	0.0096		5.80	0.100	-18.5	20.0
1,2,3-Trimethylbenzene	Ave	2.250	2.276		0.0101	0.0100	1.2	20.0
1,3,5-Trichlorobenzene	Ave	0.8988	0.9015		0.110	0.0100	0.3	20.0
2-Methylnaphthalene	Ave	0.9347	0.5650		0.470	0.0200	-39.6*	20.0

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: A3UX10 Start Date: 04/21/2014 10:36

Analysis Batch Number: 127251 End Date: 04/21/2014 21:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-127251/1		04/21/2014 10:36	1	BFB578.D	DB-624 0.18(mm)
CCVIS 240-127251/2		04/21/2014 10:59	1	UXX9847.D	DB-624 0.18(mm)
CCV 240-127251/3		04/21/2014 11:21	1	UXX9848.D	DB-624 0.18(mm)
CCV 240-127251/4		04/21/2014 11:44	1	UXX9849.D	DB-624 0.18(mm)
LCS 240-127251/5		04/21/2014 12:06	1	UXX9850.D	DB-624 0.18(mm)
ZZZZZ		04/21/2014 12:29	1		DB-624 0.18(mm)
MB 240-127251/7		04/21/2014 12:51	1	UXX9852.D	DB-624 0.18(mm)
240-36112-17	MSA-MW-25I-041114	04/21/2014 13:47	1	UXX9853.D	DB-624 0.18(mm)
ZZZZZ		04/21/2014 14:09	833.33		DB-624 0.18(mm)
ZZZZZ		04/21/2014 14:31	40		DB-624 0.18(mm)
ZZZZZ		04/21/2014 14:54	1		DB-624 0.18(mm)
ZZZZZ		04/21/2014 15:17	166.67		DB-624 0.18(mm)
ZZZZZ		04/21/2014 15:39	5.71		DB-624 0.18(mm)
ZZZZZ		04/21/2014 16:02	1		DB-624 0.18(mm)
240-36112-1	MSA-MW-32S-041014	04/21/2014 16:24	1	UXX9860.D	DB-624 0.18(mm)
240-36112-2	MSA-MW-32I-041014	04/21/2014 16:47	1	UXX9861.D	DB-624 0.18(mm)
240-36112-3	MSA-MW-48S-041014	04/21/2014 17:10	5	UXX9862.D	DB-624 0.18(mm)
240-36112-4	MSA-MW-49S-041014	04/21/2014 17:32	14.29	UXX9863.D	DB-624 0.18(mm)
240-36112-5	MSA-MW-49I-041014	04/21/2014 17:55	200	UXX9864.D	DB-624 0.18(mm)
240-36112-6	MSA-DMW-10S-041014	04/21/2014 18:17	1	UXX9865.D	DB-624 0.18(mm)
240-36112-7	MSA-DMW-10I-041014	04/21/2014 18:39	1	UXX9866.D	DB-624 0.18(mm)
240-36112-8	MSA-DMW-1B-041014	04/21/2014 19:02	55.56	UXX9867.D	DB-624 0.18(mm)
240-36112-9	MSA-DMW-1A-041014	04/21/2014 19:24	166.67	UXX9868.D	DB-624 0.18(mm)
240-36112-10	MSA-MW-6-041014	04/21/2014 19:46	1	UXX9869.D	DB-624 0.18(mm)
240-36112-11	MSA-MW-24S-041114	04/21/2014 20:09	1	UXX9870.D	DB-624 0.18(mm)
240-36112-12	MSA-MW-24I-041114	04/21/2014 20:32	3.33	UXX9871.D	DB-624 0.18(mm)
240-36112-13	MSA-MW-23S-041114	04/21/2014 20:55	1	UXX9872.D	DB-624 0.18(mm)
240-36112-17 MS	MSA-MW-25I-041114 MS	04/21/2014 21:17	1	UXX9873.D	DB-624 0.18(mm)
240-36112-17 MSD	MSA-MW-25I-041114 MSD	04/21/2014 21:40	1	UXX9874.D	DB-624 0.18(mm)

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab File ID: BFB578.D BFB Injection Date: 04/21/2014

Instrument ID: A3UX10 BFB Injection Time: 10:36

Analysis Batch No.: 127251

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.3	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.2	(0.2)1
174	50.0 - 120.00 % of mass 95	75.4	
175	5.0 - 9.0 % of mass 174	5.7	(7.6)1
176	95.0 - 101.0 % of mass 174	73.3	(97.2)1
177	5.0 - 9.0 % of mass 176	5.0	(6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-127251/2	UXX9847.D	04/21/2014	10:59
	CCV 240-127251/3	UXX9848.D	04/21/2014	11:21
	CCV 240-127251/4	UXX9849.D	04/21/2014	11:44
	LCS 240-127251/5	UXX9850.D	04/21/2014	12:06
	MB 240-127251/7	UXX9852.D	04/21/2014	12:51
MSA-MW-25I-041114	240-36112-17	UXX9853.D	04/21/2014	13:47
MSA-MW-32S-041014	240-36112-1	UXX9860.D	04/21/2014	16:24
MSA-MW-32I-041014	240-36112-2	UXX9861.D	04/21/2014	16:47
MSA-MW-48S-041014	240-36112-3	UXX9862.D	04/21/2014	17:10
MSA-MW-49S-041014	240-36112-4	UXX9863.D	04/21/2014	17:32
MSA-MW-49I-041014	240-36112-5	UXX9864.D	04/21/2014	17:55
MSA-DMW-10S-041014	240-36112-6	UXX9865.D	04/21/2014	18:17
MSA-DMW-10I-041014	240-36112-7	UXX9866.D	04/21/2014	18:39
MSA-DMW-1B-041014	240-36112-8	UXX9867.D	04/21/2014	19:02
MSA-DMW-1A-041014	240-36112-9	UXX9868.D	04/21/2014	19:24
MSA-MW-6-041014	240-36112-10	UXX9869.D	04/21/2014	19:46
MSA-MW-24S-041114	240-36112-11	UXX9870.D	04/21/2014	20:09
MSA-MW-24I-041114	240-36112-12	UXX9871.D	04/21/2014	20:32
MSA-MW-23S-041114	240-36112-13	UXX9872.D	04/21/2014	20:55
MSA-MW-25I-041114 MS	240-36112-17 MS	UXX9873.D	04/21/2014	21:17
MSA-MW-25I-041114 MSD	240-36112-17 MSD	UXX9874.D	04/21/2014	21:40

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCVIS 240-127251/2 Calibration Date: 04/21/2014 10:59

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9847.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2420	0.2529	0.1000	0.310	0.0100	4.5	20.0
Chloromethane	Ave	0.2908	0.2971	0.1000	0.300	0.0100	2.2	20.0
Vinyl chloride	Ave	0.2848	0.2887	0.1000	0.220	0.0100	1.4	20.0
Bromomethane	Lin1		0.1319	0.0500	0.410	0.0100	13.4	20.0
Chloroethane	Ave	0.1577	0.1467	0.0500	0.290	0.0100	-7.0	20.0
Dichlorofluoromethane	Ave	0.3248	0.3391		0.420	0.0100	4.4	20.0
Trichlorofluoromethane	Ave	0.2807	0.2232	0.1000	0.210	0.0100	-20.5*	20.0
Ethyl ether	Ave	0.1703	0.1725		0.310	0.0100	1.3	20.0
Acrolein	Ave	0.0258	0.0221		2.20	0.0500	-14.7	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1841	0.1764	0.0500	0.280	0.0100	-4.2	20.0
1,1-Dichloroethene	Ave	0.2175	0.2302	0.1000	0.190	0.0100	5.8	20.0
Acetone	Ave	0.0587	0.0599	0.0500	1.10	0.0200	2.0	20.0
Iodomethane	Ave	0.3583	0.3062		0.180	0.0100	-14.5	20.0
Carbon disulfide	Ave	0.7045	0.7141	0.1000	0.130	0.0100	1.4	20.0
3-Chloro-1-propene	Ave	0.1510	0.1477		0.350	0.0100	-2.2	20.0
Methyl acetate	Ave	0.1374	0.1474	0.1000	0.380	0.0500	7.3	20.0
Methylene Chloride	Lin1		0.2579	0.1000	0.330	0.0100	6.1	20.0
tert-Butyl alcohol	Lin1		0.0157		3.90	0.100	-10.1	20.0
Acrylonitrile	Ave	0.0683	0.0732		2.00	0.100	7.1	20.0
Methyl tert-butyl ether	Ave	0.6796	0.6727	0.1000	0.170	0.0100	-1.0	20.0
trans-1,2-Dichloroethene	Ave	0.2478	0.2523	0.1000	0.190	0.0100	1.8	20.0
Hexane	Ave	0.0592	0.0575		0.260	0.0100	-2.8	20.0
1,1-Dichloroethane	Ave	0.4104	0.4280	0.1000	0.150	0.0100	4.3	20.0
Vinyl acetate	Ave	0.2581	0.2277		0.190	0.00960	-11.8	20.0
2,2-Dichloropropane	Ave	0.3310	0.2729		0.130	0.0100	-17.6	20.0
cis-1,2-Dichloroethene	Ave	0.2631	0.2611	0.1000	0.170	0.0100	-0.8	20.0
2-Butanone (MEK)	Ave	0.0729	0.0787	0.0500	0.570	0.0200	8.0	20.0
Bromochloromethane	Ave	0.1208	0.1216		0.290	0.0100	0.6	20.0
Tetrahydrofuran	Ave	0.0549	0.0508		0.420	0.0200	-7.4	20.0
Chloroform	Ave	0.3979	0.4330	0.2000	0.160	0.0100	8.8	20.0
1,1,1-Trichloroethane	Ave	0.3613	0.3569	0.1000	0.220	0.0100	-1.2	20.0
Cyclohexane	Ave	0.3887	0.3673	0.1000	0.120	0.0100	-5.5	20.0
1,1-Dichloropropene	Ave	0.3001	0.3163		0.130	0.0100	5.4	20.0
Carbon tetrachloride	Ave	0.3117	0.2814	0.1000	0.130	0.0100	-9.7	20.0
Isobutyl alcohol	Lin1		0.0085		8.20	0.250	6.1	20.0
Benzene	Ave	0.9438	1.031	0.5000	0.130	0.0100	9.2	20.0
1,2-Dichloroethane	Ave	0.2960	0.3184	0.1000	0.220	0.0100	7.6	20.0
n-Heptane	Ave	0.0517	0.0512		0.180	0.0100	-0.9	20.0
Trichloroethene	Ave	0.2479	0.2355	0.2000	0.170	0.0100	-5.0	20.0
Methylcyclohexane	Ave	0.3823	0.3672	0.1000	0.130	0.0100	-3.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCVIS 240-127251/2 Calibration Date: 04/21/2014 10:59

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9847.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2081	0.2286	0.1000	0.180	0.0100	9.8	20.0
Dibromomethane	Ave	0.1211	0.1284		0.280	0.0100	6.0	20.0
1,4-Dioxane	Qua		0.0016		19.0	0.200	-13.6	20.0
Bromodichloromethane	Ave	0.2862	0.2895	0.1000	0.150	0.0100	1.2	20.0
2-Chloroethyl vinyl ether	Lin1		0.0691		0.990	0.0200	-14.8	20.0
cis-1,3-Dichloropropene	Ave	0.3254	0.3188	0.1500	0.140	0.0100	-2.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1518	0.1542	0.0500	0.320	0.0200	1.6	20.0
Toluene	Ave	1.411	1.644	0.4000	0.130	0.0100	16.5	20.0
trans-1,3-Dichloropropene	Ave	0.3981	0.4140	0.1000	0.190	0.0100	4.0	20.0
Ethyl methacrylate	Ave	0.3155	0.3687		0.140	0.0100	16.9	20.0
1,1,2-Trichloroethane	Ave	0.2484	0.2981	0.1000	0.270	0.0100	20.0	20.0
Tetrachloroethene	Ave	0.2881	0.2984	0.2000	0.290	0.0100	3.6	20.0
1,3-Dichloropropane	Ave	0.4429	0.5354		0.160	0.0100	20.9*	20.0
2-Hexanone	Ave	0.1468	0.1645	0.0500	0.410	0.0200	12.1	20.0
Chlorodibromomethane	Ave	0.2842	0.2874		0.180	0.0100	1.1	20.0
1,2-Dibromoethane	Ave	0.2453	0.2603		0.240	0.0100	6.1	20.0
Chlorobenzene	Ave	0.9008	0.9406	0.3000	0.150	0.0100	4.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3295	0.3468		0.230	0.0100	5.2	20.0
Ethylbenzene	Ave	0.4958	0.5150		0.170	0.0100	3.9	20.0
m-Xylene & p-Xylene	Ave	0.6164	0.6585		0.240	0.0100	6.8	20.0
o-Xylene	Ave	0.6147	0.6406		0.140	0.0100	4.2	20.0
Styrene	Ave	0.9728	1.031	0.3000	0.110	0.0100	6.0	20.0
Bromoform	Ave	0.1820	0.1515	0.1000	0.640	0.0100	-16.7	20.0
Isopropylbenzene	Ave	1.619	1.683	0.1000	0.130	0.0100	4.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5398	0.6824	0.3000	0.180	0.0100	26.4*	20.0
Bromobenzene	Ave	0.6698	0.7085		0.130	0.0100	5.8	20.0
1,2,3-Trichloropropane	Ave	0.1809	0.2210		0.430	0.0100	22.1*	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1580	0.1072		0.150	0.0100	-32.2*	20.0
N-Propylbenzene	Ave	0.7406	0.8180		0.140	0.0100	10.4	20.0
2-Chlorotoluene	Ave	0.6402	0.7172		0.110	0.0100	12.0	20.0
1,3,5-Trimethylbenzene	Ave	2.209	2.617		0.0960	0.0100	18.4	20.0
4-Chlorotoluene	Ave	0.6668	0.7213		0.180	0.0100	8.2	20.0
tert-Butylbenzene	Ave	1.933	2.222		0.130	0.0100	14.9	20.0
1,2,4-Trimethylbenzene	Ave	2.321	2.783		0.120	0.0100	19.9	20.0
sec-Butylbenzene	Ave	2.633	3.083		0.130	0.0100	17.1	20.0
1,3-Dichlorobenzene	Ave	1.314	1.387	0.6000	0.140	0.0100	5.6	20.0
4-Isopropyltoluene	Ave	2.330	2.687		0.0120	0.0100	15.3	20.0
1,4-Dichlorobenzene	Ave	1.360	1.423	0.5000	0.130	0.0100	4.6	20.0
n-Butylbenzene	Ave	1.920	2.218		0.120	0.0100	15.5	20.0
1,2-Dichlorobenzene	Ave	1.266	1.388	0.4000	0.130	0.0100	9.6	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1109	0.1127	0.0500	0.670	0.0100	1.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCVIS 240-127251/2 Calibration Date: 04/21/2014 10:59

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9847.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Ave	0.8194	0.8612	0.2000	0.150	0.0100	5.1	20.0
Hexachlorobutadiene	Ave	0.3126	0.3288		0.300	0.0100	5.2	20.0
Naphthalene	Ave	1.890	1.940		0.240	0.0100	2.7	20.0
1,2,3-Trichlorobenzene	Ave	0.7202	0.7830		0.170	0.0100	8.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2069	0.1844		0.0110	0.0123	-10.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2454	0.2345		0.0118	0.0123	-4.5	20.0
Toluene-d8 (Surr)	Ave	1.190	1.220		0.0126	0.0123	2.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4523	0.4203		0.0114	0.0123	-7.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCV 240-127251/3 Calibration Date: 04/21/2014 11:21

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 11:18

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 13:09

Lab File ID: UXX9848.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0225	0.0259		3.50	0.100	14.9	20.0
Diisopropyl ether	Ave	0.2178	0.2087		1.50	0.0100	-4.2	20.0
2-Chloro-1,3-butadiene	Ave	0.3572	0.3329		0.290	0.0100	-6.8	20.0
Ethyl tert-butyl ether	Ave	0.7038	0.6352		0.110	0.0100	-9.8	20.0
Ethyl acetate	Ave	0.1066	0.1093		0.500	0.0200	2.6	20.0
Propionitrile	Ave	0.0242	0.0265		1.20	0.100	9.5	20.0
Methacrylonitrile	Ave	0.1093	0.1147		0.510	0.100	5.0	20.0
Tert-amyl methyl ether	Ave	0.6281	0.5684		0.0670	0.0100	-9.5	20.0
n-Butanol	Ave	0.0057	0.0049		7.30	0.250	-14.4	20.0
Ethyl acrylate	Ave	0.1629	0.1717		0.250	0.0100	5.4	20.0
Methyl methacrylate	Ave	0.1292	0.1344		0.490	0.0200	4.0	20.0
2-Nitropropane	Ave	0.0400	0.0236		0.700	0.0200	-41.0*	20.0
Cyclohexanone	Ave	0.0118	0.0105		5.80	0.100	-10.9	20.0
1,2,3-Trimethylbenzene	Ave	2.250	2.550		0.0113	0.0100	13.3	20.0
1,3,5-Trichlorobenzene	Ave	0.8988	0.9263		0.110	0.0100	3.1	20.0
2-Methylnaphthalene	Ave	0.9347	0.6055		0.470	0.0200	-35.2*	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab File ID: UXX9852.D Lab Sample ID: MB 240-127251/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX10 Date Analyzed: 04/21/2014 12:51

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-127251/5	UXX9850.D	04/21/2014 12:06
MSA-MW-25I-041114	240-36112-17	UXX9853.D	04/21/2014 13:47
MSA-MW-32S-041014	240-36112-1	UXX9860.D	04/21/2014 16:24
MSA-MW-32I-041014	240-36112-2	UXX9861.D	04/21/2014 16:47
MSA-MW-48S-041014	240-36112-3	UXX9862.D	04/21/2014 17:10
MSA-MW-49S-041014	240-36112-4	UXX9863.D	04/21/2014 17:32
MSA-MW-49I-041014	240-36112-5	UXX9864.D	04/21/2014 17:55
MSA-DMW-10S-041014	240-36112-6	UXX9865.D	04/21/2014 18:17
MSA-DMW-10I-041014	240-36112-7	UXX9866.D	04/21/2014 18:39
MSA-DMW-1B-041014	240-36112-8	UXX9867.D	04/21/2014 19:02
MSA-DMW-1A-041014	240-36112-9	UXX9868.D	04/21/2014 19:24
MSA-MW-6-041014	240-36112-10	UXX9869.D	04/21/2014 19:46
MSA-MW-24S-041114	240-36112-11	UXX9870.D	04/21/2014 20:09
MSA-MW-24I-041114	240-36112-12	UXX9871.D	04/21/2014 20:32
MSA-MW-23S-041114	240-36112-13	UXX9872.D	04/21/2014 20:55
MSA-MW-25I-041114 MS	240-36112-17 MS	UXX9873.D	04/21/2014 21:17
MSA-MW-25I-041114 MSD	240-36112-17 MSD	UXX9874.D	04/21/2014 21:40

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127251/7

Matrix: Water | Lab File ID: UXX9852.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 12:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127251/7

Matrix: Water | Lab File ID: UXX9852.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 12:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127251/7

Matrix: Water | Lab File ID: UXX9852.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2014 12:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127251 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		74-120
1868-53-7	Dibromofluoromethane (Surr)	90		75-121
460-00-4	4-Bromofluorobenzene (Surr)	89		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-127251/7

Matrix: Water Lab File ID: UXX9852.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/21/2014 12:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127251 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9850.D

Lab ID: LCS 240-127251/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	9.82	98	72-120	
1,1,1-Trichloroethane	10.0	9.28	93	74-120	
1,1,2,2-Tetrachloroethane	10.0	11.9	119	68-120	
1,1,2-Trichlorotrifluoroethane	10.0	9.72	97	74-151	
1,1-Dichloroethane	10.0	10.5	105	80-120	
1,1-Dichloroethene	10.0	10.7	107	78-131	
1,1-Dichloropropene	10.0	11.0	110	80-120	
1,2,3-Trichlorobenzene	10.0	10.8	108	54-126	
1,2,3-Trichloropropane	10.0	11.6	116	73-129	
1,2,4-Trichlorobenzene	10.0	10.5	105	48-135	
1,2,4-Trimethylbenzene	10.0	11.1	111	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.90	99	42-136	
1,2-Dichlorobenzene	10.0	10.4	104	80-120	
1,2-Dichloroethane	10.0	10.3	103	71-127	
1,2-Dichloropropane	10.0	10.6	106	80-120	
1,3-Dichlorobenzene	10.0	9.85	99	80-120	
1,3-Dichloropropane	10.0	11.6	116	79-120	
1,4-Dichlorobenzene	10.0	10.0	100	80-120	
2,2-Dichloropropane	10.0	7.44	74	50-129	
2-Butanone (MEK)	20.0	21.4	107	60-126	
2-Chloroethyl vinyl ether	12.0	11.0	91	52-131	
2-Chlorotoluene	10.0	10.6	106	76-120	
2-Hexanone	20.0	20.5	102	55-133	
4-Chlorotoluene	10.0	10.2	102	77-120	
4-Isopropyltoluene	10.0	10.8	108	74-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.7	98	63-128	
Acetone	20.0	20.5	103	43-136	
Benzene	10.0	10.6	106	80-120	
Bromobenzene	10.0	9.84	98	76-120	
Bromoform	10.0	7.35	73	40-131	
Bromomethane	10.0	11.6	116	11-185	
Carbon disulfide	10.0	10.3	103	62-142	
Carbon tetrachloride	10.0	8.36	84	66-128	
Chlorobenzene	10.0	10.2	102	80-120	
Chlorodibromomethane	10.0	9.25	92	64-120	
Chloroethane	10.0	9.34	93	25-153	
Chloroform	10.0	10.6	106	79-120	
Chloromethane	10.0	9.40	94	44-126	
cis-1,2-Dichloroethene	10.0	9.69	97	80-120	
cis-1,3-Dichloropropene	10.0	9.80	98	61-120	
Dibromomethane	10.0	10.3	103	80-120	
Bromochloromethane	10.0	9.63	96	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9850.D

Lab ID: LCS 240-127251/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	10.0	8.84	88	19-129	
Bromodichloromethane	10.0	9.63	96	72-121	
tert-Butyl alcohol	100	88.6	89	70-130	
Ethylbenzene	10.0	10.1	101	80-120	
Hexachlorobutadiene	10.0	10.5	105	36-134	
Isopropylbenzene	10.0	10.3	103	75-120	
Methyl tert-butyl ether	10.0	9.51	95	52-144	
Methylene Chloride	10.0	10.7	107	66-131	
m-Xylene & p-Xylene	10.0	10.4	104	80-120	
Naphthalene	10.0	10.4	104	32-141	
n-Butylbenzene	10.0	11.1	111	66-125	
N-Propylbenzene	10.0	10.5	105	74-121	
o-Xylene	10.0	10.3	103	80-120	
sec-Butylbenzene	10.0	11.1	111	70-120	
Styrene	10.0	9.78	98	79-120	
Tetrachloroethene	10.0	9.90	99	79-120	
Toluene	10.0	11.3	113	80-120	
trans-1,2-Dichloroethene	10.0	9.89	99	80-120	
trans-1,3-Dichloropropene	10.0	10.8	108	58-120	
Trichloroethene	10.0	9.40	94	76-120	
Trichlorofluoromethane	10.0	7.39	74	49-157	
Vinyl acetate	8.00	10.2	127	46-161	
Vinyl chloride	10.0	10.5	105	53-127	
Xylenes, Total	20.0	20.7	104	80-120	
tert-Butylbenzene	10.0	11.1	111	71-120	
1,2-Dibromoethane	10.0	10.4	104	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9873.D

Lab ID: 240-36112-17 MS Client ID: MSA-MW-25I-041114 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	0.23 U	9.35	93	64-120	
1,1,1-Trichloroethane	10.0	0.22 U	8.91	89	68-121	
1,1,2,2-Tetrachloroethane	10.0	0.18 U	11.7	117	63-122	
1,1,2-Trichlorotrifluoroethane	10.0	0.28 U	9.27	93	70-152	
1,1-Dichloroethane	10.0	0.15 U	10.4	104	79-120	
1,1-Dichloroethene	10.0	0.19 U	11.4	114	74-135	
1,1-Dichloropropene	10.0	0.13 U	10.5	105	80-120	
1,2,3-Trichlorobenzene	10.0	0.17 U	9.95	99	45-129	
1,2,3-Trichloropropane	10.0	0.43 U	11.2	112	67-132	
1,2,4-Trichlorobenzene	10.0	0.15 U	9.10	91	38-138	
1,2,4-Trimethylbenzene	10.0	0.12 U	11.1	111	67-124	
1,2-Dibromo-3-Chloropropane	10.0	0.67 U	8.78	88	32-139	
1,2-Dichlorobenzene	10.0	0.13 U	10.2	102	75-120	
1,2-Dichloroethane	10.0	0.22 U	10.2	102	68-129	
1,2-Dichloropropane	10.0	0.18 U	10.6	106	78-120	
1,3-Dichlorobenzene	10.0	0.14 U	9.82	98	73-120	
1,3-Dichloropropane	10.0	0.16 U	11.5	115	74-120	
1,4-Dichlorobenzene	10.0	0.13 U	10.1	101	75-120	
2,2-Dichloropropane	10.0	0.13 U	6.76	68	38-127	
2-Butanone (MEK)	20.0	0.57 U	21.3	106	54-129	
2-Chloroethyl vinyl ether	12.0	0.99 U	0.99 U	0	10-150	F1
2-Chlorotoluene	10.0	0.11 U	10.2	102	69-120	
2-Hexanone	20.0	0.41 U	23.6	118	47-139	
4-Chlorotoluene	10.0	0.18 U	10.1	101	71-120	
4-Isopropyltoluene	10.0	0.12 U	10.8	108	64-122	
4-Methyl-2-pentanone (MIBK)	20.0	0.32 U	20.4	102	56-131	
Acetone	20.0	2.2 J	21.3	95	33-145	
Benzene	10.0	0.13 U	10.6	106	72-121	
Bromobenzene	10.0	0.13 U	9.35	93	71-120	
Bromoform	10.0	0.64 U	7.00	70	32-128	
Bromomethane	10.0	0.41 U	9.45	95	10-186	
Carbon disulfide	10.0	0.13 U	9.91	99	57-147	
Carbon tetrachloride	10.0	0.13 U	7.67	77	59-129	
Chlorobenzene	10.0	0.15 U	10.2	102	80-120	
Chlorodibromomethane	10.0	0.18 U	8.51	85	56-120	
Chloroethane	10.0	0.29 U	8.24	82	21-165	
Chloroform	10.0	0.16 U	10.7	107	76-120	
Chloromethane	10.0	0.30 U	8.59	86	33-132	
cis-1,2-Dichloroethene	10.0	0.17 U	9.80	98	70-120	
cis-1,3-Dichloropropene	10.0	0.14 U	8.91	89	51-120	
Dibromomethane	10.0	0.28 U	10.3	103	77-121	
Bromochloromethane	10.0	0.29 U	9.56	96	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9873.D

Lab ID: 240-36112-17 MS Client ID: MSA-MW-25I-041114 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	10.0	0.31 U	6.45	65	17-128	
Bromodichloromethane	10.0	0.15 U	9.14	91	67-120	
tert-Butyl alcohol	100	3.9 U	87.3	87	70-130	
Ethylbenzene	10.0	0.17 U	10.0	100	75-120	
Hexachlorobutadiene	10.0	0.30 U	9.10	91	27-132	
Isopropylbenzene	10.0	0.13 U	10.5	105	68-120	
Methyl tert-butyl ether	10.0	0.17 U	9.20	92	46-144	
Methylene Chloride	10.0	0.33 U	10.6	106	63-128	
m-Xylene & p-Xylene	10.0	0.24 U	10.3	103	75-120	
Naphthalene	10.0	0.24 U	9.29	93	15-158	
n-Butylbenzene	10.0	0.12 U	10.6	106	56-127	
N-Propylbenzene	10.0	0.14 U	9.89	99	64-124	
o-Xylene	10.0	0.14 U	10.3	103	76-120	
sec-Butylbenzene	10.0	0.13 U	11.1	111	60-120	
Styrene	10.0	0.11 U	10.1	101	71-120	
Tetrachloroethene	10.0	0.29 U	10.1	101	70-120	
Toluene	10.0	0.13 U	11.5	115	78-120	
trans-1,2-Dichloroethene	10.0	0.19 U	10.1	101	80-120	
trans-1,3-Dichloropropene	10.0	0.19 U	10.0	100	46-120	
Trichloroethene	10.0	0.17 U	9.49	95	66-120	
Trichlorofluoromethane	10.0	0.21 U	5.24	52	46-157	
Vinyl acetate	8.00	0.19 U	9.55	119	43-157	
Vinyl chloride	10.0	0.22 U	9.43	94	49-130	
Xylenes, Total	20.0	0.14 U	20.6	103	76-120	
tert-Butylbenzene	10.0	0.13 U	11.2	112	61-120	
1,2-Dibromoethane	10.0	0.24 U	10.3	103	74-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9874.D

Lab ID: 240-36112-17 MSD Client ID: MSA-MW-25I-041114 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	9.23	92	1	30	64-120	
1,1,1-Trichloroethane	10.0	9.33	93	5	30	68-121	
1,1,2,2-Tetrachloroethane	10.0	11.9	119	2	30	63-122	
1,1,2-Trichlorotrifluoroethane	10.0	9.31	93	0	30	70-152	
1,1-Dichloroethane	10.0	10.5	105	1	30	79-120	
1,1-Dichloroethene	10.0	11.2	112	1	30	74-135	
1,1-Dichloropropene	10.0	10.8	108	3	30	80-120	
1,2,3-Trichlorobenzene	10.0	10.6	106	6	30	45-129	
1,2,3-Trichloropropane	10.0	11.3	113	1	30	67-132	
1,2,4-Trichlorobenzene	10.0	10.0	100	9	30	38-138	
1,2,4-Trimethylbenzene	10.0	11.2	112	1	30	67-124	
1,2-Dibromo-3-Chloropropane	10.0	9.41	94	7	30	32-139	
1,2-Dichlorobenzene	10.0	11.1	111	9	30	75-120	
1,2-Dichloroethane	10.0	10.3	103	1	30	68-129	
1,2-Dichloropropane	10.0	10.6	106	0	30	78-120	
1,3-Dichlorobenzene	10.0	10.1	101	3	30	73-120	
1,3-Dichloropropane	10.0	11.2	112	2	30	74-120	
1,4-Dichlorobenzene	10.0	10.2	102	1	30	75-120	
2,2-Dichloropropane	10.0	7.20	72	6	30	38-127	
2-Butanone (MEK)	20.0	21.2	106	0	30	54-129	
2-Chloroethyl vinyl ether	12.0	0.99 U	0	NC	30	10-150	F1
2-Chlorotoluene	10.0	10.6	106	4	30	69-120	
2-Hexanone	20.0	23.0	115	3	30	47-139	
4-Chlorotoluene	10.0	10.7	107	6	30	71-120	
4-Isopropyltoluene	10.0	11.0	110	2	30	64-122	
4-Methyl-2-pentanone (MIBK)	20.0	20.3	102	0	30	56-131	
Acetone	20.0	21.2	95	0	30	33-145	
Benzene	10.0	10.9	109	3	30	72-121	
Bromobenzene	10.0	9.79	98	5	30	71-120	
Bromoform	10.0	7.25	72	3	30	32-128	
Bromomethane	10.0	12.4	124	27	30	10-186	
Carbon disulfide	10.0	10.5	105	6	30	57-147	
Carbon tetrachloride	10.0	8.05	80	5	30	59-129	
Chlorobenzene	10.0	10.3	103	1	30	80-120	
Chlorodibromomethane	10.0	8.57	86	1	30	56-120	
Chloroethane	10.0	10.4	104	23	30	21-165	
Chloroform	10.0	10.7	107	0	30	76-120	
Chloromethane	10.0	9.57	96	11	30	33-132	
cis-1,2-Dichloroethene	10.0	9.95	99	2	30	70-120	
cis-1,3-Dichloropropene	10.0	8.95	89	0	30	51-120	
Dibromomethane	10.0	10.2	102	1	30	77-121	
Bromochloromethane	10.0	9.68	97	1	30	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9874.D

Lab ID: 240-36112-17 MSD Client ID: MSA-MW-25I-041114 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	10.0	8.11	81	23	30	17-128	
Bromodichloromethane	10.0	9.26	93	1	30	67-120	
tert-Butyl alcohol	100	89.5	89	2	30	70-130	
Ethylbenzene	10.0	9.94	99	1	30	75-120	
Hexachlorobutadiene	10.0	9.87	99	8	30	27-132	
Isopropylbenzene	10.0	10.7	107	1	30	68-120	
Methyl tert-butyl ether	10.0	9.28	93	1	30	46-144	
Methylene Chloride	10.0	10.8	108	2	30	63-128	
m-Xylene & p-Xylene	10.0	10.2	102	0	30	75-120	
Naphthalene	10.0	10.2	102	9	30	15-158	
n-Butylbenzene	10.0	11.3	113	6	30	56-127	
N-Propylbenzene	10.0	10.3	103	4	30	64-124	
o-Xylene	10.0	10.5	105	2	30	76-120	
sec-Butylbenzene	10.0	11.0	110	1	30	60-120	
Styrene	10.0	10.1	101	0	30	71-120	
Tetrachloroethene	10.0	9.89	99	2	30	70-120	
Toluene	10.0	11.2	112	3	30	78-120	
trans-1,2-Dichloroethene	10.0	10.1	101	0	30	80-120	
trans-1,3-Dichloropropene	10.0	9.98	100	0	30	46-120	
Trichloroethene	10.0	9.59	96	1	30	66-120	
Trichlorofluoromethane	10.0	7.24	72	32	30	46-157	F2
Vinyl acetate	8.00	9.52	119	0	30	43-157	
Vinyl chloride	10.0	11.1	111	16	30	49-130	
Xylenes, Total	20.0	20.7	104	0	30	76-120	
tert-Butylbenzene	10.0	11.0	110	2	30	61-120	
1,2-Dibromoethane	10.0	10.0	100	3	30	74-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: A3UX10 Start Date: 04/22/2014 11:08

Analysis Batch Number: 127413 End Date: 04/22/2014 22:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-127413/1		04/22/2014 11:08	1	BFB5622.D	DB-624 0.18(mm)
CCVIS 240-127413/2		04/22/2014 11:32	1	UXX9876.D	DB-624 0.18(mm)
CCV 240-127413/3		04/22/2014 11:55	1	UXX9877.D	DB-624 0.18(mm)
LCS 240-127413/4		04/22/2014 12:17	1	UXX9878.D	DB-624 0.18(mm)
ZZZZZ		04/22/2014 12:40	1		DB-624 0.18(mm)
MB 240-127413/6		04/22/2014 13:02	1	UXX9880.D	DB-624 0.18(mm)
ZZZZZ		04/22/2014 13:36	1		DB-624 0.18(mm)
ZZZZZ		04/22/2014 13:59	1		DB-624 0.18(mm)
ZZZZZ		04/22/2014 14:21	1		DB-624 0.18(mm)
ZZZZZ		04/22/2014 14:43	1		DB-624 0.18(mm)
ZZZZZ		04/22/2014 15:06	1		DB-624 0.18(mm)
ZZZZZ		04/22/2014 15:29	416.67		DB-624 0.18(mm)
ZZZZZ		04/22/2014 15:51	5.71		DB-624 0.18(mm)
240-36112-14	MSA-MW-23D-041114	04/22/2014 16:13	1	UXX9888.D	DB-624 0.18(mm)
240-36112-15	MSA-MW-36S-041114	04/22/2014 16:36	1	UXX9889.D	DB-624 0.18(mm)
240-36112-16	MSA-MW-25S-041114	04/22/2014 16:58	1	UXX9890.D	DB-624 0.18(mm)
240-36112-18	MSA-MW-37S-041114	04/22/2014 17:21	1	UXX9891.D	DB-624 0.18(mm)
240-36112-19	TRIP BLANK	04/22/2014 17:43	1	UXX9892.D	DB-624 0.18(mm)
ZZZZZ		04/22/2014 18:05	1		DB-624 0.18(mm)
ZZZZZ		04/22/2014 18:28	5.71		DB-624 0.18(mm)
ZZZZZ		04/22/2014 18:50	14.29		DB-624 0.18(mm)
ZZZZZ		04/22/2014 19:13	2		DB-624 0.18(mm)
ZZZZZ		04/22/2014 19:35	1		DB-624 0.18(mm)
ZZZZZ		04/22/2014 19:57	1		DB-624 0.18(mm)
ZZZZZ		04/22/2014 20:20	1		DB-624 0.18(mm)
ZZZZZ		04/22/2014 20:42	3.33		DB-624 0.18(mm)
ZZZZZ		04/22/2014 21:49	5.71		DB-624 0.18(mm)
ZZZZZ		04/22/2014 22:11	5.71		DB-624 0.18(mm)

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab File ID: BFB5622.D BFB Injection Date: 04/22/2014

Instrument ID: A3UX10 BFB Injection Time: 11:08

Analysis Batch No.: 127413

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.4	
75	30.0 - 60.0 % of mass 95	49.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.1	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	77.2	
175	5.0 - 9.0 % of mass 174	5.6	(7.2)1
176	95.0 - 101.0 % of mass 174	74.1	(95.9)1
177	5.0 - 9.0 % of mass 176	4.8	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-127413/2	UXX9876.D	04/22/2014	11:32
	CCV 240-127413/3	UXX9877.D	04/22/2014	11:55
	LCS 240-127413/4	UXX9878.D	04/22/2014	12:17
	MB 240-127413/6	UXX9880.D	04/22/2014	13:02
MSA-MW-23D-041114	240-36112-14	UXX9888.D	04/22/2014	16:13
MSA-MW-36S-041114	240-36112-15	UXX9889.D	04/22/2014	16:36
MSA-MW-25S-041114	240-36112-16	UXX9890.D	04/22/2014	16:58
MSA-MW-37S-041114	240-36112-18	UXX9891.D	04/22/2014	17:21
TRIP BLANK	240-36112-19	UXX9892.D	04/22/2014	17:43

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCVIS 240-127413/2 Calibration Date: 04/22/2014 11:32

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9876.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2420	0.2774	0.1000	0.310	0.0100	14.6	20.0
Chloromethane	Ave	0.2908	0.2932	0.1000	0.300	0.0100	0.8	20.0
Vinyl chloride	Ave	0.2848	0.3102	0.1000	0.220	0.0100	8.9	20.0
Bromomethane	Lin1		0.1478	0.0500	0.410	0.0100	27.8*	20.0
Chloroethane	Ave	0.1577	0.1628	0.0500	0.290	0.0100	3.2	20.0
Dichlorofluoromethane	Ave	0.3248	0.3620		0.420	0.0100	11.4	20.0
Trichlorofluoromethane	Ave	0.2807	0.2452	0.1000	0.210	0.0100	-12.7	20.0
Ethyl ether	Ave	0.1703	0.1758		0.310	0.0100	3.2	20.0
Acrolein	Ave	0.0258	0.0226		2.20	0.0500	-12.7	20.0
1,1-Dichloroethene	Ave	0.2175	0.2133	0.1000	0.190	0.0100	-2.0	20.0
1,1,2-Trichlorotrifluoroetha ne	Ave	0.1841	0.1705	0.0500	0.280	0.0100	-7.4	20.0
Acetone	Ave	0.0587	0.0630	0.0500	1.10	0.0200	7.2	20.0
Iodomethane	Ave	0.3583	0.2716		0.180	0.0100	-24.2*	20.0
Carbon disulfide	Ave	0.7045	0.6489	0.1000	0.130	0.0100	-7.9	20.0
3-Chloro-1-propene	Ave	0.1510	0.1388		0.350	0.0100	-8.1	20.0
Methyl acetate	Ave	0.1374	0.1383	0.1000	0.380	0.0500	0.6	20.0
Methylene Chloride	Lin1		0.2331	0.1000	0.330	0.0100	-4.5	20.0
tert-Butyl alcohol	Lin1		0.0145		3.90	0.100	-16.6	20.0
Acrylonitrile	Ave	0.0683	0.0681		2.00	0.100	-0.4	20.0
Methyl tert-butyl ether	Ave	0.6796	0.5960	0.1000	0.170	0.0100	-12.3	20.0
trans-1,2-Dichloroethene	Ave	0.2478	0.2234	0.1000	0.190	0.0100	-9.8	20.0
Hexane	Ave	0.0592	0.0549		0.260	0.0100	-7.3	20.0
1,1-Dichloroethane	Ave	0.4104	0.3983	0.1000	0.150	0.0100	-2.9	20.0
Vinyl acetate	Ave	0.2581	0.2138		0.190	0.00960	-17.2	20.0
2,2-Dichloropropane	Ave	0.3310	0.2440		0.130	0.0100	-26.3*	20.0
cis-1,2-Dichloroethene	Ave	0.2631	0.2392	0.1000	0.170	0.0100	-9.1	20.0
2-Butanone (MEK)	Ave	0.0729	0.0770	0.0500	0.570	0.0200	5.6	20.0
Bromochloromethane	Ave	0.1208	0.1082		0.290	0.0100	-10.5	20.0
Tetrahydrofuran	Ave	0.0549	0.0468		0.420	0.0200	-14.7	20.0
Chloroform	Ave	0.3979	0.3910	0.2000	0.160	0.0100	-1.7	20.0
1,1,1-Trichloroethane	Ave	0.3613	0.3180	0.1000	0.220	0.0100	-12.0	20.0
Cyclohexane	Ave	0.3887	0.3429	0.1000	0.120	0.0100	-11.8	20.0
1,1-Dichloropropene	Ave	0.3001	0.2818		0.130	0.0100	-6.1	20.0
Carbon tetrachloride	Ave	0.3117	0.2552	0.1000	0.130	0.0100	-18.1	20.0
Isobutyl alcohol	Lin1		0.0082		8.20	0.250	2.1	20.0
Benzene	Ave	0.9438	0.9660	0.5000	0.130	0.0100	2.4	20.0
1,2-Dichloroethane	Ave	0.2960	0.3006	0.1000	0.220	0.0100	1.5	20.0
n-Heptane	Ave	0.0517	0.0489		0.180	0.0100	-5.4	20.0
Trichloroethene	Ave	0.2479	0.2159	0.2000	0.170	0.0100	-12.9	20.0
Methylcyclohexane	Ave	0.3823	0.3510	0.1000	0.130	0.0100	-8.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCVIS 240-127413/2 Calibration Date: 04/22/2014 11:32

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9876.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2081	0.2151	0.1000	0.180	0.0100	3.4	20.0
1,4-Dioxane	Qua		0.0015		19.0	0.200	-22.1*	20.0
Dibromomethane	Ave	0.1211	0.1196		0.280	0.0100	-1.2	20.0
Bromodichloromethane	Ave	0.2862	0.2672	0.1000	0.150	0.0100	-6.6	20.0
2-Chloroethyl vinyl ether	Lin1		0.0709		0.990	0.0200	-12.8	20.0
cis-1,3-Dichloropropene	Ave	0.3254	0.3059	0.1500	0.140	0.0100	-6.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1518	0.1412	0.0500	0.320	0.0200	-7.0	20.0
Toluene	Ave	1.411	1.496	0.4000	0.130	0.0100	6.1	20.0
trans-1,3-Dichloropropene	Ave	0.3981	0.3881	0.1000	0.190	0.0100	-2.5	20.0
Ethyl methacrylate	Ave	0.3155	0.3427		0.140	0.0100	8.7	20.0
1,1,2-Trichloroethane	Ave	0.2484	0.2761	0.1000	0.270	0.0100	11.2	20.0
Tetrachloroethene	Ave	0.2881	0.2718	0.2000	0.290	0.0100	-5.7	20.0
1,3-Dichloropropane	Ave	0.4429	0.4832		0.160	0.0100	9.1	20.0
2-Hexanone	Ave	0.1468	0.1507	0.0500	0.410	0.0200	2.7	20.0
Chlorodibromomethane	Ave	0.2842	0.2648		0.180	0.0100	-6.8	20.0
1,2-Dibromoethane	Ave	0.2453	0.2466		0.240	0.0100	0.5	20.0
Chlorobenzene	Ave	0.9008	0.8743	0.3000	0.150	0.0100	-2.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3295	0.3137		0.230	0.0100	-4.8	20.0
Ethylbenzene	Ave	0.4958	0.4744		0.170	0.0100	-4.3	20.0
m-Xylene & p-Xylene	Ave	0.6164	0.5975		0.240	0.0100	-3.1	20.0
o-Xylene	Ave	0.6147	0.5931		0.140	0.0100	-3.5	20.0
Styrene	Ave	0.9728	0.9356	0.3000	0.110	0.0100	-3.8	20.0
Bromoform	Ave	0.1820	0.1466	0.1000	0.640	0.0100	-19.5	20.0
Isopropylbenzene	Ave	1.619	1.563	0.1000	0.130	0.0100	-3.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5398	0.6083	0.3000	0.180	0.0100	12.7	20.0
Bromobenzene	Ave	0.6698	0.6117		0.130	0.0100	-8.7	20.0
1,2,3-Trichloropropane	Ave	0.1809	0.1955		0.430	0.0100	8.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1580	0.1220		0.150	0.0100	-22.7*	20.0
N-Propylbenzene	Ave	0.7406	0.7245		0.140	0.0100	-2.2	20.0
2-Chlorotoluene	Ave	0.6402	0.6302		0.110	0.0100	-1.6	20.0
1,3,5-Trimethylbenzene	Ave	2.209	2.341		0.0960	0.0100	6.0	20.0
4-Chlorotoluene	Ave	0.6668	0.6561		0.180	0.0100	-1.6	20.0
tert-Butylbenzene	Ave	1.933	2.092		0.130	0.0100	8.2	20.0
1,2,4-Trimethylbenzene	Ave	2.321	2.480		0.120	0.0100	6.8	20.0
sec-Butylbenzene	Ave	2.633	2.759		0.130	0.0100	4.8	20.0
1,3-Dichlorobenzene	Ave	1.314	1.276	0.6000	0.140	0.0100	-2.9	20.0
4-Isopropyltoluene	Ave	2.330	2.465		0.0120	0.0100	5.8	20.0
1,4-Dichlorobenzene	Ave	1.360	1.311	0.5000	0.130	0.0100	-3.6	20.0
n-Butylbenzene	Ave	1.920	2.042		0.120	0.0100	6.3	20.0
1,2-Dichlorobenzene	Ave	1.266	1.279	0.4000	0.130	0.0100	1.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1109	0.1116	0.0500	0.670	0.0100	0.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCVIS 240-127413/2 Calibration Date: 04/22/2014 11:32

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9876.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Ave	0.8194	0.8719	0.2000	0.150	0.0100	6.4	20.0
Hexachlorobutadiene	Ave	0.3126	0.3323		0.300	0.0100	6.3	20.0
Naphthalene	Ave	1.890	1.922		0.240	0.0100	1.7	20.0
1,2,3-Trichlorobenzene	Ave	0.7202	0.7772		0.170	0.0100	7.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2069	0.1761		0.0105	0.0123	-14.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2454	0.2514		0.0126	0.0123	2.4	20.0
Toluene-d8 (Surr)	Ave	1.190	1.199		0.0124	0.0123	0.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4523	0.4249		0.0116	0.0123	-6.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCV 240-127413/3 Calibration Date: 04/22/2014 11:55

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 11:18

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 13:09

Lab File ID: UXX9877.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0225	0.0255		3.50	0.100	13.1	20.0
Diisopropyl ether	Ave	0.2178	0.1891		1.50	0.0100	-13.2	20.0
2-Chloro-1,3-butadiene	Ave	0.3572	0.3124		0.290	0.0100	-12.5	20.0
Ethyl tert-butyl ether	Ave	0.7038	0.6112		0.110	0.0100	-13.2	20.0
Ethyl acetate	Ave	0.1066	0.1105		0.500	0.0200	3.7	20.0
Propionitrile	Ave	0.0242	0.0260		1.20	0.100	7.5	20.0
Methacrylonitrile	Ave	0.1093	0.1139		0.510	0.100	4.2	20.0
Tert-amyl methyl ether	Ave	0.6281	0.5553		0.0670	0.0100	-11.6	20.0
n-Butanol	Ave	0.0057	0.0053		7.30	0.250	-8.4	20.0
Ethyl acrylate	Ave	0.1629	0.1743		0.250	0.0100	7.0	20.0
Methyl methacrylate	Ave	0.1292	0.1342		0.490	0.0200	3.8	20.0
2-Nitropropane	Ave	0.0400	0.0226		0.700	0.0200	-43.4*	20.0
Cyclohexanone	Ave	0.0118	0.0114		5.80	0.100	-3.4	20.0
1,2,3-Trimethylbenzene	Ave	2.250	2.596		0.0115	0.0100	15.4	20.0
1,3,5-Trichlorobenzene	Ave	0.8988	0.9567		0.110	0.0100	6.4	20.0
2-Methylnaphthalene	Ave	0.9347	0.6513		0.470	0.0200	-30.3*	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab File ID: UXX9880.D Lab Sample ID: MB 240-127413/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX10 Date Analyzed: 04/22/2014 13:02

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-127413/4	UXX9878.D	04/22/2014 12:17
MSA-MW-23D-041114	240-36112-14	UXX9888.D	04/22/2014 16:13
MSA-MW-36S-041114	240-36112-15	UXX9889.D	04/22/2014 16:36
MSA-MW-25S-041114	240-36112-16	UXX9890.D	04/22/2014 16:58
MSA-MW-37S-041114	240-36112-18	UXX9891.D	04/22/2014 17:21
TRIP BLANK	240-36112-19	UXX9892.D	04/22/2014 17:43

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127413/6

Matrix: Water | Lab File ID: UXX9880.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 13:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127413/6

Matrix: Water | Lab File ID: UXX9880.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 13:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-127413/6

Matrix: Water Lab File ID: UXX9880.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 13:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	88		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-127413/6

Matrix: Water Lab File ID: UXX9880.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 13:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9878.D

Lab ID: LCS 240-127413/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	9.42	94	72-120	
1,1,1-Trichloroethane	10.0	9.24	92	74-120	
1,1,2,2-Tetrachloroethane	10.0	12.0	120	68-120	
1,1,2-Trichlorotrifluoroethane	10.0	11.4	114	74-151	
1,1-Dichloroethane	10.0	10.3	103	80-120	
1,1-Dichloroethene	10.0	11.7	117	78-131	
1,1-Dichloropropene	10.0	10.8	108	80-120	
1,2,3-Trichlorobenzene	10.0	11.0	110	54-126	
1,2,3-Trichloropropane	10.0	11.6	116	73-129	
1,2,4-Trichlorobenzene	10.0	10.5	105	48-135	
1,2,4-Trimethylbenzene	10.0	11.3	113	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.46	95	42-136	
1,2-Dichlorobenzene	10.0	10.7	107	80-120	
1,2-Dichloroethane	10.0	10.2	102	71-127	
1,2-Dichloropropane	10.0	10.5	105	80-120	
1,3-Dichlorobenzene	10.0	9.90	99	80-120	
1,3-Dichloropropane	10.0	11.1	111	79-120	
1,4-Dichlorobenzene	10.0	10.1	101	80-120	
2,2-Dichloropropane	10.0	7.67	77	50-129	
2-Butanone (MEK)	20.0	22.7	114	60-126	
2-Chloroethyl vinyl ether	12.0	10.9	91	52-131	
2-Chlorotoluene	10.0	10.7	107	76-120	
2-Hexanone	20.0	20.4	102	55-133	
4-Chlorotoluene	10.0	10.4	104	77-120	
4-Isopropyltoluene	10.0	11.0	110	74-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.4	97	63-128	
Acetone	20.0	23.6	118	43-136	
Benzene	10.0	10.5	105	80-120	
Bromobenzene	10.0	9.81	98	76-120	
Bromoform	10.0	7.66	77	40-131	
Bromomethane	10.0	11.9	119	11-185	
Carbon disulfide	10.0	11.4	114	62-142	
Carbon tetrachloride	10.0	8.70	87	66-128	
Chlorobenzene	10.0	9.97	100	80-120	
Chlorodibromomethane	10.0	9.06	91	64-120	
Chloroethane	10.0	9.96	100	25-153	
Chloroform	10.0	10.4	104	79-120	
Chloromethane	10.0	9.33	93	44-126	
cis-1,2-Dichloroethene	10.0	9.45	94	80-120	
cis-1,3-Dichloropropene	10.0	9.72	97	61-120	
Dibromomethane	10.0	10.2	102	80-120	
Bromochloromethane	10.0	9.28	93	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9878.D

Lab ID: LCS 240-127413/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	10.0	9.62	96	19-129	
Bromodichloromethane	10.0	9.40	94	72-121	
tert-Butyl alcohol	100	86.6	87	70-130	
Ethylbenzene	10.0	9.99	100	80-120	
Hexachlorobutadiene	10.0	10.8	108	36-134	
Isopropylbenzene	10.0	10.4	104	75-120	
Methyl tert-butyl ether	10.0	9.17	92	52-144	
Methylene Chloride	10.0	10.1	101	66-131	
m-Xylene & p-Xylene	10.0	10.0	100	80-120	
Naphthalene	10.0	10.4	104	32-141	
n-Butylbenzene	10.0	11.7	117	66-125	
N-Propylbenzene	10.0	10.5	105	74-121	
o-Xylene	10.0	10.0	100	80-120	
sec-Butylbenzene	10.0	11.3	113	70-120	
Styrene	10.0	9.69	97	79-120	
Tetrachloroethene	10.0	9.80	98	79-120	
Toluene	10.0	11.1	111	80-120	
trans-1,2-Dichloroethene	10.0	9.81	98	80-120	
trans-1,3-Dichloropropene	10.0	10.8	108	58-120	
Trichloroethene	10.0	9.33	93	76-120	
Trichlorofluoromethane	10.0	8.29	83	49-157	
Vinyl acetate	8.00	10.9	137	46-161	
Vinyl chloride	10.0	10.8	108	53-127	
Xylenes, Total	20.0	20.0	100	80-120	
tert-Butylbenzene	10.0	11.2	112	71-120	
1,2-Dibromoethane	10.0	10.2	102	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM VIII

GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Sample No.: STD8260 240-122371/4 Date Analyzed: 03/13/2014 09:48

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX8836.D Heated Purge: (Y/N) N

Calibration ID: 21114

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1491749	5.55	1027785	8.23	613728	10.47
UPPER LIMIT		2983498	6.05	2055570	8.73	1227456	10.97
LOWER LIMIT		745875	5.05	513893	7.73	306864	9.97
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-122371/14		1457730	5.54	947218	8.23	600605	10.47
ICV 240-122371/15		1408930	5.55	916360	8.23	581640	10.47
CCVIS 240-127251/2		1217690	5.54	732854	8.23	413632	10.47
CCVIS 240-127413/2		1110137	5.54	679098	8.23	390832	10.46

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Sample No.: CCVIS 240-127251/2 Date Analyzed: 04/21/2014 10:59

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX9847.D Heated Purge: (Y/N) N

Calibration ID: 21354

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1217690	5.54	732854	8.23	413632	10.47
UPPER LIMIT		2435380	6.04	1465708	8.73	827264	10.97
LOWER LIMIT		608845	5.04	366427	7.73	206816	9.97
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-127251/3		1076932	5.55	700854	8.23	384997	10.47
CCV 240-127251/4		1075980	5.55	685773	8.23	359531	10.47
LCS 240-127251/5		1112563	5.55	690045	8.23	393513	10.47
MB 240-127251/7		1082201	5.55	655373	8.23	350184	10.47
240-36112-17	MSA-MW-25I-041114	1059268	5.55	655449	8.23	371580	10.47
240-36112-1	MSA-MW-32S-041014	1039433	5.54	648323	8.23	357009	10.47
240-36112-2	MSA-MW-32I-041014	1020173	5.55	636083	8.23	365431	10.47
240-36112-3	MSA-MW-48S-041014	1030648	5.54	641232	8.23	364689	10.48
240-36112-4	MSA-MW-49S-041014	998539	5.54	635172	8.23	360467	10.47
240-36112-5	MSA-MW-49I-041014	1016763	5.54	664607	8.23	343285	10.47
240-36112-6	MSA-DMW-10S-041014	1061689	5.54	668155	8.23	380636	10.48
240-36112-7	MSA-DMW-10I-041014	1016790	5.54	631327	8.23	353374	10.48
240-36112-8	MSA-DMW-1B-041014	1042363	5.54	642226	8.23	350022	10.47
240-36112-9	MSA-DMW-1A-041014	990430	5.54	616745	8.23	340374	10.48
240-36112-10	MSA-MW-6-041014	1001466	5.55	629071	8.23	359197	10.47
240-36112-11	MSA-MW-24S-041114	1020614	5.55	635223	8.23	363509	10.47
240-36112-12	MSA-MW-24I-041114	1020267	5.54	649786	8.23	357949	10.48
240-36112-13	MSA-MW-23S-041114	1057384	5.54	674548	8.23	384155	10.48
240-36112-17 MS	MSA-MW-25I-041114 MS	1082918	5.54	661099	8.23	407103	10.48
240-36112-17 MSD	MSA-MW-25I-041114 MSD	1091014	5.54	678112	8.23	398064	10.47

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Sample No.: CCVIS 240-127413/2 Date Analyzed: 04/22/2014 11:32

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX9876.D Heated Purge: (Y/N) N

Calibration ID: 21354

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1110137	5.54	679098	8.23	390832	10.46
UPPER LIMIT		2220274	6.04	1358196	8.73	781664	10.96
LOWER LIMIT		555069	5.04	339549	7.73	195416	9.96
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-127413/3		1047298	5.55	652192	8.23	353729	10.47
LCS 240-127413/4		1082222	5.54	669802	8.23	372720	10.47
MB 240-127413/6		1048926	5.54	651347	8.23	343019	10.47
240-36112-14	MSA-MW-23D-041114	1002178	5.54	617447	8.23	328390	10.48
240-36112-15	MSA-MW-36S-041114	1106314	5.55	602398	8.23	327744	10.47
240-36112-16	MSA-MW-25S-041114	1005645	5.54	637116	8.23	348706	10.47
240-36112-18	MSA-MW-37S-041114	985171	5.55	636053	8.23	354319	10.47
240-36112-19	TRIP BLANK	1119842	5.54	706462	8.23	402458	10.48

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

SDG 240-36112-1

SAMPLE ID MSA-DMW-10I-041014

SAMPLE CALC

IS AREA	DILUTION	COMPOUND OF INTEREST / IS AMOUNT (NG)	Final Volume (ML)	AVE RRF	CONCENTRATION ug/L
990430	166.67	711467 / 10	5	0.2479	4829.61

Sample Volume (ML)

5

Trichloroethene = 4,800 ug/L

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\NCChrom\ChromData\A3UX10\20140421-30183.b\UXX9868.D
Lims ID: 240-36112-B-9 Lab Sample ID: 240-36112-9
Client ID: MSA-DMW-1A-041014
Sample Type: Client
Inject. Date: 21-Apr-2014 19:24:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 166.6700
Sample Info: 240-0030183-023
Operator ID: 1904 Instrument ID: A3UX10

Method: \\NCChrom\ChromData\A3UX10\20140421-30183.b\8260_10.m
Limit Group: MSV 8260DOD ICAL
Last Update: 22-Apr-2014 07:59:49 Calib Date: 21-Mar-2014 01:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\NCChrom\ChromData\A3UX10\20140320-29202.b\UXX9007.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK047

First Level Reviewer: quayler Date: 22-Apr-2014 07:54:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.543	5.546	-0.003	99	990430	10.0	
* 2 Chlorobenzene-d5	117	8.230	8.232	-0.002	87	616745	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.478	10.468	0.010	96	340374	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.976	4.976	0.000	55	230629	11.3	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.271	5.260	0.011	0	302968	12.5	
$ 6 Toluene-d8 (Surr)	98	6.916	6.917	-0.001	83	866796	11.8	
$ 7 4-Bromofluorobenzene (Surr	95	9.342	9.343	-0.001	80	315427	11.3	
9 Dichlorodifluoromethane	85		1.592					
10 Chloromethane	50		1.734					
11 Vinyl chloride	62	1.852	1.853	0.000	81	177410	6.29	
13 Bromomethane	94		2.184					
14 Chloroethane	64		2.278					
16 Trichlorofluoromethane	101		2.527					
19 1,1-Dichloroethene	96		3.012					
20 1,1,2-Trichloro-1,2,2-trif	151		3.012					
21 Acetone	43		3.071					
24 Carbon disulfide	76		3.213					
28 Methylene Chloride	84	3.461	3.450	0.011	76	30522	0.8770	
29 2-Methyl-2-propanol	59		3.556					
32 Methyl tert-butyl ether	73		3.687					
30 trans-1,2-Dichloroethene	96	3.698	3.687	0.011	57	3798	0.1548	
34 1,1-Dichloroethane	63		4.065					
35 Vinyl acetate	43		4.101					
36 Isopropyl ether	87		4.102					
38 Tert-butyl ethyl ether	59		4.421					
40 cis-1,2-Dichloroethene	96	4.561	4.562	-0.001	68	453612	17.4	
39 2,2-Dichloropropane	77		4.562					
41 2-Butanone (MEK)	43		4.574					
45 Chlorobromomethane	128		4.775					
47 Chloroform	83		4.834					
48 1,1,1-Trichloroethane	97		4.988					
51 Carbon tetrachloride	117		5.130					

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
50 1,1-Dichloropropene	75		5.130					
53 Benzene	78		5.308					
54 1,2-Dichloroethane	62		5.331					
55 Tert-amyl methyl ether	73		5.391					
58 Trichloroethene	130	5.851	5.852	-0.001	95	711467	29.0	
61 1,2-Dichloropropane	63		6.053					
63 Dibromomethane	93		6.160					
65 Dichlorobromomethane	83		6.290					
67 2-Chloroethyl vinyl ether	63		6.538					
68 cis-1,3-Dichloropropene	75		6.680					
69 4-Methyl-2-pentanone (MIBK	43		6.810					
70 Toluene	91	6.975	6.976	-0.001	81	51949	0.5971	
71 trans-1,3-Dichloropropene	75		7.165					
74 Tetrachloroethene	164		7.461					
75 1,3-Dichloropropane	76		7.497					
76 2-Hexanone	43		7.556					
78 Chlorodibromomethane	129		7.698					
80 Ethylene Dibromide	107		7.816					
82 Chlorobenzene	112		8.254					
83 1,1,1,2-Tetrachloroethane	131		8.337					
84 Ethylbenzene	106		8.349					
85 m-Xylene & p-Xylene	106		8.455					
86 o-Xylene	106		8.834					
87 Styrene	104		8.846					
88 Bromoform	173		9.047					
89 Isopropylbenzene	105		9.189					
92 1,1,2,2-Tetrachloroethane	83		9.485					
93 Bromobenzene	156		9.496					
94 1,2,3-Trichloropropane	110		9.532					
96 N-Propylbenzene	120		9.579					
97 2-Chlorotoluene	126		9.674					
99 4-Chlorotoluene	126		9.780					
100 tert-Butylbenzene	119		10.076					
102 1,2,4-Trimethylbenzene	105		10.112					
103 sec-Butylbenzene	105		10.289					
104 1,3-Dichlorobenzene	146		10.408					
105 4-Isopropyltoluene	119		10.431					
106 1,4-Dichlorobenzene	146		10.490					
107 1,2,3-Trimethylbenzene	105		10.539					
109 n-Butylbenzene	91		10.834					
110 1,2-Dichlorobenzene	146		10.869					
111 1,2-Dibromo-3-Chloropropan	157		11.650					
113 1,2,4-Trichlorobenzene	180		12.467					
114 Hexachlorobutadiene	225		12.620					
115 Naphthalene	128		12.715					
116 1,2,3-Trichlorobenzene	180		12.964					
S 130 Xylenes, Total	106		16.530					
T 127 Chlorodifluoromethane TIC	51		1.592					

Method 8270C

Semivolatile Organic Compounds (GC/MS) by Method 8270C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
MSA-MW-32S-041014	240-36112-1	76	66	79	71	78	88
MSA-MW-32I-041014	240-36112-2	82	74	86	77	79	93
MSA-MW-48S-041014	240-36112-3	80	71	83	78	82	95
MSA-MW-49S-041014	240-36112-4	71	63	73	65	71	82
MSA-MW-49I-041014	240-36112-5	72	66	75	70	75	82
MSA-DMW-10S-041014	240-36112-6	79	72	81	75	85	93
MSA-DMW-10I-041014	240-36112-7	63	53	70	63	76	84
MSA-DMW-1B-041014	240-36112-8	72	59	83	72	80	85
MSA-DMW-1A-041014	240-36112-9	73	64	85	78	85	94
MSA-MW-6-041014	240-36112-10	71	61	77	69	79	91
MSA-MW-24S-041114	240-36112-11	67	59	73	67	77	93
MSA-MW-24I-041114	240-36112-12	68	58	80	72	78	91
MSA-MW-23S-041114	240-36112-13	72	62	81	70	83	93
MSA-MW-23D-041114	240-36112-14	59	50	71	68	85	87
MSA-MW-36S-041114	240-36112-15	73	63	78	63	78	81
MSA-MW-25S-041114	240-36112-16	59	53	62	52	65	80
MSA-MW-25I-041114	240-36112-17	69	60	74	61	75	82
MSA-MW-37S-041114	240-36112-18	72	64	75	63	76	85
	MB 240-126515/19-A	60	45	76	70	65	86
	MB 240-126687/19-A	69	54	79	75	78	92
	LCS 240-126515/20-A	64	49	80	74	82	92
	LCS 240-126687/20-A	63	51	79	72	81	86
MSA-MW-25I-041114 MS	240-36112-17 MS	75	66	83	69	92	90
MSA-MW-25I-041114 MSD	240-36112-17 MSD	66	60	73	63	81	80

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	15-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	31-110
FBP = 2-Fluorobiphenyl (Surr)	29-110
TBP = 2,4,6-Tribromophenol (Surr)	21-128
TPH = Terphenyl-d14 (Surr)	31-115

Column to be used to flag recovery values

FORM II 8270C

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: A4AG2 Start Date: 04/12/2014 11:54

Analysis Batch Number: 126265 End Date: 04/12/2014 19:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-126265/1		04/12/2014 11:54	1	0412001.D	RXI-5SILMS 0.45(mm)
STD9 240-126265/2 IC		04/12/2014 12:17	1	0412002.D	RXI-5SILMS 0.45(mm)
STD8 240-126265/3 IC		04/12/2014 12:40	1	0412003.D	RXI-5SILMS 0.45(mm)
STD7 240-126265/4 IC		04/12/2014 13:03	1	0412004.D	RXI-5SILMS 0.45(mm)
STD6 240-126265/5 ICIS		04/12/2014 13:27	1	0412005.D	RXI-5SILMS 0.45(mm)
STD5 240-126265/6 IC		04/12/2014 13:50	1	0412006.D	RXI-5SILMS 0.45(mm)
STD4 240-126265/7 IC		04/12/2014 14:13	1	0412007.D	RXI-5SILMS 0.45(mm)
STD3 240-126265/8 IC		04/12/2014 14:36	1	0412008.D	RXI-5SILMS 0.45(mm)
STD2 240-126265/9 IC		04/12/2014 14:59	1	0412009.D	RXI-5SILMS 0.45(mm)
STD1 240-126265/10 IC		04/12/2014 15:22	1	0412010.D	RXI-5SILMS 0.45(mm)
ICV 240-126265/11		04/12/2014 15:45	1	0412011.D	RXI-5SILMS 0.45(mm)
ZZZZZ		04/12/2014 16:08	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/12/2014 16:31	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/12/2014 17:18	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/12/2014 17:41	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/12/2014 18:04	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/12/2014 18:27	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/12/2014 18:50	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/12/2014 19:13	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/12/2014 19:36	1		RXI-5SILMS 0.45(mm)

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab File ID: 0412001.D DFTPP Injection Date: 04/12/2014

Instrument ID: A4AG2 DFTPP Injection Time: 11:54

Analysis Batch No.: 126265

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	36.3	
68	Less than 2.0% of mass 69	0.5	(1.0)1
69	Mass 69 relative abundance	47.1	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	57.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.3	
275	10.0- 30.0% of mass 198	22.3	
365	Greater than 0.75% of mass 198	2.6	
441	Present, but less than mass 443	9.0	
442	40.0 - 110.0% of mass 198	64.7	
443	15.0 - 24.0% of mass 442	11.8	(18.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-126265/2	0412002.D	04/12/2014	12:17
	STD8 240-126265/3	0412003.D	04/12/2014	12:40
	STD7 240-126265/4	0412004.D	04/12/2014	13:03
	STD6 240-126265/5	0412005.D	04/12/2014	13:27
	STD5 240-126265/6	0412006.D	04/12/2014	13:50
	STD4 240-126265/7	0412007.D	04/12/2014	14:13
	STD3 240-126265/8	0412008.D	04/12/2014	14:36
	STD2 240-126265/9	0412009.D	04/12/2014	14:59
	STD1 240-126265/10	0412010.D	04/12/2014	15:22
	ICV 240-126265/11	0412011.D	04/12/2014	15:45

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36112-1 Analy Batch No.: 126265

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2014 12:17 Calibration End Date: 04/12/2014 15:22 Calibration ID: 21681

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-126265/10	0412010.D
Level 2	STD2 240-126265/9	0412009.D
Level 3	STD3 240-126265/8	0412008.D
Level 4	STD4 240-126265/7	0412007.D
Level 5	STD5 240-126265/6	0412006.D
Level 6	STD6 240-126265/5	0412005.D
Level 7	STD7 240-126265/4	0412004.D
Level 8	STD8 240-126265/3	0412003.D
Level 9	STD9 240-126265/2	0412002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5835	0.7184 0.5974	0.6260 0.5920	0.5895 0.6237	0.5877	Ave		0.6148				7.3		15.0			
N-Nitrosodimethylamine	0.7476	0.4701 0.8272	0.5795 0.8409	0.5869 0.8883	0.7359	Lin1	-28.80	0.8520							0.9960		0.9900
Pyridine	1.4924	1.2117 1.5636	1.2319 1.5659	1.2146 1.6389	1.4711	Ave		1.4238				12.0		15.0			
Benzaldehyde	0.7541	1.1588 0.5799	1.1407 0.5870	0.9801 0.5841	0.8636	Qua	121.11	0.6691	0						0.9900		0.9900
Phenol	1.6457	1.4197 1.7699	1.3831 1.8010	1.3435 1.8573	1.5016	Ave		1.5902				13.0		15.0			
Aniline	1.8942	1.5746 2.0720	1.6290 2.1635	1.6172 2.2272	1.7499	Ave		1.8660				14.0		15.0			
Bis(2-chloroethyl)ether	1.4092	1.2998 1.4316	1.2692 1.4313	1.3224 1.4750	1.3395	Ave		1.3723				5.4		15.0			
2-Chlorophenol	1.3900	1.2913 1.4548	1.2463 1.4528	1.2111 1.4880	1.3138	Ave		1.3560				7.7		15.0			
n-Decane	1.3065	1.4793 1.3312	1.4298 1.3104	1.4191 1.3298	1.3091	Ave		1.3644				5.0		15.0			
1,3-Dichlorobenzene	1.5046	1.6449 1.5195	1.4845 1.5046	1.5004 1.5359	1.5243	Ave		1.5273				3.3		15.0			
1,4-Dichlorobenzene	1.5206	1.5042 1.5366	1.5630 1.5311	1.5400 1.5687	1.5144	Ave		1.5348				1.5		15.0			
Benzyl alcohol	0.7034	0.5481 0.8856	0.5446 0.8733	0.4976 0.9156	0.6399	Lin	-88.28	0.9267							0.9940		0.9900
1,2-Dichlorobenzene	1.4521	1.6590 1.4669	1.6123 1.4388	1.5208 1.4932	1.4356	Ave		1.5098				5.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICV 240-126265/11 Calibration Date: 04/12/2014 15:45

Instrument ID: A4AG2 Calib Start Date: 04/12/2014 12:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/12/2014 15:22

Lab File ID: 0412011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6148	0.5571		0.906	1.00	-9.4	50.0
N-Nitrosodimethylamine	Lin1		0.7514		0.916	1.00	-8.4	50.0
Pyridine	Ave	1.424	1.489		1.05	1.00	4.6	50.0
Benzaldehyde	Qua		0.6640		1.94	2.00	-2.9	50.0
Phenol	Ave	1.590	1.719		1.08	1.00	8.1	20.0
Aniline	Ave	1.866	1.892		1.01	1.00	1.4	50.0
Bis(2-chloroethyl)ether	Ave	1.372	1.372		1.00	1.00	0.0	50.0
2-Chlorophenol	Ave	1.356	1.387		1.02	1.00	2.3	50.0
n-Decane	Ave	1.364	1.256		0.920	1.00	-8.0	50.0
1,3-Dichlorobenzene	Ave	1.527	1.444		0.945	1.00	-5.5	50.0
1,4-Dichlorobenzene	Ave	1.535	1.493		0.973	1.00	-2.7	20.0
Benzyl alcohol	Lin		0.7986		0.957	1.00	-4.3	50.0
1,2-Dichlorobenzene	Ave	1.510	1.384		0.917	1.00	-8.3	50.0
2-Methylphenol	Ave	1.201	1.252		1.04	1.00	4.3	50.0
bis (2-chloroisopropyl) ether	Ave	1.376	1.372		0.718	0.720	-0.3	50.0
Indene	Ave	2.447	2.622		2.14	2.00	7.1	50.0
3 & 4 Methylphenol	Ave	1.199	1.219		1.02	1.00	1.7	50.0
N-Nitrosodi-n-propylamine	Ave	0.9749	1.003	0.0500	1.03	1.00	2.9	50.0
Acetophenone	Ave	1.851	1.867		1.01	1.00	0.8	50.0
Hexachloroethane	Ave	0.6220	0.5983		0.962	1.00	-3.8	50.0
Nitrobenzene	Ave	0.3820	0.3756		0.983	1.00	-1.7	50.0
Isophorone	Ave	0.5989	0.5994		1.00	1.00	0.0	50.0
2-Nitrophenol	Ave	0.1504	0.1570		1.04	1.00	4.4	20.0
2,4-Dimethylphenol	Ave	0.3088	0.2985		0.967	1.00	-3.3	50.0
Benzoic acid	Ave	0.1566	0.1458		1.86	2.00	-6.9	50.0
Bis(2-chloroethoxy)methane	Ave	0.3933	0.3754		0.955	1.00	-4.5	50.0
2,4-Dichlorophenol	Ave	0.2323	0.2300		0.990	1.00	-1.0	20.0
1,2,4-Trichlorobenzene	Ave	0.2737	0.2679		0.979	1.00	-2.1	50.0
Naphthalene	Ave	1.040	0.9903		0.952	1.00	-4.8	50.0
4-Chloroaniline	Qua		0.2904		0.875	1.00	-12.5	50.0
Hexachlorobutadiene	Ave	0.1335	0.1255		0.940	1.00	-6.0	20.0
Caprolactam	Lin1		0.1158		2.14	2.00	6.8	50.0
4-Chloro-3-methylphenol	Ave	0.3080	0.2822		0.916	1.00	-8.4	20.0
2-Methylnaphthalene	Ave	0.7353	0.6281		0.854	1.00	-14.6	50.0
1-Methylnaphthalene	Ave	0.6957	0.6007		0.863	1.00	-13.7	50.0
Hexachlorocyclopentadiene	Lin1		0.2285	0.0500	0.869	1.00	-13.1	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4270	0.3999		0.937	1.00	-6.3	50.0
2,4,6-Trichlorophenol	Ave	0.2791	0.2913		1.04	1.00	4.4	20.0
2,4,5-Trichlorophenol	Ave	0.3158	0.2998		0.949	1.00	-5.1	50.0
1,1'-Biphenyl	Ave	1.451	1.332		0.918	1.00	-8.2	50.0

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: A4AG2 Start Date: 04/16/2014 07:09

Analysis Batch Number: 126622 End Date: 04/16/2014 15:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-126622/1		04/16/2014 07:09	1	0416001.D	RXI-5SILMS 0.45(mm)
STD6 240-126622/2 CCVIS		04/16/2014 07:26	1	0416002.D	RXI-5SILMS 0.45(mm)
MB 240-126515/19-A		04/16/2014 07:49	1	0416003.D	RXI-5SILMS 0.45(mm)
LCS 240-126515/20-A		04/16/2014 08:11	1	0416004.D	RXI-5SILMS 0.45(mm)
240-36112-1	MSA-MW-32S-041014	04/16/2014 08:34	1	0416005.D	RXI-5SILMS 0.45(mm)
240-36112-2	MSA-MW-32I-041014	04/16/2014 08:57	1	0416006.D	RXI-5SILMS 0.45(mm)
240-36112-3	MSA-MW-48S-041014	04/16/2014 09:20	1	0416007.D	RXI-5SILMS 0.45(mm)
240-36112-6	MSA-DMW-10S-041014	04/16/2014 10:06	1	0416009.D	RXI-5SILMS 0.45(mm)
ZZZZZ		04/16/2014 10:52	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/16/2014 11:15	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/16/2014 11:38	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/16/2014 12:01	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/16/2014 12:24	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/16/2014 12:47	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/16/2014 13:10	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/16/2014 13:34	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/16/2014 13:56	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/16/2014 14:19	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/16/2014 14:43	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/16/2014 15:06	1		RXI-5SILMS 0.45(mm)
240-36112-4	MSA-MW-49S-041014	04/16/2014 15:29	2	0416023.D	RXI-5SILMS 0.45(mm)
240-36112-5	MSA-MW-49I-041014	04/16/2014 15:52	4	0416024.D	RXI-5SILMS 0.45(mm)

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab File ID: 0416001.D DFTPP Injection Date: 04/16/2014

Instrument ID: A4AG2 DFTPP Injection Time: 07:09

Analysis Batch No.: 126622

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	40.0	
68	Less than 2.0% of mass 69	0.7	(1.4)1
69	Mass 69 relative abundance	52.1	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	62.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	22.5	
365	Greater than 0.75% of mass 198	2.4	
441	Present, but less than mass 443	8.0	
442	40.0 - 110.0% of mass 198	56.6	
443	15.0 - 24.0% of mass 442	10.9	(19.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-126622/2	0416002.D	04/16/2014	07:26
	MB 240-126515/19-A	0416003.D	04/16/2014	07:49
	LCS 240-126515/20-A	0416004.D	04/16/2014	08:11
MSA-MW-32S-041014	240-36112-1	0416005.D	04/16/2014	08:34
MSA-MW-32I-041014	240-36112-2	0416006.D	04/16/2014	08:57
MSA-MW-48S-041014	240-36112-3	0416007.D	04/16/2014	09:20
MSA-DMW-10S-041014	240-36112-6	0416009.D	04/16/2014	10:06
MSA-MW-49S-041014	240-36112-4	0416023.D	04/16/2014	15:29
MSA-MW-49I-041014	240-36112-5	0416024.D	04/16/2014	15:52

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: STD6 240-126622/2 Calibration Date: 04/16/2014 07:26

Instrument ID: A4AG2 Calib Start Date: 04/12/2014 12:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/12/2014 15:22

Lab File ID: 0416002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6148	0.5875		0.956	1.00	-4.4	50.0
N-Nitrosodimethylamine	Lin1		0.7727		0.941	1.00	-5.9	50.0
Pyridine	Ave	1.424	1.432		1.01	1.00	0.6	50.0
Benzaldehyde	Qua		0.5953		1.71	2.00	-14.7	50.0
Phenol	Ave	1.590	1.721		1.08	1.00	8.2	20.0
Aniline	Ave	1.866	1.839		0.985	1.00	-1.5	50.0
Bis(2-chloroethyl)ether	Ave	1.372	1.354		0.987	1.00	-1.3	50.0
2-Chlorophenol	Ave	1.356	1.404		1.04	1.00	3.6	50.0
n-Decane	Ave	1.364	1.251		0.917	1.00	-8.3	50.0
1,3-Dichlorobenzene	Ave	1.527	1.441		0.943	1.00	-5.7	50.0
1,4-Dichlorobenzene	Ave	1.535	1.498		0.976	1.00	-2.4	20.0
Benzyl alcohol	Lin		0.7983		0.957	1.00	-4.3	50.0
1,2-Dichlorobenzene	Ave	1.510	1.432		0.948	1.00	-5.2	50.0
2-Methylphenol	Ave	1.201	1.249		1.04	1.00	4.0	50.0
bis (2-chloroisopropyl) ether	Ave	1.376	1.316		0.956	1.00	-4.4	50.0
Indene	Ave	2.447	2.406		1.97	2.00	-1.7	50.0
3 & 4 Methylphenol	Ave	1.199	1.279		1.07	1.00	6.6	50.0
N-Nitrosodi-n-propylamine	Ave	0.9749	1.055	0.0500	1.08	1.00	8.3	50.0
Acetophenone	Ave	1.851	1.921		1.04	1.00	3.8	50.0
Hexachloroethane	Ave	0.6220	0.6122		0.984	1.00	-1.6	50.0
Nitrobenzene	Ave	0.3820	0.3702		0.969	1.00	-3.1	50.0
Isophorone	Ave	0.5989	0.6573		1.10	1.00	9.7	50.0
2-Nitrophenol	Ave	0.1504	0.1719		1.14	1.00	14.3	20.0
2,4-Dimethylphenol	Ave	0.3088	0.3198		1.04	1.00	3.5	50.0
Benzoic acid	Ave	0.1566	0.1759		2.25	2.00	12.3	50.0
Bis(2-chloroethoxy)methane	Ave	0.3933	0.3998		1.02	1.00	1.7	50.0
2,4-Dichlorophenol	Ave	0.2323	0.2461		1.06	1.00	6.0	20.0
1,2,4-Trichlorobenzene	Ave	0.2737	0.2742		1.00	1.00	0.2	50.0
Naphthalene	Ave	1.040	1.009		0.970	1.00	-3.0	50.0
4-Chloroaniline	Qua		0.2270		0.655	1.00	-34.5	50.0
Hexachlorobutadiene	Ave	0.1335	0.1289		0.965	1.00	-3.5	20.0
Caprolactam	Lin1		0.1047		1.94	2.00	-3.2	50.0
4-Chloro-3-methylphenol	Ave	0.3080	0.2807		0.911	1.00	-8.9	20.0
2-Methylnaphthalene	Ave	0.7353	0.6708		0.912	1.00	-8.8	50.0
1-Methylnaphthalene	Ave	0.6957	0.6229		0.895	1.00	-10.5	50.0
Hexachlorocyclopentadiene	Lin1		0.2496	0.0500	0.946	1.00	-5.4	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4270	0.4429		1.04	1.00	3.7	50.0
2,4,6-Trichlorophenol	Ave	0.2791	0.3053		1.09	1.00	9.4	20.0
2,4,5-Trichlorophenol	Ave	0.3158	0.3162		1.00	1.00	0.1	50.0
1,1'-Biphenyl	Ave	1.451	1.435		0.989	1.00	-1.1	50.0

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: A4AG2 Start Date: 04/17/2014 06:54

Analysis Batch Number: 126796 End Date: 04/17/2014 17:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-126796/1		04/17/2014 06:54	1	0417001.D	RXI-5SILMS 0.45(mm)
STD6 240-126796/2 CCVIS		04/17/2014 07:11	1	0417002.D	RXI-5SILMS 0.45(mm)
ZZZZZ		04/17/2014 07:34	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/17/2014 07:57	1		RXI-5SILMS 0.45(mm)
MB 240-126687/19-A		04/17/2014 08:20	1	0417005.D	RXI-5SILMS 0.45(mm)
LCS 240-126687/20-A		04/17/2014 08:43	1	0417006.D	RXI-5SILMS 0.45(mm)
ZZZZZ		04/17/2014 09:06	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/17/2014 09:29	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/17/2014 10:39	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/17/2014 11:02	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/17/2014 11:25	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/17/2014 11:48	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/17/2014 12:11	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/17/2014 12:34	1		RXI-5SILMS 0.45(mm)
240-36112-18	MSA-MW-37S-041114	04/17/2014 12:57	1	0417017.D	RXI-5SILMS 0.45(mm)
240-36112-17	MSA-MW-25I-041114	04/17/2014 13:21	1	0417018.D	RXI-5SILMS 0.45(mm)
240-36112-17 MS	MSA-MW-25I-041114 MS	04/17/2014 13:44	1	0417019.D	RXI-5SILMS 0.45(mm)
240-36112-17 MSD	MSA-MW-25I-041114 MSD	04/17/2014 14:07	1	0417020.D	RXI-5SILMS 0.45(mm)
240-36112-16	MSA-MW-25S-041114	04/17/2014 14:30	1	0417021.D	RXI-5SILMS 0.45(mm)
240-36112-15	MSA-MW-36S-041114	04/17/2014 14:53	1	0417022.D	RXI-5SILMS 0.45(mm)
240-36112-14	MSA-MW-23D-041114	04/17/2014 15:16	1	0417023.D	RXI-5SILMS 0.45(mm)
240-36112-13	MSA-MW-23S-041114	04/17/2014 15:39	1	0417024.D	RXI-5SILMS 0.45(mm)
240-36112-12	MSA-MW-24I-041114	04/17/2014 16:02	1	0417025.D	RXI-5SILMS 0.45(mm)
240-36112-11	MSA-MW-24S-041114	04/17/2014 16:26	1	0417026.D	RXI-5SILMS 0.45(mm)
240-36112-10	MSA-MW-6-041014	04/17/2014 16:49	1	0417027.D	RXI-5SILMS 0.45(mm)
240-36112-7	MSA-DMW-10I-041014	04/17/2014 17:58	1	0417030.D	RXI-5SILMS 0.45(mm)

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab File ID: 0417001.D DFTPP Injection Date: 04/17/2014

Instrument ID: A4AG2 DFTPP Injection Time: 06:54

Analysis Batch No.: 126796

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	38.8	
68	Less than 2.0% of mass 69	0.5	(0.9)1
69	Mass 69 relative abundance	51.1	
70	Less than 2.0% of mass 69	0.4	(0.7)1
127	25.0 - 75.0% of mass 198	61.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	22.9	
365	Greater than 0.75% of mass 198	2.6	
441	Present, but less than mass 443	8.5	
442	40.0 - 110.0% of mass 198	61.7	
443	15.0 - 24.0% of mass 442	11.8	(19.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-126796/2	0417002.D	04/17/2014	07:11
	MB 240-126687/19-A	0417005.D	04/17/2014	08:20
	LCS 240-126687/20-A	0417006.D	04/17/2014	08:43
MSA-MW-37S-041114	240-36112-18	0417017.D	04/17/2014	12:57
MSA-MW-25I-041114	240-36112-17	0417018.D	04/17/2014	13:21
MSA-MW-25I-041114 MS	240-36112-17 MS	0417019.D	04/17/2014	13:44
MSA-MW-25I-041114 MSD	240-36112-17 MSD	0417020.D	04/17/2014	14:07
MSA-MW-25S-041114	240-36112-16	0417021.D	04/17/2014	14:30
MSA-MW-36S-041114	240-36112-15	0417022.D	04/17/2014	14:53
MSA-MW-23D-041114	240-36112-14	0417023.D	04/17/2014	15:16
MSA-MW-23S-041114	240-36112-13	0417024.D	04/17/2014	15:39
MSA-MW-24I-041114	240-36112-12	0417025.D	04/17/2014	16:02
MSA-MW-24S-041114	240-36112-11	0417026.D	04/17/2014	16:26
MSA-MW-6-041014	240-36112-10	0417027.D	04/17/2014	16:49
MSA-DMW-10I-041014	240-36112-7	0417030.D	04/17/2014	17:58

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: STD6 240-126796/2 Calibration Date: 04/17/2014 07:11

Instrument ID: A4AG2 Calib Start Date: 04/12/2014 12:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/12/2014 15:22

Lab File ID: 0417002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6148	0.5918		0.963	1.00	-3.7	50.0
N-Nitrosodimethylamine	Lin1		0.8220		0.999	1.00	-0.1	50.0
Pyridine	Ave	1.424	1.492		1.05	1.00	4.8	50.0
Benzaldehyde	Qua		0.6870		2.02	2.00	1.1	50.0
Phenol	Ave	1.590	1.786		1.12	1.00	12.3	20.0
Aniline	Ave	1.866	2.039		1.09	1.00	9.2	50.0
Bis(2-chloroethyl)ether	Ave	1.372	1.428		1.04	1.00	4.1	50.0
2-Chlorophenol	Ave	1.356	1.461		1.08	1.00	7.8	50.0
n-Decane	Ave	1.364	1.273		0.933	1.00	-6.7	50.0
1,3-Dichlorobenzene	Ave	1.527	1.517		0.993	1.00	-0.7	50.0
1,4-Dichlorobenzene	Ave	1.535	1.532		0.998	1.00	-0.2	20.0
Benzyl alcohol	Lin		0.8167		0.976	1.00	-2.4	50.0
1,2-Dichlorobenzene	Ave	1.510	1.455		0.964	1.00	-3.6	50.0
2-Methylphenol	Ave	1.201	1.302		1.08	1.00	8.5	50.0
bis (2-chloroisopropyl) ether	Ave	1.376	1.339		0.973	1.00	-2.7	50.0
Indene	Ave	2.447	2.543		2.08	2.00	3.9	50.0
3 & 4 Methylphenol	Ave	1.199	1.316		1.10	1.00	9.8	50.0
N-Nitrosodi-n-propylamine	Ave	0.9749	1.127	0.0500	1.16	1.00	15.6	50.0
Acetophenone	Ave	1.851	2.013		1.09	1.00	8.8	50.0
Hexachloroethane	Ave	0.6220	0.6423		1.03	1.00	3.3	50.0
Nitrobenzene	Ave	0.3820	0.3653		0.956	1.00	-4.4	50.0
Isophorone	Ave	0.5989	0.6141		1.03	1.00	2.5	50.0
2-Nitrophenol	Ave	0.1504	0.1771		1.18	1.00	17.8	20.0
2,4-Dimethylphenol	Ave	0.3088	0.3246		1.05	1.00	5.1	50.0
Benzoic acid	Ave	0.1566	0.1641		2.10	2.00	4.8	50.0
Bis(2-chloroethoxy)methane	Ave	0.3933	0.4035		1.03	1.00	2.6	50.0
2,4-Dichlorophenol	Ave	0.2323	0.2515		1.08	1.00	8.3	20.0
1,2,4-Trichlorobenzene	Ave	0.2737	0.2741		1.00	1.00	0.1	50.0
Naphthalene	Ave	1.040	1.000		0.962	1.00	-3.8	50.0
4-Chloroaniline	Qua		0.3039		0.925	1.00	-7.5	50.0
Hexachlorobutadiene	Ave	0.1335	0.1305		0.977	1.00	-2.3	20.0
Caprolactam	Lin1		0.1076		1.99	2.00	-0.6	50.0
4-Chloro-3-methylphenol	Ave	0.3080	0.2756		0.895	1.00	-10.5	20.0
2-Methylnaphthalene	Ave	0.7353	0.6696		0.911	1.00	-8.9	50.0
1-Methylnaphthalene	Ave	0.6957	0.6193		0.890	1.00	-11.0	50.0
Hexachlorocyclopentadiene	Lin1		0.2494	0.0500	0.946	1.00	-5.4	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4270	0.4385		1.03	1.00	2.7	50.0
2,4,6-Trichlorophenol	Ave	0.2791	0.3028		1.09	1.00	8.5	20.0
2,4,5-Trichlorophenol	Ave	0.3158	0.3209		1.02	1.00	1.6	50.0
1,1'-Biphenyl	Ave	1.451	1.419		0.979	1.00	-2.1	50.0

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: A4AG2 Start Date: 04/21/2014 12:04

Analysis Batch Number: 127269 End Date: 04/21/2014 17:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-127269/1		04/21/2014 12:04	1	0421001.D	RXI-5SILMS 0.45(mm)
STD6 240-127269/2 CCVIS		04/21/2014 12:27	1	0421002.D	RXI-5SILMS 0.45(mm)
ZZZZZ		04/21/2014 12:51	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/21/2014 13:14	1		RXI-5SILMS 0.45(mm)
240-36112-8	MSA-DMW-1B-041014	04/21/2014 13:37	2	0421005.D	RXI-5SILMS 0.45(mm)
240-36112-9	MSA-DMW-1A-041014	04/21/2014 14:00	5	0421006.D	RXI-5SILMS 0.45(mm)
ZZZZZ		04/21/2014 14:23	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/21/2014 14:46	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/21/2014 15:10	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/21/2014 15:33	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/21/2014 16:19	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/21/2014 16:42	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/21/2014 17:05	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/21/2014 17:29	1		RXI-5SILMS 0.45(mm)
ZZZZZ		04/21/2014 17:52	1		RXI-5SILMS 0.45(mm)

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab File ID: 0421001.D DFTPP Injection Date: 04/21/2014

Instrument ID: A4AG2 DFTPP Injection Time: 12:04

Analysis Batch No.: 127269

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	40.2	
68	Less than 2.0% of mass 69	1.0	(1.9)1
69	Mass 69 relative abundance	52.2	
70	Less than 2.0% of mass 69	0.2	(0.4)1
127	25.0 - 75.0% of mass 198	63.3	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	23.0	
365	Greater than 0.75% of mass 198	2.7	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	61.6	
443	15.0 - 24.0% of mass 442	12.1	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-127269/2	0421002.D	04/21/2014	12:27
MSA-DMW-1B-041014	240-36112-8	0421005.D	04/21/2014	13:37
MSA-DMW-1A-041014	240-36112-9	0421006.D	04/21/2014	14:00

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: STD6 240-127269/2 Calibration Date: 04/21/2014 12:27

Instrument ID: A4AG2 Calib Start Date: 04/12/2014 12:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/12/2014 15:22

Lab File ID: 0421002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6148	0.6175		1.00	1.00	0.4	50.0
N-Nitrosodimethylamine	Lin1		0.8200		0.996	1.00	-0.4	50.0
Pyridine	Ave	1.424	1.546		1.09	1.00	8.6	50.0
Benzaldehyde	Qua		0.7851		2.37	2.00	18.6	50.0
Phenol	Ave	1.590	1.797		1.13	1.00	13.0	20.0
Aniline	Ave	1.866	2.081		1.12	1.00	11.5	50.0
Bis(2-chloroethyl)ether	Ave	1.372	1.419		1.03	1.00	3.4	50.0
2-Chlorophenol	Ave	1.356	1.451		1.07	1.00	7.0	50.0
n-Decane	Ave	1.364	1.326		0.972	1.00	-2.8	50.0
1,3-Dichlorobenzene	Ave	1.527	1.514		0.991	1.00	-0.9	50.0
1,4-Dichlorobenzene	Ave	1.535	1.522		0.991	1.00	-0.9	20.0
Benzyl alcohol	Lin		0.7920		0.950	1.00	-5.0	50.0
1,2-Dichlorobenzene	Ave	1.510	1.455		0.964	1.00	-3.6	50.0
2-Methylphenol	Ave	1.201	1.262		1.05	1.00	5.1	50.0
bis (2-chloroisopropyl) ether	Ave	1.376	1.366		0.992	1.00	-0.8	50.0
Indene	Ave	2.447	2.531		2.07	2.00	3.4	50.0
3 & 4 Methylphenol	Ave	1.199	1.345		1.12	1.00	12.2	50.0
N-Nitrosodi-n-propylamine	Ave	0.9749	1.123	0.0500	1.15	1.00	15.2	50.0
Acetophenone	Ave	1.851	1.999		1.08	1.00	8.0	50.0
Hexachloroethane	Ave	0.6220	0.6525		1.05	1.00	4.9	50.0
Nitrobenzene	Ave	0.3820	0.3872		1.01	1.00	1.4	50.0
Isophorone	Ave	0.5989	0.6819		1.14	1.00	13.9	50.0
2-Nitrophenol	Ave	0.1504	0.1771		1.18	1.00	17.8	20.0
2,4-Dimethylphenol	Ave	0.3088	0.3347		1.08	1.00	8.4	50.0
Benzoic acid	Ave	0.1566	0.1574		2.01	2.00	0.5	50.0
Bis(2-chloroethoxy)methane	Ave	0.3933	0.4146		1.05	1.00	5.4	50.0
2,4-Dichlorophenol	Ave	0.2323	0.2541		1.09	1.00	9.4	20.0
1,2,4-Trichlorobenzene	Ave	0.2737	0.2821		1.03	1.00	3.1	50.0
Naphthalene	Ave	1.040	1.031		0.991	1.00	-0.9	50.0
4-Chloroaniline	Qua		0.2947		0.891	1.00	-10.9	50.0
Hexachlorobutadiene	Ave	0.1335	0.1331		0.997	1.00	-0.3	20.0
Caprolactam	Lin1		0.1047		1.94	2.00	-3.2	50.0
4-Chloro-3-methylphenol	Ave	0.3080	0.2779		0.902	1.00	-9.8	20.0
2-Methylnaphthalene	Ave	0.7353	0.6768		0.920	1.00	-8.0	50.0
1-Methylnaphthalene	Ave	0.6957	0.6295		0.905	1.00	-9.5	50.0
Hexachlorocyclopentadiene	Lin1		0.2485	0.0500	0.943	1.00	-5.7	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4270	0.4456		1.04	1.00	4.4	50.0
2,4,6-Trichlorophenol	Ave	0.2791	0.2923		1.05	1.00	4.8	20.0
2,4,5-Trichlorophenol	Ave	0.3158	0.3183		1.01	1.00	0.8	50.0
1,1'-Biphenyl	Ave	1.451	1.430		0.986	1.00	-1.4	50.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab File ID: 0416003.D Lab Sample ID: MB 240-126515/19-A

Matrix: Water Date Extracted: 04/15/2014 10:15

Instrument ID: A4AG2 Date Analyzed: 04/16/2014 07:49

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-126515/20-A	0416004.D	04/16/2014 08:11
MSA-MW-32S-041014	240-36112-1	0416005.D	04/16/2014 08:34
MSA-MW-32I-041014	240-36112-2	0416006.D	04/16/2014 08:57
MSA-MW-48S-041014	240-36112-3	0416007.D	04/16/2014 09:20
MSA-DMW-10S-041014	240-36112-6	0416009.D	04/16/2014 10:06
MSA-MW-49S-041014	240-36112-4	0416023.D	04/16/2014 15:29
MSA-MW-49I-041014	240-36112-5	0416024.D	04/16/2014 15:52

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126515/19-A

Matrix: Water | Lab File ID: 0416003.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 04/15/2014 10:15

Sample wt/vol: 250(mL) | Date Analyzed: 04/16/2014 07:49

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126622 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	70		29-110
367-12-4	2-Fluorophenol (Surr)	60		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	65		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	76		31-110
4165-62-2	Phenol-d5 (Surr)	45		10-110
1718-51-0	Terphenyl-d14 (Surr)	86		31-115

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0416004.D

Lab ID: LCS 240-126515/20-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	40.0	17.3	43	40-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0417019.D

Lab ID: 240-36112-17 MS Client ID: MSA-MW-25I-041114 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	38.5	0.25 U	22.5	58	10-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0417020.D

Lab ID: 240-36112-17 MSD Client ID: MSA-MW-25I-041114 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	40.0	21.3	53	5	30	10-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab File ID: 0417005.D Lab Sample ID: MB 240-126687/19-A

Matrix: Water Date Extracted: 04/16/2014 09:27

Instrument ID: A4AG2 Date Analyzed: 04/17/2014 08:20

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-126687/20-A	0417006.D	04/17/2014 08:43
MSA-MW-37S-041114	240-36112-18	0417017.D	04/17/2014 12:57
MSA-MW-25I-041114	240-36112-17	0417018.D	04/17/2014 13:21
MSA-MW-25I-041114 MS	240-36112-17 MS	0417019.D	04/17/2014 13:44
MSA-MW-25I-041114 MSD	240-36112-17 MSD	0417020.D	04/17/2014 14:07
MSA-MW-25S-041114	240-36112-16	0417021.D	04/17/2014 14:30
MSA-MW-36S-041114	240-36112-15	0417022.D	04/17/2014 14:53
MSA-MW-23D-041114	240-36112-14	0417023.D	04/17/2014 15:16
MSA-MW-23S-041114	240-36112-13	0417024.D	04/17/2014 15:39
MSA-MW-24I-041114	240-36112-12	0417025.D	04/17/2014 16:02
MSA-MW-24S-041114	240-36112-11	0417026.D	04/17/2014 16:26
MSA-MW-6-041014	240-36112-10	0417027.D	04/17/2014 16:49
MSA-DMW-10I-041014	240-36112-7	0417030.D	04/17/2014 17:58
MSA-DMW-1B-041014	240-36112-8	0421005.D	04/21/2014 13:37
MSA-DMW-1A-041014	240-36112-9	0421006.D	04/21/2014 14:00

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36112-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126687/19-A

Matrix: Water | Lab File ID: 0417005.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 08:20

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126796 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	75		29-110
367-12-4	2-Fluorophenol (Surr)	69		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	78		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	79		31-110
4165-62-2	Phenol-d5 (Surr)	54		10-110
1718-51-0	Terphenyl-d14 (Surr)	92		31-115

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0417006.D

Lab ID: LCS 240-126687/20-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	40.0	19.1	48	40-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Sample No.: STD6 240-126265/5 Date Analyzed: 04/12/2014 13:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0412005.D Heated Purge: (Y/N) N

Calibration ID: 21681

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		193016	6.26	759602	7.32	431499	8.80
UPPER LIMIT		386032	6.76	1519204	7.82	862998	9.30
LOWER LIMIT		96508	5.76	379801	6.82	215750	8.30
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-126265/11		178921	6.26	737697	7.32	417148	8.80
STD6 240-126622/2 CCVIS		176907	6.23	708658	7.30	379932	8.78
STD6 240-126796/2 CCVIS		160205	6.25	686481	7.31	370999	8.79
STD6 240-127269/2 CCVIS		217612	6.22	893840	7.29	481201	8.77

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Sample No.: STD6 240-126265/5 Date Analyzed: 04/12/2014 13:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0412005.D Heated Purge: (Y/N) N

Calibration ID: 21681

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		678754	10.06	621504	12.66	526227	14.77
UPPER LIMIT		1357508	10.56	1243008	13.16	1052454	15.27
LOWER LIMIT		339377	9.56	310752	12.16	263114	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-126265/11		637892	10.06	585188	12.66	478244	14.77
STD6 240-126622/2 CCVIS		588914	10.04	542532	12.63	452215	14.73
STD6 240-126796/2 CCVIS		586695	10.06	552824	12.65	447738	14.75
STD6 240-127269/2 CCVIS		735251	10.03	670884	12.61	498034	14.70

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Sample No.: STD6 240-126622/2 Date Analyzed: 04/16/2014 07:26

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0416002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		176907	6.23	708658	7.30	379932	8.78
UPPER LIMIT		353814	6.73	1417316	7.80	759864	9.28
LOWER LIMIT		88454	5.73	354329	6.80	189966	8.28
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-126515/19-A		155669	6.23	645333	7.30	355389	8.77
LCS 240-126515/20-A		153568	6.23	634551	7.30	348902	8.78
240-36112-1	MSA-MW-32S-041014	153112	6.23	644621	7.29	357075	8.77
240-36112-2	MSA-MW-32I-041014	156054	6.23	630121	7.30	347259	8.77
240-36112-3	MSA-MW-48S-041014	156742	6.23	654584	7.30	345701	8.77
240-36112-6	MSA-DMW-10S-041014	148684	6.23	623680	7.30	338986	8.77
240-36112-4	MSA-MW-49S-041014	167427	6.23	680429	7.30	368035	8.77
240-36112-5	MSA-MW-49I-041014	173694	6.23	704419	7.29	379422	8.77

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Sample No.: STD6 240-126622/2 Date Analyzed: 04/16/2014 07:26

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0416002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		588914	10.04	542532	12.63	452215	14.73
UPPER LIMIT		1177828	10.54	1085064	13.13	904430	15.23
LOWER LIMIT		294457	9.54	271266	12.13	226108	14.23
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-126515/19-A		567994	10.04	496262	12.63	431043	14.72
LCS 240-126515/20-A		553155	10.04	519597	12.63	434749	14.72
240-36112-1	MSA-MW-32S-041014	578882	10.04	514160	12.62	418659	14.72
240-36112-2	MSA-MW-32I-041014	576911	10.04	514887	12.63	428133	14.72
240-36112-3	MSA-MW-48S-041014	578175	10.04	505969	12.62	425560	14.72
240-36112-6	MSA-DMW-10S-041014	569685	10.04	499417	12.62	438470	14.72
240-36112-4	MSA-MW-49S-041014	602353	10.04	525639	12.63	445729	14.72
240-36112-5	MSA-MW-49I-041014	628100	10.04	553799	12.62	446655	14.72

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Sample No.: STD6 240-126796/2 Date Analyzed: 04/17/2014 07:11

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0417002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		160205	6.25	686481	7.31	370999	8.79
UPPER LIMIT		320410	6.75	1372962	7.81	741998	9.29
LOWER LIMIT		80103	5.75	343241	6.81	185500	8.29
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-126687/19-A		155426	6.25	652508	7.31	359165	8.79
LCS 240-126687/20-A		159528	6.25	658090	7.31	366387	8.79
240-36112-18	MSA-MW-37S-041114	159193	6.25	674226	7.31	382974	8.79
240-36112-17	MSA-MW-25I-041114	168162	6.25	691779	7.31	385658	8.79
240-36112-17 MS	MSA-MW-25I-041114 MS	157534	6.25	653899	7.31	371172	8.79
240-36112-17 MSD	MSA-MW-25I-041114 MSD	171443	6.25	707960	7.31	397909	8.79
240-36112-16	MSA-MW-25S-041114	189719	6.25	795763	7.31	437561	8.79
240-36112-15	MSA-MW-36S-041114	171353	6.25	713880	7.31	401607	8.79
240-36112-14	MSA-MW-23D-041114	168445	6.25	687942	7.31	377782	8.79
240-36112-13	MSA-MW-23S-041114	170978	6.25	693244	7.31	400806	8.79
240-36112-12	MSA-MW-24I-041114	187456	6.25	766402	7.31	425104	8.79
240-36112-11	MSA-MW-24S-041114	198986	6.25	823061	7.31	462290	8.79
240-36112-10	MSA-MW-6-041014	197709	6.25	827834	7.31	462054	8.79
240-36112-7	MSA-DMW-10I-041014	183311	6.25	753683	7.31	413198	8.79

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Sample No.: STD6 240-126796/2 Date Analyzed: 04/17/2014 07:11

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0417002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		586695	10.06	552824	12.65	447738	14.75
UPPER LIMIT		1173390	10.56	1105648	13.15	895476	15.25
LOWER LIMIT		293348	9.56	276412	12.15	223869	14.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-126687/19-A		613739	10.05	545668	12.64	427286	14.74
LCS 240-126687/20-A		617179	10.05	582275	12.64	470268	14.74
240-36112-18	MSA-MW-37S-041114	678412	10.05	597525	12.64	482119	14.74
240-36112-17	MSA-MW-25I-041114	664475	10.05	601329	12.64	460828	14.74
240-36112-17 MS	MSA-MW-25I-041114 MS	612768	10.05	593382	12.65	459742	14.75
240-36112-17 MSD	MSA-MW-25I-041114 MSD	666883	10.05	635105	12.64	498722	14.74
240-36112-16	MSA-MW-25S-041114	733372	10.05	648886	12.64	503994	14.74
240-36112-15	MSA-MW-36S-041114	693225	10.05	608565	12.64	475510	14.74
240-36112-14	MSA-MW-23D-041114	645654	10.05	564412	12.64	431989	14.74
240-36112-13	MSA-MW-23S-041114	667589	10.05	587550	12.64	469213	14.74
240-36112-12	MSA-MW-24I-041114	709893	10.05	625537	12.64	482619	14.74
240-36112-11	MSA-MW-24S-041114	764478	10.05	679241	12.64	535856	14.74
240-36112-10	MSA-MW-6-041014	772987	10.05	677808	12.64	528595	14.74
240-36112-7	MSA-DMW-10I-041014	684304	10.05	595380	12.64	460347	14.74

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Sample No.: STD6 240-127269/2 Date Analyzed: 04/21/2014 12:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0421002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		217612	6.22	893840	7.29	481201	8.77
UPPER LIMIT		435224	6.72	1787680	7.79	962402	9.27
LOWER LIMIT		108806	5.72	446920	6.79	240601	8.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-36112-8	MSA-DMW-1B-041014	153251	6.22	629855	7.29	344841	8.77
240-36112-9	MSA-DMW-1A-041014	152410	6.22	637851	7.29	343993	8.77

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Sample No.: STD6 240-127269/2 Date Analyzed: 04/21/2014 12:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0421002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		735251	10.03	670884	12.61	498034	14.70
UPPER LIMIT		1470502	10.53	1341768	13.11	996068	15.20
LOWER LIMIT		367626	9.53	335442	12.11	249017	14.20
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-36112-8	MSA-DMW-1B-041014	583865	10.03	507465	12.61	378360	14.70
240-36112-9	MSA-DMW-1A-041014	599351	10.03	503973	12.61	370498	14.70

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126515 Batch Start Date: 04/15/14 10:15 Batch Analyst: Moore, Matthew

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	FirstAdjustpH	InitialAmount	FinalAmount	EXBenzaldehyd 00004	EXBNASPIKE 00012
240-36112-F-1	MSA-MW-32S-041014	3510C, 8270C	T	7 SU	2 SU	250 mL	5 mL		
240-36112-D-2	MSA-MW-32I-041014	3510C, 8270C	T	6 SU	2 SU	250 mL	5 mL		
240-36112-T-3	MSA-MW-48S-041014	3510C, 8270C	T	7 SU	2 SU	240 mL	5 mL		
240-36112-J-4	MSA-MW-49S-041014	3510C, 8270C	T	5 SU	2 SU	250 mL	5 mL		
240-36112-E-5	MSA-MW-49I-041014	3510C, 8270C	T	3 SU	2 SU	230 mL	5 mL		
240-36112-G-6	MSA-DMW-10S-041014	3510C, 8270C	T	7 SU	2 SU	240 mL	5 mL		
MB 240-126515/19		3510C, 8270C		7 SU	2 SU	250 mL	5 mL		
LCS 240-126515/20		3510C, 8270C		7 SU	2 SU	250 mL	5 mL	0.5 mL	0.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXBNASURR W 00009					
240-36112-F-1	MSA-MW-32S-041014	3510C, 8270C	T	0.5 mL					
240-36112-D-2	MSA-MW-32I-041014	3510C, 8270C	T	0.5 mL					
240-36112-T-3	MSA-MW-48S-041014	3510C, 8270C	T	0.5 mL					
240-36112-J-4	MSA-MW-49S-041014	3510C, 8270C	T	0.5 mL					
240-36112-E-5	MSA-MW-49I-041014	3510C, 8270C	T	0.5 mL					
240-36112-G-6	MSA-DMW-10S-041014	3510C, 8270C	T	0.5 mL					
MB 240-126515/19		3510C, 8270C		0.5 mL					
LCS 240-126515/20		3510C, 8270C		0.5 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126515 Batch Start Date: 04/15/14 10:15 Batch Analyst: Moore, Matthew

Batch Method: 3510C Batch End Date:

Batch Notes	
Acid used for pH adjust Lot #	1117334
Na2SO4 Lot Number	963862
Prep Solvent Lot #	1435838

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126687 Batch Start Date: 04/16/14 09:27 Batch Analyst: Click, Kieth

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	FirstAdjustpH	InitialAmount	FinalAmount	EXBenzaldehyd 00004	EXBNASPIKE 00012
240-36112-E-7	MSA-DMW-10I-041014	3510C, 8270C	T	7 SU	2 SU	260 mL	5.0 mL		
240-36112-D-8	MSA-DMW-1B-041014	3510C, 8270C	T	6 SU	2 SU	250 mL	5.0 mL		
240-36112-E-9	MSA-DMW-1A-041014	3510C, 8270C	T	6 SU	2 SU	250 mL	5.0 mL		
240-36112-H-10	MSA-MW-6-041014	3510C, 8270C	T	7 SU	2 SU	250 mL	5.0 mL		
240-36112-I-11	MSA-MW-24S-041114	3510C, 8270C	T	5 SU	2 SU	250 mL	5.0 mL		
240-36112-F-12	MSA-MW-24I-041114	3510C, 8270C	T	5 SU	2 SU	280 mL	5.0 mL		
240-36112-F-13	MSA-MW-23S-041114	3510C, 8270C	T	7 SU	2 SU	250 mL	5.0 mL		
240-36112-E-14	MSA-MW-23D-041114	3510C, 8270C	T	7 SU	2 SU	260 mL	5.0 mL		
240-36112-G-15	MSA-MW-36S-041114	3510C, 8270C	T	7 SU	2 SU	250 mL	5.0 mL		
240-36112-I-16	MSA-MW-25S-041114	3510C, 8270C	T	7 SU	2 SU	250 mL	5.0 mL		
240-36112-M-17	MSA-MW-25I-041114	3510C, 8270C	T	7 SU	2 SU	260 mL	5.0 mL		
240-36112-N-17 MS	MSA-MW-25I-041114	3510C, 8270C	T	7 SU	2 SU	260 mL	5.0 mL	0.5 mL	0.5 mL
240-36112-O-17 MSD	MSA-MW-25I-041114	3510C, 8270C	T	7 SU	2 SU	250 mL	5.0 mL	0.5 mL	0.5 mL
240-36112-I-18	MSA-MW-37S-041114	3510C, 8270C	T	7 SU	2 SU	250 mL	5.0 mL		
MB 240-126687/19		3510C, 8270C		7 SU	2 SU	250 mL	5.0 mL		
LCS 240-126687/20		3510C, 8270C		7 SU	2 SU	250 mL	5.0 mL	0.5 mL	0.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXBNASURR W 00009					
240-36112-E-7	MSA-DMW-10I-041014	3510C, 8270C	T	0.5 mL					
240-36112-D-8	MSA-DMW-1B-041014	3510C, 8270C	T	0.5 mL					
240-36112-E-9	MSA-DMW-1A-041014	3510C, 8270C	T	0.5 mL					
240-36112-H-10	MSA-MW-6-041014	3510C, 8270C	T	0.5 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126687 Batch Start Date: 04/16/14 09:27 Batch Analyst: Click, Kieth

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXBNASURR W 00009					
240-36112-I-11	MSA-MW-24S-041114	3510C, 8270C	T	0.5 mL					
240-36112-F-12	MSA-MW-24I-041114	3510C, 8270C	T	0.5 mL					
240-36112-F-13	MSA-MW-23S-041114	3510C, 8270C	T	0.5 mL					
240-36112-E-14	MSA-MW-23D-041114	3510C, 8270C	T	0.5 mL					
240-36112-G-15	MSA-MW-36S-041114	3510C, 8270C	T	0.5 mL					
240-36112-I-16	MSA-MW-25S-041114	3510C, 8270C	T	0.5 mL					
240-36112-M-17	MSA-MW-25I-041114	3510C, 8270C	T	0.5 mL					
240-36112-N-17 MS	MSA-MW-25I-041114	3510C, 8270C	T	0.5 mL					
240-36112-O-17 MSD	MSA-MW-25I-041114	3510C, 8270C	T	0.5 mL					
240-36112-I-18	MSA-MW-37S-041114	3510C, 8270C	T	0.5 mL					
MB 240-126687/19		3510C, 8270C		0.5 mL					
LCS 240-126687/20		3510C, 8270C		0.5 mL					

Batch Notes	
Na2SO4 Lot Number	963862
Prep Solvent Lot #	1435838

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

SAMPLE ID MSA-DMW-1A-041014

SAMPLE CALC IS AREA	DILUTION	COMPOUND OF INTEREST / IS AMOUNT (NG)	Final Extract Volume (UL)	AVE RRF	CONCENTRATION PPB
152410	5	430642 / 0.4	5000	0.6148	183.84
		Amt. inj	Sample Volume (ML)		
		1	250		

1,4-Dioxane = 180 ug/L

Report Date: 22-Apr-2014 06:15:45 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\A4AG2\20140421-30188.b\0421006.D
Lims ID: 240-36112-E-9-A Lab Sample ID: 240-36112-9
Client ID: MSA-DMW-1A-041014
Sample Type: Client
Inject. Date: 21-Apr-2014 14:00:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 5.0000
Sample Info: 240-0030188-006
Misc. Info.: 240-36112-E-9-A =240-36112-E-9-A
Operator ID: Instrument ID: A4AG2

Method: \\Ncchrom\ChromData\A4AG2\20140421-30188.b\LVI AG2 8270.m
Limit Group: MSS 8270C ICAL
Last Update: 22-Apr-2014 06:15:38 Calib Date: 12-Apr-2014 15:22:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A4AG2\20140412-29946.b\0412010.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: hulat Date: 21-Apr-2014 14:31:50

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.221	6.221	0.000	96	152410	400.0	
* 2 Naphthalene-d8	136	7.285	7.285	0.000	99	637851	400.0	
* 3 Acenaphthene-d10	164	8.767	8.767	0.000	91	343993	400.0	
* 4 Phenanthrene-d10	188	10.029	10.029	0.000	97	599351	400.0	
* 5 Chrysene-d12	240	12.613	12.613	0.000	96	503973	400.0	
* 6 Perylene-d12	264	14.704	14.704	0.000	96	370498	400.0	
$ 7 2-Fluorophenol	112	5.114	5.114	0.000	88	146259	291.1	
$ 8 Phenol-d5	99	5.879	5.884	-0.005	95	151602	257.6	
$ 9 Nitrobenzene-d5	82	6.670	6.676	-0.006	85	206585	340.0	
$ 10 2-Fluorobiphenyl (Surr)	172	8.179	8.179	0.000	99	336829	310.2	
$ 11 2,4,6-Tribromophenol	330	9.430	9.435	-0.005	81	35806	339.2	
$ 12 Terphenyl-d14	244	11.399	11.398	0.001	98	334812	374.9	
26 1,4-Dioxane	88	3.466	3.472	-0.006	89	430642	1838.4	

Method 8015B - GRO

Gasoline Range Organics (GC) by Method 8015B

FORM II

GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1 #
MSA-MW-32S-041014	240-36112-1	78
MSA-MW-48S-041014	240-36112-3	73
MSA-MW-49S-041014	240-36112-4	80
MSA-DMW-10S-041014	240-36112-6	83
MSA-MW-6-041014	240-36112-10	79
MSA-MW-24S-041114	240-36112-11	71
MSA-MW-23S-041114	240-36112-13	80
MSA-MW-36S-041114	240-36112-15	76
MSA-MW-25S-041114	240-36112-16	75
MSA-MW-37S-041114	240-36112-18	76
	MB 240-126994/5	78
	LCS 240-126994/6	84
MSA-MW-32S-041014 MS	240-36112-1 MS	83
MSA-MW-32S-041014 MSD	240-36112-1 MSD	84

	QC LIMITS
TFT = Trifluorotoluene (Surr)	40-133

Column to be used to flag recovery values

FORM II 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: YPID Start Date: 04/01/2014 13:08

Analysis Batch Number: 124780 End Date: 04/01/2014 17:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-124780/4 IC		04/01/2014 13:08	1	YF040104.D	RTX-VRX 0.45(mm)
STD2 240-124780/5 IC		04/01/2014 13:46	1	YF040105.D	RTX-VRX 0.45(mm)
STD3 240-124780/6 IC		04/01/2014 14:25	1	YF040106.D	RTX-VRX 0.45(mm)
STD4 240-124780/7 ICRT		04/01/2014 15:04	1	YF040107.D	RTX-VRX 0.45(mm)
STD5 240-124780/8 IC		04/01/2014 15:43	1	YF040108.D	RTX-VRX 0.45(mm)
STD6 240-124780/9 IC		04/01/2014 16:22	1	YF040109.D	RTX-VRX 0.45(mm)
ICV 240-124780/10		04/01/2014 17:01	1	YF040110.D	RTX-VRX 0.45(mm)

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36112-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Gasoline Range Organics [C6 - C10]	204584 184488	200740 176831	187062	178295	Ave		188666.715				6.1		20.0			
C6-C12	235895 200911	223834 193438	204656	194539	Ave		208878.888				8.2		20.0			
Trifluorotoluene (Surr)	256304 194760	219953 178223	216487	201472	Ave		211199.772				13.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICV 240-124780/10 Calibration Date: 04/01/2014 17:01

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF040110.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	185962		789	800	-1.4	20.0
C6-C12	Ave	208879	209349		802	800	0.2	20.0
Trifluorotoluene (Surr)	Ave	211200	222713		10.5	10.0	5.5	20.0

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: YPID Start Date: 04/18/2014 10:21

Analysis Batch Number: 126994 End Date: 04/19/2014 03:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-126994/4		04/18/2014 10:21	1	YF041804.D	RTX-VRX 0.45(mm)
MB 240-126994/5		04/18/2014 10:59	1	YF041805.D	RTX-VRX 0.45(mm)
LCS 240-126994/6		04/18/2014 11:37	1	YF041806.D	RTX-VRX 0.45(mm)
ZZZZZ		04/18/2014 12:16	1		RTX-VRX 0.45(mm)
ZZZZZ		04/18/2014 12:54	1		RTX-VRX 0.45(mm)
ZZZZZ		04/18/2014 13:33	1		RTX-VRX 0.45(mm)
240-36112-1	MSA-MW-32S-041014	04/18/2014 14:12	1	YF041810.D	RTX-VRX 0.45(mm)
240-36112-1 MS	MSA-MW-32S-041014 MS	04/18/2014 14:50	1	YF041811.D	RTX-VRX 0.45(mm)
240-36112-1 MSD	MSA-MW-32S-041014 MSD	04/18/2014 15:28	1	YF041812.D	RTX-VRX 0.45(mm)
240-36112-3	MSA-MW-48S-041014	04/18/2014 16:07	1	YF041813.D	RTX-VRX 0.45(mm)
CCV 240-126994/14		04/18/2014 16:45	1	YF041814.D	RTX-VRX 0.45(mm)
240-36112-4	MSA-MW-49S-041014	04/18/2014 17:24	1	YF041815.D	RTX-VRX 0.45(mm)
240-36112-6	MSA-DMW-10S-041014	04/18/2014 18:02	1	YF041816.D	RTX-VRX 0.45(mm)
240-36112-10	MSA-MW-6-041014	04/18/2014 18:41	1	YF041817.D	RTX-VRX 0.45(mm)
240-36112-11	MSA-MW-24S-041114	04/18/2014 19:20	1	YF041818.D	RTX-VRX 0.45(mm)
240-36112-13	MSA-MW-23S-041114	04/18/2014 19:58	1	YF041819.D	RTX-VRX 0.45(mm)
240-36112-15	MSA-MW-36S-041114	04/18/2014 20:36	1	YF041820.D	RTX-VRX 0.45(mm)
240-36112-16	MSA-MW-25S-041114	04/18/2014 21:14	1	YF041821.D	RTX-VRX 0.45(mm)
240-36112-18	MSA-MW-37S-041114	04/18/2014 21:53	1	YF041822.D	RTX-VRX 0.45(mm)
ZZZZZ		04/18/2014 22:31	2		RTX-VRX 0.45(mm)
ZZZZZ		04/18/2014 23:09	10		RTX-VRX 0.45(mm)
CCV 240-126994/25		04/18/2014 23:48	1	YF041825.D	RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 00:27	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 01:05	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 01:43	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 02:21	1		RTX-VRX 0.45(mm)
CCV 240-126994/30		04/19/2014 03:00	1		RTX-VRX 0.45(mm)

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCVRT 240-126994/4 Calibration Date: 04/18/2014 10:21

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041804.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	181865		771	800	-3.6	15.0
C6-C12	Ave	208879	206888		792	800	-1.0	15.0
Trifluorotoluene (Surr)	Ave	211200	169414		8.02	10.0	-19.8*	15.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCV 240-126994/14 Calibration Date: 04/18/2014 16:45

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041814.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	178110		755	800	-5.6	15.0
C6-C12	Ave	208879	200825		769	800	-3.9	15.0
Trifluorotoluene (Surr)	Ave	211200	178503		8.45	10.0	-15.5*	15.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCV 240-126994/25 Calibration Date: 04/18/2014 23:48

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041825.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	166964		708	800	-11.5	15.0
C6-C12	Ave	208879	186679		715	800	-10.6	15.0
Trifluorotoluene (Surr)	Ave	211200	175669		8.32	10.0	-16.8*	15.0

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: MB 240-126994/5

Matrix: Water Date Extracted: 04/18/2014 10:59

Lab File ID:(1) YF041805.D Lab File ID:(2)

Date Analyzed:(1) 04/18/2014 10:59 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-126994/6	04/18/2014 11:37	
MSA-MW-32S-041014	240-36112-1	04/18/2014 14:12	
MSA-MW-32S-041014 MS	240-36112-1 MS	04/18/2014 14:50	
MSA-MW-32S-041014 MSD	240-36112-1 MSD	04/18/2014 15:28	
MSA-MW-48S-041014	240-36112-3	04/18/2014 16:07	
MSA-MW-49S-041014	240-36112-4	04/18/2014 17:24	
MSA-DMW-10S-041014	240-36112-6	04/18/2014 18:02	
MSA-MW-6-041014	240-36112-10	04/18/2014 18:41	
MSA-MW-24S-041114	240-36112-11	04/18/2014 19:20	
MSA-MW-23S-041114	240-36112-13	04/18/2014 19:58	
MSA-MW-36S-041114	240-36112-15	04/18/2014 20:36	
MSA-MW-25S-041114	240-36112-16	04/18/2014 21:14	
MSA-MW-37S-041114	240-36112-18	04/18/2014 21:53	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-126994/5

Matrix: Water Lab File ID: YF041805.D

Analysis Method: 8015B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/18/2014 10:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 126994 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	25	U	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	78		40-133

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF041806.D

Lab ID: LCS 240-126994/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	801	100	67-132	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF041811.D

Lab ID: 240-36112-1 MS Client ID: MSA-MW-32S-041014 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	25 U	767	96	63-120	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF041812.D

Lab ID: 240-36112-1 MSD Client ID: MSA-MW-32S-041014 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	758	95	1	11	63-120	

Column to be used to flag recovery and RPD values

FORM III 8015B

Method 8015B - DRO

Diesel Range Organics (DRO) (GC) by Method 8015B

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	OTPH1 #
MSA-MW-32S-041014	240-36112-1	80
MSA-MW-48S-041014	240-36112-3	73
MSA-MW-49S-041014	240-36112-4	83
MSA-DMW-10S-041014	240-36112-6	82
MSA-MW-6-041014	240-36112-10	81
MSA-MW-24S-041114	240-36112-11	81
MSA-MW-23S-041114	240-36112-13	82
MSA-MW-36S-041114	240-36112-15	83
MSA-MW-25S-041114	240-36112-16	77
MSA-MW-37S-041114	240-36112-18	75
	MB 240-126508/13-A	80
	LCS 240-126508/14-A	87

	QC LIMITS
OTPH = o-Terphenyl (Surr)	40-160

Column to be used to flag recovery values

FORM II 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: A2HP14F Start Date: 11/25/2013 18:58

Analysis Batch Number: 111340 End Date: 11/25/2013 22:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-111340/8 IC		11/25/2013 18:58	1	P14F112508.D	RTX-5 0.53(mm)
STD2 240-111340/9 IC		11/25/2013 19:19	1	P14F112509.D	RTX-5 0.53(mm)
STD3 240-111340/10 ICRT		11/25/2013 19:40	1	P14F112510.D	RTX-5 0.53(mm)
STD4 240-111340/11 IC		11/25/2013 20:01	1	P14F112511.D	RTX-5 0.53(mm)
STD5 240-111340/12 IC		11/25/2013 20:22	1	P14F112512.D	RTX-5 0.53(mm)
ICV 240-111340/13		11/25/2013 20:42	1	P14F112513.D	RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:03	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:23	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:44	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 22:05	1		RTX-5 0.53(mm)
CCV 240-111340/18		11/25/2013 22:25	1		RTX-5 0.53(mm)

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36112-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	501990 429809	458731	454837	433618	Ave		455796.921				6.3		20.0			
o-Terphenyl (Surr)	553837 517394	508292	537146	516618	Ave		526657.319				3.5		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICV 240-111340/13 Calibration Date: 11/25/2013 20:42

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F112513.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	413207		90.7	100	-9.3	

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: A2HP14F Start Date: 04/17/2014 15:29

Analysis Batch Number: 126912 End Date: 04/17/2014 23:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-126912/7 CCVRT		04/17/2014 15:29	1	P14F041707.D	RTX-5 0.53(mm)
MB 240-126508/13-A		04/17/2014 15:50	1	P14F041708.D	RTX-5 0.53(mm)
LCS 240-126508/14-A		04/17/2014 16:11	1	P14F041709.D	RTX-5 0.53(mm)
ZZZZZ		04/17/2014 16:31	1		RTX-5 0.53(mm)
CCV 240-126912/11		04/17/2014 16:52	1	P14F041711.D	RTX-5 0.53(mm)
ZZZZZ		04/17/2014 17:13	1		RTX-5 0.53(mm)
240-36112-1	MSA-MW-32S-041014	04/17/2014 17:34	1	P14F041713.D	RTX-5 0.53(mm)
240-36112-3	MSA-MW-48S-041014	04/17/2014 17:54	1	P14F041714.D	RTX-5 0.53(mm)
240-36112-4	MSA-MW-49S-041014	04/17/2014 18:15	1	P14F041715.D	RTX-5 0.53(mm)
240-36112-6	MSA-DMW-10S-041014	04/17/2014 18:36	1	P14F041716.D	RTX-5 0.53(mm)
240-36112-10	MSA-MW-6-041014	04/17/2014 18:57	1	P14F041717.D	RTX-5 0.53(mm)
240-36112-11	MSA-MW-24S-041114	04/17/2014 19:18	1	P14F041718.D	RTX-5 0.53(mm)
240-36112-13	MSA-MW-23S-041114	04/17/2014 19:38	1	P14F041719.D	RTX-5 0.53(mm)
240-36112-15	MSA-MW-36S-041114	04/17/2014 19:59	1	P14F041720.D	RTX-5 0.53(mm)
240-36112-16	MSA-MW-25S-041114	04/17/2014 20:20	1	P14F041721.D	RTX-5 0.53(mm)
CCV 240-126912/22		04/17/2014 20:40	1	P14F041722.D	RTX-5 0.53(mm)
240-36112-18	MSA-MW-37S-041114	04/17/2014 21:01	1	P14F041723.D	RTX-5 0.53(mm)
ZZZZZ		04/17/2014 21:22	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 21:42	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 22:03	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 22:24	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 22:44	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 23:05	1		RTX-5 0.53(mm)
CCV 240-126912/30		04/17/2014 23:26	1	P14F041730.D	RTX-5 0.53(mm)

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCV 240-126912/7 Calibration Date: 04/17/2014 15:29

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F041707.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	462081		101	100	1.4	
o-Terphenyl (Surr)	Ave	526657	502.2		7630	8000	-99.9	

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCV 240-126912/11 Calibration Date: 04/17/2014 16:52

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F041711.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	450654		98.9	100	-1.1	
o-Terphenyl (Surr)	Ave	526657	480.8		7300	8000	-99.9	

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCV 240-126912/22 Calibration Date: 04/17/2014 20:40

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F041722.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	453819		99.6	100	-0.4	
o-Terphenyl (Surr)	Ave	526657	502.9		7640	8000	-99.9	

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCV 240-126912/30 Calibration Date: 04/17/2014 23:26

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F041730.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	494081		108	100	8.4	
o-Terphenyl (Surr)	Ave	526657	520.7		7910	8000	-99.9	

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: MB 240-126508/13-A

Matrix: Water Date Extracted: 04/15/2014 09:58

Lab File ID:(1) P14F041708.D Lab File ID:(2)

Date Analyzed:(1) 04/17/2014 15:50 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-126508/14-A	04/17/2014 16:11	
MSA-MW-32S-041014	240-36112-1	04/17/2014 17:34	
MSA-MW-48S-041014	240-36112-3	04/17/2014 17:54	
MSA-MW-49S-041014	240-36112-4	04/17/2014 18:15	
MSA-DMW-10S-041014	240-36112-6	04/17/2014 18:36	
MSA-MW-6-041014	240-36112-10	04/17/2014 18:57	
MSA-MW-24S-041114	240-36112-11	04/17/2014 19:18	
MSA-MW-23S-041114	240-36112-13	04/17/2014 19:38	
MSA-MW-36S-041114	240-36112-15	04/17/2014 19:59	
MSA-MW-25S-041114	240-36112-16	04/17/2014 20:20	
MSA-MW-37S-041114	240-36112-18	04/17/2014 21:01	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-126508/13-A

Matrix: Water Lab File ID: P14F041708.D

Analysis Method: 8015B Date Collected:

Extraction Method: 3510C Date Extracted: 04/15/2014 09:58

Sample wt/vol: 250(mL) Date Analyzed: 04/17/2014 15:50

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 126912 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	80		40-160

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P14F041709.D

Lab ID: LCS 240-126508/14-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1910	96	40-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126508 Batch Start Date: 04/15/14 09:58 Batch Analyst: Moore, Matthew

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	InitialAmount	FinalAmount	EXDIESELSPKW 00043	EXOTPSURRDIL 00003	
240-36112-H-1	MSA-MW-32S-041014	3510C, 8015B	T	6 SU	250 mL	5 mL		0.2 mL	
240-36112-O-3	MSA-MW-48S-041014	3510C, 8015B	T	7 SU	250 mL	5 mL		0.2 mL	
240-36112-G-4	MSA-MW-49S-041014	3510C, 8015B	T	5 SU	250 mL	5 mL		0.2 mL	
240-36112-H-6	MSA-DMW-10S-041014	3510C, 8015B	T	7 SU	250 mL	5 mL		0.2 mL	
240-36112-F-10	MSA-MW-6-041014	3510C, 8015B	T	6 SU	250 mL	5 mL		0.2 mL	
240-36112-G-11	MSA-MW-24S-041114	3510C, 8015B	T	3 SU	250 mL	5 mL		0.2 mL	
240-36112-G-13	MSA-MW-23S-041114	3510C, 8015B	T	7 SU	250 mL	5 mL		0.2 mL	
240-36112-F-15	MSA-MW-36S-041114	3510C, 8015B	T	3 SU	250 mL	5 mL		0.2 mL	
240-36112-H-16	MSA-MW-25S-041114	3510C, 8015B	T	6 SU	250 mL	5 mL		0.2 mL	
240-36112-F-18	MSA-MW-37S-041114	3510C, 8015B	T	6 SU	250 mL	5 mL		0.2 mL	
MB 240-126508/13		3510C, 8015B		7 SU	250 mL	5 mL		0.2 mL	
LCS 240-126508/14		3510C, 8015B		7 SU	250 mL	5 mL	0.2 mL	0.2 mL	

Batch Notes	
Glass Wool ID	668979
Na2SO4 Lot Number	963868
Prep Solvent Lot #	1435830

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

6850

Perchlorate by LC/MS or LC/MS/MS

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Instrument ID: A5 Start Date: 04/15/2014 23:19

Analysis Batch Number: 40660 End Date: 04/17/2014 01:45

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/15/2014 23:19	1		Anion HR 4.6(mm)
ICB 320-40660/2		04/15/2014 23:41	1	15APR14-Per-004 .d	Anion HR 4.6(mm)
STD01 320-40660/3 IC		04/16/2014 00:02	1	15APR14-Per-005 .d	Anion HR 4.6(mm)
STD02 320-40660/4 IC		04/16/2014 00:24	1	15APR14-Per-006 .d	Anion HR 4.6(mm)
STD03 320-40660/5 IC		04/16/2014 00:45	1	15APR14-Per-007 .d	Anion HR 4.6(mm)
STD04 320-40660/6 ICISAV		04/16/2014 01:06	1	15APR14-Per-008 .d	Anion HR 4.6(mm)
STD05 320-40660/7 IC		04/16/2014 01:28	1	15APR14-Per-009 .d	Anion HR 4.6(mm)
STD06 320-40660/8 IC		04/16/2014 01:49	1	15APR14-Per-010 .d	Anion HR 4.6(mm)
STD07 320-40660/9 IC		04/16/2014 02:11	1	15APR14-Per-011 .d	Anion HR 4.6(mm)
STD08 320-40660/10 IC		04/16/2014 02:32	1	15APR14-Per-012 .d	Anion HR 4.6(mm)
CCB 320-40660/11		04/16/2014 02:53	1		Anion HR 4.6(mm)
ICV 320-40660/12		04/16/2014 03:15	1	15APR14-Per-014 .d	Anion HR 4.6(mm)
CCV 320-40660/89		04/16/2014 03:36	1	15APR14-Per-015 .d	Anion HR 4.6(mm)
CCVL 320-40660/128		04/16/2014 03:57	1	15APR14-Per-016 .d	Anion HR 4.6(mm)
CCB 320-40660/91		04/16/2014 04:19	1		Anion HR 4.6(mm)
CCV 320-40660/130		04/16/2014 14:00	1		Anion HR 4.6(mm)
CCVL 320-40660/131		04/16/2014 14:21	1	16APR14-Per-016 .d	Anion HR 4.6(mm)
CCB 320-40660/129		04/16/2014 14:42	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 15:04	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 15:25	1		Anion HR 4.6(mm)
INF 320-40435/6-A		04/16/2014 15:46	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 16:08	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 16:29	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 16:51	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 17:12	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 17:33	1		Anion HR 4.6(mm)
INF 320-40565/3-A		04/16/2014 17:55	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 18:16	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 18:38	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 18:59	1		Anion HR 4.6(mm)
CCV 320-40660/108		04/16/2014 19:20	1	16APR14-Per-030 .d	Anion HR 4.6(mm)
CCV 320-40660/109		04/16/2014 19:42	1	16APR14-Per-031 .d	Anion HR 4.6(mm)
CCB 320-40660/110		04/16/2014 20:03	1	16APR14-Per-032 .d	Anion HR 4.6(mm)
MB 320-40527/1-A		04/16/2014 20:25	1	16APR14-Per-033 .d	Anion HR 4.6(mm)
LCS 320-40527/2-A		04/16/2014 20:46	1	16APR14-Per-034 .d	Anion HR 4.6(mm)
INF 320-40527/3-A		04/16/2014 21:07	1	16APR14-Per-035 .d	Anion HR 4.6(mm)
ZZZZZ		04/16/2014 21:29	1		Anion HR 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Instrument ID: A5 Start Date: 04/15/2014 23:19

Analysis Batch Number: 40660 End Date: 04/17/2014 01:45

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/16/2014 21:50	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 22:11	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 22:33	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 22:54	1		Anion HR 4.6(mm)
ZZZZZ		04/16/2014 23:16	1		Anion HR 4.6(mm)
240-36112-3	MSA-MW-48S-041014	04/16/2014 23:37	1	16APR14-Per-042.d	Anion HR 4.6(mm)
240-36112-4	MSA-MW-49S-041014	04/16/2014 23:58	1	16APR14-Per-043.d	Anion HR 4.6(mm)
240-36112-5	MSA-MW-49I-041014	04/17/2014 00:20	1	16APR14-Per-044.d	Anion HR 4.6(mm)
240-36112-12	MSA-MW-24I-041114	04/17/2014 00:41	1	16APR14-Per-045.d	Anion HR 4.6(mm)
CCV 320-40660/125		04/17/2014 01:03	1	16APR14-Per-046.d	Anion HR 4.6(mm)
CCVL 320-40660/126		04/17/2014 01:24	1	16APR14-Per-047.d	Anion HR 4.6(mm)
CCB 320-40660/127		04/17/2014 01:45	1	16APR14-Per-048.d	Anion HR 4.6(mm)

6850

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1 Analy Batch No.: 40660

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/16/2014 00:02 Calibration End Date: 04/16/2014 02:32 Calibration ID: 7012

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-40660/3	15APR14-Per-005.d
Level 2	STD02 320-40660/4	15APR14-Per-006.d
Level 3	STD03 320-40660/5	15APR14-Per-007.d
Level 4	STD04 320-40660/6	15APR14-Per-008.d
Level 5	STD05 320-40660/7	15APR14-Per-009.d
Level 6	STD06 320-40660/8	15APR14-Per-010.d
Level 7	STD07 320-40660/9	15APR14-Per-011.d
Level 8	STD08 320-40660/10	15APR14-Per-012.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Perchlorate	0.7498 0.8472	0.7872 0.8832	0.7535 0.9504	0.8234	0.8204	Ave		0.8269				8.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICV 320-40660/12 Calibration Date: 04/16/2014 03:15

Instrument ID: A5 Calib Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/16/2014 02:32

Lab File ID: 15APR14-Per-014.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8269	0.8625		5.22	5.00	4.3	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCV 320-40660/89 Calibration Date: 04/16/2014 03:36

Instrument ID: A5 Calib Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/16/2014 02:32

Lab File ID: 15APR14-Per-015.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8269	0.7988		0.966	1.00	-3.4	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCVL 320-40660/128 Calibration Date: 04/16/2014 03:57

Instrument ID: A5 Calib Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/16/2014 02:32

Lab File ID: 15APR14-Per-016.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8269	0.8200		1.98	2.00	-0.8	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCVL 320-40660/131 Calibration Date: 04/16/2014 14:21

Instrument ID: A5 Calib Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/16/2014 02:32

Lab File ID: 16APR14-Per-016.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8269	0.8347		2.02	2.00	0.9	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCV 320-40660/108 Calibration Date: 04/16/2014 19:20

Instrument ID: A5 Calib Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/16/2014 02:32

Lab File ID: 16APR14-Per-030.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8269	0.8444		1.02	1.00	2.1	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCV 320-40660/109 Calibration Date: 04/16/2014 19:42

Instrument ID: A5 Calib Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/16/2014 02:32

Lab File ID: 16APR14-Per-031.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8269	0.8418		2.04	2.00	1.8	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCV 320-40660/125 Calibration Date: 04/17/2014 01:03

Instrument ID: A5 Calib Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/16/2014 02:32

Lab File ID: 16APR14-Per-046.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8269	0.8173		0.988	1.00	-1.2	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCVL 320-40660/126 Calibration Date: 04/17/2014 01:24

Instrument ID: A5 Calib Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/16/2014 02:32

Lab File ID: 16APR14-Per-047.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8269	0.8350		2.02	2.00	1.0	50.0

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-40660/110

Matrix: Water Lab File ID: 16APR14-Per-032.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/16/2014 20:03

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-40660/127

Matrix: Water Lab File ID: 16APR14-Per-048.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/17/2014 01:45

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Client Sample ID: Lab Sample ID: ICB 320-40660/2

Matrix: Water Lab File ID: 15APR14-Per-004.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/15/2014 23:41

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Client Sample ID: Lab Sample ID: INF 320-40527/3-A

Matrix: Water Lab File ID: 16APR14-Per-035.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 04/15/2014 13:56

Sample wt/vol: 4.00(mL) Date Analyzed: 04/16/2014 21:07

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	5.22		0.50	0.078

FORM III

LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 16APR14-Per-035.d

Lab ID: INF 320-40527/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	5.22	104	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Lab File ID: 16APR14-Per-033.d Lab Sample ID: MB 320-40527/1-A

Matrix: Water Date Extracted: 04/15/2014 13:56

Instrument ID: A5 Date Analyzed: 04/16/2014 20:25

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-40527/2-A	16APR14-Per-034.d	04/16/2014 20:46
MSA-MW-48S-041014	240-36112-3	16APR14-Per-042.d	04/16/2014 23:37
MSA-MW-49S-041014	240-36112-4	16APR14-Per-043.d	04/16/2014 23:58
MSA-MW-49I-041014	240-36112-5	16APR14-Per-044.d	04/17/2014 00:20
MSA-MW-24I-041114	240-36112-12	16APR14-Per-045.d	04/17/2014 00:41

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-40527/1-A

Matrix: Water Lab File ID: 16APR14-Per-033.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 04/15/2014 13:56

Sample wt/vol: 4.00(mL) Date Analyzed: 04/16/2014 20:25

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 40660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 16APR14-Per-034.d

Lab ID: LCS 320-40527/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.16	103	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Instrument ID: A5 Calibration Start Date: 04/16/2014 00:02

GC Column: Anion HR ID: 4.6(mm) Calibration End Date: 04/16/2014 02:32

Calibration ID: 7012

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		717679314	15.07				
UPPER LIMIT		1076518971	16.07				
LOWER LIMIT		358839657	14.07				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 320-40660/12		676475218	15.10				
CCV 320-40660/89		767206178	15.10				
CCVL 320-40660/128		608507727	15.11				
CCVL 320-40660/131		502500983	15.16				
CCV 320-40660/108		467220810	15.11				
CCV 320-40660/109		665152243	15.13				
CCB 320-40660/110		624503303	15.17				
MB 320-40527/1-A		502326569	15.16				
LCS 320-40527/2-A		573550371	15.17				
INF 320-40527/3-A		486874437	15.06				
240-36112-3	MSA-MW-48S-041014	717745642	14.94				
240-36112-4	MSA-MW-49S-041014	659838946	14.88				
240-36112-5	MSA-MW-49I-041014	614017565	14.86				
240-36112-12	MSA-MW-24I-041114	545117702	14.90				
CCV 320-40660/125		508126674	14.95				
CCVL 320-40660/126		558552099	14.99				
CCB 320-40660/127		507593261	15.06				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36112-1

SDG No.:

Batch Number: 40527 Batch Start Date: 04/15/14 13:56 Batch Analyst: Arauz, Horacio

Batch Method: Filtration Batch End Date: 04/15/14 14:42

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LC6850IS 00024	LC6850SP 00016		
MB 320-40527/1		Filtration, 6850		4.00 mL	4.00 mL	40 uL			
LCS 320-40527/2		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
INF 320-40527/3		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
240-36112-M-3	MSA-MW-48S-041014	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-36112-F-4	MSA-MW-49S-041014	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-36112-D-5	MSA-MW-49I-041014	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-36112-D-12	MSA-MW-24I-041114	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			

Batch Notes	
Batch Comment	INF 4515-055D; Ba/Ag/H Cartridge 140108; H20 millipore dispens.4-08-14
Filter Lot #	.45um Millipore R4AA24407; .20um Millex R3BA65503

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method RSK-175

Dissolved Gases (GC) by Method RSK_175

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): ID:

Client Sample ID	Lab Sample ID	TFE1 #
MSA-MW-48S-041014	240-36112-3	104
	MB 240-127618/4	110
	LCS 240-127618/5	108

	QC LIMITS
TFE = 1,1,1-Trifluoroethane	66-132

Column to be used to flag recovery values

FORM II RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: ZPID Start Date: 03/17/2014 16:56

Analysis Batch Number: 122842 End Date: 03/17/2014 18:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-122842/3 IC		03/17/2014 16:56	1	Z0031703.D	
STD2 240-122842/4 IC		03/17/2014 17:08	1	Z0031704.D	
STD3 240-122842/5 IC		03/17/2014 17:21	1	Z0031705.D	
STD4 240-122842/6 IC		03/17/2014 17:33	1	Z0031706.D	
STD5 240-122842/7 IC		03/17/2014 17:45	1	Z0031707.D	
STD6 240-122842/8 ICRT		03/17/2014 17:57	1	Z0031708.D	
STD7 240-122842/9 IC		03/17/2014 18:09	1	Z0031709.D	
STD8 240-122842/10 IC		03/17/2014 18:22	1	Z0031710.D	
STD9 240-122842/11 IC		03/17/2014 18:34	1	Z0031711.D	
ICV 240-122842/12		03/17/2014 18:46	1	Z0031712.D	

RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: ZPID Start Date: 04/23/2014 15:42

Analysis Batch Number: 127618 End Date: 04/23/2014 16:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-127618/3		04/23/2014 15:42	1	Z0042303.D	
MB 240-127618/4		04/23/2014 15:54	1	Z0042304.D	
LCS 240-127618/5		04/23/2014 16:07	1	Z0042305.D	
240-36112-3	MSA-MW-48S-041014	04/23/2014 16:19	1	Z0042306.D	
CCV 240-127618/7		04/23/2014 16:31	1	Z0042307.D	

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36112-1 Analy Batch No.: 122842

SDG No.:

Instrument ID: ZPID GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/17/2014 16:56 Calibration End Date: 03/17/2014 18:34 Calibration ID: 21168

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-122842/3	Z0031703.D
Level 2	STD2 240-122842/4	Z0031704.D
Level 3	STD3 240-122842/5	Z0031705.D
Level 4	STD4 240-122842/6	Z0031706.D
Level 5	STD5 240-122842/7	Z0031707.D
Level 6	STD6 240-122842/8	Z0031708.D
Level 7	STD8 240-122842/10	Z0031710.D
Level 8	STD7 240-122842/9	Z0031709.D
Level 9	STD9 240-122842/11	Z0031711.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Methane	140266 94273 95615	119991 96410	97680 76535	94339 90154	Ave		100584.625				18.0		30.0			
Ethene	74343 86774 85235	93331 89047	86325 76130	85914 82605	Ave		84411.4212				7.1		30.0			
Acetylene	14277 25400 27066	18994 25975	17915 25275	18719 24776	Ave		22044.2149				21.0		30.0			
Ethane	80140 95545 96236	101495 99453	95171 86844	95069 92052	Ave		93556.1842				7.0		30.0			
Propene	71790 84470 83091	92092 87426	83287 77980	83697 80870	Ave		82744.8531				6.9		30.0			
Propane	82094 98646 100490	103594 104028	97118 94621	97735 96241	Ave		97173.9876				6.7		30.0			
Propane, 2-methyl	92340 101656 103910	102100 107783	100758 99843	102648 99492	Ave		101169.978				4.1		30.0			
1,1,1-Trifluoroethane	45999 37705	41372 37435	38181	36615 34143	Ave		38778.5929				9.9		30.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICV 240-122842/12 Calibration Date: 03/17/2014 18:46

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0031712.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	100585	105613		122	116	5.0	30.0
Ethene	Ave	84411	92995		224	203	10.2	30.0
Acetylene	Ave	22044	27897		238	188	26.6	30.0
Ethane	Ave	93556	104041		242	218	11.2	30.0
Propene	Ave	82745	87571		322	305	5.8	30.0
Propane	Ave	97174	105992		347	318	9.1	30.0
Propane, 2-methyl	Ave	101170	105716		439	420	4.5	30.0
1,1,1-Trifluoroethane	Ave	38779	39189		2460	2440	1.1	30.0

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCVRT 240-127618/3 Calibration Date: 04/23/2014 15:42

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0042303.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	100585	101713		117	116	1.1	30.0
Ethene	Ave	84411	97255		234	203	15.2	30.0
Acetylene	Ave	22044	28226		241	188	28.0	30.0
Ethane	Ave	93556	106608		248	218	14.0	30.0
Propene	Ave	82745	95923		353	305	15.9	30.0
Propane	Ave	97174	112102		368	319	15.4	30.0
Propane, 2-methyl	Ave	101170	116605		484	420	15.3	30.0
1,1,1-Trifluoroethane	Ave	38779	42502		2670	2440	9.6	30.0

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: CCV 240-127618/7 Calibration Date: 04/23/2014 16:31

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0042307.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	100585	102650		118	116	2.1	30.0
Ethene	Ave	84411	96338		232	203	14.1	30.0
Acetylene	Ave	22044	28236		241	188	28.1	30.0
Ethane	Ave	93556	107432		250	218	14.8	30.0
Propene	Ave	82745	94939		349	305	14.7	30.0
Propane	Ave	97174	113281		372	319	16.6	30.0
Propane, 2-methyl	Ave	101170	118131		491	420	16.8	30.0
1,1,1-Trifluoroethane	Ave	38779	40649		2550	2440	4.8	30.0

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: MB 240-127618/4

Matrix: Water Date Extracted:

Lab File ID:(1) Z0042304.D Lab File ID:(2)

Date Analyzed:(1) 04/23/2014 15:54 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) ID: GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-127618/5	04/23/2014 16:07	
MSA-MW-48S-041014	240-36112-3	04/23/2014 16:19	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-127618/4

Matrix: Water Lab File ID: Z0042304.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 17(mL) Date Analyzed: 04/23/2014 15:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ID:

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127618 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.070	U	0.10	0.070
74-84-0	Ethane	0.19	U	0.26	0.19
74-85-1	Ethene	0.18	U	0.31	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	110		66-132

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z0042305.D

Lab ID: LCS 240-127618/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methane	116	125	108	76-120	
Ethane	218	244	112	80-120	
Ethene	203	234	115	81-120	

Column to be used to flag recovery and RPD values

FORM III RSK-175

Tetra Tech **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE:** **MAY 29, 2014**

FROM: **EDWARD SEDLMYER** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – TOTAL AND DISSOLVED METALS / MISCELLANEOUS**
MARTIN STATE AIRPORT (MSA) SURFACE WATER
SDG 240-36112-1

SAMPLES: 18 / Aqueous / Total and Dissolved Metals / MISC.

MSA-DMW-10I-041014	MSA-DMW-10S-041014	MSA-DMW-1A-041014
MSA-DMW-1B-041014	MSA-MW-23D-041114	MSA-MW-23S-041114
MSA-MW-24I-041114	MSA-MW-24S-041114	MSA-MW-25I-041114
MSA-MW-25S-041114	MSA-MW-32I-041014	MSA-MW-32S-041014
MSA-MW-36S-041114	MSA-MW-37S-041114	MSA-MW-48S-041014
MSA-MW-49I-041014	MSA-MW-49S-041014	MSA-MW-6-041014

Overview

The sample set for Lockheed – MSA Surface Water, SDG 240-36112-1 consists of eighteen (18) aqueous environmental samples. All samples were analyzed for total and dissolved metals. In addition, sample MSA-MW-48S-041014 was analyzed for natural attenuation parameters including dissolved organic carbon, hardness, total dissolved solids, anions, alkalinity, and ammonia.

The samples were collected by Tetra Tech on April 10 and 11, 2014 and analyzed by Test America (North Canton). All analyses were conducted in accordance with SW-846 Methods 6010C, 6020A, 7470A, 9060, E.P.A. Standard method 2340B, E.P.A. methods 300.0, 310.1, 350.3, and 160.1 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, ICP/MS tuning, initial/continuing calibrations, laboratory method blank results, matrix spike/matrix spike duplicate results, blank spike/blank spike duplicate results, internal standard recoveries, ICP interference results, laboratory duplicate results, ICP serial dilution results, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

- None

Minor

- The following contaminants were detected in the preparation or calibration blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Calcium[1]	223 ug/L	1115 ug/L
Magnesium[1]	70.6 ug/L	353 ug/L
Arsenic[2]	0.673 ug/L	3.365 ug/L
Barium[2]	1.10 ug/L	5.5 ug/L
Copper[2]	0.555 ug/L	2.775 ug/L
Vanadium[2]	1.52 ug/L	7.6 ug/L
Antimony[3]	0.226 ug/L	1.13 ug/L
Arsenic[3]	0.336 ug/L	1.68 ug/L
Barium[3]	1.36 ug/L	6.8 ug/L
Chromium[3]	0.333 ug/L	1.665 ug/L
Copper[3]	1.01 ug/L	5.05 ug/L
Iron[3]	37.8 ug/L	189 ug/L
Nickel[3]	0.217 ug/L	1.085 ug/L
Manganese[3]	0.684 ug/L	3.42 ug/L
Vanadium[3]	0.752 ug/L	3.76 ug/L
Potassium[4]	251 ug/L	1255 ug/L
Antimony[5]	0.656 ug/L	3.28 ug/L
Beryllium[5]	0.277 ug/L	1.385 ug/L
Cobalt[5]	0.02 ug/L	0.1 ug/L
Lead[5]	0.192 ug/L	0.96 ug/L
Silver[5]	0.017 ug/L	0.085 ug/L
Antimony[6]	0.472 ug/L	2.36 ug/L
Beryllium[6]	0.0540 ug/L	0.27 ug/L
Cobalt[6]	0.024 ug/L	0.12 ug/L
Lead[6]	0.226 ug/L	1.13 ug/L
Silver[6]	0.014 ug/L	0.07 ug/L

(1) - Maximum concentration found in preparation blank (MB 240-126489/1-A) affecting total sample MSA-MW-48S-041014 6010C analysis only.

(2) - Maximum concentration found in preparation blank (MB 240-126664/1-A) affecting total and dissolved samples MSA-MW-32S-041014, MSA-MW-32I-041014, MSA-MW-48S-041014, MSA-MW-49S-041014, MSA-MW-49I-041014, MSA-DMW-10I-041014, MSA-DMW-10S-041014, MSA-DMW-1A-041014, MSA-DMW-1B-041014, and MSA-MW-6-041014.

(3) - Maximum concentration found in preparation blank (MB 240-126840/1-A) affecting total and dissolved samples MSA-MW-25I-041114, MSA-MW-25S-041114, MSA-MW-24I-041114, MSA-MW-24S-041114, MSA-MW-23D-041114, MSA-MW-23S-041114, MSA-MW-36S-041114, and MSA-MW-37S-041114.

(4) – Maximum concentration found in calibration blank (CCB240-126815/55 04/16/14 @ 11:07) affecting total sample MSA-MW-48S-041014 6010C analysis only.

(5) - Maximum concentration found in calibration blank (CCB240-126899/96 04/17/14 @ 16:40) affecting total and dissolved samples MSA-MW-32S-041014, MSA-MW-32I-041014, MSA-MW-48S-041014, MSA-MW-49S-041014, MSA-MW-49I-041014, MSA-DMW-10I-041014, MSA-DMW-10S-041014, MSA-DMW-1A-041014, MSA-DMW-1B-041014, and MSA-MW-6-041014.

(6) - Maximum concentration found in calibration blank (CCB240-127186/58 04/18/14 @ 17:41) affecting total and dissolved samples MSA-MW-25I-041114, MSA-MW-25S-041114, MSA-MW-24I-041114, MSA-MW-24S-

041114, MSA-MW-23D-041114, MSA-MW-23S-041114, MSA-MW-36S-041114, and MSA-MW-37S-041114..

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. No action was taken on this basis because all results were greater than the action level.

- The internal standard recoveries for scandium and holmium were outside the 60-125% quality control limit for the total and dissolved sample MSA-MW-24S-041114. The total and dissolved sample MSA-MW-24S-041114 was reanalyzed at a five-fold dilution. The scandium and holmium internal standard recoveries were within acceptance limits. No action was required.

- The internal standard recoveries for scandium was outside the 60-125% quality control limit for the total sample MSA-MW-49I-041014 analyzed on 4/17/14 @ 16:52. Associated results for arsenic, chromium, cobalt, copper, iron, manganese, nickel, and selenium were qualified as estimated, (J). Terbium and holium were also recovered above the 125% quality control limit on 4/18/14 @16:05 for the aforementioned sample but the sample was re-analyzed at a five fold dilution with compliant recoveries. No action was required.

- The interfering analyte iron was present in the total and dissolved samples MSA-MW-6-041014 and MSA-MW-24S-041114 at concentrations comparable to the concentration of iron in the interference check sample (ICS) solution. Several analytes namely, antimony, arsenic, cadmium, chromium, manganese, nickel, and silver were present in the ICS solution at a concentration that exceeded the absolute value of the instrument detection limit (IDL). Interference effects exist for chromium in total and dissolved samples MSA-MW-6-041014 and MSA-MW-24S-041114. The detected results reported for chromium in total and dissolved samples MSA-MW-6-041014 and MSA-MW-24S-041114 were qualified as estimated (J).

- The nitrite, nitrate, and orthophosphate samples were analyzed 29 minutes outside the 48 hour hold time. The nondetected nitrite, nitrate, and orthophosphate results for sample MSA-MW-48S-041014 were qualified as estimated (UJ).

- A continuing calibration verification (CCV) exceeded the 90-100% quality control limit for orthophosphate. The nondetected orthophosphate result for sample MSA-MW-48S-041014 was qualified as estimated (UJ).

- The matrix spike / matrix spike duplicate (MS/MS) performed on sample MSA-MW-48S-041014 had percent recoveries greater than the 80-120% quality control limits for nitrite, nitrate, orthophosphate, and chloride. No action was taken on the nondetected nitrite, nitrate, and orthophosphate results. The detected chloride result for sample MSA-MW-48S-041014 was qualified as estimated (J).

- Positive results less than the reporting limit (RL) were qualified as estimated, (J), due to uncertainty near the detection limit.

Notes

The total and dissolved samples MSA-MW-24S-041114 and MSA-MW-49I-041014 were diluted due to sample matrix interference for several metals. This accounts for the elevated detection limit for the nondetected metals.

The dissolved sample MSA-MW-49I-041014 contained the internal standards terbium and holium above 125%. The sample was re-analyzed at a five fold dilution and the recoveries were compliant. Nno action was required.

The total sample MSA-MW-48S-041014 was analyzed at a ten-fold dilution due to a sulfate concentration

that exceeded the linear calibration range of the instrument.

Executive Summary

Laboratory Performance: Blank contamination resulted in the qualification of metals data. Hold time noncompliance resulted in the qualification of several anions. A CCV percent recovery noncompliance resulted in the qualification of orthophosphate result.

Other Factors Affecting Data Quality: Internal standard recovery noncompliances resulted in the qualification of several metals. The interfering analyte iron was present is several samples resulting in qualification of the results. An MS/MSD percent recovery noncompliance resulted in qualification of chloride result. Positive results less than the reporting limit (RL) were qualified as estimated, due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to USEPA National Functional Guidelines for Inorganic Data Validation (January 2010). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Edward Sedlmyer
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 06183	NSAMPLE	MSA-DMW-10I-041014			MSA-DMW-10S-041014			MSA-DMW-1A-041014			MSA-DMW-1B-041014		
SDG: 240-36112-1	LAB_ID	240-36112-7			240-36112-6			240-36112-9			240-36112-8		
FRACTION: M	SAMP_DATE	4/10/2014			4/10/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.53	U	A	0.23	U	A	0.11	U		0.27	U	A
ARSENIC		4.1	J	P	18			3.9	J	P	26		
BARIUM		18			22			13			18		
BERYLLIUM		0.17	U	A	0.2	U	A	0.66	U	A	0.37	U	A
CADMIUM		0.12	J	P	0.026	U		1400			280		
CALCIUM													
CHROMIUM		3.5			2.8			120			43		
COBALT		1.2			3.2			56			28		
COPPER		3.9			1.1	U	A	12			19		
IRON		1300			46000			9300			36000		
LEAD		1.8			0.37	U	A	0.68	U	A	2.3		
MAGNESIUM													
MANGANESE		23			1300			2300			3000		
MERCURY		0.14	J	P	0.12	U		0.12	U		0.53		
MOLYBDENUM		1.4	J	P	0.81	U		0.81	U		0.81	U	
NICKEL		2.4			0.87	J	P	180			50		
POTASSIUM													
SELENIUM		0.41	J	P	0.57	J	P	4	J	P	2.2	J	P
SILICON DIOXIDE													
SILVER		0.076	U	A	0.0083	U		0.009	U	A	0.009	U	A
SODIUM													
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		11			2.2	U	A	1.1	U	A	7.1	U	A

PROJ_NO: 06183	NSAMPLE	MSA-MW-23D-041114			MSA-MW-23S-041114			MSA-MW-24I-041114			MSA-MW-24S-041114		
SDG: 240-36112-1	LAB_ID	240-36112-14			240-36112-13			240-36112-12			240-36112-11		
FRACTION: M	SAMP_DATE	4/11/2014			4/11/2014			4/11/2014			4/11/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.55	U	A	0.54	U	A	0.22	U	A	0.63	U	A
ARSENIC		1.7	J	P	6			1	J	P	29		
BARIUM		35			96			14			15		
BERYLLIUM		0.47	J	P	0.056	U	A	0.79	J	P	6.9		
CADMIUM		0.78	J	P	1.8			0.15	J	P	5		
CALCIUM													
CHROMIUM		2.5			2.3			3.8			14	J	K
COBALT		16			8			14			410		
COPPER		18			2.9	U	A	13			290		
IRON		5300			15000			2800			160000		
LEAD		2			0.9	U	A	0.92	U	A	1.1	U	A
MAGNESIUM													
MANGANESE		210			850			280			4600		
MERCURY		0.26			0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		1.5	J	P	0.81	U		0.81	U	
NICKEL		16			6.7			5.5			550		
POTASSIUM													
SELENIUM		0.77	J	P	0.34	U		1.3	J	P	84		
SILICON DIOXIDE													
SILVER		0.053	U	A	0.031	U	A	0.021	U	A	0.029	U	A
SODIUM													
THALLIUM		0.4	U		0.4	U		0.4	U		2	U	
VANADIUM		2.2	U	A	1.9	U	A	2.5	U	A	130		

PROJ_NO: 06183	NSAMPLE	MSA-MW-25I-041114			MSA-MW-25S-041114			MSA-MW-32I-041014			MSA-MW-32S-041014		
SDG: 240-36112-1	LAB_ID	240-36112-17			240-36112-16			240-36112-2			240-36112-1		
FRACTION: M	SAMP_DATE	4/11/2014			4/11/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.84	U	A	0.56	U	A	1	U	A	0.54	U	A
ARSENIC		7.7			2.6	J	P	1.7	U	A	4.6	J	P
BARIUM		26			45			30			43		
BERYLLIUM		0.086	U	A	0.039	U	A	0.81	U	A	0.32	J	P
CADMIUM		0.13	J	P	0.095	J	P	1.4			0.38	J	P
CALCIUM													
CHROMIUM		1.3	U	A	1.5	U	A	2.7			3.2		
COBALT		2.9			0.8	J	P	13			34		
COPPER		4	U	A	6.5			5.2			5.5		
IRON		1700			370			2500			7400		
LEAD		0.41	U	A	0.54	U	A	2.3			1.7		
MAGNESIUM													
MANGANESE		38			18			680			1400		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.6	J	P	1.2	J	P	0.81	U		0.81	U	
NICKEL		5.2			7.8			17			18		
POTASSIUM													
SELENIUM		0.34	U		0.34	J	P	0.74	J	P	0.53	J	P
SILICON DIOXIDE													
SILVER		0.02	U	A	0.046	U	A	0.068	U	A	0.11	J	P
SODIUM													
THALLIUM		0.4	U		0.4	U		0.4	J	P	0.4	U	
VANADIUM		2.2	U	A	2.6	U	A	3.1	U	A	4.7	U	A

7-24-14
JAS

PROJ_NO: 06183	NSAMPLE	MSA-MW-36S-041114			MSA-MW-37S-041114			MSA-MW-48S-041014			MSA-MW-49I-041014		
SDG: 240-36112-1	LAB_ID	240-36112-15			240-36112-18			240-36112-3			240-36112-5		
FRACTION: M	SAMP_DATE	4/11/2014			4/11/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.11	U		0.28	U	A	0.74	U	A	0.21	U	A
ARSENIC		1.8	J	P	0.85	U	A	4	J	P	12	J	N
BARIUM		25			36			40			12		
BERYLLIUM		0.68	J	P	0.04	U	A	0.31	U	A	9.1		
CADMIUM		0.026	U		0.04	J	P	0.3	J	P	32		
CALCIUM								340000					
CHROMIUM		0.26	U	A	0.17	U	A	1.5	J	P	4	J	N
COBALT		120			10			1.5			97	J	N
COPPER		0.24	U		0.75	U	A	2.2	U	A	110	J	N
IRON		2100			510			3100			27000	J	N
LEAD		0.14	U		0.14	U		0.79	U	A	2.1	J	P
MAGNESIUM								47000					
MANGANESE		14			1300			100			5200	J	N
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		0.81	U		2.3	J	P	0.87	J	P
NICKEL		170			1.2	J	P	3.6			57	J	N
POTASSIUM								15000					
SELENIUM		0.34	U		0.47	J	P	0.81	J	P	32	J	N
SILICON DIOXIDE								27000					
SILVER		0.0083	U		0.0083	U		0.043	U	A	0.017	U	A
SODIUM								27000					
THALLIUM		0.4	U		0.4	U		0.4	U		2	U	
VANADIUM		1.6	U	A	3.2	U	A	2.9	U	A	4.5	U	A

PROJ_NO: 06183	NSAMPLE	MSA-MW-49S-041014			MSA-MW-6-041014		
SDG: 240-36112-1	LAB_ID	240-36112-4			240-36112-10		
FRACTION: M	SAMP_DATE	4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.23	U	A	0.15	U	A
ARSENIC		2.8	U	A	2.9	U	A
BARIUM		32			9.6		
BERYLLIUM		3.1			1.3	U	A
CADMIUM		12			1.9		
CALCIUM							
CHROMIUM		1.7	J	P	0.91	J	KP
COBALT		100			46		
COPPER		13			3.5		
IRON		9100			70000		
LEAD		1.4			0.82	U	A
MAGNESIUM							
MANGANESE		3700			8200		
MERCURY		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		0.81	U	
NICKEL		41			32		
POTASSIUM							
SELENIUM		3.6	J	P	2.2	J	P
SILICON DIOXIDE							
SILVER		0.011	U	A	0.0083	U	
SODIUM							
THALLIUM		0.4	U		0.4	U	
VANADIUM		1.2	U	A	10		

PROJ_NO: 06183	NSAMPLE	MSA-DMW-10I-041014			MSA-DMW-10S-041014			MSA-DMW-1A-041014			MSA-DMW-1B-041014		
SDG: 240-36112-1	LAB_ID	240-36112-7			240-36112-6			240-36112-9			240-36112-8		
FRACTION: MF	SAMP_DATE	4/10/2014			4/10/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.44	U	A	0.18	U	A	0.11	U		0.13	U	A
ARSENIC		4.3	J	P	18			3.8	J	P	8.5		
BARIUM		16			21			13			16		
BERYLLIUM		0.075	U	A	0.092	U	A	0.63	U	A	0.2	U	A
CADMIUM		0.026	U		0.026	U		1300			280		
CHROMIUM		1.8	J	P	0.97	J	P	96			7.5		
COBALT		1.1			3.3			56			29		
COPPER		1.7	U	A	0.46	U	A	18			15		
IRON		1000			48000			9900			28000		
LEAD		0.39	U	A	0.14	U		0.77	U	A	0.84	U	A
MANGANESE		22			1300			2300			3300		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.4	J	P	0.81	U		0.81	U		0.81	U	
NICKEL		2.5			2.6			180			53		
SELENIUM		0.41	J	P	0.47	J	P	4.3	J	P	1.5	J	P
SILVER		0.018	U	A	0.0083	U		0.0083	U		0.0083	U	
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		10			0.92	U	A	0.83	U	A	0.7	U	A

PROJ_NO: 06183	NSAMPLE	MSA-MW-23D-041114			MSA-MW-23S-041114			MSA-MW-24I-041114			MSA-MW-24S-041114		
SDG: 240-36112-1	LAB_ID	240-36112-14			240-36112-13			240-36112-12			240-36112-11		
FRACTION: MF	SAMP_DATE	4/11/2014			4/11/2014			4/11/2014			4/11/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.41	U	A	0.38	U	A	0.11	U		0.11	U	
ARSENIC		1.6	U	A	6.1			0.8	U	A	29		
BARIUM		31			99			12			15		
BERYLLIUM		0.33	J	P	0.031	U		0.78	J	P	6.6		
CADMIUM		0.68	J	P	0.7	J	P	0.15	J	P	5.2		
CHROMIUM		0.86	U	A	1.8	J	P	1.1	U	A	13	J	K
COBALT		15			8.1			14			410		
COPPER		6.3			1.9	U	A	8.7			290		
IRON		5000			16000			1100			160000		
LEAD		0.28	U	A	0.28	U	A	0.32	U	A	0.7	U	
MANGANESE		200			880			270			4700		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		1.5	J	P	0.81	U		0.81	U	
NICKEL		15			7.4			6.1			560		
SELENIUM		0.42	J	P	0.34	U		0.96	J	P	86		
SILVER		0.0083	U		0.0083	U		0.0083	U		0.012	U	A
THALLIUM		0.4	U		0.4	U		0.4	U		2	U	
VANADIUM		1	U	A	1.4	U	A	1	U	A	120		

PROJ_NO: 06183	NSAMPLE	MSA-MW-25I-041114			MSA-MW-25S-041114			MSA-MW-32I-041014			MSA-MW-32S-041014		
SDG: 240-36112-1	LAB_ID	240-36112-17			240-36112-16			240-36112-2			240-36112-1		
FRACTION: MF	SAMP_DATE	4/11/2014			4/11/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.74	U	A	0.6	U	A	0.35	U	A	0.27	U	A
ARSENIC		8			2.4	J	P	0.86	U	A	4.4	J	P
BARIUM		25			45			28			41		
BERYLLIUM		0.15	U	A	0.031	U		0.27	U	A	0.21	U	A
CADMIUM		0.14	J	P	0.092	J	P	0.93	J	P	0.13	J	P
CHROMIUM		0.9	U	A	0.92	U	A	1.1	J	P	1.5	J	P
COBALT		3.1			0.71	J	P	12			34		
COPPER		4.1	U	A	7.4			3.3			1.7	U	A
IRON		1400			95	U	A	450			5200		
LEAD		0.53	U	A	0.14	U		0.26	U	A	0.19	U	A
MANGANESE		37			18			690			1500		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.6	J	P	1.2	J	P	0.81	U		0.81	U	
NICKEL		7.2			7.6			16			18		
SELENIUM		0.43	J	P	0.34	U		0.34	U		0.39	J	P
SILVER		0.019	U	A	0.017	U	A	0.0083	U		0.017	U	A
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		1.8	U	A	1.7	U	A	1.2	U	A	2	U	A

7-24-14
JAS

PROJ_NO: 06183	NSAMPLE	MSA-MW-36S-041114			MSA-MW-37S-041114			MSA-MW-48S-041014			MSA-MW-49I-041014		
SDG: 240-36112-1	LAB_ID	240-36112-15			240-36112-18			240-36112-3			240-36112-5		
FRACTION: MF	SAMP_DATE	4/11/2014			4/11/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.11	U		0.17	U	A	0.58	U	A	0.15	U	A
ARSENIC		1.4	U	A	0.8	U	A	3.9	J	P	12		
BARIUM		25			36			39			12		
BERYLLIUM		0.68	J	P	0.031	U		0.091	U	A	13		
CADMIUM		0.026	U		0.045	J	P	0.066	J	P	33		
CHROMIUM		0.26	U	A	0.13	U		1.3	J	P	3.2		
COBALT		120			10			1.5			100		
COPPER		1.3	U	A	4.9	U	A	0.79	U	A	110		
IRON		2100			300			3400			26000		
LEAD		0.14	U		0.14	U		0.24	U	A	1.4	J	P
MANGANESE		14			1300			110			5300		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		0.81	U		2.2	J	P	0.81	U	
NICKEL		170			1.5	J	P	4			59		
SELENIUM		0.34	U		0.34	U		0.51	J	P	33		
SILVER		0.0083	U		0.0083	U		0.015	U	A	0.0083	U	
THALLIUM		0.4	U		0.4	U		0.4	U		2	U	
VANADIUM		1.1	U	A	2.2	U	A	2.5	U	A	3.6	U	A

PROJ_NO: 06183	NSAMPLE	MSA-MW-49S-041014			MSA-MW-6-041014		
SDG: 240-36112-1	LAB_ID	240-36112-4			240-36112-10		
FRACTION: MF	SAMP_DATE	4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.2	U	A	0.13	U	A
ARSENIC		2.1	U	A	2	U	A
BARIUM		21			10		
BERYLLIUM		2.5			1.2	U	A
CADMIUM		11			1.8		
CHROMIUM		0.87	J	P	0.69	J	KP
COBALT		100			49		
COPPER		12			2.3	U	A
IRON		8700			68000		
LEAD		0.93	U	A	0.19	U	A
MANGANESE		3800			8200		
MERCURY		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		0.81	U	
NICKEL		42			37		
SELENIUM		3.4	J	P	2.1	J	P
SILVER		0.0083	U		0.0083	U	
THALLIUM		0.4	U		0.4	U	
VANADIUM		0.96	U	A	1.7	U	A

PROJ_NO: 06183	NSAMPLE	MSA-MW-48S-041014		
SDG: 240-36112-1	LAB_ID	240-36112-3		
FRACTION: MISC	SAMP_DATE	4/10/2014		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	MG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ALKALINITY		390		
AMMONIA-N		0.82		
CALCIUM HARDNESS AS CACO3		850		
CHLORIDE		19	J	D
HARDNESS AS CACO3		1000		
MAGNESIUM HARDNESS AS CACO3		190		
NITRATE-N		0.023	UJ	H
NITRITE-N		0.012	UJ	H
ORTHOPHOSPHATE-P		0.044	UJ	CH
SULFATE		740		
TOTAL DISSOLVED SOLIDS		1500		

PROJ_NO: 06183	NSAMPLE	MSA-MW-48S-041014		
SDG: 240-36112-1	LAB_ID	240-36112-3		
FRACTION: MISCF	SAMP_DATE	4/10/2014		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	MG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON		9.1		

Appendix B

Results as Reported by the Laboratory

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-10I-041014 Lab Sample ID: 240-36112-7

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 10:09

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.14	0.20	0.12	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-10I-041014 Lab Sample ID: 240-36112-7

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 10:09

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.53	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	4.1	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	18	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.17	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	0.12	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	1.2	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	3.5	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	3.9	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	1300	100	12	ug/L			1	6020
7439-96-5	Manganese	23	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	1.4	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	2.4	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	1.8	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	0.41	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	11	5.0	0.15	ug/L		B	1	6020
7440-22-4	Silver	0.076	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-10I-041014 Lab Sample ID: 240-36112-7

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 10:09

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.44	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	4.3	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	16	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.075	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	1.8	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	1.1	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	1.7	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.39	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	1.4	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	2.5	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	1000	100	12	ug/L			1	6020
7782-49-2	Selenium	0.41	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	22	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.018	1.0	0.0083	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	10	5.0	0.15	ug/L		B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-10S-041014 Lab Sample ID: 240-36112-6

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 08:53

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-10S-041014 Lab Sample ID: 240-36112-6

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 08:53

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.23	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	18	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	22	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.20	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	3.2	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	2.8	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	1.1	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	46000	100	12	ug/L			1	6020
7439-96-5	Manganese	1300	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	0.87	2.0	0.088	ug/L	J		1	6020
7439-92-1	Lead	0.37	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.57	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.2	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-10S-041014 Lab Sample ID: 240-36112-6

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 08:53

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.18	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	18	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	21	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.092	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.97	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	3.3	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.46	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	2.6	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	48000	100	12	ug/L			1	6020
7782-49-2	Selenium	0.47	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	1300	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.92	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-1A-041014 Lab Sample ID: 240-36112-9

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 12:45

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-1A-041014 Lab Sample ID: 240-36112-9

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 12:45

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	3.9	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	13	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.66	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	1400	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	56	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	120	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	12	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	9300	100	12	ug/L			1	6020
7439-96-5	Manganese	2300	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	180	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.68	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	4.0	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.0090	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-1A-041014 Lab Sample ID: 240-36112-9

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 12:45

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	3.8	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	13	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.63	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	1300	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	96	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	56	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	18	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.77	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	180	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	9900	100	12	ug/L			1	6020
7782-49-2	Selenium	4.3	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	2300	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.83	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-1B-041014 Lab Sample ID: 240-36112-8

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 11:29

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.53	0.20	0.12	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-1B-041014 Lab Sample ID: 240-36112-8

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 11:29

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.27	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	26	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	18	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.37	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	280	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	28	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	43	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	19	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	36000	100	12	ug/L			1	6020
7439-96-5	Manganese	3000	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	50	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	2.3	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	2.2	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	7.1	5.0	0.15	ug/L		B	1	6020
7440-22-4	Silver	0.0090	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-1B-041014 Lab Sample ID: 240-36112-8

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 11:29

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.13	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	8.5	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	16	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.20	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	280	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	7.5	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	29	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	15	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.84	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	53	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	28000	100	12	ug/L			1	6020
7782-49-2	Selenium	1.5	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	3300	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.70	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-23D-041114 Lab Sample ID: 240-36112-14

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 14:45

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.26	0.20	0.12	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-23D-041114 Lab Sample ID: 240-36112-14

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 14:45

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.55	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	1.7	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	35	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.47	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.78	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	16	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	2.5	2.0	0.13	ug/L		B	1	6020
7440-50-8	Copper	18	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	5300	100	12	ug/L		B	1	6020
7439-96-5	Manganese	210	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	16	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	2.0	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	0.77	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.2	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.053	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-23D-041114 Lab Sample ID: 240-36112-14

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 14:45

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.41	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	1.6	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	31	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.33	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.68	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	0.86	2.0	0.13	ug/L	J	B	1	6020
7440-48-4	Cobalt	15	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	6.3	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.28	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	15	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	5000	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.42	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	200	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.0	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-23S-041114 Lab Sample ID: 240-36112-13

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 11:35

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-23S-041114 Lab Sample ID: 240-36112-13

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 11:35

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.54	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	6.0	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	96	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.056	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	1.8	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	8.0	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	2.3	2.0	0.13	ug/L		B	1	6020
7440-50-8	Copper	2.9	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	15000	100	12	ug/L		B	1	6020
7439-96-5	Manganese	850	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	1.5	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	6.7	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.90	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.9	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.031	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-23S-041114 Lab Sample ID: 240-36112-13

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 11:35

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.38	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	6.1	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	99	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.70	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	1.8	2.0	0.13	ug/L	J	B	1	6020
7440-48-4	Cobalt	8.1	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	1.9	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.28	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	1.5	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	7.4	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	16000	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	880	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.4	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-24I-041114 Lab Sample ID: 240-36112-12

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 09:55

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-24I-041114 Lab Sample ID: 240-36112-12

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 09:55

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.22	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	1.0	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	14	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.79	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.15	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	14	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	3.8	2.0	0.13	ug/L		B	1	6020
7440-50-8	Copper	13	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	2800	100	12	ug/L		B	1	6020
7439-96-5	Manganese	280	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	5.5	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.92	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	1.3	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.5	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.021	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-24I-041114 Lab Sample ID: 240-36112-12

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 09:55

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	0.80	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	12	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.78	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.15	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	1.1	2.0	0.13	ug/L	J	B	1	6020
7440-48-4	Cobalt	14	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	8.7	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.32	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	6.1	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	1100	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.96	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	270	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.0	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-24S-041114 Lab Sample ID: 240-36112-11

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 08:45

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-24S-041114 Lab Sample ID: 240-36112-11

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 08:45

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.63	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	29	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	15	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	6.9	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	5.0	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	410	5.0	0.10	ug/L			5	6020
7440-47-3	Chromium	14	10	0.65	ug/L		B	5	6020
7440-50-8	Copper	290	10	1.2	ug/L		B	5	6020
7439-89-6	Iron	160000	500	59	ug/L		B	5	6020
7439-96-5	Manganese	4600	25	2.1	ug/L		B	5	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	550	10	0.44	ug/L		B	5	6020
7439-92-1	Lead	1.1	5.0	0.70	ug/L	J	B	5	6020
7782-49-2	Selenium	84	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	2.0	10	2.0	ug/L	U		5	6020
7440-62-2	Vanadium	130	25	0.75	ug/L		B	5	6020
7440-22-4	Silver	0.029	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-24S-041114 Lab Sample ID: 240-36112-11

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 08:45

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	29	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	15	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	6.6	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	5.2	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	13	10	0.65	ug/L		B	5	6020
7440-48-4	Cobalt	410	5.0	0.10	ug/L			5	6020
7440-50-8	Copper	290	10	1.2	ug/L		B	5	6020
7439-92-1	Lead	0.70	5.0	0.70	ug/L	U		5	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	560	10	0.44	ug/L		B	5	6020
7439-89-6	Iron	160000	500	59	ug/L		B	5	6020
7782-49-2	Selenium	86	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	4700	25	2.1	ug/L		B	5	6020
7440-22-4	Silver	0.012	1.0	0.0083	ug/L	J	B	1	6020
7440-28-0	Thallium	2.0	10	2.0	ug/L	U		5	6020
7440-62-2	Vanadium	120	25	0.75	ug/L		B	5	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-25I-041114 Lab Sample ID: 240-36112-17

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 11:45

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-25I-041114 Lab Sample ID: 240-36112-17

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 11:45

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.84	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	7.7	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	26	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.086	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.13	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	2.9	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	1.3	2.0	0.13	ug/L	J	B	1	6020
7440-50-8	Copper	4.0	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	1700	100	12	ug/L		B	1	6020
7439-96-5	Manganese	38	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	1.6	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	5.2	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.41	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.2	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.020	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-25I-041114 Lab Sample ID: 240-36112-17

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 11:45

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.74	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	8.0	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	25	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.15	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.14	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	0.90	2.0	0.13	ug/L	J	B	1	6020
7440-48-4	Cobalt	3.1	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	4.1	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.53	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	1.6	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	7.2	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	1400	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.43	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	37	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.019	1.0	0.0083	ug/L	J	B	1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.8	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-25S-041114 Lab Sample ID: 240-36112-16

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 10:25

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-25S-041114 Lab Sample ID: 240-36112-16

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 10:25

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.56	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	2.6	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	45	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.039	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.095	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	0.80	1.0	0.020	ug/L	J		1	6020
7440-47-3	Chromium	1.5	2.0	0.13	ug/L	J	B	1	6020
7440-50-8	Copper	6.5	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	370	100	12	ug/L		B	1	6020
7439-96-5	Manganese	18	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	1.2	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	7.8	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.54	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.6	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.046	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-25S-041114 Lab Sample ID: 240-36112-16

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 10:25

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.60	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	2.4	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	45	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.092	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	0.92	2.0	0.13	ug/L	J	B	1	6020
7440-48-4	Cobalt	0.71	1.0	0.020	ug/L	J		1	6020
7440-50-8	Copper	7.4	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	1.2	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	7.6	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	95	100	12	ug/L	J	B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	18	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.017	1.0	0.0083	ug/L	J	B	1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.7	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-32I-041014 Lab Sample ID: 240-36112-2

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 10:10

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-32I-041014 Lab Sample ID: 240-36112-2

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 10:10

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.0	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	1.7	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	30	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.81	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	1.4	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	13	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	2.7	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	5.2	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	2500	100	12	ug/L			1	6020
7439-96-5	Manganese	680	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	17	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	2.3	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	0.74	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	J		1	6020
7440-62-2	Vanadium	3.1	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.068	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-32I-041014 Lab Sample ID: 240-36112-2

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 10:10

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.35	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	0.86	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	28	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.27	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	0.93	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	1.1	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	12	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	3.3	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.26	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	16	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	450	100	12	ug/L			1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	690	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-32S-041014 Lab Sample ID: 240-36112-1

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 09:00

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-32S-041014 Lab Sample ID: 240-36112-1

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 09:00

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.54	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	4.6	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	43	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.32	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	0.38	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	34	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	3.2	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	5.5	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	7400	100	12	ug/L			1	6020
7439-96-5	Manganese	1400	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	18	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	1.7	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	0.53	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	4.7	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.11	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-32S-041014 Lab Sample ID: 240-36112-1

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 09:00

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.27	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	4.4	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	41	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.21	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	0.13	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	1.5	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	34	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	1.7	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.19	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	18	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	5200	100	12	ug/L			1	6020
7782-49-2	Selenium	0.39	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	1500	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.017	1.0	0.0083	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.0	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-36S-041114 Lab Sample ID: 240-36112-15

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 09:05

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-36S-041114 Lab Sample ID: 240-36112-15

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 09:05

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	1.8	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	25	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.68	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	120	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.26	2.0	0.13	ug/L	J	B	1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-89-6	Iron	2100	100	12	ug/L		B	1	6020
7439-96-5	Manganese	14	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	170	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.6	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-36S-041114 Lab Sample ID: 240-36112-15

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 09:05

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	1.4	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	25	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.68	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.26	2.0	0.13	ug/L	J	B	1	6020
7440-48-4	Cobalt	120	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	1.3	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	170	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	2100	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	14	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-37S-041114 Lab Sample ID: 240-36112-18

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 14:50

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-37S-041114 Lab Sample ID: 240-36112-18

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 14:50

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.28	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.85	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	36	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.040	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.040	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	10	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.17	2.0	0.13	ug/L	J	B	1	6020
7440-50-8	Copper	0.75	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	510	100	12	ug/L		B	1	6020
7439-96-5	Manganese	1300	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	1.2	2.0	0.088	ug/L	J	B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7782-49-2	Selenium	0.47	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	3.2	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-37S-041114 Lab Sample ID: 240-36112-18

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2014 14:50

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.17	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.80	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	36	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.045	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	0.13	2.0	0.13	ug/L	U		1	6020
7440-48-4	Cobalt	10	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	4.9	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	1.5	2.0	0.088	ug/L	J	B	1	6020
7439-89-6	Iron	300	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	1300	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.2	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-48S-041014 Lab Sample ID: 240-36112-3

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 11:30

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-48S-041014 Lab Sample ID: 240-36112-3

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 11:30

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	340000	5000	130	ug/L		B	1	6010C
7440-09-7	Potassium	15000	5000	72	ug/L			1	6010C
7439-95-4	Magnesium	47000	5000	34	ug/L		B	1	6010C
7440-23-5	Sodium	27000	5000	590	ug/L			1	6010C
14808-60-7	SiO2, Silica	27000	1100	17	ug/L			1	6010C
7440-36-0	Antimony	0.74	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	4.0	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	40	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.31	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	0.30	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	1.5	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	1.5	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	2.2	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	3100	100	12	ug/L			1	6020
7439-96-5	Manganese	100	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	2.3	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	3.6	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.79	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.81	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.9	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.043	1.0	0.0083	ug/L	J		1	6020
	Hardness as calcium carbonate	1000	33	33	mg/L			1	2340B-1997
	Calcium hardness as calcium carbonate	850	12	12	mg/L			1	2340B-1997
	Magnesium hardness as calcium carbonate	190	21	21	mg/L			1	2340B-1997

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-48S-041014 Lab Sample ID: 240-36112-3

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 11:30

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.58	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	3.9	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	39	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.091	1.0	0.031	ug/L	J	B	1	6020
7440-43-9	Cadmium	0.066	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	1.3	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	1.5	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.79	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.24	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	2.2	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	4.0	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	3400	100	12	ug/L			1	6020
7782-49-2	Selenium	0.51	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	110	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.015	1.0	0.0083	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.5	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-49I-041014 Lab Sample ID: 240-36112-5

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 15:40

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-49I-041014 Lab Sample ID: 240-36112-5

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 15:40

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.21	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	12	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	12	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	9.1	1.0	0.031	ug/L		B	1	6020
7440-43-9	Cadmium	32	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	97	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	4.0	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	110	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	27000	100	12	ug/L			1	6020
7439-96-5	Manganese	5200	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.87	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	57	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	2.1	5.0	0.70	ug/L	J	B	5	6020
7782-49-2	Selenium	32	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	2.0	10	2.0	ug/L	U		5	6020
7440-62-2	Vanadium	4.5	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.017	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-49I-041014 Lab Sample ID: 240-36112-5

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 15:40

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.15	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	12	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	12	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	13	1.0	0.031	ug/L		B	1	6020
7440-43-9	Cadmium	33	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	3.2	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	100	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	110	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	1.4	5.0	0.70	ug/L	J	B	5	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	59	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	26000	100	12	ug/L			1	6020
7782-49-2	Selenium	33	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	5300	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	2.0	10	2.0	ug/L	U		5	6020
7440-62-2	Vanadium	3.6	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-49S-041014 Lab Sample ID: 240-36112-4

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 14:35

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-49S-041014 Lab Sample ID: 240-36112-4

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 14:35

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.23	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	2.8	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	32	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	3.1	1.0	0.031	ug/L		B	1	6020
7440-43-9	Cadmium	12	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	100	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	1.7	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	13	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	9100	100	12	ug/L			1	6020
7439-96-5	Manganese	3700	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	41	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	1.4	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	3.6	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.011	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-49S-041014 Lab Sample ID: 240-36112-4

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 14:35

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.20	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	2.1	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	21	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	2.5	1.0	0.031	ug/L		B	1	6020
7440-43-9	Cadmium	11	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	0.87	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	100	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	12	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.93	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	42	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	8700	100	12	ug/L			1	6020
7782-49-2	Selenium	3.4	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	3800	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.96	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-6-041014 Lab Sample ID: 240-36112-10

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 15:30

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-6-041014 Lab Sample ID: 240-36112-10

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 15:30

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.15	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	2.9	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	9.6	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	1.3	1.0	0.031	ug/L		B	1	6020
7440-43-9	Cadmium	1.9	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	46	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.91	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	3.5	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	70000	100	12	ug/L			1	6020
7439-96-5	Manganese	8200	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	32	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.82	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	2.2	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	10	5.0	0.15	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-6-041014 Lab Sample ID: 240-36112-10

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 15:30

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.13	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	2.0	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	10	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	1.2	1.0	0.031	ug/L		B	1	6020
7440-43-9	Cadmium	1.8	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	0.69	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	49	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	2.3	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.19	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	37	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	68000	100	12	ug/L			1	6020
7782-49-2	Selenium	2.1	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	8200	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.7	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MSA-MW-48S-041014 Lab Sample ID: 240-36112-3

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 11:30

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	390	5.0	1.9	mg/L			1	310.1
	Total Dissolved Solids	1500	10	7.4	mg/L			1	160.1
16887-00-6	Chloride	19	1.0	0.10	mg/L			1	300.0
14797-65-0	Nitrite as N	0.012	0.10	0.012	mg/L	U	H	1	300.0
14797-55-8	Nitrate as N	0.023	0.10	0.023	mg/L	U	H	1	300.0
14808-79-8	Sulfate	740	10	1.2	mg/L			10	300.0
	Orthophosphate as P	0.044	0.50	0.044	mg/L	U	H ^	1	300.0
7664-41-7	Ammonia (as N)	0.82	0.20	0.092	mg/L			1	350.3

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-MW-48S-041014 Lab Sample ID: 240-36112-3

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG ID.:

Matrix: Water Date Sampled: 04/10/2014 11:30

Reporting Basis: WET Date Received: 04/12/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	9.1	1.0	0.24	mg/L			1	9060

Appendix C

Support Documentation

HOLDTIME

PROJ_NO 06183

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	HG	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	HG	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36135-1	HG	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	HG	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	HG	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	HG	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	HG	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	HG	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36112-1	M	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/18/2014	6	2	8
240-36112-1	M	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/16/2014	04/18/2014	6	2	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	M	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	M	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/16/2014	04/18/2014	6	2	8
240-36112-1	M	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36135-1	M	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/24/2014	4	6	10
240-36135-1	M	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	M	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/24/2014	4	6	10
240-36135-1	M	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	M	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	M	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	M	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	M	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	M	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	M	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/16/2014	04/18/2014	6	2	8
240-36112-1	MF	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/18/2014	6	2	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	MF	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36135-1	MF	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	MF	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	MF	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	MF	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	MF	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	MF	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	MF	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/24/2014	4	6	10
240-36135-1	MF	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/24/2014	4	6	10
240-36112-1	ALK	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/16/2014	6	0	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	ALK	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/16/2014	2	0	2
240-36112-1	CL	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/12/2014	04/12/2014	2	0	2
240-36135-1	CL	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/24/2014	04/24/2014	10	0	10
240-36112-1	HARD	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/16/2014	6	0	6
240-36135-1	HARD	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/21/2014	04/21/2014	7	0	7
240-36112-1	NH3	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/16/2014	6	0	6
240-36135-1	NH3	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/16/2014	2	0	2
240-36112-1	NTA	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/12/2014	04/12/2014	2	0	2
240-36135-1	NTA	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/15/2014	04/15/2014	1	0	1
240-36112-1	NTI	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/12/2014	04/12/2014	2	0	2
240-36135-1	NTI	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/15/2014	04/15/2014	1	0	1
240-36112-1	OPO4	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/12/2014	04/12/2014	2	0	2
240-36135-1	OPO4	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/15/2014	04/15/2014	1	0	1
240-36112-1	PCL	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	PCL	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	PCL	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	PCL	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36135-1	PCL	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	PCL	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/21/2014	04/23/2014	7	2	9

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	PCL	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	PCL	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36135-1	PCL	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	PCL	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36135-1	PCL	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36112-1	SO4	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/29/2014	04/29/2014	19	0	19
240-36135-1	SO4	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/24/2014	04/24/2014	10	0	10
240-36112-1	TDS	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/16/2014	6	0	6
240-36135-1	TDS	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/16/2014	2	0	2
240-36112-1	DOC	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/28/2014	04/28/2014	18	0	18
240-36135-1	DOC	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/28/2014	04/28/2014	14	0	14
240-36112-1	OS	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-23D-041114	240-36112-14	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-49I-041014	240-36112-5	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-10I-041014	240-36112-7	SUR	04/10/2014	04/16/2014	04/17/2014	6	1	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OS	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	OS	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32I-041014	240-36112-2	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24I-041114	240-36112-12	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-25I-041114	240-36112-17	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OS	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	OS	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-DMW-1B-041014	240-36112-8	SUR	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	OS	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-1A-041014	240-36112-9	SUR	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	OS	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-21D-041414	240-36233-5	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-48I-041414	240-36233-6	SUR	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	OS	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/16/2014	04/17/2014	2	1	3

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	OS	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	OS	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-DMW-11I-041414	240-36135-3	SUR	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	OS	UG/L	MSA-MW-21I-041414	240-36233-3	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-DMW-7I-041614	240-36320-2	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-50I-041414	240-36233-4	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-50D-041614	240-36320-6	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-51I-041614	240-36320-8	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-48I-041414	240-36233-6	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	OS	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	OS	UG/L	MSA-DMW-8I-041614	240-36320-4	SUR	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	OS	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-7D-041614	240-36320-3	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36112-1	OV	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OV	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-10I-041014	240-36112-7	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-32I-041014	240-36112-2	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-24I-041114	240-36112-12	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-25I-041114	240-36112-17	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1A-041014	240-36112-9	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49I-041014	240-36112-5	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OV	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-23D-041114	240-36112-14	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1B-041014	240-36112-8	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36135-1	OV	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	OV	UG/L	MSA-DMW-7I-041614	240-36320-2	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-50I-041414	240-36233-4	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-50D-041614	240-36320-6	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-DMW-7D-041614	240-36320-3	SUR	04/16/2014	04/22/2014	04/22/2014	6	0	6
240-36135-1	OV	UG/L	MSA-MW-51I-041614	240-36320-8	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-21D-041414	240-36233-5	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-21I-041414	240-36233-3	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/22/2014	6	0	6
240-36135-1	OV	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-DMW-11I-041414	240-36135-3	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	OV	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-DMW-8I-041614	240-36320-4	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36112-1	ETHA	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	ETHA	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	ETHE	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	ETHE	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	METH	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	METH	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	OVG	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	OVG	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	DRO	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	DRO	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	DRO	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	DRO	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	DRO	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36135-1	DRO	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	DRO	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36135-1	DRO	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	DRO	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36112-1	GRO	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36135-1	GRO	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36135-1	GRO	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/20/2014	04/20/2014	4	0	4

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	GRO	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/20/2014	04/20/2014	4	0	4
240-36135-1	GRO	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36112-1	TPH	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	TPH	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	TPH	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	TPH	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	TPH	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36135-1	TPH	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/20/2014	04/20/2014	4	0	4
240-36135-1	TPH	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36135-1	TPH	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	TPH	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/20/2014	04/20/2014	4	0	4
240-36135-1	TPH	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36135-1	TPH	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	TPH	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36135-1	TPH	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/21/2014	04/23/2014	5	2	7

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-36112-1

Job Description: MSA GW 2014

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Tony Apanavage



Approved for release.
John McFadden
Project Manager I
4/30/2014 10:26 AM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
04/30/2014

cc: Samantha Brenner
Final Data Tracking

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2014

Report Number: 240-36112-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 6850 Perchlorate analysis was performed at TestAmerica Sacramento.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 4/12/2014 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 1.6° C, 1.8° C, 2.6° C, 1.4° C and 3.4° C.

The laboratory received a trip blank for analysis that is not listed on the chain of custody. The laboratory will run the sample for VOCs.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-32I-041014 (240-36112-2), MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-MW-49I-041014 (240-36112-5), MSA-DMW-10S-041014 (240-36112-6), MSA-DMW-10I-041014 (240-36112-7), MSA-DMW-1B-041014 (240-36112-8), MSA-DMW-1A-041014 (240-36112-9), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-24I-041114 (240-36112-12), MSA-MW-23S-041114 (240-36112-13), MSA-MW-23D-041114 (240-36112-14), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16), MSA-MW-25I-041114 (240-36112-17), MSA-MW-37S-041114 (240-36112-18) and TRIP BLANK (240-36112-19) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 04/21/2014 and 04/22/2014.

Samples MSA-MW-48S-041014 (240-36112-3)[5X], MSA-MW-49S-041014 (240-36112-4)[14.29X], MSA-MW-49I-041014 (240-36112-5) [200X], MSA-DMW-1B-041014 (240-36112-8)[55.56X], MSA-DMW-1A-041014 (240-36112-9)[166.67X] and MSA-MW-24I-041114 (240-36112-12)[3.33X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) for analytical batch 127251 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The continuing calibration verification (CCV) for analytical batch 127413 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

No other difficulties were encountered during the VOCs analysis. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-32I-041014 (240-36112-2), MSA-MW-48S-041014 (240-36112-3),

MSA-MW-49S-041014 (240-36112-4), MSA-MW-49I-041014 (240-36112-5), MSA-DMW-10S-041014 (240-36112-6), MSA-DMW-10I-041014 (240-36112-7), MSA-DMW-1B-041014 (240-36112-8), MSA-DMW-1A-041014 (240-36112-9), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-24I-041114 (240-36112-12), MSA-MW-23S-041114 (240-36112-13), MSA-MW-23D-041114 (240-36112-14), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16), MSA-MW-25I-041114 (240-36112-17) and MSA-MW-37S-041114 (240-36112-18) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 04/15/2014 and 04/16/2014 and analyzed on 04/16/2014, 04/17/2014 and 04/21/2014.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Samples MSA-MW-49S-041014 (240-36112-4)[2X], MSA-MW-49I-041014 (240-36112-5)[4X], MSA-DMW-1B-041014 (240-36112-8)[2X] and MSA-DMW-1A-041014 (240-36112-9)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch (126515)

No other difficulties were encountered during the SVOCs analysis. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-DMW-10S-041014 (240-36112-6), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-23S-041114 (240-36112-13), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16) and MSA-MW-37S-041114 (240-36112-18) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/18/2014.

No difficulties were encountered during the GRO analysis. All quality control parameters were within the acceptance limits.

DISSOLVED GASES

Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 04/23/2014.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 127618.

No other difficulties were encountered during the dissolved gases analysis. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-DMW-10S-041014 (240-36112-6), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-23S-041114 (240-36112-13), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16) and MSA-MW-37S-041114 (240-36112-18) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 04/15/2014 and analyzed on 04/17/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch (126508)

No other difficulties were encountered during the DRO analysis. All other quality control parameters were within the acceptance limits.

PERCHLORATE

Samples MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-MW-49I-041014 (240-36112-5) and MSA-MW-24I-041114 (240-36112-12) were analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 04/15/2014 and analyzed on 04/16/2014 and 04/17/2014.

No difficulties were encountered during the perchlorate analysis. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/15/2014 and analyzed on 04/16/2014.

Calcium and Magnesium were detected in method blank MB 240-126489/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-32I-041014 (240-36112-2), MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-MW-49I-041014 (240-36112-5), MSA-DMW-10S-041014 (240-36112-6), MSA-DMW-10I-041014 (240-36112-7), MSA-DMW-1B-041014 (240-36112-8), MSA-DMW-1A-041014 (240-36112-9), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-24I-041114 (240-36112-12), MSA-MW-23S-041114 (240-36112-13), MSA-MW-23D-041114 (240-36112-14), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16), MSA-MW-25I-041114 (240-36112-17) and MSA-MW-37S-041114 (240-36112-18) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/16/2014 and 04/17/2014 and analyzed on 04/17/2014 and 04/18/2014.

The following samples were diluted due to the nature of the sample matrix: MSA-MW-49I-041014 (240-36112-5) and MSA-MW-24S-041114 (240-36112-11). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-32I-041014 (240-36112-2), MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-MW-49I-041014 (240-36112-5), MSA-DMW-10S-041014 (240-36112-6), MSA-DMW-10I-041014 (240-36112-7), MSA-DMW-1B-041014 (240-36112-8), MSA-DMW-1A-041014 (240-36112-9), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-24I-041114 (240-36112-12), MSA-MW-23S-041114 (240-36112-13), MSA-MW-23D-041114 (240-36112-14), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16), MSA-MW-25I-041114 (240-36112-17) and MSA-MW-37S-041114 (240-36112-18) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/16/2014 and 04/17/2014 and analyzed on 04/17/2014 and 04/18/2014.

Several analytes were detected in method blank MB 240-126664/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 240-126840/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples MSA-MW-49I-041014 (240-36112-5)[5X] and MSA-MW-24S-041114 (240-36112-11)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-32I-041014 (240-36112-2), MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-MW-49I-041014 (240-36112-5), MSA-DMW-10S-041014 (240-36112-6), MSA-DMW-10I-041014 (240-36112-7), MSA-DMW-1B-041014 (240-36112-8), MSA-DMW-1A-041014 (240-36112-9), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-24I-041114 (240-36112-12), MSA-MW-23S-041114 (240-36112-13), MSA-MW-23D-041114 (240-36112-14), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16), MSA-MW-25I-041114 (240-36112-17) and MSA-MW-37S-041114 (240-36112-18) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/16/2014 and 04/17/2014 and analyzed on 04/17/2014 and 04/18/2014.

No difficulties were encountered during the mercury analysis. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples MSA-MW-32S-041014 (240-36112-1), MSA-MW-32I-041014 (240-36112-2), MSA-MW-48S-041014 (240-36112-3), MSA-MW-49S-041014 (240-36112-4), MSA-MW-49I-041014 (240-36112-5), MSA-DMW-10S-041014 (240-36112-6), MSA-DMW-10I-041014 (240-36112-7), MSA-DMW-1B-041014 (240-36112-8), MSA-DMW-1A-041014 (240-36112-9), MSA-MW-6-041014 (240-36112-10), MSA-MW-24S-041114 (240-36112-11), MSA-MW-24I-041114 (240-36112-12), MSA-MW-23S-041114 (240-36112-13), MSA-MW-23D-041114 (240-36112-14), MSA-MW-36S-041114 (240-36112-15), MSA-MW-25S-041114 (240-36112-16), MSA-MW-25I-041114 (240-36112-17) and MSA-MW-37S-041114 (240-36112-18) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/16/2014 and 04/17/2014 and analyzed on 04/17/2014 and 04/18/2014.

No difficulties were encountered during the mercury analysis. All quality control parameters were within the acceptance limits.

HARDNESS

Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for hardness in accordance with SM 2340B. The samples were analyzed on 04/16/2014.

No difficulties were encountered during the hardness analysis. All quality control parameters were within the acceptance limits.

TOTAL DISSOLVED SOLIDS
Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for total dissolved solids in accordance with EPA Method 160.1. The samples were analyzed on 04/16/2014.

No difficulties were encountered during the TDS analysis. All quality control parameters were within the acceptance limits.

ANIONS
Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/12/2014.

Sample MSA-MW-48S-041014 was analyzed outside of the recommended hold time by 29 minutes for Nitrite, Nitrate, and Orthophosphate. The sample was collected on 4/10/14 at 1130 and was received at the laboratory on 4/12/14 at 0930. The laboratory was able to analyze the sample on 4/12/14 at 1159.

No difficulties were encountered during the anions analysis. All other quality control parameters were within the acceptance limits.

ANIONS
Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/12/2014 and 04/29/2014.

Sample MSA-MW-48S-041014 (240-36112-3)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the anions analysis. All other quality control parameters were within the acceptance limits.

ALKALINITY
Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for alkalinity in accordance with EPA Method 310.1. The samples were analyzed on 04/16/2014.

No difficulties were encountered during the alkalinity analysis. All quality control parameters were within the acceptance limits.

AMMONIA
Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for ammonia in accordance with EPA Method 350.3. The samples were analyzed on 04/16/2014.

No difficulties were encountered during the ammonia analysis. All quality control parameters were within the acceptance limits.

DISSOLVED ORGANIC CARBON
Sample MSA-MW-48S-041014 (240-36112-3) was analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 04/28/2014.

No difficulties were encountered during the TOC analysis. All quality control parameters were within the acceptance limits.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2014

TestAmerica Job ID: 240-36112-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015B	Gasoline Range Organics - (GC)	SW846	TAL CAN
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CAN
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
2340B-1997	Total Hardness (as CaCO3) by calculation	SM	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
160.1	Solids, Total Dissolved (TDS)	MCAWW	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
310.1	Alkalinity	MCAWW	TAL CAN
350.3	Nitrogen, Ammonia	MCAWW	TAL CAN
9060	Organic Carbon, Dissolved (DOC)	SW846	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2014

TestAmerica Job ID: 240-36112-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-36112-1	MSA-MW-32S-041014	Water	04/10/14 09:00	04/12/14 09:45
240-36112-2	MSA-MW-32I-041014	Water	04/10/14 10:10	04/12/14 09:45
240-36112-3	MSA-MW-48S-041014	Water	04/10/14 11:30	04/12/14 09:45
240-36112-4	MSA-MW-49S-041014	Water	04/10/14 14:35	04/12/14 09:45
240-36112-5	MSA-MW-49I-041014	Water	04/10/14 15:40	04/12/14 09:45
240-36112-6	MSA-DMW-10S-041014	Water	04/10/14 08:53	04/12/14 09:45
240-36112-7	MSA-DMW-10I-041014	Water	04/10/14 10:09	04/12/14 09:45
240-36112-8	MSA-DMW-1B-041014	Water	04/10/14 11:29	04/12/14 09:45
240-36112-9	MSA-DMW-1A-041014	Water	04/10/14 12:45	04/12/14 09:45
240-36112-10	MSA-MW-6-041014	Water	04/10/14 15:30	04/12/14 09:45
240-36112-11	MSA-MW-24S-041114	Water	04/11/14 08:45	04/12/14 09:45
240-36112-12	MSA-MW-24I-041114	Water	04/11/14 09:55	04/12/14 09:45
240-36112-13	MSA-MW-23S-041114	Water	04/11/14 11:35	04/12/14 09:45
240-36112-14	MSA-MW-23D-041114	Water	04/11/14 14:45	04/12/14 09:45
240-36112-15	MSA-MW-36S-041114	Water	04/11/14 09:05	04/12/14 09:45
240-36112-16	MSA-MW-25S-041114	Water	04/11/14 10:25	04/12/14 09:45
240-36112-17	MSA-MW-25I-041114	Water	04/11/14 11:45	04/12/14 09:45
240-36112-18	MSA-MW-37S-041114	Water	04/11/14 14:50	04/12/14 09:45
240-36112-19	TRIP BLANK	Water	04/11/14 00:00	04/12/14 09:45

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG No.:

Project: MSA GW 2014

Client Sample ID	Lab Sample ID
MSA-MW-32S-041014	240-36112-1
MSA-MW-32I-041014	240-36112-2
MSA-MW-48S-041014	240-36112-3
MSA-MW-49S-041014	240-36112-4
MSA-MW-49I-041014	240-36112-5
MSA-DMW-10S-041014	240-36112-6
MSA-DMW-10I-041014	240-36112-7
MSA-DMW-1B-041014	240-36112-8
MSA-DMW-1A-041014	240-36112-9
MSA-MW-6-041014	240-36112-10
MSA-MW-24S-041114	240-36112-11
MSA-MW-24I-041114	240-36112-12
MSA-MW-23S-041114	240-36112-13
MSA-MW-23D-041114	240-36112-14
MSA-MW-36S-041114	240-36112-15
MSA-MW-25S-041114	240-36112-16
MSA-MW-25I-041114	240-36112-17
MSA-MW-37S-041114	240-36112-18

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

ICV Source: MT6500ICV_00017 Concentration Units: ug/L

CCV Source: MTICPCCV_00020

Analyte	ICV 240-126815/4 04/16/2014 07:43				CCV 240-126815/42 04/16/2014 10:16				CCV 240-126815/54 04/16/2014 11:03			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	26000		25000	104	52000		50000	104	51600		50000	103
Magnesium	25800		25000	103	51200		50000	102	50600		50000	101
Potassium	25800		25000	103	51800		50000	104	52200		50000	104
SiO2, Silica	7010		6420	109	11400		10700	106	11100		10700	104
Sodium	25800		25000	103	51900		50000	104	51800		50000	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	ICV 240-126899/7 04/17/2014 10:24				CCV 240-126899/83 04/17/2014 15:50				CCV 240-126899/95 04/17/2014 16:36			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	39.7		40.0	99	48.9		50.0	98	48.6		50.0	97
Arsenic	39.9		40.0	100	47.0		50.0	94	47.0		50.0	94
Barium	39.5		40.0	99	47.7		50.0	95	47.2		50.0	94
Beryllium	40.7		40.0	102	53.9		50.0	108	52.8		50.0	106
Cadmium	40.5		40.0	101	47.9		50.0	96	47.3		50.0	95
Chromium	40.1		40.0	100	47.8		50.0	96	47.7		50.0	95
Cobalt	39.2		40.0	98	47.0		50.0	94	46.9		50.0	94
Copper	42.0		40.0	105	48.4		50.0	97	48.6		50.0	97
Iron	9860		10000	99	12200		12500	98	12100		12500	97
Lead	41.5		40.0	104	49.9		50.0	100	49.5		50.0	99
Manganese	206		200	103	248		250	99	246		250	99
Molybdenum	41.5		40.0	104	50.2		50.0	100	49.9		50.0	100
Nickel	41.0		40.0	103	48.2		50.0	96	48.0		50.0	96
Selenium	40.0		40.0	100	47.7		50.0	95	47.5		50.0	95
Silver	40.8		40.0	102	48.1		50.0	96	48.0		50.0	96
Thallium	39.0		40.0	98	47.2		50.0	94	46.5		50.0	93
Vanadium	40.3		40.0	101	47.9		50.0	96	47.7		50.0	95

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	CCV 240-126899/107 04/17/2014 17:23				CCV 240-126899/117 04/17/2014 18:01							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	48.7		50.0	97	48.2		50.0	96				
Arsenic	47.7		50.0	95	47.1		50.0	94				
Barium	47.1		50.0	94	46.7		50.0	93				
Beryllium	51.6		50.0	103	54.3		50.0	109				
Cadmium	47.9		50.0	96	47.4		50.0	95				
Chromium	48.5		50.0	97	47.6		50.0	95				
Cobalt	47.2		50.0	94	46.3		50.0	93				
Copper	48.8		50.0	98	47.9		50.0	96				
Iron	12400		12500	99	12200		12500	97				
Lead	49.8		50.0	100	48.4		50.0	97				
Manganese	248		250	99	247		250	99				
Molybdenum	50.0		50.0	100	49.2		50.0	98				
Nickel	48.2		50.0	96	47.5		50.0	95				
Selenium	47.4		50.0	95	46.5		50.0	93				
Silver	48.2		50.0	96	47.4		50.0	95				
Thallium	46.9		50.0	94	45.7		50.0	91				
Vanadium	48.3		50.0	97	47.4		50.0	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	ICV 240-127186/7 04/18/2014 14:02				CCV 240-127186/45 04/18/2014 16:28				CCV 240-127186/57 04/18/2014 17:12			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.0		40.0	100	50.2		50.0	100	49.4		50.0	99
Arsenic	42.1		40.0	105	51.1		50.0	102	50.2		50.0	100
Barium	41.2		40.0	103	50.0		50.0	100	49.2		50.0	98
Beryllium	42.0		40.0	105	50.5		50.0	101	51.0		50.0	102
Cadmium	42.0		40.0	105	51.1		50.0	102	50.8		50.0	102
Chromium	40.2		40.0	101	50.6		50.0	101	50.1		50.0	100
Cobalt	39.6		40.0	99	50.3		50.0	101	49.8		50.0	100
Copper	42.2		40.0	106	51.8		50.0	104	51.5		50.0	103
Iron	9980		10000	100	12600		12500	101	12600		12500	101
Lead	41.5		40.0	104	50.3		50.0	101	50.5		50.0	101
Manganese	209		200	104	255		250	102	253		250	101
Molybdenum	42.2		40.0	106	50.9		50.0	102	50.5		50.0	101
Nickel	41.5		40.0	104	52.1		50.0	104	51.8		50.0	104
Selenium	42.5		40.0	106	49.7		50.0	99	49.1		50.0	98
Silver	42.3		40.0	106	50.7		50.0	101	50.8		50.0	102
Thallium	41.7		40.0	104	50.4		50.0	101	50.5		50.0	101
Vanadium	40.8		40.0	102	50.7		50.0	101	50.1		50.0	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	CCV 240-127186/69 04/18/2014 17:57				CCV 240-127186/81 04/18/2014 18:43				CCV 240-127186/93 04/18/2014 19:29			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.9		50.0	102	50.3		50.0	101	49.8		50.0	100
Arsenic	50.6		50.0	101	50.0		50.0	100	46.7		50.0	93
Barium	50.7		50.0	101	50.7		50.0	101	50.4		50.0	101
Beryllium	50.1		50.0	100	54.6		50.0	109	49.9		50.0	100
Cadmium	52.1		50.0	104	51.6		50.0	103	50.6		50.0	101
Chromium	51.7		50.0	103	51.2		50.0	102	50.0		50.0	100
Cobalt	51.5		50.0	103	51.0		50.0	102	50.6		50.0	101
Copper	53.0		50.0	106	52.8		50.0	106	53.0		50.0	106
Iron	12900		12500	104	12900		12500	103	12800		12500	102
Lead	51.8		50.0	104	51.6		50.0	103	51.7		50.0	103
Manganese	263		250	105	258		250	103	256		250	102
Molybdenum	50.8		50.0	102	50.9		50.0	102	49.0		50.0	98
Nickel	53.0		50.0	106	52.4		50.0	105	51.9		50.0	104
Selenium	49.5		50.0	99	49.2		50.0	98	46.8		50.0	94
Silver	51.4		50.0	103	50.6		50.0	101	50.1		50.0	100
Thallium	51.8		50.0	104	51.3		50.0	103	51.1		50.0	102
Vanadium	51.9		50.0	104	51.6		50.0	103	50.3		50.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00615

Analyte	ICV 240-126900/7-A 04/17/2014 10:56				CCVL 240-126900/10-A 04/17/2014 11:00				CCV 240-126900/11-A 04/17/2014 14:00			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.56		2.50	102	5.13		5.00	103	4.98		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00615

Analyte	CCV 240-126900/11-A 04/17/2014 14:19				CCV 240-126900/11-A 04/17/2014 14:38				CCV 240-126900/11-A 04/17/2014 14:52			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.93		5.00	99	4.92		5.00	98	4.90		5.00	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00615

Analyte	ICV 240-126900/7-A 04/18/2014 08:35				CCVL 240-126900/10-A 04/18/2014 10:56				CCV 240-126900/11-A 04/18/2014 11:15			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.45		2.50	98	5.00		5.00	100	5.02		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00615

Analyte	CCV 240-126900/11-A 04/18/2014 11:35				CCV 240-126900/11-A 04/18/2014 11:53				CCV 240-126900/11-A 04/18/2014 12:11			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.99		5.00	100	4.93		5.00	99	5.02		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Method: 6010C Instrument ID: I9

Lab Sample ID: CRI 240-126815/28 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00019

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	5000	5140		103	70-130
Potassium	5000	4980	J	100	70-130
Magnesium	5000	5170		103	70-130
Sodium	5000	5010		100	70-130
SiO2, Silica	1070	1070	J	100	70-130

Lab Sample ID: CRI 240-126815/61 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00019

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	5000	5150		103	70-130
Potassium	5000	5200		104	70-130
Magnesium	5000	5060		101	70-130
Sodium	5000	5180		104	70-130
SiO2, Silica	1070	1040	J	98	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Method: 6020 Instrument ID: I10

Lab Sample ID: CRI 240-126899/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.14		107	50-150
Arsenic	5.00	4.74	J	95	50-150
Barium	5.00	4.74	J	95	50-150
Beryllium	1.00	1.01		101	50-150
Cadmium	1.00	0.961	J	96	50-150
Chromium	2.00	2.18		109	50-150
Cobalt	1.00	1.01		101	50-150
Copper	2.00	2.17		109	50-150
Molybdenum	10.0	9.84	J	98	50-150
Iron	100	121		121	50-150
Nickel	2.00	2.11		106	50-150
Lead	1.00	1.11		111	50-150
Manganese	5.00	4.88	J	98	50-150
Selenium	5.00	4.67	J	93	50-150
Thallium	2.00	1.96	J	98	50-150
Silver	1.00	1.02		102	50-150
Vanadium	5.00	4.68	J	94	50-150

Lab Sample ID: CRI 240-127186/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.18		109	50-150
Arsenic	5.00	5.16		103	50-150
Barium	5.00	4.93	J	99	50-150
Beryllium	1.00	1.03		103	50-150
Cadmium	1.00	1.05		105	50-150
Chromium	2.00	2.23		111	50-150
Cobalt	1.00	1.05		105	50-150
Copper	2.00	2.21		111	50-150
Molybdenum	10.0	10.1		101	50-150
Iron	100	116		116	50-150
Nickel	2.00	2.27		113	50-150
Lead	1.00	1.15		115	50-150
Manganese	5.00	4.98	J	100	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Method: 6020 Instrument ID: I10

Lab Sample ID: CRI 240-127186/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Selenium	5.00	5.32		106	50-150
Thallium	2.00	2.11		105	50-150
Silver	1.00	1.12		112	50-150
Vanadium	5.00	4.99	J	100	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Method: 7470A Instrument ID: H1

Lab Sample ID: CRA 240-126900/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00615

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.179	J	90	50-150

Lab Sample ID: CRA 240-126900/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00615

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.188	J	94	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-126489/1-A

Instrument Code: I9 Batch No.: 126815

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	223	J		6010C
7440-09-7	Potassium	72	U		6010C
7439-95-4	Magnesium	70.6	J		6010C
7440-23-5	Sodium	590	U		6010C
14808-60-7	SiO2, Silica	17	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-126664/1-A

Instrument Code: I10 Batch No.: 126899

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.11	U		6020
7440-38-2	Arsenic	0.673	J		6020
7440-39-3	Barium	1.10	J		6020
7440-41-7	Beryllium	0.0360	J		6020
7440-43-9	Cadmium	0.026	U		6020
7440-47-3	Chromium	0.13	U		6020
7440-48-4	Cobalt	0.020	U		6020
7440-50-8	Copper	0.555	J		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-89-6	Iron	12	U		6020
7440-02-0	Nickel	0.088	U		6020
7439-92-1	Lead	0.148	J		6020
7439-96-5	Manganese	0.41	U		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-22-4	Silver	0.0083	U		6020
7440-62-2	Vanadium	1.52	J		6020

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-126815/5 04/16/2014 07:47		CCB 240-126815/43 04/16/2014 10:20		CCB 240-126815/55 04/16/2014 11:07			
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	130	U	130	U	130	U		
Magnesium	5000	34	U	34	U	44.2	J		
Potassium	5000	72	U	72	U	251	J		
SiO2, Silica	1100	17	U	17	U	17	U		
Sodium	5000	590	U	590	U	590	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-126899/8 04/17/2014 10:28		CCB 240-126899/84 04/17/2014 15:54		CCB 240-126899/96 04/17/2014 16:40		CCB 240-126899/108 04/17/2014 17:26	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.588	J	0.503	J	0.656	J	0.542	J
Arsenic	5.0	0.063	U	0.063	U	0.063	U	0.063	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.0320	J	0.277	J	0.0620	J
Cadmium	1.0	0.026	U	0.026	U	0.026	U	0.026	U
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.020	U	0.020	U	0.0200	J	0.020	U
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	12	U	12	U	12	U
Lead	1.0	0.14	U	0.14	U	0.192	J	0.14	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0083	U	0.0160	J	0.0170	J	0.0140	J
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Not used

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-126899/118 04/17/2014 18:05							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.526	J						
Arsenic	5.0	0.063	U						
Barium	5.0	0.32	U						
Beryllium	1.0	0.0350	J						
Cadmium	1.0	0.026	U						
Chromium	2.0	0.13	U						
Cobalt	1.0	0.020	U						
Copper	2.0	0.24	U						
Iron	100	12	U						
Lead	1.0	0.14	U						
Manganese	5.0	0.41	U						
Molybdenum	10	0.81	U						
Nickel	2.0	0.088	U						
Selenium	5.0	0.34	U						
Silver	1.0	0.0210	J						
Thallium	2.0	0.40	U						
Vanadium	5.0	0.15	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-127186/8 04/18/2014 14:06		CCB 240-127186/34 04/18/2014 15:46		CCB 240-127186/46 04/18/2014 16:32		CCB 240-127186/58 04/18/2014 17:16	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.570	J	0.314	J	0.321	J	0.472	J
Arsenic	5.0	0.063	U	0.063	U	0.063	U	0.063	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.031	U	0.031	U	0.0540	J
Cadmium	1.0	0.026	U	0.026	U	0.026	U	0.026	U
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.020	U	0.020	U	0.020	U	0.024	J
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	12	U	12	U	12	U
Lead	1.0	0.14	U	0.14	U	0.14	U	0.226	J
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0083	U	0.0100	J	0.00900	J	0.0140	J
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Not used

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-127186/70 04/18/2014 18:01		CCB 240-127186/82 04/18/2014 18:47		CCB 240-127186/94 04/18/2014 19:33			
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.336	J	0.301	J	0.352	J		
Arsenic	5.0	0.063	U	0.063	U	0.063	U		
Barium	5.0	0.32	U	0.32	U	0.32	U		
Beryllium	1.0	0.031	U	0.031	U	0.0360	J		
Cadmium	1.0	0.026	U	0.026	U	0.026	U		
Chromium	2.0	0.13	U	0.13	U	0.13	U		
Cobalt	1.0	0.020	U	0.020	U	0.020	U		
Copper	2.0	0.24	U	0.24	U	0.24	U		
Iron	100	12	U	12	U	12	U		
Lead	1.0	0.14	U	0.14	U	0.14	U		
Manganese	5.0	0.41	U	0.41	U	0.41	U		
Molybdenum	10	0.81	U	0.81	U	0.81	U		
Nickel	2.0	0.088	U	0.088	U	0.088	U		
Selenium	5.0	0.34	U	0.34	U	0.34	U		
Silver	1.0	0.0083	U	0.0083	U	0.0140	J		
Thallium	2.0	0.40	U	0.40	U	0.40	U		
Vanadium	5.0	0.15	U	0.15	U	0.15	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-126900/8-A 04/17/2014 10:57		CCB 240-126900/12-A 04/17/2014 14:01		CCB 240-126900/12-A 04/17/2014 14:20		CCB 240-126900/12-A 04/17/2014 14:40	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-126900/12-A 04/17/2014 14:53							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-126900/8-A 04/18/2014 08:36		CCB 240-126900/12-A 04/18/2014 10:57		CCB 240-126900/12-A 04/18/2014 11:16		CCB 240-126900/12-A 04/18/2014 11:37	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-126900/12-A 04/18/2014 11:54		CCB 240-126900/12-A 04/18/2014 12:12					
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U				

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-126840/1-A

Instrument Code: I10 Batch No.: 127186

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.226	J		6020
7440-38-2	Arsenic	0.336	J		6020
7440-39-3	Barium	1.36	J		6020
7440-41-7	Beryllium	0.031	U		6020
7440-43-9	Cadmium	0.026	U		6020
7440-47-3	Chromium	0.333	J		6020
7440-48-4	Cobalt	0.020	U		6020
7440-50-8	Copper	1.01	J		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-89-6	Iron	37.8	J		6020
7440-02-0	Nickel	0.217	J		6020
7439-92-1	Lead	0.187	J		6020
7439-96-5	Manganese	0.684	J		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-22-4	Silver	0.0120	J		6020
7440-62-2	Vanadium	0.752	J		6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-126667/1-A

Instrument Code: H1 Batch No.: 126897

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-126843/1-A

Instrument Code: H1 Batch No.: 127131

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICSA 240-126815/8 Instrument ID: I9

Lab File ID: I9041614A.asc ICS Source: MTTRICSAW_00022

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**486660**	**97**
Magnesium	**500000**	**495560**	**99**
Potassium		**64.8**	
Sodium		**107**	
Aluminum	*500000*	*505400*	*101*
Antimony		*1.97*	
Arsenic		*-2.34*	
Barium		*0.288*	
Beryllium		*-0.195*	
Boron		*1.37*	
Cadmium		*0.168*	
Chromium		*3.66*	
Cobalt		*-1.52*	
Copper		*-0.110*	
Iron	*200000*	*192830*	*96*
Lead		*-0.668*	
Lithium		*-3.73*	
Manganese		*2.29*	
Molybdenum		*-2.21*	
Nickel		*3.61*	
Selenium		*3.31*	
Silicon		*-2.65*	
Silver		*0.622*	
Strontium		*17.7*	
Thallium		*-5.01*	
Tin		*2.02*	
Titanium		*-0.669*	
Vanadium		*1.61*	
Zinc		*3.48*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICSAB 240-126815/9 Instrument ID: I9

Lab File ID: I9041614A.asc ICS Source: MTICPICSABW_00003

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Calcium	**500000**	**493210**	**99**
Magnesium	**500000**	**498170**	**100**
Potassium	**10000**	**10738**	**107**
Sodium	**10000**	**10783**	**108**
Aluminum	*500000*	*513370*	*103*
Antimony	*1000*	*1050*	*105*
Arsenic	*1000*	*1021*	*102*
Barium	*500*	*504*	*101*
Beryllium	*500*	*494*	*99*
Boron	*500*	*531*	*106*
Cadmium	*1000*	*1053*	*105*
Chromium	*500*	*499*	*100*
Cobalt	*500*	*498*	*100*
Copper	*500*	*542*	*108*
Iron	*200000*	*194710*	*97*
Lead	*1000*	*959*	*96*
Lithium	*500*	*515*	*103*
Manganese	*500*	*501*	*100*
Molybdenum	*1000*	*1002*	*100*
Nickel	*1000*	*990*	*99*
Selenium	*1000*	*1048*	*105*
Silicon	*10000*	*10050*	*101*
Silver	*1000*	*1089*	*109*
Strontium	*1500*	*1469*	*98*
Thallium	*1000*	*985*	*99*
Tin	*500*	*508*	*102*
Titanium	*500*	*514*	*103*
Vanadium	*500*	*496*	*99*
Zinc	*1000*	*975*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

SDG 240-36112-1

Water ICP Interference

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. nterferenc	Validation Action	Validation Action
Sb	MSA-MW-24S-041114 Total	0.63	u	Fe	50541	0.298	160000	0.94	na	na
As		29			50541	0.162	160000	0.51	na	na
Cd		5			50541	0.061	160000	0.19	na	na
Cr		14			50541	0.565	160000	1.79	J	na
Mn		4600			50541	0.91	160000	2.88	na	na
Ni		550			50541	2.04	160000	6.46	na	na
Ag		0.029	u		50541	0.024	160000	0.08	na	na

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. nterferenc	Validation Action	Validation Action
Sb	MSA-MW-24S-041114 Diss	0.11	u	Fe	50541	0.298	160000	0.94	na	na
As		29			50541	0.162	160000	0.51	na	na
Cd		5.2			50541	0.061	160000	0.19	na	na
Cr		13			50541	0.565	160000	1.79	J	na
Mn		4700			50541	0.91	160000	2.88	na	na
Ni		560			50541	2.04	160000	6.46	na	na
Ag		0.012	u		50541	0.024	160000	0.08	na	na

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. nterferenc	Validation Action	Validation Action
Sb	MSA-MW-6-041014 Total	0.15	u	Fe	48321	0.32	70000	0.46	na	na
As		2.9	u		48321	0.134	70000	0.19	na	na
Cd		1.9			48321	0.039	70000	0.06	na	na
Cr		0.91			48321	0.526	70000	0.76	J	na
Mn		8200			48321	0.92	70000	1.33	na	na
Ni		32			48321	1.69	70000	2.45	na	na
Ag		0.0083	u		48321	0.02	70000	0.03	na	na

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. nterferenc	Validation Action	Validation Action
Sb	MSA-MW-6-041014 Diss	0.13	u	Fe	48321	0.32	68000	0.45	na	na
As		2	u		48321	0.134	68000	0.19	na	na
Cd		1.8			48321	0.039	68000	0.05	na	na
Cr		0.69			48321	0.526	68000	0.74	J	na
Mn		8200			48321	0.92	68000	1.29	na	na
Ni		37			48321	1.69	68000	2.38	na	na
Ag		0.0083	u		48321	0.02	68000	0.03	na	na

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICSA 240-126899/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.320**	
Arsenic		**0.134**	
Barium		**0.167**	
Beryllium		**0.0070**	
Cadmium		**0.0390**	
Chromium		**0.526**	
Cobalt		**0.0140**	
Copper		**0.179**	
Iron	**50000**	**48321**	**97**
Lead		**0.0770**	
Manganese		**0.920**	
Molybdenum	**1000**	**1016**	**102**
Nickel		**1.69**	
Selenium		**0.122**	
Silver		**0.0200**	
Thallium		**0.0050**	
Vanadium		**-0.143**	
Aluminum	*50000*	*44984*	*90*
Boron		*-0.225*	
Calcium	*50000*	*47846*	*96*
Magnesium	*50000*	*48211*	*96*
Potassium	*50000*	*48022*	*96*
Sodium	*50000*	*47929*	*96*
Strontium		*2.21*	
Tin		*0.281*	
Titanium	*1000*	*967*	*97*
Tungsten		*0.213*	
Zinc		*1.19*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICSAB 240-126899/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**101**	**101**
Arsenic	**100**	**103**	**103**
Barium	**100**	**103**	**103**
Beryllium	**100**	**99.5**	**100**
Cadmium	**100**	**103**	**103**
Chromium	**100**	**97.5**	**98**
Cobalt	**100**	**96.9**	**97**
Copper	**100**	**99.5**	**99**
Iron	**50000**	**49431**	**99**
Lead	**100**	**101**	**101**
Manganese	**100**	**100**	**100**
Molybdenum	**1100**	**1147**	**104**
Nickel	**100**	**99.9**	**100**
Selenium	**100**	**103**	**103**
Silver	**100**	**98.3**	**98**
Thallium	**100**	**103**	**103**
Vanadium	**100**	**98.1**	**98**
Aluminum	*50000*	*45953*	*92*
Boron	*100*	*95.8*	*96*
Calcium	*50000*	*48227*	*96*
Magnesium	*50000*	*48244*	*96*
Potassium	*50000*	*48503*	*97*
Sodium	*50000*	*48510*	*97*
Strontium	*100*	*100*	*100*
Tin	*100*	*99.3*	*99*
Titanium	*1100*	*1080*	*98*
Tungsten	*100*	*100*	*100*
Zinc	*100*	*101*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICSA 240-127186/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.298**	
Arsenic		**0.162**	
Barium		**0.221**	
Beryllium		**-0.0010**	
Cadmium		**0.0610**	
Chromium		**0.565**	
Cobalt		**0.0140**	
Copper		**0.188**	
Iron	**50000**	**50541**	**101**
Lead		**0.0870**	
Manganese		**0.910**	
Molybdenum	**1000**	**1038**	**104**
Nickel		**2.04**	
Selenium		**0.154**	
Silver		**0.0240**	
Thallium		**0.0050**	
Vanadium		**0.0510**	
Aluminum	*50000*	*48435*	*97*
Boron		*0.717*	
Calcium	*50000*	*49013*	*98*
Magnesium	*50000*	*50155*	*100*
Potassium	*50000*	*50926*	*102*
Sodium	*50000*	*50499*	*101*
Strontium		*2.24*	
Tin		*0.245*	
Titanium	*1000*	*1018*	*102*
Tungsten		*0.299*	
Zinc		*1.54*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Lab Sample ID: ICSAB 240-127186/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**98.8**	**99**
Arsenic	**100**	**103**	**103**
Barium	**100**	**102**	**102**
Beryllium	**100**	**102**	**102**
Cadmium	**100**	**102**	**102**
Chromium	**100**	**102**	**102**
Cobalt	**100**	**103**	**103**
Copper	**100**	**103**	**103**
Iron	**50000**	**51410**	**103**
Lead	**100**	**101**	**101**
Manganese	**100**	**104**	**104**
Molybdenum	**1100**	**1148**	**104**
Nickel	**100**	**103**	**103**
Selenium	**100**	**102**	**102**
Silver	**100**	**104**	**104**
Thallium	**100**	**101**	**101**
Vanadium	**100**	**103**	**103**
Aluminum	*50000*	*49347*	*99*
Boron	*100*	*98.9*	*99*
Calcium	*50000*	*50446*	*101*
Magnesium	*50000*	*51108*	*102*
Potassium	*50000*	*51195*	*102*
Sodium	*50000*	*51461*	*103*
Strontium	*100*	*104*	*104*
Tin	*100*	*96.7*	*97*
Titanium	*1100*	*1127*	*102*
Tungsten	*100*	*103*	*103*
Zinc	*100*	*105*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-32S-041014 MS
Lab ID: 240-36112-1 MS
Lab Name: TestAmerica Canton
Job No.: 240-36112-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.01		0.12	U	1.00	101	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-32S-041014 MS
Lab ID: 240-36112-1 MS
Lab Name: TestAmerica Canton
Job No.: 240-36112-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	101		0.54	J	100	101	44-153		6020
Arsenic	1030		4.6	J	1000	102	82-123		6020
Barium	1040		43		1000	100	45-144		6020
Beryllium	1020		0.32	J	1000	102	77-124		6020
Cadmium	1050		0.38	J	1000	105	78-117		6020
Chromium	971		3.2		1000	97	72-110		6020
Cobalt	997		34		1000	96	67-114		6020
Copper	1000		5.5		1000	99	60-123		6020
Molybdenum	100		0.81	U	100	100	80-110		6020
Iron	17900		7400		10000	105	22-169		6020
Nickel	1010		18		1000	100	72-111		6020
Lead	959		1.7		1000	96	73-115		6020
Manganese	2460		1400		1000	103	10-172		6020
Selenium	985		0.53	J	1000	98	72-148		6020
Thallium	241		0.40	U	250	96	69-117		6020
Silver	98.7		0.11	J	100	99	10-139		6020
Vanadium	984		4.7	J	1000	98	70-112		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-25I-041114 MS
Lab ID: 240-36112-17 MS
Lab Name: TestAmerica Canton
Job No.: 240-36112-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR C		Sample Result (SR) C		Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.897		0.12	U	1.00	90	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-25I-041114 MS Lab ID: 240-36112-17 MS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	97.9		0.84	J	100	97	44-153		6020
Arsenic	985		7.7		1000	98	82-123		6020
Barium	987		26		1000	96	45-144		6020
Beryllium	998		0.086	J	1000	100	77-124		6020
Cadmium	1010		0.13	J	1000	101	78-117		6020
Cobalt	975		2.9		1000	97	67-114		6020
Chromium	976		1.3	J	1000	97	72-110		6020
Copper	1000		4.0		1000	100	60-123		6020
Iron	11700		1700		10000	99	22-169		6020
Manganese	1010		38		1000	98	10-172		6020
Molybdenum	101		1.6	J	100	100	80-110		6020
Nickel	998		5.2		1000	99	72-111		6020
Lead	953		0.41	J	1000	95	73-115		6020
Selenium	967		0.34	U	1000	97	72-148		6020
Thallium	239		0.40	U	250	96	69-117		6020
Vanadium	978		2.2	J	1000	98	70-112		6020
Silver	101		0.020	J	100	101	10-139		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-25I-041114 MS
Lab ID: 240-36112-17 MS
Lab Name: TestAmerica Canton
Job No.: 240-36112-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	99.8		0.74	J	100	99	44-153		6020
Arsenic	1020		8.0		1000	101	82-123		6020
Barium	1000		25		1000	98	45-144		6020
Beryllium	1030		0.15	J	1000	103	77-124		6020
Cadmium	1040		0.14	J	1000	104	78-117		6020
Chromium	990		0.90	J	1000	99	72-110		6020
Cobalt	988		3.1		1000	98	67-114		6020
Copper	1010		4.1		1000	100	60-123		6020
Lead	958		0.53	J	1000	96	73-115		6020
Molybdenum	100		1.6	J	100	99	80-110		6020
Nickel	1010		7.2		1000	100	72-111		6020
Iron	11600		1400		10000	102	22-169		6020
Selenium	991		0.43	J	1000	99	72-148		6020
Manganese	1020		37		1000	98	10-172		6020
Silver	100		0.019	J	100	100	10-139		6020
Thallium	241		0.40	U	250	96	69-117		6020
Vanadium	983		1.8	J	1000	98	70-112		6020
Mercury	0.894		0.12	U	1.00	89	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-32S-041014 MSD
Lab ID: 240-36112-1 MSD
Lab Name: TestAmerica Canton
Job No.: 240-36112-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.01		1.00	101	69-134	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-32S-041014 MSD
Lab ID: 240-36112-1 MSD
Lab Name: TestAmerica Canton
Job No.: 240-36112-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	104		100	103	44-153	2	20		6020
Arsenic	1040		1000	104	82-123	1	20		6020
Barium	1050		1000	101	45-144	2	20		6020
Beryllium	1540		1000	154	77-124	41	20	F1 F2	6020
Cadmium	1040		1000	104	78-117	1	20		6020
Chromium	980		1000	98	72-110	1	20		6020
Cobalt	1020		1000	99	67-114	2	20		6020
Copper	1010		1000	100	60-123	1	20		6020
Molybdenum	103		100	103	80-110	2	20		6020
Iron	18000		10000	106	22-169	1	20		6020
Nickel	1030		1000	101	72-111	1	20		6020
Lead	966		1000	96	73-115	1	20		6020
Manganese	2480		1000	105	10-172	1	20		6020
Selenium	1010		1000	101	72-148	2	20		6020
Thallium	243		250	97	69-117	1	20		6020
Silver	102		100	102	10-139	4	20		6020
Vanadium	993		1000	99	70-112	1	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-25I-041114 MSD
Lab ID: 240-36112-17 MSD
Lab Name: TestAmerica Canton
Job No.: 240-36112-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.978		1.00	98	69-134	9	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-25I-041114 MSD Lab ID: 240-36112-17 MSD

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	97.5		100	97	44-153	0	20		6020
Arsenic	997		1000	99	82-123	1	20		6020
Barium	983		1000	96	45-144	0	20		6020
Beryllium	1010		1000	101	77-124	1	20		6020
Cadmium	1010		1000	101	78-117	0	20		6020
Cobalt	963		1000	96	67-114	1	20		6020
Chromium	970		1000	97	72-110	1	20		6020
Copper	997		1000	99	60-123	0	20		6020
Iron	11600		10000	98	22-169	1	20		6020
Manganese	991		1000	95	10-172	2	20		6020
Molybdenum	98.4		100	97	80-110	3	20		6020
Nickel	994		1000	99	72-111	0	20		6020
Lead	937		1000	94	73-115	2	20		6020
Selenium	960		1000	96	72-148	1	20		6020
Thallium	232		250	93	69-117	3	20		6020
Vanadium	963		1000	96	70-112	1	20		6020
Silver	98.3		100	98	10-139	3	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-25I-041114 MSD Lab ID: 240-36112-17 MSD

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	100		100	99	44-153	0	20		6020
Arsenic	1000		1000	100	82-123	2	20		6020
Barium	1010		1000	99	45-144	1	20		6020
Beryllium	1010		1000	101	77-124	2	20		6020
Cadmium	1010		1000	101	78-117	3	20		6020
Chromium	967		1000	97	72-110	2	20		6020
Cobalt	980		1000	98	67-114	1	20		6020
Copper	996		1000	99	60-123	1	20		6020
Lead	951		1000	95	73-115	1	20		6020
Molybdenum	101		100	99	80-110	0	20		6020
Nickel	1010		1000	100	72-111	1	20		6020
Iron	11400		10000	100	22-169	1	20		6020
Selenium	980		1000	98	72-148	1	20		6020
Manganese	1020		1000	98	10-172	0	20		6020
Silver	99.1		100	99	10-139	1	20		6020
Thallium	235		250	94	69-117	2	20		6020
Vanadium	976		1000	97	70-112	1	20		6020
Mercury	0.936		1.00	94	69-134	5	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-126489/2-A

Lab Name: TestAmerica Canton Job No.: 240-36112-1

Sample Matrix: Water LCS Source: MTICP2A_00036

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	51300		103	80	120		6010C
Potassium	50000	51700		103	80	120		6010C
Magnesium	50000	50400		101	80	120		6010C
Sodium	50000	51200		102	80	120		6010C
SiO2, Silica	2140	2350		110	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-126664/2-A

Lab Name: TestAmerica Canton Job No.: 240-36112-1

Sample Matrix: Water LCS Source: MTICPMSB_00017

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	88.6		89	80	120		6020
Arsenic	1000	869		87	80	120		6020
Barium	1000	934		93	80	120		6020
Beryllium	1000	918		92	80	120		6020
Cadmium	1000	957		96	80	120		6020
Chromium	1000	859		86	80	120		6020
Cobalt	1000	869		87	80	120		6020
Copper	1000	906		91	80	120		6020
Molybdenum	100	88.9		89	80	120		6020
Iron	10000	9080		91	80	120		6020
Nickel	1000	903		90	80	120		6020
Lead	1000	977		98	80	120		6020
Manganese	1000	879		88	80	120		6020
Selenium	1000	876		88	80	120		6020
Thallium	250	232		93	80	120		6020
Silver	100	89.3		89	80	120		6020
Vanadium	1000	846		85	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-126840/2-A

Lab Name: TestAmerica Canton Job No.: 240-36112-1

Sample Matrix: Water LCS Source: MTICPMSB_00017

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	96.1		96	80	120		6020
Arsenic	1000	961		96	80	120		6020
Barium	1000	955		95	80	120		6020
Beryllium	1000	977		98	80	120		6020
Cadmium	1000	998		100	80	120		6020
Chromium	1000	945		94	80	120		6020
Cobalt	1000	964		96	80	120		6020
Copper	1000	967		97	80	120		6020
Molybdenum	100	95.4		95	80	120		6020
Iron	10000	9880		99	80	120		6020
Nickel	1000	988		99	80	120		6020
Lead	1000	923		92	80	120		6020
Manganese	1000	959		96	80	120		6020
Selenium	1000	956		96	80	120		6020
Thallium	250	229		92	80	120		6020
Silver	100	97.4		97	80	120		6020
Vanadium	1000	944		94	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-126667/2-A

Lab Name: TestAmerica Canton Job No.: 240-36112-1

Sample Matrix: Water LCS Source: MTHGCALW_00614

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.08		102	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-126843/2-A

Lab Name: TestAmerica Canton Job No.: 240-36112-1

Sample Matrix: Water LCS Source: MTHGCALW_00615

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.06		101	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-36112-1

SDG No:

Lab Name: TestAmerica Canton Job No: 240-36112-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.54	J	0.690	J	NC		6020
Arsenic	4.6	J	4.38	J	NC		6020
Barium	43		40.9		NC		6020
Beryllium	0.32	J	0.300	J	NC		6020
Cadmium	0.38	J	0.380	J	NC		6020
Chromium	3.2		3.20	J	NC		6020
Cobalt	34		34.2		NC		6020
Copper	5.5		5.62	J	NC		6020
Molybdenum	0.81	U	4.1	U	NC		6020
Iron	7400		7430		NC		6020
Nickel	18		18.4		NC		6020
Lead	1.7		1.76	J	NC		6020
Manganese	1400		1460		2.2		6020
Selenium	0.53	J	1.7	U	NC		6020
Thallium	0.40	U	2.0	U	NC		6020
Silver	0.11	J	0.125	J	NC		6020
Vanadium	4.7	J	4.91	J	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-36112-17

SDG No:

Lab Name: TestAmerica Canton Job No: 240-36112-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.84	J	0.965	J	NC		6020
Arsenic	7.7		7.64	J	NC		6020
Barium	26		25.3		NC		6020
Beryllium	0.086	J	0.16	U	NC		6020
Cadmium	0.13	J	0.13	U	NC		6020
Chromium	1.3	J	1.32	J	NC		6020
Cobalt	2.9		2.93	J	NC		6020
Copper	4.0		4.10	J	NC		6020
Molybdenum	1.6	J	4.1	U	NC		6020
Iron	1700		1740		NC		6020
Nickel	5.2		5.19	J	NC		6020
Lead	0.41	J	0.70	U	NC		6020
Manganese	38		38.3		NC		6020
Selenium	0.34	U	1.7	U	NC		6020
Thallium	0.40	U	2.0	U	NC		6020
Silver	0.020	J	0.042	U	NC		6020
Vanadium	2.2	J	2.50	J	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C MDL Date: 02/05/2014 10:38

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	317.933	5000	130
Magnesium	279.078	5000	34
Potassium	766.491	5000	72
SiO2, Silica	251.6	1070	17.34
Sodium	330.232	5000	590

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C XMDL Date: 02/05/2014 10:39

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	317.933	5000	130
Magnesium	279.078	5000	34
Potassium	766.491	5000	72
SiO2, Silica	251.6	1070	17.34
Sodium	330.232	5000	590

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A XMDL Date: 02/08/2010 16:06

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A XMDL Date: 02/08/2010 16:06

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 MDL Date: 04/14/2011 14:06

Prep Method: None

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Calcium hardness as calcium carbonate		12	0.325
Hardness as calcium carbonate		33	0.465
Magnesium hardness as calcium carbonate		21	0.14

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 XMDL Date: 04/14/2011 14:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium hardness as calcium carbonate		12000	325
Hardness as calcium carbonate		33000	465
Magnesium hardness as calcium carbonate		21000	140

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG No.:

ICP-AES Instrument ID: I9 Date: 03/26/2014

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	Tl	V
Aluminum										0.025824					0.030943
Antimony		-0.000069			-0.000614			-0.000030							0.002351
Arsenic		0.000028			-0.000174	0.000536			-0.000355	0.001157					
Barium															
Beryllium															0.000470
Boron															
Cadmium			0.005676					-0.000001							
Calcium															
Chromium															
Cobalt													0.002095		
Copper				0.000029	0.000140			0.000007							
Iron															
Lead		-0.000114					0.000068	0.000044			0.000321	0.000060			
Lithium				0.000084											
Magnesium															
Manganese															
Molybdenum															
Nickel					0.000518			0.000077							
Potassium															
Selenium									0.000338						
Silver															
Sodium															
Strontium															
Thallium					0.001471				0.001238				-0.000905		-0.006245
Tin															
Titanium															
Vanadium								0.000020							
Zinc						-0.000592									

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-36112-1

SDG No.:

Instrument ID: I9 Date: 04/01/2014 10:54

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		500000	6010C
Potassium		500000	6010C
Magnesium		500000	6010C
Sodium		500000	6010C
SiO2, Silica		428000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-36112-1

SDG No.:

Instrument ID: I10 Date: 04/14/2014 15:35

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		300	6020
Arsenic		10000	6020
Barium		10000	6020
Beryllium		10000	6020
Cadmium		4000	6020
Chromium		10000	6020
Cobalt		10000	6020
Copper		10000	6020
Molybdenum		2000	6020
Iron		200000	6020
Nickel		10000	6020
Lead		4000	6020
Manganese		10000	6020
Selenium		10000	6020
Thallium		5000	6020
Silver		300	6020
Vanadium		10000	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-36112-1

SDG No.:

Instrument ID: H1 Date: 12/10/2013 15:54

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126489 Batch Start Date: 04/15/14 09:09 Batch Analyst: McGall, Lisa

Batch Method: 3005A Batch End Date: 04/15/14 18:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAGSPIKEW 00037	MTICP1 00030	MTICP2A 00036	MTTMHCL 00030
MB 240-126489/1		3005A, 6010C		50 mL	50 mL				2.5 mL
LCS 240-126489/2		3005A, 6010C		50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-36112-R-3	MSA-MW-48S-041014	3005A, 6010C	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-126489/1		3005A, 6010C		1 mL					
LCS 240-126489/2		3005A, 6010C		1 mL					
240-36112-R-3	MSA-MW-48S-041014	3005A, 6010C	R	1 mL					

Batch Notes	
Filter Paper Lot Number	9546553
Hot Block ID number	c4
Pipette ID	383364
Digestion Tube/Cup Lot #	1308077

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126664 Batch Start Date: 04/16/14 08:32 Batch Analyst: Sutherland, Aaron

Batch Method: 3005A Batch End Date: 04/16/14 16:02

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00015	MTICPMSA 00017	MTICPMSB 00017	MTTMHCL 00031
MB 240-126664/1		3005A, 6020		50 mL	50 mL				2.5 mL
LCS 240-126664/2		3005A, 6020		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-36112-K-1	MSA-MW-32S-041014	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-K-1 MS	MSA-MW-32S-041014	3005A, 6020	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-36112-K-1 MSD	MSA-MW-32S-041014	3005A, 6020	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-36112-G-2	MSA-MW-32I-041014	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-R-3	MSA-MW-48S-041014	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-L-4	MSA-MW-49S-041014	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-H-5	MSA-MW-49I-041014	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-K-6	MSA-DMW-10S-041014	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-G-7	MSA-DMW-10I-041014	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-G-8	MSA-DMW-1B-041014	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-G-9	MSA-DMW-1A-041014	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-K-10	MSA-MW-6-041014	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-J-1	MSA-MW-32S-041014	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36112-F-2	MSA-MW-32I-041014	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36112-Q-3	MSA-MW-48S-041014	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36112-K-4	MSA-MW-49S-041014	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36112-G-5	MSA-MW-49I-041014	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36112-J-6	MSA-DMW-10S-041014	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36112-F-7	MSA-DMW-10I-041014	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36112-F-8	MSA-DMW-1B-041014	3005A, 6020	D	50 mL	50 mL				2.5 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126664 Batch Start Date: 04/16/14 08:32 Batch Analyst: Sutherland, Aaron

Batch Method: 3005A Batch End Date: 04/16/14 16:02

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00015	MTICPMSA 00017	MTICPMSB 00017	MTTMHCL 00031
240-36112-F-9	MSA-DMW-1A-041014	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36112-J-10	MSA-MW-6-041014	3005A, 6020	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-126664/1		3005A, 6020		1 mL					
LCS 240-126664/2		3005A, 6020		1 mL					
240-36112-K-1	MSA-MW-32S-041014	3005A, 6020	R	1 mL					
240-36112-K-1 MS	MSA-MW-32S-041014	3005A, 6020	R	1 mL					
240-36112-K-1 MSD	MSA-MW-32S-041014	3005A, 6020	R	1 mL					
240-36112-G-2	MSA-MW-32I-041014	3005A, 6020	R	1 mL					
240-36112-R-3	MSA-MW-48S-041014	3005A, 6020	R	1 mL					
240-36112-L-4	MSA-MW-49S-041014	3005A, 6020	R	1 mL					
240-36112-H-5	MSA-MW-49I-041014	3005A, 6020	R	1 mL					
240-36112-K-6	MSA-DMW-10S-041014	3005A, 6020	R	1 mL					
240-36112-G-7	MSA-DMW-10I-041014	3005A, 6020	R	1 mL					
240-36112-G-8	MSA-DMW-1B-041014	3005A, 6020	R	1 mL					
240-36112-G-9	MSA-DMW-1A-041014	3005A, 6020	R	1 mL					
240-36112-K-10	MSA-MW-6-041014	3005A, 6020	R	1 mL					
240-36112-J-1	MSA-MW-32S-041014	3005A, 6020	D	1 mL					
240-36112-F-2	MSA-MW-32I-041014	3005A, 6020	D	1 mL					
240-36112-Q-3	MSA-MW-48S-041014	3005A, 6020	D	1 mL					
240-36112-K-4	MSA-MW-49S-041014	3005A, 6020	D	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126664 Batch Start Date: 04/16/14 08:32 Batch Analyst: Sutherland, Aaron

Batch Method: 3005A Batch End Date: 04/16/14 16:02

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
240-36112-G-5	MSA-MW-49I-041014	3005A, 6020	D	1 mL					
240-36112-J-6	MSA-DMW-10S-041014	3005A, 6020	D	1 mL					
240-36112-F-7	MSA-DMW-10I-041014	3005A, 6020	D	1 mL					
240-36112-F-8	MSA-DMW-1B-041014	3005A, 6020	D	1 mL					
240-36112-F-9	MSA-DMW-1A-041014	3005A, 6020	D	1 mL					
240-36112-J-10	MSA-MW-6-041014	3005A, 6020	D	1 mL					

Batch Notes	
Filter Paper Lot Number	9546553
Hot Block ID number	hb3
Pipette ID	383363
Digestion Tube/Cup Lot #	1308-077

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126840 Batch Start Date: 04/17/14 08:57 Batch Analyst: Sutherland, Aaron

Batch Method: 3005A Batch End Date: 04/17/14 16:27

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00016	MTICPMSA 00017	MTICPMSB 00017	MTTMHCL 00031
MB 240-126840/1		3005A, 6020		50 mL	50 mL				2.5 mL
LCS 240-126840/2		3005A, 6020		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-36112-T-17	MSA-MW-25I-041114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-T-17 MS	MSA-MW-25I-041114	3005A, 6020	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-36112-T-17 MSD	MSA-MW-25I-041114	3005A, 6020	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-36112-Q-17	MSA-MW-25I-041114	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36112-Q-17 MS	MSA-MW-25I-041114	3005A, 6020	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-36112-Q-17 MSD	MSA-MW-25I-041114	3005A, 6020	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-36112-K-11	MSA-MW-24S-041114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-H-12	MSA-MW-24I-041114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-K-13	MSA-MW-23S-041114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-G-14	MSA-MW-23D-041114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-K-15	MSA-MW-36S-041114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-K-16	MSA-MW-25S-041114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-K-18	MSA-MW-37S-041114	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36112-J-11	MSA-MW-24S-041114	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36112-G-12	MSA-MW-24I-041114	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36112-J-13	MSA-MW-23S-041114	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36112-F-14	MSA-MW-23D-041114	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36112-J-15	MSA-MW-36S-041114	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36112-J-16	MSA-MW-25S-041114	3005A, 6020	D	50 mL	50 mL				2.5 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126840 Batch Start Date: 04/17/14 08:57 Batch Analyst: Sutherland, Aaron

Batch Method: 3005A Batch End Date: 04/17/14 16:27

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00016	MTICPMSA 00017	MTICPMSB 00017	MTTMHCL 00031
240-36112-J-18	MSA-MW-37S-041114	3005A, 6020	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-126840/1		3005A, 6020		1 mL					
LCS 240-126840/2		3005A, 6020		1 mL					
240-36112-T-17	MSA-MW-25I-041114	3005A, 6020	R	1 mL					
240-36112-T-17 MS	MSA-MW-25I-041114	3005A, 6020	R	1 mL					
240-36112-T-17 MSD	MSA-MW-25I-041114	3005A, 6020	R	1 mL					
240-36112-Q-17	MSA-MW-25I-041114	3005A, 6020	D	1 mL					
240-36112-Q-17 MS	MSA-MW-25I-041114	3005A, 6020	D	1 mL					
240-36112-Q-17 MSD	MSA-MW-25I-041114	3005A, 6020	D	1 mL					
240-36112-K-11	MSA-MW-24S-041114	3005A, 6020	R	1 mL					
240-36112-H-12	MSA-MW-24I-041114	3005A, 6020	R	1 mL					
240-36112-K-13	MSA-MW-23S-041114	3005A, 6020	R	1 mL					
240-36112-G-14	MSA-MW-23D-041114	3005A, 6020	R	1 mL					
240-36112-K-15	MSA-MW-36S-041114	3005A, 6020	R	1 mL					
240-36112-K-16	MSA-MW-25S-041114	3005A, 6020	R	1 mL					
240-36112-K-18	MSA-MW-37S-041114	3005A, 6020	R	1 mL					
240-36112-J-11	MSA-MW-24S-041114	3005A, 6020	D	1 mL					
240-36112-G-12	MSA-MW-24I-041114	3005A, 6020	D	1 mL					
240-36112-J-13	MSA-MW-23S-041114	3005A, 6020	D	1 mL					
240-36112-F-14	MSA-MW-23D-041114	3005A, 6020	D	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126840 Batch Start Date: 04/17/14 08:57 Batch Analyst: Sutherland, Aaron

Batch Method: 3005A Batch End Date: 04/17/14 16:27

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
240-36112-J-15	MSA-MW-36S-041114	3005A, 6020	D	1 mL					
240-36112-J-16	MSA-MW-25S-041114	3005A, 6020	D	1 mL					
240-36112-J-18	MSA-MW-37S-041114	3005A, 6020	D	1 mL					

Batch Notes	
Filter Paper Lot Number	9546553
Hot Block ID number	hb2
Pipette ID	383363
Digestion Tube/Cup Lot #	1308-077

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126667 Batch Start Date: 04/16/14 13:10 Batch Analyst: Sutherland, Aaron

Batch Method: 7470A Batch End Date: 04/16/14 15:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00015	MTHGCALW 00614	MTK2S208RGNT 00052	MTKMN04W 00058
MB 240-126667/1		7470A, 7470A		50 mL	50 mL	2.5 mL		4 mL	7.5 mL
LCS 240-126667/2		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL	4 mL	7.5 mL
240-36112-K-1	MSA-MW-32S-041014	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-K-1 MS	MSA-MW-32S-041014	7470A, 7470A	T	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-36112-K-1 MSD	MSA-MW-32S-041014	7470A, 7470A	T	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-36112-G-2	MSA-MW-32I-041014	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-R-3	MSA-MW-48S-041014	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-L-4	MSA-MW-49S-041014	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-H-5	MSA-MW-49I-041014	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-K-6	MSA-DMW-10S-041014	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-G-7	MSA-DMW-10I-041014	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-G-8	MSA-DMW-1B-041014	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-G-9	MSA-DMW-1A-041014	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-K-10	MSA-MW-6-041014	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-J-1	MSA-MW-32S-041014	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-F-2	MSA-MW-32I-041014	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-Q-3	MSA-MW-48S-041014	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-K-4	MSA-MW-49S-041014	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-G-5	MSA-MW-49I-041014	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-J-6	MSA-DMW-10S-041014	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-F-7	MSA-DMW-10I-041014	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126667 Batch Start Date: 04/16/14 13:10 Batch Analyst: Sutherland, Aaron

Batch Method: 7470A Batch End Date: 04/16/14 15:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00015	MTHGCALW 00614	MTK2S208RGNT 00052	MTKMN04W 00058
240-36112-F-8	MSA-DMW-1B-041014	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-F-9	MSA-DMW-1A-041014	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-J-10	MSA-MW-6-041014	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-126667/1		7470A, 7470A		1.25 mL					
LCS 240-126667/2		7470A, 7470A		1.25 mL					
240-36112-K-1	MSA-MW-32S-041014	7470A, 7470A	T	1.25 mL					
240-36112-K-1 MS	MSA-MW-32S-041014	7470A, 7470A	T	1.25 mL					
240-36112-K-1 MSD	MSA-MW-32S-041014	7470A, 7470A	T	1.25 mL					
240-36112-G-2	MSA-MW-32I-041014	7470A, 7470A	T	1.25 mL					
240-36112-R-3	MSA-MW-48S-041014	7470A, 7470A	T	1.25 mL					
240-36112-L-4	MSA-MW-49S-041014	7470A, 7470A	T	1.25 mL					
240-36112-H-5	MSA-MW-49I-041014	7470A, 7470A	T	1.25 mL					
240-36112-K-6	MSA-DMW-10S-041014	7470A, 7470A	T	1.25 mL					
240-36112-G-7	MSA-DMW-10I-041014	7470A, 7470A	T	1.25 mL					
240-36112-G-8	MSA-DMW-1B-041014	7470A, 7470A	T	1.25 mL					
240-36112-G-9	MSA-DMW-1A-041014	7470A, 7470A	T	1.25 mL					
240-36112-K-10	MSA-MW-6-041014	7470A, 7470A	T	1.25 mL					
240-36112-J-1	MSA-MW-32S-041014	7470A, 7470A	D	1.25 mL					
240-36112-F-2	MSA-MW-32I-041014	7470A, 7470A	D	1.25 mL					
240-36112-Q-3	MSA-MW-48S-041014	7470A, 7470A	D	1.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126667 Batch Start Date: 04/16/14 13:10 Batch Analyst: Sutherland, Aaron

Batch Method: 7470A Batch End Date: 04/16/14 15:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
240-36112-K-4	MSA-MW-49S-041014	7470A, 7470A	D	1.25 mL					
240-36112-G-5	MSA-MW-49I-041014	7470A, 7470A	D	1.25 mL					
240-36112-J-6	MSA-DMW-10S-041014	7470A, 7470A	D	1.25 mL					
240-36112-F-7	MSA-DMW-10I-041014	7470A, 7470A	D	1.25 mL					
240-36112-F-8	MSA-DMW-1B-041014	7470A, 7470A	D	1.25 mL					
240-36112-F-9	MSA-DMW-1A-041014	7470A, 7470A	D	1.25 mL					
240-36112-J-10	MSA-MW-6-041014	7470A, 7470A	D	1.25 mL					

Batch Notes	
Hot Block ID number	c2
Pipette ID	383363 383366
Digestion Tube/Cup Lot #	1309271

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126843 Batch Start Date: 04/17/14 13:45 Batch Analyst: Sutherland, Aaron

Batch Method: 7470A Batch End Date: 04/17/14 15:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00015	MTHGCALW 00615	MTK2S208RGNT 00052	MTKMN04W 00058
MB 240-126843/1		7470A, 7470A		50 mL	50 mL	2.5 mL		4 mL	7.5 mL
LCS 240-126843/2		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL	4 mL	7.5 mL
240-36112-T-17	MSA-MW-25I-041114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-T-17 MS	MSA-MW-25I-041114	7470A, 7470A	T	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-36112-T-17 MSD	MSA-MW-25I-041114	7470A, 7470A	T	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-36112-Q-17	MSA-MW-25I-041114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-Q-17 MS	MSA-MW-25I-041114	7470A, 7470A	D	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-36112-Q-17 MSD	MSA-MW-25I-041114	7470A, 7470A	D	50 mL	50 mL	2.5 mL	0.5 mL	4 mL	7.5 mL
240-36112-K-11	MSA-MW-24S-041114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-H-12	MSA-MW-24I-041114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-K-13	MSA-MW-23S-041114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-G-14	MSA-MW-23D-041114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-K-15	MSA-MW-36S-041114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-K-16	MSA-MW-25S-041114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-K-18	MSA-MW-37S-041114	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-J-11	MSA-MW-24S-041114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-G-12	MSA-MW-24I-041114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-J-13	MSA-MW-23S-041114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-F-14	MSA-MW-23D-041114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-J-15	MSA-MW-36S-041114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36112-J-16	MSA-MW-25S-041114	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126843 Batch Start Date: 04/17/14 13:45 Batch Analyst: Sutherland, Aaron

Batch Method: 7470A Batch End Date: 04/17/14 15:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00015	MTHGCALW 00615	MTK2S208RGNT 00052	MTKMN04W 00058
240-36112-J-18	MSA-MW-37S-04111 4	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-126843/1		7470A, 7470A		1.25 mL					
LCS 240-126843/2		7470A, 7470A		1.25 mL					
240-36112-T-17	MSA-MW-25I-04111 4	7470A, 7470A	T	1.25 mL					
240-36112-T-17 MS	MSA-MW-25I-04111 4	7470A, 7470A	T	1.25 mL					
240-36112-T-17 MSD	MSA-MW-25I-04111 4	7470A, 7470A	T	1.25 mL					
240-36112-Q-17	MSA-MW-25I-04111 4	7470A, 7470A	D	1.25 mL					
240-36112-Q-17 MS	MSA-MW-25I-04111 4	7470A, 7470A	D	1.25 mL					
240-36112-Q-17 MSD	MSA-MW-25I-04111 4	7470A, 7470A	D	1.25 mL					
240-36112-K-11	MSA-MW-24S-04111 4	7470A, 7470A	T	1.25 mL					
240-36112-H-12	MSA-MW-24I-04111 4	7470A, 7470A	T	1.25 mL					
240-36112-K-13	MSA-MW-23S-04111 4	7470A, 7470A	T	1.25 mL					
240-36112-G-14	MSA-MW-23D-04111 4	7470A, 7470A	T	1.25 mL					
240-36112-K-15	MSA-MW-36S-04111 4	7470A, 7470A	T	1.25 mL					
240-36112-K-16	MSA-MW-25S-04111 4	7470A, 7470A	T	1.25 mL					
240-36112-K-18	MSA-MW-37S-04111 4	7470A, 7470A	T	1.25 mL					
240-36112-J-11	MSA-MW-24S-04111 4	7470A, 7470A	D	1.25 mL					
240-36112-G-12	MSA-MW-24I-04111 4	7470A, 7470A	D	1.25 mL					
240-36112-J-13	MSA-MW-23S-04111 4	7470A, 7470A	D	1.25 mL					
240-36112-F-14	MSA-MW-23D-04111 4	7470A, 7470A	D	1.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126843 Batch Start Date: 04/17/14 13:45 Batch Analyst: Sutherland, Aaron

Batch Method: 7470A Batch End Date: 04/17/14 15:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
240-36112-J-15	MSA-MW-36S-041114	7470A, 7470A	D	1.25 mL					
240-36112-J-16	MSA-MW-25S-041114	7470A, 7470A	D	1.25 mL					
240-36112-J-18	MSA-MW-37S-041114	7470A, 7470A	D	1.25 mL					

Batch Notes	
Hot Block ID number	b1
Pipette ID	383363 383366
Digestion Tube/Cup Lot #	1309271

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Batch Number: 126900 Batch Start Date: 04/17/14 07:30 Batch Analyst: Martin, Aaron

Batch Method: 7470A Batch End Date: 04/17/14 09:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00016	MTHGCALW 00615	MTHgStd 00010	MTHNO3 00045
ICV 240-126900/7		7470A, 7470A		50 mL	50 mL	2.5 mL		0.125 mL	1.25 mL
ICB 240-126900/8		7470A, 7470A		50 mL	50 mL	2.5 mL			1.25 mL
CRA 240-126900/9		7470A, 7470A		50 mL	50 mL	2.5 mL	0.1 mL		1.25 mL
CCVL 240-126900/10		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL		1.25 mL
CCV 240-126900/11		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL		1.25 mL
CCB 240-126900/12		7470A, 7470A		50 mL	50 mL	2.5 mL			1.25 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTK2S208RGNT 00054	MTKMN04W 00059				
ICV 240-126900/7		7470A, 7470A		4 mL	7.5 mL				
ICB 240-126900/8		7470A, 7470A		4 mL	7.5 mL				
CRA 240-126900/9		7470A, 7470A		4 mL	7.5 mL				
CCVL 240-126900/10		7470A, 7470A		4 mL	7.5 mL				
CCV 240-126900/11		7470A, 7470A		4 mL	7.5 mL				
CCB 240-126900/12		7470A, 7470A		4 mL	7.5 mL				

Batch Notes	
Hot Block ID number	B1
Pipette ID	383364-383366
Digestion Tube/Cup Lot #	1309271

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-126489/1-A	04/15/2014 09:09	126489		50	50
LCS 240-126489/2-A	04/15/2014 09:09	126489		50	50
240-36112-3	04/15/2014 09:09	126489		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-126664/1-A	04/16/2014 08:32	126664		50	50
LCS 240-126664/2-A	04/16/2014 08:32	126664		50	50
240-36112-1	04/16/2014 08:32	126664		50	50
240-36112-1 MS	04/16/2014 08:32	126664		50	50
240-36112-1 MSD	04/16/2014 08:32	126664		50	50
240-36112-2	04/16/2014 08:32	126664		50	50
240-36112-3	04/16/2014 08:32	126664		50	50
240-36112-4	04/16/2014 08:32	126664		50	50
240-36112-5	04/16/2014 08:32	126664		50	50
240-36112-6	04/16/2014 08:32	126664		50	50
240-36112-7	04/16/2014 08:32	126664		50	50
240-36112-8	04/16/2014 08:32	126664		50	50
240-36112-9	04/16/2014 08:32	126664		50	50
240-36112-10	04/16/2014 08:32	126664		50	50
240-36112-1	04/16/2014 08:32	126664		50	50
240-36112-2	04/16/2014 08:32	126664		50	50
240-36112-3	04/16/2014 08:32	126664		50	50
240-36112-4	04/16/2014 08:32	126664		50	50
240-36112-5	04/16/2014 08:32	126664		50	50
240-36112-6	04/16/2014 08:32	126664		50	50
240-36112-7	04/16/2014 08:32	126664		50	50
240-36112-8	04/16/2014 08:32	126664		50	50
240-36112-9	04/16/2014 08:32	126664		50	50
240-36112-10	04/16/2014 08:32	126664		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-126840/1-A	04/17/2014 08:57	126840		50	50
LCS 240-126840/2-A	04/17/2014 08:57	126840		50	50
240-36112-17	04/17/2014 08:57	126840		50	50
240-36112-17 MS	04/17/2014 08:57	126840		50	50
240-36112-17 MSD	04/17/2014 08:57	126840		50	50
240-36112-17	04/17/2014 08:57	126840		50	50
240-36112-17 MS	04/17/2014 08:57	126840		50	50
240-36112-17 MSD	04/17/2014 08:57	126840		50	50
240-36112-11	04/17/2014 08:57	126840		50	50
240-36112-12	04/17/2014 08:57	126840		50	50
240-36112-13	04/17/2014 08:57	126840		50	50
240-36112-14	04/17/2014 08:57	126840		50	50
240-36112-15	04/17/2014 08:57	126840		50	50
240-36112-16	04/17/2014 08:57	126840		50	50
240-36112-18	04/17/2014 08:57	126840		50	50
240-36112-11	04/17/2014 08:57	126840		50	50
240-36112-12	04/17/2014 08:57	126840		50	50
240-36112-13	04/17/2014 08:57	126840		50	50
240-36112-14	04/17/2014 08:57	126840		50	50
240-36112-15	04/17/2014 08:57	126840		50	50
240-36112-16	04/17/2014 08:57	126840		50	50
240-36112-18	04/17/2014 08:57	126840		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-126667/1-A	04/16/2014 13:10	126667		50	50
LCS 240-126667/2-A	04/16/2014 13:10	126667		50	50
240-36112-1	04/16/2014 13:10	126667		50	50
240-36112-1 MS	04/16/2014 13:10	126667		50	50
240-36112-1 MSD	04/16/2014 13:10	126667		50	50
240-36112-2	04/16/2014 13:10	126667		50	50
240-36112-3	04/16/2014 13:10	126667		50	50
240-36112-4	04/16/2014 13:10	126667		50	50
240-36112-5	04/16/2014 13:10	126667		50	50
240-36112-6	04/16/2014 13:10	126667		50	50
240-36112-7	04/16/2014 13:10	126667		50	50
240-36112-8	04/16/2014 13:10	126667		50	50
240-36112-9	04/16/2014 13:10	126667		50	50
240-36112-10	04/16/2014 13:10	126667		50	50
240-36112-1	04/16/2014 13:10	126667		50	50
240-36112-2	04/16/2014 13:10	126667		50	50
240-36112-3	04/16/2014 13:10	126667		50	50
240-36112-4	04/16/2014 13:10	126667		50	50
240-36112-5	04/16/2014 13:10	126667		50	50
240-36112-6	04/16/2014 13:10	126667		50	50
240-36112-7	04/16/2014 13:10	126667		50	50
240-36112-8	04/16/2014 13:10	126667		50	50
240-36112-9	04/16/2014 13:10	126667		50	50
240-36112-10	04/16/2014 13:10	126667		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-126843/1-A	04/17/2014 13:45	126843		50	50
LCS 240-126843/2-A	04/17/2014 13:45	126843		50	50
240-36112-17	04/17/2014 13:45	126843		50	50
240-36112-17 MS	04/17/2014 13:45	126843		50	50
240-36112-17 MSD	04/17/2014 13:45	126843		50	50
240-36112-17	04/17/2014 13:45	126843		50	50
240-36112-17 MS	04/17/2014 13:45	126843		50	50
240-36112-17 MSD	04/17/2014 13:45	126843		50	50
240-36112-11	04/17/2014 13:45	126843		50	50
240-36112-12	04/17/2014 13:45	126843		50	50
240-36112-13	04/17/2014 13:45	126843		50	50
240-36112-14	04/17/2014 13:45	126843		50	50
240-36112-15	04/17/2014 13:45	126843		50	50
240-36112-16	04/17/2014 13:45	126843		50	50
240-36112-18	04/17/2014 13:45	126843		50	50
240-36112-11	04/17/2014 13:45	126843		50	50
240-36112-12	04/17/2014 13:45	126843		50	50
240-36112-13	04/17/2014 13:45	126843		50	50
240-36112-14	04/17/2014 13:45	126843		50	50
240-36112-15	04/17/2014 13:45	126843		50	50
240-36112-16	04/17/2014 13:45	126843		50	50
240-36112-18	04/17/2014 13:45	126843		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/16/2014 07:31 End Date: 04/16/2014 21:32

| Lab Sample Id | D/F | Type | Time | Analytes | | |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/16/2014 07:31 End Date: 04/16/2014 21:32

| Lab Sample Id | D/F | Type | Time | Analytes | | |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/16/2014 07:31 End Date: 04/16/2014 21:32

| Lab Sample Id | D/F | Type | Time | Analytes | | |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/16/2014 07:31 End Date: 04/16/2014 21:32

Lab Sample Id	D/F	Type	Time	Analytes																														
				Ca	K	Mg	Na	SiO2																												
ZZZZZZ			15:35																																
ZZZZZZ			15:39																																
ZZZZZZ			15:43																																
ZZZZZZ			15:47																																
ZZZZZZ			15:51																																
CCV 240-126815/126			15:55																																
CCB 240-126815/127			15:59																																
ZZZZZZ			16:03																																
ZZZZZZ			16:08																																
ZZZZZZ			16:12																																
ZZZZZZ			16:16																																
ZZZZZZ			16:21																																
ZZZZZZ			16:25																																
ZZZZZZ			16:29																																
ZZZZZZ			16:32																																
ZZZZZZ			16:36																																
ZZZZZZ			16:40																																
CCV 240-126815/138			16:44																																
CCB 240-126815/139			16:48																																
ZZZZZZ			16:52																																
ZZZZZZ			16:56																																
ZZZZZZ			17:00																																
ZZZZZZ			17:04																																
ZZZZZZ			17:08																																
ZZZZZZ			17:11																																
ZZZZZZ			17:16																																
ZZZZZZ			17:19																																
ZZZZZZ			17:23																																
ZZZZZZ			17:27																																
CCV 240-126815/150			17:31																																
CCB 240-126815/151			17:35																																
ZZZZZZ			17:39																																
ZZZZZZ			17:43																																
ZZZZZZ			17:47																																
ZZZZZZ			17:51																																
ZZZZZZ			17:55																																
ZZZZZZ			17:59																																
ZZZZZZ			18:03																																
ZZZZZZ			18:07																																
ZZZZZZ			18:11																																

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/16/2014 07:31 End Date: 04/16/2014 21:32

Lab Sample Id	D/F	Type	Time	Analytes																														
				Ca	K	Mg	Na	SiO2																												
ZZZZZZ			18:15																																
CCV 240-126815/162			18:19																																
CCB 240-126815/163			18:23																																
ZZZZZZ			18:27																																
ZZZZZZ			18:31																																
ZZZZZZ			18:35																																
ZZZZZZ			18:39																																
ZZZZZZ			18:43																																
ZZZZZZ			18:47																																
ZZZZZZ			18:51																																
ZZZZZZ			18:55																																
ZZZZZZ			18:59																																
ZZZZZZ			19:03																																
CCV 240-126815/174			19:07																																
CCB 240-126815/175			19:11																																
ZZZZZZ			19:15																																
ZZZZZZ			19:19																																
ZZZZZZ			19:23																																
ZZZZZZ			19:27																																
ZZZZZZ			19:31																																
ZZZZZZ			19:35																																
ZZZZZZ			19:39																																
ZZZZZZ			19:43																																
ZZZZZZ			19:47																																
ZZZZZZ			19:51																																
CCV 240-126815/186			19:55																																
CCB 240-126815/187			19:59																																
ZZZZZZ			20:03																																
ZZZZZZ			20:07																																
ZZZZZZ			20:11																																
ZZZZZZ			20:15																																
ZZZZZZ			20:19																																
ZZZZZZ			20:23																																
ZZZZZZ			20:27																																
ZZZZZZ			20:31																																
ZZZZZZ			20:35																																
ZZZZZZ			20:39																																
CCV 240-126815/198			20:43																																
CCB 240-126815/199			20:47																																
ZZZZZZ			20:51																																

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/16/2014 07:31 End Date: 04/16/2014 21:32

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ca	K	Mg	Na	SiO2																									
ZZZZZZ			20:55																													
ZZZZZZ			21:00																													
ZZZZZZ			21:04																													
ZZZZZZ			21:08																													
ZZZZZZ			21:12																													
ZZZZZZ			21:16																													
ZZZZZZ			21:20																													
ZZZZZZ			21:24																													
CCV 240-126815/209			21:28																													
CCB 240-126815/210			21:32																													

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/17/2014 10:01 End Date: 04/17/2014 18:05

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V												
ZZZZZZ			10:01																													
ICIS 240-126899/2			10:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
STD1 240-126899/3 IC	1		10:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
STD2 240-126899/4 IC	1		10:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
STD3 240-126899/5 IC	1		10:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
STD4 240-126899/6 IC	1		10:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICV 240-126899/7	1		10:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICB 240-126899/8	1		10:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CRI 240-126899/9	1		10:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICSA 240-126899/10	1		10:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICSAB 240-126899/11	1		10:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCV 240-126899/12			10:44																													
CCB 240-126899/13			10:48																													
CCV 240-126899/14			10:54																													
CCB 240-126899/15			10:58																													
ZZZZZZ			11:02																													
ZZZZZZ			11:06																													
ZZZZZZ			11:10																													
ZZZZZZ			11:14																													
ZZZZZZ			11:18																													
ZZZZZZ			11:21																													
ZZZZZZ			11:25																													
CCV 240-126899/23			11:29																													
CCB 240-126899/24			11:32																													
ZZZZZZ			12:02																													
ZZZZZZ			12:06																													
ZZZZZZ			12:10																													
ZZZZZZ			12:14																													
ZZZZZZ			12:18																													
ZZZZZZ			12:22																													
ZZZZZZ			12:26																													
ZZZZZZ			12:30																													
ZZZZZZ			12:34																													
ZZZZZZ			12:38																													
CCV 240-126899/35			12:42																													
CCB 240-126899/36			12:45																													
ZZZZZZ			12:49																													
ZZZZZZ			12:53																													
ZZZZZZ			12:57																													
ZZZZZZ			13:01																													
ZZZZZZ			13:05																													
ZZZZZZ			13:09																													

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/17/2014 10:01 End Date: 04/17/2014 18:05

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V												
ZZZZZZ			13:13																													
ZZZZZZ			13:17																													
ZZZZZZ			13:21																													
ZZZZZZ			13:25																													
CCV 240-126899/47			13:29																													
CCB 240-126899/48			13:33																													
ZZZZZZ			13:37																													
ZZZZZZ			13:41																													
ZZZZZZ			13:45																													
ZZZZZZ			13:49																													
ZZZZZZ			13:53																													
ZZZZZZ			13:57																													
ZZZZZZ			14:01																													
ZZZZZZ			14:05																													
ZZZZZZ			14:09																													
ZZZZZZ			14:13																													
CCV 240-126899/59			14:17																													
CCB 240-126899/60			14:21																													
ZZZZZZ			14:25																													
ZZZZZZ			14:28																													
ZZZZZZ			14:32																													
ZZZZZZ			14:36																													
ZZZZZZ			14:40																													
ZZZZZZ			14:44																													
ZZZZZZ			14:48																													
ZZZZZZ			14:51																													
ZZZZZZ			14:55																													
ZZZZZZ			14:59																													
CCV 240-126899/71			15:03																													
CCB 240-126899/72			15:07																													
ZZZZZZ			15:11																													
ZZZZZZ			15:15																													
ZZZZZZ			15:19																													
ZZZZZZ			15:23																													
ZZZZZZ			15:26																													
ZZZZZZ			15:30																													
ZZZZZZ			15:34																													
ZZZZZZ			15:38																													
ZZZZZZ			15:42																													
ZZZZZZ			15:46																													
CCV 240-126899/83	1		15:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-126899/84	1		15:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/17/2014 10:01 End Date: 04/17/2014 18:05

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V												
ZZZZZZ			15:58																													
ZZZZZZ			16:02																													
ZZZZZZ			16:06																													
MB 240-126664/1-A	1	R	16:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
LCS 240-126664/2-A	1	R	16:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ZZZZZZ			16:17																													
ZZZZZZ			16:21																													
ZZZZZZ			16:25																													
ZZZZZZ			16:29																													
240-36112-2	1	R	16:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCV 240-126899/95	1		16:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-126899/96	1		16:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-3	1	R	16:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-4	1	R	16:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-5	1	R	16:52	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X												
240-36112-6	1	R	16:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-7	1	R	16:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-8	1	R	17:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-9	1	R	17:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-10	1	R	17:11	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-1	1	D	17:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-2	1	D	17:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCV 240-126899/107	1		17:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-126899/108	1		17:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-3	1	D	17:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-4	1	D	17:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-5	1	D	17:38	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X												
240-36112-6	1	D	17:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-7	1	D	17:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-8	1	D	17:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-9	1	D	17:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36112-10	1	D	17:58	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X											
CCV 240-126899/117	1		18:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-126899/118	1		18:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/18/2014 13:39 End Date: 04/19/2014 00:04

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V												
ZZZZZZ			13:39																													
ICIS 240-127186/2	1		13:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
STD1 240-127186/3 IC	1		13:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
STD2 240-127186/4 IC	1		13:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
STD3 240-127186/5 IC	1		13:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
STD4 240-127186/6 IC	1		13:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICV 240-127186/7	1		14:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICB 240-127186/8	1		14:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CRI 240-127186/9	1		14:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICSA 240-127186/10	1		14:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICSAB 240-127186/11	1		14:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCV 240-127186/12			14:21																													
CCB 240-127186/13			14:25																													
ZZZZZZ			14:31																													
ZZZZZZ			14:35																													
ZZZZZZ			14:39																													
ZZZZZZ			14:42																													
ZZZZZZ			14:46																													
ZZZZZZ			14:50																													
ZZZZZZ			14:53																													
ZZZZZZ			14:57																													
ZZZZZZ			15:01																													
ZZZZZZ			15:05																													
CCV 240-127186/24			15:08																													
CCB 240-127186/25			15:12																													
ZZZZZZ			15:16																													
ZZZZZZ			15:20																													
ZZZZZZ			15:23																													
ZZZZZZ			15:27																													
CCV 240-127186/30			15:31																													
CCB 240-127186/31			15:35																													
CRI 240-127186/32			15:39																													
CCV 240-127186/33	1		15:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCB 240-127186/34	1		15:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36112-1	1	R	15:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36112-1 SD	5	R	15:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36112-1 MS	1	R	15:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36112-1 MSD	1	R	16:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ZZZZZZ			16:05																													
240-36112-5	5	R	16:09													X			X													
240-36112-10	1	R	16:13					X																								
ZZZZZZ			16:16																													

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/18/2014 13:39 End Date: 04/19/2014 00:04

| Lab Sample Id | D/F | Type | Time | Analytes | | |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/18/2014 13:39 End Date: 04/19/2014 00:04

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V											
ZZZZZZ			18:59																												
ZZZZZZ			19:03																												
ZZZZZZ			19:06																												
ZZZZZZ			19:10																												
ZZZZZZ			19:14																												
ZZZZZZ			19:17																												
ZZZZZZ			19:21																												
ZZZZZZ			19:25																												
CCV 240-127186/93	1		19:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-127186/94	1		19:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ZZZZZZ			19:37																												
ZZZZZZ			19:40																												
ZZZZZZ			19:44																												
ZZZZZZ			19:48																												
ZZZZZZ			19:52																												
ZZZZZZ			19:56																												
ZZZZZZ			20:00																												
ZZZZZZ			20:04																												
ZZZZZZ			20:08																												
ZZZZZZ			20:12																												
CCV 240-127186/105			20:16																												
CCB 240-127186/106			20:19																												
ZZZZZZ			20:23																												
ZZZZZZ			20:27																												
ZZZZZZ			20:31																												
ZZZZZZ			20:35																												
ZZZZZZ			20:39																												
ZZZZZZ			20:43																												
ZZZZZZ			20:47																												
ZZZZZZ			20:51																												
ZZZZZZ			20:55																												
ZZZZZZ			20:58																												
CCV 240-127186/117			21:02																												
CCB 240-127186/118			21:06																												
ZZZZZZ			21:10																												
ZZZZZZ			21:14																												
ZZZZZZ			21:18																												
ZZZZZZ			21:21																												
ZZZZZZ			21:25																												
ZZZZZZ			21:29																												
ZZZZZZ			21:33																												
ZZZZZZ			21:37																												

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/18/2014 13:39 End Date: 04/19/2014 00:04

Lab Sample Id	D/F	Type	Time	Analytes
ZZZZZZ			21:41	
ZZZZZZ			21:45	
CCV 240-127186/129			21:49	
CCB 240-127186/130			21:52	
ZZZZZZ			21:56	
ZZZZZZ			22:00	
ZZZZZZ			22:04	
ZZZZZZ			22:08	
ZZZZZZ			22:12	
ZZZZZZ			22:16	
ZZZZZZ			22:20	
ZZZZZZ			22:24	
ZZZZZZ			22:27	
ZZZZZZ			22:31	
CCV 240-127186/141			22:35	
CCB 240-127186/142			22:39	
ZZZZZZ			22:43	
ZZZZZZ			22:47	
ZZZZZZ			22:51	
ZZZZZZ			22:54	
ZZZZZZ			22:58	
ZZZZZZ			23:02	
ZZZZZZ			23:06	
ZZZZZZ			23:10	
ZZZZZZ			23:14	
ZZZZZZ			23:17	
CCV 240-127186/153			23:21	
CCB 240-127186/154			23:25	
ZZZZZZ			23:29	
ZZZZZZ			23:33	
ZZZZZZ			23:37	
ZZZZZZ			23:41	
ZZZZZZ			23:45	
ZZZZZZ			23:49	
ZZZZZZ			23:53	
ZZZZZZ			23:56	
CCV 240-127186/163			00:00	
CCB 240-127186/164			00:04	

Analytes: Ag, As, Ba, Be, Cd, Co, Cr, Cu, Fe, Mn, Mo, Ni, Pb, Sb, Se, Tl, V

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/17/2014 10:47 End Date: 04/17/2014 14:53

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-126900/1-A			10:47	X
IC 240-126900/2-A			10:48	X
IC 240-126900/3-A			10:50	X
IC 240-126900/4-A			10:51	X
IC 240-126900/5-A			10:53	X
IC 240-126900/6-A			10:54	X
ICV 240-126900/7-A	1		10:56	X
ICB 240-126900/8-A	1		10:57	X
CRA 240-126900/9-A	1		10:59	X
CCVL 240-126900/10-A	1		11:00	X
CCB 240-126900/12-A			11:02	
ZZZZZZ			11:04	
ZZZZZZ			11:06	
ZZZZZZ			11:07	
ZZZZZZ			11:09	
ZZZZZZ			11:10	
ZZZZZZ			11:12	
ZZZZZZ			11:14	
ZZZZZZ			11:15	
ZZZZZZ			11:17	
ZZZZZZ			11:18	
CCV 240-126900/11-A			11:20	
CCB 240-126900/12-A			11:21	
ZZZZZZ			11:23	
ZZZZZZ			11:24	
ZZZZZZ			11:26	
ZZZZZZ			11:27	
ZZZZZZ			11:29	
ZZZZZZ			11:30	
ZZZZZZ			11:32	
ZZZZZZ			11:33	
ZZZZZZ			11:35	
ZZZZZZ			11:37	
CCV 240-126900/11-A			11:38	
CCB 240-126900/12-A			11:39	
ZZZZZZ			11:41	
ZZZZZZ			11:42	
ZZZZZZ			11:43	
ZZZZZZ			11:45	
ZZZZZZ			11:46	
ZZZZZZ			11:48	
ZZZZZZ			11:49	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/17/2014 10:47 End Date: 04/17/2014 14:53

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			11:52	
ZZZZZZ			11:53	
ZZZZZZ			11:55	
CCV 240-126900/11-A			11:56	
CCB 240-126900/12-A			11:58	
ZZZZZZ			12:00	
ZZZZZZ			12:01	
ZZZZZZ			12:04	
ZZZZZZ			12:05	
ZZZZZZ			12:07	
ZZZZZZ			12:09	
ZZZZZZ			12:10	
ZZZZZZ			12:12	
ZZZZZZ			12:13	
ZZZZZZ			12:14	
CCV 240-126900/11-A			12:17	
CCB 240-126900/12-A			12:19	
ZZZZZZ			12:21	
ZZZZZZ			12:22	
ZZZZZZ			12:24	
ZZZZZZ			12:25	
ZZZZZZ			12:27	
ZZZZZZ			12:29	
ZZZZZZ			12:31	
ZZZZZZ			12:32	
ZZZZZZ			12:33	
ZZZZZZ			12:35	
CCV 240-126900/11-A			12:36	
CCB 240-126900/12-A			12:39	
ZZZZZZ			12:40	
ZZZZZZ			12:42	
ZZZZZZ			12:44	
ZZZZZZ			12:46	
ZZZZZZ			12:47	
ZZZZZZ			12:49	
ZZZZZZ			12:51	
ZZZZZZ			12:52	
ZZZZZZ			12:54	
ZZZZZZ			12:55	
CCV 240-126900/11-A			12:57	
CCB 240-126900/12-A			12:59	
ZZZZZZ			13:00	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/17/2014 10:47 End Date: 04/17/2014 14:53

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			13:02	
ZZZZZZ			13:04	
ZZZZZZ			13:05	
ZZZZZZ			13:06	
ZZZZZZ			13:09	
ZZZZZZ			13:10	
ZZZZZZ			13:12	
ZZZZZZ			13:14	
ZZZZZZ			13:15	
CCV 240-126900/11-A			13:17	
CCB 240-126900/12-A			13:18	
ZZZZZZ			13:19	
ZZZZZZ			13:21	
ZZZZZZ			13:23	
ZZZZZZ			13:24	
ZZZZZZ			13:25	
ZZZZZZ			13:27	
ZZZZZZ			13:30	
ZZZZZZ			13:31	
ZZZZZZ			13:34	
ZZZZZZ			13:35	
CCV 240-126900/11-A			13:37	
CCB 240-126900/12-A			13:39	
ZZZZZZ			13:40	
ZZZZZZ			13:42	
ZZZZZZ			13:43	
CCV 240-126900/11-A			13:45	
CCB 240-126900/12-A			13:46	
CCV 240-126900/11-A	1		14:00	X
CCB 240-126900/12-A	1		14:01	X
MB 240-126667/1-A	1	T	14:03	X
LCS 240-126667/2-A	1	T	14:05	X
240-36112-1	1	T	14:07	X
240-36112-1 MS	1	T	14:09	X
240-36112-1 MSD	1	T	14:10	X
240-36112-2	1	T	14:12	X
240-36112-3	1	T	14:13	X
240-36112-4	1	T	14:14	X
240-36112-5	1	T	14:16	X
240-36112-6	1	T	14:18	X
CCV 240-126900/11-A	1		14:19	X
CCB 240-126900/12-A	1		14:20	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/17/2014 10:47 End Date: 04/17/2014 14:53

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
240-36112-7	1	T	14:22	X
240-36112-8	1	T	14:24	X
240-36112-9	1	T	14:26	X
240-36112-10	1	T	14:27	X
240-36112-1	1	D	14:29	X
240-36112-2	1	D	14:30	X
240-36112-3	1	D	14:32	X
240-36112-4	1	D	14:33	X
240-36112-5	1	D	14:35	X
240-36112-6	1	D	14:36	X
CCV 240-126900/11-A	1		14:38	X
CCB 240-126900/12-A	1		14:40	X
240-36112-7	1	D	14:41	X
240-36112-8	1	D	14:44	X
240-36112-9	1	D	14:46	X
240-36112-10	1	D	14:48	X
ZZZZZZ			14:50	
CCV 240-126900/11-A	1		14:52	X
CCB 240-126900/12-A	1		14:53	X

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/18/2014 08:26 End Date: 04/18/2014 16:02

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-126900/1-A			08:26	X
IC 240-126900/2-A			08:27	X
IC 240-126900/3-A			08:29	X
IC 240-126900/4-A			08:30	X
IC 240-126900/5-A			08:32	X
IC 240-126900/6-A			08:33	X
ICV 240-126900/7-A	1		08:35	X
ICB 240-126900/8-A	1		08:36	X
CRA 240-126900/9-A	1		08:38	X
CCVL 240-126900/10-A	1		10:56	X
CCB 240-126900/12-A	1		10:57	X
ZZZZZZ			10:58	
ZZZZZZ			11:00	
ZZZZZZ			11:01	
ZZZZZZ			11:03	
ZZZZZZ			11:04	
ZZZZZZ			11:06	
MB 240-126843/1-A	1	T	11:09	X
LCS 240-126843/2-A	1	T	11:10	X
240-36112-17	1	T	11:12	X
240-36112-17 MS	1	T	11:13	X
CCV 240-126900/11-A	1		11:15	X
CCB 240-126900/12-A	1		11:16	X
240-36112-17 MSD	1	T	11:18	X
240-36112-17	1	D	11:20	X
240-36112-17 MS	1	D	11:21	X
240-36112-17 MSD	1	D	11:23	X
ZZZZZZ			11:25	
ZZZZZZ			11:27	
ZZZZZZ			11:28	
240-36112-11	1	T	11:30	X
240-36112-12	1	T	11:32	X
240-36112-13	1	T	11:33	X
CCV 240-126900/11-A	1		11:35	X
CCB 240-126900/12-A	1		11:37	X
240-36112-14	1	T	11:38	X
240-36112-15	1	T	11:40	X
240-36112-16	1	T	11:41	X
240-36112-18	1	T	11:43	X
ZZZZZZ			11:44	
ZZZZZZ			11:45	
ZZZZZZ			11:47	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/18/2014 08:26 End Date: 04/18/2014 16:02

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
240-36112-11	1	D	11:48	X
240-36112-12	1	D	11:50	X
240-36112-13	1	D	11:51	X
CCV 240-126900/11-A	1		11:53	X
CCB 240-126900/12-A	1		11:54	X
240-36112-14	1	D	11:56	X
240-36112-15	1	D	11:57	X
240-36112-16	1	D	11:59	X
240-36112-18	1	D	12:00	X
ZZZZZZ			12:01	
ZZZZZZ			12:03	
ZZZZZZ			12:04	
ZZZZZZ			12:06	
ZZZZZZ			12:08	
ZZZZZZ			12:09	
CCV 240-126900/11-A	1		12:11	X
CCB 240-126900/12-A	1		12:12	X
ZZZZZZ			12:14	
ZZZZZZ			12:15	
ZZZZZZ			12:17	
ZZZZZZ			12:18	
ZZZZZZ			12:20	
ZZZZZZ			12:21	
ZZZZZZ			12:23	
ZZZZZZ			12:25	
ZZZZZZ			12:27	
ZZZZZZ			12:28	
CCV 240-126900/11-A			12:30	
CCB 240-126900/12-A			12:31	
ZZZZZZ			12:33	
ZZZZZZ			12:36	
ZZZZZZ			12:38	
ZZZZZZ			12:40	
ZZZZZZ			12:41	
ZZZZZZ			12:43	
ZZZZZZ			12:45	
ZZZZZZ			12:46	
ZZZZZZ			12:48	
ZZZZZZ			12:50	
CCV 240-126900/11-A			12:51	
CCB 240-126900/12-A			12:53	
ZZZZZZ			12:54	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/18/2014 08:26 End Date: 04/18/2014 16:02

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			12:56	
ZZZZZZ			12:57	
ZZZZZZ			12:59	
ZZZZZZ			13:00	
ZZZZZZ			13:02	
ZZZZZZ			13:03	
ZZZZZZ			13:05	
ZZZZZZ			13:07	
ZZZZZZ			13:08	
CCV 240-126900/11-A			13:10	
CCB 240-126900/12-A			13:12	
ZZZZZZ			13:13	
ZZZZZZ			13:15	
ZZZZZZ			13:16	
ZZZZZZ			13:18	
ZZZZZZ			13:19	
ZZZZZZ			13:21	
ZZZZZZ			13:23	
ZZZZZZ			13:24	
ZZZZZZ			13:26	
ZZZZZZ			13:29	
CCV 240-126900/11-A			13:31	
CCB 240-126900/12-A			13:32	
ZZZZZZ			13:34	
ZZZZZZ			13:36	
ZZZZZZ			13:37	
ZZZZZZ			13:40	
ZZZZZZ			13:41	
ZZZZZZ			13:43	
CCV 240-126900/11-A			13:44	
CCB 240-126900/12-A			13:46	
CCV 240-126900/11-A			15:51	
CCB 240-126900/12-A			15:52	
ZZZZZZ			15:54	
ZZZZZZ			15:55	
ZZZZZZ			15:57	
ZZZZZZ			15:58	
CCV 240-126900/11-A			16:01	
CCB 240-126900/12-A			16:02	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/18/2014 08:26 End Date: 04/18/2014 16:02

| Lab Sample Id | D/F | Type | Time | Analytes | | |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2340B-1997

Start Date: 04/16/2014 05:32 End Date: 04/16/2014 05:32

Lab Sample Id	D/F	Type	Time	Analytes																														
				CaCO3	HardCC	MgHARD																														
ZZZZZZ			05:32																															
ZZZZZZ			05:32																															
ZZZZZZ			05:32																															
ZZZZZZ			05:32																															
240-36112-3	1	R	05:32	X	X	X																													
ZZZZZZ			05:32																															
ZZZZZZ			05:32																															
ZZZZZZ			05:32																															
ZZZZZZ			05:32																															

Prep Types:
R = Total Recoverable

FORM XIII-IN

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	014_CCV.d
Data Path Name	D:\Analytical Runs\I10041714A.b
Acq Date Time	2014-04-17T10:54:43-04:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	002CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	6	2	NoGas	50.308	1.323	389908	0.92	50	100.6	89.5	110.5	
B	11	45	2	NoGas	46.935	1.769	255953	0.62	50	93.9	89.5	110.5	
Na	23	45	1	He	24430.987	2.605	50768857	0.28	25000	97.7	89.5	110.5	
Mg	24	45	1	He	24690.907	2.396	30404401	1.17	25000	98.8	89.5	110.5	
Al	27	45	1	He	248.455	2.071	212084	0.90	250	99.4	89.5	110.5	
K	39	45	1	He	24836.056	3.117	40195960	0.74	25000	99.3	89.5	110.5	
Ca	44	45	1	He	25220.312	2.817	1984057	0.24	25000	100.9	89.5	110.5	
Ti	47	45	1	He	49.654	2.124	20980	1.71	50	99.3	89.5	110.5	
V	51	45	1	He	49.926	2.470	495197	0.51	50	99.9	89.5	110.5	
Cr	52	45	1	He	49.867	2.954	520248	0.15	50	99.7	89.5	110.5	
Mn	55	45	1	He	253.902	1.958	2118008	1.46	250	101.6	89.5	110.5	
Fe	56	45	1	He	12315.371	2.569	102254731	0.95	12500	98.5	89.5	110.5	
Co	59	45	1	He	48.981	2.380	703936	0.91	50	98.0	89.5	110.5	
Ni	60	45	1	He	50.653	2.633	175547	0.82	50	101.3	89.5	110.5	
Cu	63	45	1	He	50.954	2.671	448277	0.47	50	101.9	89.5	110.5	
Zn	66	45	1	He	50.867	3.307	93079	1.12	50	101.7	89.5	110.5	
As	75	115	1	He	49.576	2.353	74404	0.56	50	99.2	89.5	110.5	
Se	78	115	1	He	49.615	2.039	8259	0.84	50	99.2	89.5	110.5	
Sr	88	45	1	He	50.510	3.298	613605	0.42	50	101.0	89.5	110.5	
Mo	95	103	1	He	51.253	3.265	232364	1.06	50	102.5	89.5	110.5	
Ag	107	103	1	He	49.328	2.453	607165	0.65	50	98.7	89.5	110.5	
Cd	111	115	1	He	50.329	4.003	114894	1.47	50	100.7	89.5	110.5	
Sn	118	115	1	He	48.598	2.906	289938	0.75	50	97.2	89.5	110.5	
Sb	123	115	1	He	50.700	2.373	306397	0.53	50	101.4	89.5	110.5	
Ba	137	115	1	He	49.490	2.451	153951	0.36	50	99.0	89.5	110.5	
W	182	159	1	He	49.128	2.736	436285	1.36	50	98.3	89.5	110.5	
Tl	205	165	1	He	47.669	3.060	1016428	0.58	50	95.3	89.5	110.5	
Pb	208	165	1	He	50.732	3.685	1396030	0.74	50	101.5	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	2	NoGas	1495445	1.57	1565199	95.54	30	120	
Sc	45	1	He	372174	2.86	401486	92.70	30	120	
Sc	45	2	NoGas	2822004	0.99	2782037	101.44	30	120	
Rh	103	1	He	2075109	2.25	2266714	91.55	30	120	
In	115	1	He	1574044	2.75	1719277	91.55	30	120	
Tb	159	1	He	2894069	2.00	3064239	94.45	30	120	
Ho	165	1	He	2781787	2.97	2909960	95.60	30	120	
Bi	209	1	He	1796710	6.25	1848440	97.20	30	120	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/17/2014 End Date: 04/17/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-126899/3 IC	10:09	101		95		104		95		94	
STD2 240-126899/4 IC	10:12	97		95		100		92		93	
STD3 240-126899/5 IC	10:16	97		91		102		88		89	
STD4 240-126899/6 IC	10:20	102		92		100		94		94	
ICV 240-126899/7	10:24	100		94		102		92		93	
ICB 240-126899/8	10:28	105		94		105		96		97	
CRI 240-126899/9	10:32	104		97		104		98		99	
ICSA 240-126899/10	10:36	85		88		87		85		83	
ICSAB 240-126899/11	10:40	87		84		91		82		80	
CCV 240-126899/83	15:50	103		104		104		101		103	
CCB 240-126899/84	15:54	107		105		107		105		106	
MB 240-126664/1-A	16:10	104		108		109		107		107	
LCS 240-126664/2-A	16:14	100		102		104		101		101	
240-36112-1	16:17	101		102		109		102		102	
240-36112-1 SD	16:21	106		108		109		106		109	
240-36112-1 MS	16:25	98		101		105		98		101	
240-36112-1 MSD	16:29	101		101		116		100		100	
240-36112-2	16:32	99		103		109		102		103	
CCV 240-126899/95	16:36	106		106		105		102		105	
CCB 240-126899/96	16:40	101		101		102		100		102	
240-36112-3	16:44	95		97		103		91		95	
240-36112-4	16:48	88		98		92		92		95	
240-36112-5 M	16:52	95		116		128	*	92		94	
240-36112-6	16:55	90		98		102		93		95	
240-36112-7	16:59	100		105		110		104		106	
240-36112-8	17:03	89		102		97		99		100	
240-36112-9	17:07	88		102		94		98		99	
240-36112-10	17:11	89		103		105		97		97	
240-36112-1	17:15	96		103		110		100		100	
240-36112-2	17:19	95		104		109		102		104	
CCV 240-126899/107	17:23	104		105		113		101		103	
CCB 240-126899/108	17:26	102		103		108		103		105	
240-36112-3	17:30	92		98		102		90		94	
240-36112-4	17:34	90		95		100		89		90	
240-36112-5 MF	17:38	68		115		90		90		92	
240-36112-6	17:42	79		97		88		93		93	
240-36112-7	17:46	96		107		110		106		105	
240-36112-8	17:50	97		99		112		98		97	
240-36112-9	17:54	88		103		97		98		100	
240-36112-10	17:58	87		101		102		96		96	
CCV 240-126899/117	18:01	94		103		101		101		102	
CCB 240-126899/118	18:05	98		97		103		97		99	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/17/2014 End Date: 04/17/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-126899/3 IC	10:09	96		97		95					
STD2 240-126899/4 IC	10:12	96		97		97					
STD3 240-126899/5 IC	10:16	92		94		92					
STD4 240-126899/6 IC	10:20	94		96		97					
ICV 240-126899/7	10:24	96		97		99					
ICB 240-126899/8	10:28	96		98		97					
CRI 240-126899/9	10:32	97		99		99					
ICSA 240-126899/10	10:36	90		92		100					
ICSAB 240-126899/11	10:40	87		89		90					
CCV 240-126899/83	15:50	105		107		103					
CCB 240-126899/84	15:54	105		106		111					
MB 240-126664/1-A	16:10	108		108		118					
LCS 240-126664/2-A	16:14	106		108		115					
240-36112-1	16:17	106		107		115					
240-36112-1 SD	16:21	107		109		114					
240-36112-1 MS	16:25	105		106		118					
240-36112-1 MSD	16:29	105		107		111					
240-36112-2	16:32	106		107		113					
CCV 240-126899/95	16:36	107		107		103					
CCB 240-126899/96	16:40	101		102		110					
240-36112-3	16:44	99		99		108					
240-36112-4	16:48	104		105		103					
240-36112-5	16:52	136	*	140	*	101					
240-36112-6	16:55	101		102		101					
240-36112-7	16:59	106		108		112					
240-36112-8	17:03	106		106		109					
240-36112-9	17:07	107		109		105					
240-36112-10	17:11	106		106		106					
240-36112-1	17:15	103		103		109					
240-36112-2	17:19	105		105		110					
CCV 240-126899/107	17:23	105		105		102					
CCB 240-126899/108	17:26	103		104		107					
240-36112-3	17:30	98		99		104					
240-36112-4	17:34	100		101		98					
240-36112-5	17:38	133	*	135	*	97					
240-36112-6	17:42	99		100		98					
240-36112-7	17:46	105		106		113					
240-36112-8	17:50	101		103		105					
240-36112-9	17:54	108		108		106					
240-36112-10	17:58	102		103		102					
CCV 240-126899/117	18:01	104		106		104					
CCB 240-126899/118	18:05	98		99		102					

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/18/2014 End Date: 04/18/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
ICIS 240-127186/2	13:43	100		100		100		100		100	
STD1 240-127186/3 IC	13:47	99		101		101		100		99	
STD2 240-127186/4 IC	13:51	94		99		96		95		96	
STD3 240-127186/5 IC	13:54	92		96		94		92		95	
STD4 240-127186/6 IC	13:58	97		100		100		101		101	
ICV 240-127186/7	14:02	96		103		101		98		99	
ICB 240-127186/8	14:06	99		103		104		104		104	
CRI 240-127186/9	14:10	101		107		105		104		105	
ICSA 240-127186/10	14:14	88		94		92		90		92	
ICSAB 240-127186/11	14:18	85		90		90		88		91	
CCV 240-127186/33	15:43	89		92		93		94		92	
CCB 240-127186/34	15:46	85		94		86		98		97	
240-36112-1	15:50	86		91		97		94		91	
240-36112-1 SD	15:54	91		96		98		99		98	
240-36112-1 MS	15:58	83		95		97		96		92	
240-36112-1 MSD	16:02	56		95		71		95		92	
240-36112-5	16:05	78		109		108		89		87	
240-36112-5 m 49I	16:09	90		103		101		99		98	
240-36112-10	16:13	82		97		99		93		91	
240-36112-5	16:16	78		110		110		88		87	
240-36112-5	16:20	89		104		104		101		100	
240-36112-10	16:24	83		96		97		95		93	
CCV 240-127186/45	16:28	89		101		100		101		98	
CCB 240-127186/46	16:32	94		100		101		103		102	
MB 240-126840/1-A	16:36	91		100		99		103		99	
LCS 240-126840/2-A	16:39	86		97		99		97		95	
240-36112-17	16:43	83		98		93		99		97	
240-36112-17 SD	16:47	90		100		100		102		100	
240-36112-17 MS	16:51	85		96		99		97		96	
240-36112-17 MSD	16:54	85		97		99		99		95	
240-36112-17 PDS	16:58	86		91		98		92		89	
240-36112-17	17:01	71		98		74		99		97	
240-36112-17 MS	17:05	84		96		98		97		94	
240-36112-17 MSD	17:08	83		96		97		96		93	
CCV 240-127186/57	17:12	87		97		95		97		96	
CCB 240-127186/58	17:16	89		96		96		99		98	
240-36112-11	17:30	74		204	*	208	*	83		83	
240-36112-11	17:34	82		115		118		92		91	
240-36112-12	17:38	80		88		94		91		88	
240-36112-13	17:42	80		91		94		91		89	
240-36112-14	17:46	80		90		94		94		92	
240-36112-15	17:49	80		90		94		96		92	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/18/2014 End Date: 04/18/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
ICIS 240-127186/2	13:43	100		100		100					
STD1 240-127186/3 IC	13:47	101		101		99					
STD2 240-127186/4 IC	13:51	98		97		100					
STD3 240-127186/5 IC	13:54	97		97		101					
STD4 240-127186/6 IC	13:58	101		101		99					
ICV 240-127186/7	14:02	100		100		100					
ICB 240-127186/8	14:06	101		101		98					
CRI 240-127186/9	14:10	103		101		101					
ICSA 240-127186/10	14:14	95		96		106					
ICSAB 240-127186/11	14:18	94		94		95					
CCV 240-127186/33	15:43	97		97		99					
CCB 240-127186/34	15:46	99		99		114					
240-36112-1	15:50	97		98		107					
240-36112-1 SD	15:54	102		101		102					
240-36112-1 MS	15:58	99		99		103					
240-36112-1 MSD	16:02	98		99		100					
240-36112-5	16:05	129	*	130	*	91					
240-36112-5 M 491	16:09	108		107		100					
240-36112-10	16:13	98		99		98					
240-36112-5	~~16:16~~	131	*	127	*	91					
240-36112-5 491 MF	16:20	110		110		102					
240-36112-10	~~16:24~~	100		99		96					
CCV 240-127186/45	16:28	102		101		95					
CCB 240-127186/46	16:32	101		101		97					
MB 240-126840/1-A	16:36	100		100		115					
LCS 240-126840/2-A	16:39	101		100		103					
240-36112-17	16:43	101		102		102					
240-36112-17 SD	16:47	101		102		100					
240-36112-17 MS	16:51	100		99		103					
240-36112-17 MSD	16:54	100		100		100					
240-36112-17 PDS	16:58	94		95		95					
240-36112-17	17:01	101		101		101					
240-36112-17 MS	17:05	99		99		100					
240-36112-17 MSD	17:08	98		99		100					
CCV 240-127186/57	17:12	99		98		91					
CCB 240-127186/58	17:16	~~98~~		~~98~~		95					
240-36112-11	17:30	179	*	165	*	88					
240-36112-11	17:34	~~114~~		~~110~~		95					
240-36112-12	17:38	94		94		97					
240-36112-13	17:42	95		95		95					
240-36112-14	17:46	95		96		96					
240-36112-15	17:49	97		96		100					

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/18/2014 End Date: 04/18/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
240-36112-16	17:53	81		92		94		94		90	
CCV 240-127186/69	17:57	84		90		93		92		90	
CCB 240-127186/70	18:01	84		92		89		96		94	
240-36112-18	18:05	81		90		92		93		90	
240-36112-11	18:20	72		198	*	203	*	83		80	
240-36112-11	18:24	78		111		114		89		88	
240-36112-12	18:28	76		90		89		93		90	
240-36112-13	18:32	77		90		92		92		88	
240-36112-14	18:36	81		94		96		96		94	
240-36112-15	18:39	79		91		94		95		92	
CCV 240-127186/81	18:43	76		88		79		90		89	
CCB 240-127186/82	18:47	83		89		91		94		92	
240-36112-16	18:51	79		89		93		93		90	
240-36112-18	18:55	79		90		94		92		90	
CCV 240-127186/93	19:29	59		66		70		72		71	
CCB 240-127186/94	19:33	62		69		71		76		75	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/18/2014 End Date: 04/18/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
240-36112-16	17:53	94		95		99					
CCV 240-127186/69	17:57	95		94		88					
CCB 240-127186/70	18:01	96		95		94					
240-36112-18	18:05	96		96		103					
240-36112-11	18:20	174	*	161	*	86					
240-36112-11	18:24	111		108		91					
240-36112-12	18:28	96		96		101					
240-36112-13	18:32	95		94		93					
240-36112-14	18:36	97		98		100					
240-36112-15	18:39	97		97		100					
CCV 240-127186/81	18:43	94		94		89					
CCB 240-127186/82	18:47	94		94		91					
240-36112-16	18:51	95		95		107					
240-36112-18	18:55	95		93		95					
CCV 240-127186/93	19:29	79		80		75					
CCB 240-127186/94	19:33	80		79		80					

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG No.:

Project: MSA GW 2014

Client Sample ID	Lab Sample ID
MSA-MW-48S-041014	240-36112-3

Comments:

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Analyst: JMB Batch Start Date: 03/19/2014

Reporting Units: mg/L Analytical Batch No.: 123157

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
12	ICV	22:57	Chloride	50.8	50.0	102	90-110		WCICLCS_00279
			Sulfate	47.7	50.0	95	90-110		WCICLCS_00279

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Analyst: JMB Batch Start Date: 03/20/2014

Reporting Units: mg/L Analytical Batch No.: 123351

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	15:43	Chloride	51.5	50.0	103	90-110		WCICLCS_00278
			Sulfate	51.9	50.0	104	90-110		WCICLCS_00278

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Analyst: LCN Batch Start Date: 04/12/2014

Reporting Units: mg/L Analytical Batch No.: 126382

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:54	Nitrite as N	2.39	2.50	96	90-110		WCICCCV_00395
			Nitrate as N	2.41	2.50	97	90-110		WCICCCV_00395
			Orthophosphate as P	2.31	2.50	93	90-110		WCICCCV_00395
2	CCB	11:10	Nitrite as N	0.012				U	
			Nitrate as N	0.023				U	
			Orthophosphate as P	0.044				U	
8	CCV	12:48	Nitrite as N	2.56	2.50	103	90-110		WCICCCV_00395
			Nitrate as N	2.42	2.50	97	90-110		WCICCCV_00395
			Orthophosphate as P	3.30	2.50	132 >	90-110		WCICCCV_00395
9	CCB	13:05	Nitrite as N	0.012				U	
			Nitrate as N	0.023				U	
			Orthophosphate as P	0.044				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Analyst: JMB Batch Start Date: 04/12/2014

Reporting Units: mg/L Analytical Batch No.: 128388

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:54	Chloride	50.6	50.0	101	90-110		WCICCCV_00395
2	CCB	11:10	Chloride	0.10				U	
8	CCV	12:48	Chloride	50.6	50.0	101	90-110		WCICCCV_00395
9	CCB	13:05	Chloride	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Analyst: JMB Batch Start Date: 04/29/2014

Reporting Units: mg/L Analytical Batch No.: 128389

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:47	Chloride	52.4	50.0	105	90-110		WCICCCV_00401
			Sulfate	53.3	50.0	107	90-110		WCICCCV_00401
2	CCB	11:06	Chloride	0.10				U	
			Sulfate	0.12				U	
10	CCV	13:42	Chloride	52.1	50.0	104	90-110		WCICCCV_00401
			Sulfate	53.1	50.0	106	90-110		WCICCCV_00401
11	CCB	14:02	Chloride	0.10				U	
			Sulfate	0.12				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Analyst: JAK Batch Start Date: 04/16/2014

Reporting Units: mg/L Analytical Batch No.: 126751

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
5	ICV	12:24	Ammonia (as N)	10.2	10.1	101	90-110		WCWIBBYNUTRIE_00011
6	ICB	12:36	Ammonia (as N)	0.092				U	
17	CCV	13:29	Ammonia (as N)	2.54	2.50	102	90-110		WCNH31000_00028
18	CCB	13:46	Ammonia (as N)	0.092				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Analyst: TPH Batch Start Date: 04/28/2014

Reporting Units: mg/L Analytical Batch No.: 128206

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	08:04	Dissolved Organic Carbon	25.3	25.0	101	90-110		WC TOC CCV_00193
2	CCB	08:15	Dissolved Organic Carbon	0.24				U	
10	CCV	11:14	Dissolved Organic Carbon	25.3	25.0	101	90-110		WC TOC CCV_00193
11	CCB	11:25	Dissolved Organic Carbon	0.24				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 126705	Date: 04/16/2014 10:00						
160.1	MB 240-126705/1	Total Dissolved Solids	7.4	U	mg/L	10	1
Batch ID: 126382	Date: 04/12/2014 11:26						
300.0	MB 240-126382/3	Nitrite as N	0.012	U	mg/L	0.10	1
300.0	MB 240-126382/3	Nitrate as N	0.023	U	mg/L	0.10	1
300.0	MB 240-126382/3	Orthophosphate as P	0.044	U ^	mg/L	0.50	1
Batch ID: 128388	Date: 04/12/2014 11:26						
300.0	MB 240-128388/3	Chloride	0.10	U	mg/L	1.0	1
Batch ID: 128389	Date: 04/29/2014 11:26						
300.0	MB 240-128389/3	Chloride	0.10	U	mg/L	1.0	1
300.0	MB 240-128389/3	Sulfate	0.12	U	mg/L	1.0	1
Batch ID: 126823	Date: 04/16/2014 12:03						
310.1	MB 240-126823/5	Alkalinity	1.9	U	mg/L	5.0	1
Batch ID: 126751	Date: 04/16/2014 12:36						
350.3	MB 240-126751/7	Ammonia (as N)	0.092	U	mg/L	0.20	1
Batch ID: 128206	Date: 04/28/2014 08:26						
9060	MB 240-128206/3	Dissolved Organic Carbon	0.24	U	mg/L	1.0	1

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 126382	Date: 04/12/2014 12:16										
300.0	240-36112-3	Nitrite as N	0.012	U	mg/L						H
300.0	240-36112-3 MS	Nitrite as N	3.07		mg/L	2.50	123	80-120			F1
300.0	240-36112-3	Nitrate as N	0.023	U	mg/L						H
300.0	240-36112-3 MS	Nitrate as N	3.26		mg/L	2.50	130	80-120			F1
300.0	240-36112-3	Orthophosphate as P	0.044	U	mg/L						H ^
300.0	240-36112-3 MS	Orthophosphate as P	4.12		mg/L	2.50	165	80-120			F1 ^
Batch ID: 128388	Date: 04/12/2014 12:16										
300.0	240-36112-3	Chloride	19		mg/L						
300.0	240-36112-3 MS	Chloride	89.0		mg/L	50.0	140	80-120			F1
Batch ID: 128389	Date: 04/29/2014 12:24										
300.0	240-36112-3	Chloride	20		mg/L						
300.0	240-36112-3 MS	Chloride	71.7		mg/L	50.0	103	80-120			
300.0	240-36112-3	Sulfate	740		mg/L						
300.0	240-36112-3 MS	Sulfate	751		mg/L	50.0	19	80-120			4

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 126382	Date: 04/12/2014 12:32										
300.0	240-36112-3 MSD	Nitrite as N	2.99		mg/L	2.50	120	80-120	2	20	
300.0	240-36112-3 MSD	Nitrate as N	3.92		mg/L	2.50	157	80-120	18	20	F1
300.0	240-36112-3 MSD	Orthophosphate as P	5.28		mg/L	2.50	211	80-120	25	20	F1 F2 ^
Batch ID: 128388	Date: 04/12/2014 12:32										
300.0	240-36112-3 MSD	Chloride	104		mg/L	50.0	171	80-120	16	20	F1
Batch ID: 128389	Date: 04/29/2014 12:44										
300.0	240-36112-3 MSD	Chloride	72.0		mg/L	50.0	104	80-120	0	20	
300.0	240-36112-3 MSD	Sulfate	756		mg/L	50.0	28	80-120	1	20	4

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 126705 Date: 04/16/2014 10:00								
160.1	MSA-MW-48S-041014	240-36112-3	Total Dissolved Solids	1500	mg/L			
160.1	MSA-MW-48S-041014	240-36112-3 DU	Total Dissolved Solids	1470	mg/L	0.1	20	
Batch ID: 126823 Date: 04/16/2014 18:37								
310.1	MSA-MW-48S-041014	240-36112-3	Alkalinity	390	mg/L			
310.1	MSA-MW-48S-041014	240-36112-3 DU	Alkalinity	379	mg/L	4	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 126705	Date: 04/16/2014 10:00										
						LCS Source: WCWIBBYSOLIDS_00010					
160.1	LCS 240-126705/2	Total Dissolved Solids	586		mg/L	622	94	88-110			
Batch ID: 126382	Date: 04/12/2014 11:43										
						LCS Source: WCICLCS_00282					
300.0	LCS 240-126382/4	Nitrite as N	2.45		mg/L	2.50	98	90-110			
300.0	LCS 240-126382/4	Nitrate as N	2.46		mg/L	2.50	98	90-110			
300.0	LCS 240-126382/4	Orthophosphate as P	2.25		mg/L	2.50	90	90-110			^
Batch ID: 128388	Date: 04/12/2014 11:43										
						LCS Source: WCICLCS_00282					
300.0	LCS 240-128388/4	Chloride	51.2		mg/L	50.0	102	90-110			
Batch ID: 128389	Date: 04/29/2014 11:45										
						LCS Source: WCICLCS_00288					
300.0	LCS 240-128389/4	Chloride	53.2		mg/L	50.0	106	90-110			
300.0	LCS 240-128389/4	Sulfate	53.7		mg/L	50.0	107	90-110			
Batch ID: 126823	Date: 04/16/2014 11:56										
						LCS Source: WCPHENOMINER_00006					
310.1	LCS 240-126823/4	Alkalinity	126		mg/L	120	105	90-127			
Batch ID: 126751	Date: 04/16/2014 12:36										
						LCS Source: WCWIBBYNUTRIE_00011					
350.3	LCS 240-126751/8	Ammonia (as N)	9.97		mg/L	10.1	99	85-114			
Batch ID: 128206	Date: 04/28/2014 08:37										
						LCS Source: WC LCS_00019					
9060	LCS 240-128206/4	Dissolved Organic Carbon	36.9		mg/L	40.8	90	88-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 310.1 MDL Date: 07/12/2013 09:18

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	1.9

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 310.1 XMDL Date: 07/12/2013 09:19

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	1.9

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 160.1 MDL Date: 01/28/2010 09:50

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 160.1 XMDL Date: 01/28/2010 09:51

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: SIMON

Method: 300.0 MDL Date: 01/27/2010 17:40

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Chloride		1	0.1
Nitrate as N		0.1	0.023
Nitrite as N		0.1	0.012
Orthophosphate as P		0.5	0.044

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: SIMON

Method: 300.0 XMDL Date: 01/27/2010 17:40

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chloride		1	0.1
Nitrate as N		0.1	0.023
Nitrite as N		0.1	0.012
Orthophosphate as P		0.5	0.044

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 MDL Date: 01/27/2010 17:40

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Sulfate		1	0.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 XMDL Date: 01/27/2010 17:40

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Sulfate		1	0.12

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: DAVE

Method: 350.3 MDL Date: 04/11/2014 12:30

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Ammonia (as N)		0.2	0.092

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: DAVE

Method: 350.3 XMDL Date: 04/11/2014 12:31

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia (as N)		0.2	0.092

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: SPARKY

Method: 9060 MDL Date: 01/27/2010 15:20

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Dissolved Organic Carbon		1	0.24

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36112-1

SDG Number:

Matrix: Water Instrument ID: SPARKY

Method: 9060 XMDL Date: 01/27/2010 15:20

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon		1	0.24

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: STEVE Analysis Method: 310.1

Start Date: 04/16/2014 11:26 End Date: 04/16/2014 19:05

Lab Sample Id	D/F	Type	Time	Analytes																										
				Alk																										
ZZZZZZ			11:26																											
RINSE 240-126823/2			11:32																											
ZZZZZZ			11:47																											
LCS 240-126823/4	1	T	11:56	X																										
MB 240-126823/5	1	T	12:03	X																										
ZZZZZZ			12:07																											
ZZZZZZ			16:22																											
ZZZZZZ			16:36																											
ZZZZZZ			16:55																											
ZZZZZZ			17:16																											
ZZZZZZ			17:30																											
ZZZZZZ			17:38																											
ZZZZZZ			17:48																											
ZZZZZZ			17:59																											
ZZZZZZ			18:09																											
ZZZZZZ			18:21																											
ZZZZZZ			18:25																											
240-36112-3 DU	1	T	18:37	X																										
240-36112-3	1	T	18:50	X																										
ZZZZZZ			19:01																											
ZZZZZZ			19:05																											

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 160.1

Start Date: 04/16/2014 10:00 End Date: 04/16/2014 10:00

Lab Sample Id	D/F	Type	Time	Analytes
				TDS
MB 240-126705/1	1	T	10:00	X
LCS 240-126705/2	1	T	10:00	X
240-36112-3 DU	1	T	10:00	X
240-36112-3	1	T	10:00	X
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 03/19/2014 19:56 End Date: 03/19/2014 23:13

Lab Sample Id	D/F	Type	Time	Analytes																												
				CL-	SO4																											
RINSE 240-123157/1			19:56																													
STD1 240-123157/2 IC	1		20:12	X	X																											
STD2 240-123157/3 IC	1		20:29	X	X																											
STD3 240-123157/4 IC	1		20:45	X	X																											
STD4 240-123157/5 IC	1		21:02	X	X																											
STD5 240-123157/6 ICRT	1		21:18	X	X																											
STD6 240-123157/7 IC	1		21:34	X	X																											
STD7 240-123157/8 IC	1		21:51	X	X																											
STD8 240-123157/9 IC	1		22:07	X	X																											
STD9 240-123157/10 IC	1		22:24	X	X																											
ZZZZZZ			22:40																													
ICV 240-123157/12	1		22:57	X	X																											
ICB 240-123157/13			23:13																													

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 04/12/2014 10:54 End Date: 04/12/2014 13:05

Lab Sample Id	D/F	Type	Time	Analytes																												
				N-No2	NO3	Orthophosasp																												
CCV 240-126382/1	1		10:54	X	X	X																												
CCB 240-126382/2	1		11:10	X	X	X																												
MB 240-126382/3	1	T	11:26	X	X	X																												
LCS 240-126382/4	1	T	11:43	X	X	X																												
240-36112-3	1	T	11:59	X	X	X																												
240-36112-3 MS	1	T	12:16	X	X	X																												
240-36112-3 MSD	1	T	12:32	X	X	X																												
CCV 240-126382/8	1		12:48	X	X	X																												
CCB 240-126382/9	1		13:05	X	X	X																												

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 04/12/2014 10:54 End Date: 04/12/2014 13:05

Lab Sample Id	D/F	Type	Time	Analytes
				CL-
CCV 240-128388/1	1		10:54	X
CCB 240-128388/2	1		11:10	X
MB 240-128388/3	1	T	11:26	X
LCS 240-128388/4	1	T	11:43	X
240-36112-3	1	T	11:59	X
240-36112-3 MS	1	T	12:16	X
240-36112-3 MSD	1	T	12:32	X
CCV 240-128388/8	1		12:48	X
CCB 240-128388/9	1		13:05	X

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 03/20/2014 12:48 End Date: 03/20/2014 16:03

Lab Sample Id	D/F	Type	Time	Analytes																												
				Cl-	SO4																											
STD1 240-123351/1 IC	1		12:48	X	X																											
STD2 240-123351/2 IC	1		13:07	X	X																											
STD3 240-123351/3 IC	1		13:27	X	X																											
STD4 240-123351/4 IC	1		13:46	X	X																											
STD5 240-123351/5 ICRT	1		14:06	X	X																											
STD6 240-123351/6 IC	1		14:25	X	X																											
STD7 240-123351/7 IC	1		14:45	X	X																											
STD8 240-123351/8 IC	1		15:04	X	X																											
STD9 240-123351/9 IC	1		15:24	X	X																											
ICV 240-123351/10	1		15:43	X	X																											
ICB 240-123351/11			16:03																													

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/29/2014 10:47 End Date: 04/29/2014 14:02

Lab Sample Id	D/F	Type	Time	Analytes																										
				Cl-	SO4																									
CCV 240-128389/1	1		10:47	X	X																									
CCB 240-128389/2	1		11:06	X	X																									
MB 240-128389/3	1	T	11:26	X	X																									
LCS 240-128389/4	1	T	11:45	X	X																									
240-36112-3	10	T	12:05		X																									
240-36112-3 MS	10	T	12:24	X	X																									
240-36112-3 MSD	10	T	12:44	X	X																									
ZZZZZZ			13:03																											
ZZZZZZ			13:23																											
CCV 240-128389/10	1		13:42	X	X																									
CCB 240-128389/11	1		14:02	X	X																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: DAVE Analysis Method: 350.3

Start Date: 04/16/2014 12:24 End Date: 04/16/2014 14:32

Lab Sample Id	D/F	Type	Time	Analytes
				NH3
IC 240-126751/1			12:24	X
IC 240-126751/2			12:24	X
IC 240-126751/3			12:24	X
IC 240-126751/4			12:24	X
ICV 240-126751/5	10		12:24	X
ICB 240-126751/6	1		12:36	X
MB 240-126751/7	1	T	12:36	X
LCS 240-126751/8	10	T	12:36	X
ZZZZZZ			12:59	
ZZZZZZ			12:59	
240-36112-3	1	T	12:59	X
ZZZZZZ			12:59	
ZZZZZZ			12:59	
ZZZZZZ			13:13	
ZZZZZZ			13:25	
ZZZZZZ			13:25	
CCV 240-126751/17	1		13:29	X
CCB 240-126751/18	1		13:46	X
ZZZZZZ			13:53	
ZZZZZZ			14:11	
CCV 240-126751/21			14:17	
CCB 240-126751/22			14:32	

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36112-1

SDG No.:

Instrument ID: SPARKY Analysis Method: 9060

Start Date: 04/28/2014 08:04 End Date: 04/28/2014 11:25

Lab Sample Id	D/F	Type	Time	Analytes
				DOC
CCV 240-128206/1	1		08:04	X
CCB 240-128206/2	1		08:15	X
MB 240-128206/3	1	D	08:26	X
LCS 240-128206/4	1	D	08:37	X
ZZZZZZ			08:48	
ZZZZZZ			09:29	
ZZZZZZ			09:40	
240-36112-3	1	D	09:51	X
ZZZZZZ			10:32	
CCV 240-128206/10	1		11:14	X
CCB 240-128206/11	1		11:25	X

Prep Types:
D = Dissolved

FORM XIII-IN

TestAmerica Canton 2.6, 3.4,

4101 Shuffel Street, N. W.

North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

Chain of Custody Record

1.6, 1.8, 1.4
042319

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Tony Apanavage	Site Contact: Josh Mullis	Date: 4/10/14	COC No:
Company Name:	Tetra Tech	Tel/Fax: 301-528-3000	Lab Contact: Pat O'meara	Carrier: Fed Ex	1 of 1 COCs
Address:	20251 Century Blvd. Ste 200	Analysis Turnaround Time			Sampler:
City/State/Zip:	Germantown, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	301-528-3000	TAT if different from Below 21 DAYS			Walk-in Client:
Fax:		☐ 2 weeks			Lab Sampling:
Project Name:	MSA GW 2014	☐ 1 week			
Site:	MSA	☐ 2 days			Job / SDG No.:
P O #	112IC06183	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	1-4 dioxane	Total Metals	Dissolved Metals	Perchlorate	TPH-GRO	TPH-DRO	MEE	Dissolved Gasses	Ammonia	Alkalinity, Anions, TDS	DOC	Sample Specific Notes:
MSA-MW-32S-041014	4/10/14	0900	G	Aq	11			3	2	1	1		2	2						
MSA-MW-32I-041014	4/10/14	1010			7			3	2	1	1									
MSA-MW-48S-041014	4/10/14	1130			20			3	2	1	1	1	2	2	2	2	1	1	2	
MSA-MW-49S-041014	4/10/14	1435			12			3	2	1	1	1	2	2						
MSA-MW-49I-041014	4/10/14	1540			8			3	2	1	1	1								
MSA-DMW-10S-041014	↓	0853			11			3	2	1	1		2	2						
MSA-DMW-10I-041014		1009			7			3	2	1	1									
MSA-DMW-1B-041014		1129			7			3	2	1	1									
MSA-DMW-1A-041014		1245			7			3	2	1	1									
MSA-MW-6-041014	↓	1530			11			3	2	1	1		2	2						

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: Dissolved Metals and Perchlorate Filtered in Field

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt Pry TD	TT Inc	4-11-14/1610	[signature]	TestAmerica	4/11/14 / 1610
[signature]	TestAmerica	4/11/14/1730			
			Received in Laboratory by: [signature]	TA/Canton	4/12/14 9:45

TestAmerica Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

Chain of Custody Record

042307

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Tony Apanavage	Site Contact: Josh Mullis	Date: 4/11/14	COC No:
Company Name:	Tetra Tech	Tel/Fax:	Lab Contact: Pat O'Neill	Carrier: Fed Ex	2 of 2 COCs
Address:	20251 Century Blvd. Ste. 200	Analysis Turnaround Time			Sampler:
City/State/Zip:	Germantown, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	301-528-3000	TAT if different from Below			Walk-in Client:
Fax:		☐ 2 weeks 21 days			Lab Sampling:
Project Name:	MSA GW 2014	☐ 1 week			
Site:	MSA	☐ 2 days			Job / SDG No.:
P O #	12IC06183	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	1-4 dioxane	TPH-DRO	TPH-GRO	Total Metals	Dissolved Metals	Perchlorate	Sample Specific Notes:
MSA-MW-24S-041114	4/11/14	0845	G	Aq	11			X	X	X	X	X	X		
MSA-MW-24I-041114	4/11/14	0955			8			X	X			X	X	X	
MSA-MW-23S-041114	4/11/14	1135			11			X	X	X	X	X	X		
MSA-MW-23D-041114	4/11/14	1445			7			X	X			X	X		
MSA-MW-36S-041114		0905			11			X	X	X	X	X	X		
MSA-MW-25S-041114		1025			11			X	X	X	X	X	X		
MSA-MW-25I-041114		1145			21			X	X			X	X		(* MS/MSD)
MSA-MW-37S-041114		1450			11			X	X	X	X	X	X		

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: Dissolved Metals and Perchlorate filtered in field

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Nettie [signature]	TT Inc	4-11-14/1610	Paul [signature]	TestAmerica	4/11/14 / 1610
[signature]	TestAmerica	4/11/14/1750			
			Received in Laboratory by: [signature]	TA Canton	4/12/14 9:45

TestAmerica Canton Sample Receipt Form/Narrative Login # : 36112
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 4/12/14 Opened on 4/12/14

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: ~~Bubble~~ Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 4	(CF -1 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	☒ See Multiple Cooler Form
IR GUN# 5	(CF +1 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
~~IR GUN# 8~~	~~(CF +1 °C) Observed Cooler Temp. _____ °C~~	~~Corrected Cooler Temp. _____ °C~~	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 5 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Did all bottles arrive in good condition (Unbroken)? Yes No
7. Could all bottle labels be reconciled with the COC? Yes No
8. Were correct bottle(s) used for the test(s) indicated? Yes No
9. Sufficient quantity received to perform indicated analyses? Yes No
10. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? Yes No
12. Were air bubbles >6 mm in any VOA vials? Yes No NA
13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM JWM Date 4/14/14 by AN via Verbal Voice Mail Other
Concerning #14

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples ~~processed~~ by:

Received 2x40ml Trip Blank not on COC. Will log.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

TestAmerica Multiple Cooler Receipt Form/Narrative
Canton Facility

Login #: 36112

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
L915	A	2.6	2.6	ICE
102		1.8	1.8	
Client		1.6	1.6	
K633		2.6	2.6	
Client		3.4	3.4	

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW-32S-041014	240-36112-J-1	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-32S-041014	240-36112-K-1	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-32I-041014	240-36112-F-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-32I-041014	240-36112-G-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-48S-041014	240-36112-L-3	Plastic 250ml - with Sulfuric Acid	<2		
MSA-MW-48S-041014	240-36112-Q-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-48S-041014	240-36112-R-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-49S-041014	240-36112-K-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-49S-041014	240-36112-L-4	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-49I-041014	240-36112-G-5	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-49I-041014	240-36112-H-5	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-10S-041014	240-36112-J-6	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-10S-041014	240-36112-K-6	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-10I-041014	240-36112-F-7	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-10I-041014	240-36112-G-7	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-1B-041014	240-36112-F-8	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-1B-041014	240-36112-G-8	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-1A-041014	240-36112-F-9	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-1A-041014	240-36112-G-9	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-6-041014	240-36112-J-10	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-6-041014	240-36112-K-10	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-24S-041014	240-36112-J-11	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-24S-041014	240-36112-K-11	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-24I-041014	240-36112-G-12	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-24I-041014	240-36112-H-12	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-23S-041014	240-36112-J-13	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-23S-041014	240-36112-K-13	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-23I-041014	240-36112-F-14	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-23I-041014	240-36112-G-14	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-36S-041014	240-36112-J-15	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-36S-041014	240-36112-K-15	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-25S-041014	240-36112-J-16	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-25S-041014	240-36112-K-16	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-25I-041014	240-36112-P-17	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-25I-041014	240-36112-Q-17	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-25I-041014	240-36112-R-17	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-25I-041014	240-36112-S-17	Plastic 500ml - with Nitric Acid	<2		

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW-25I-041014	240-36112-T-17	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-25I-041014	240-36112-U-17	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-37S-041014	240-36112-J-18	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-37S-041014	240-36112-K-18	Plastic 500ml - with Nitric Acid	<2		

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-36112-1

Login Number: 36112
List Number: 1
Creator: Nelson, Kym D

List Source: TestAmerica Sacramento
List Creation: 04/15/14 12:45 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Tetra Tech **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE:** **JULY 11, 2014**

FROM: **EDWARD SEDLMYER** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – TOTAL AND DISSOLVED METALS / MISCELLANEOUS**
MARTIN STATE AIRPORT (MSA)
SDG 240-36135-1

SAMPLES: 13 / Aqueous / Total and Dissolved Metals / MISC.

MSA-DMW-11I-041414	MSA-DMW-11S-041414	MSA-DMW-7D-041614
MSA-DMW-7I-041614	MSA-DMW-8I-041614	MSA-MW-21D-041414
MSA-MW-21I-041414	MSA-MW-4-041614	MSA-MW-50D-041614
MSA-MW-50I-041414	MSA-MW-50S-041414	MSA-MW-51I-041614
MSA-MW-51S-041614		

Overview

The sample set for Lockheed, MSA, SDG 240-36135-1 consists of thirteen (13) aqueous environmental samples. All samples were analyzed for total and dissolved metals. In addition, sample MSA-DMW-11S-041414 was analyzed for natural attenuation parameters including dissolved organic carbon, hardness, total dissolved solids, anions, alkalinity, and ammonia.

The samples were collected by Tetra Tech on April 14 and 16, 2014 and analyzed by Test America (North Canton). All analyses were conducted in accordance with SW-846 Methods 6010C, 6020A, 7470A, 9060, Standard method 2340B, EPA methods 300.0, 310.1, 350.3, and 160.1 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, ICP/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, blank spike/blank spike duplicate results, internal standard recoveries, ICP interference results, laboratory duplicate results, ICP serial dilution results, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

- None

Minor

- The following contaminants were detected in the preparation or calibration blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Calcium[1]	264 ug/L	1320 ug/L
Potassium[1]	126 ug/L	630 ug/L
Magnesium[1]	55 ug/L	275 ug/L
Arsenic[1]	0.385 ug/L	1.925 ug/L
Barium[1]	1.29 ug/L	6.45 ug/L
Copper[1]	0.718 ug/L	3.59 ug/L
Iron[1]	13.0 ug/L	65 ug/L
Lead[1]	0.177 ug/L	0.885 ug/L
Vanadium[1]	0.799 ug/L	3.995 ug/L
Barium[2]	0.762 ug/L	3.81 ug/L
Copper[2]	0.625 ug/L	3.125 ug/L
Manganese[2]	0.925 ug/L	4.625 ug/L
Arsenic[3]	0.342 ug/L	1.71 ug/L
Barium[3]	1.25 ug/L	6.25 ug/L
Copper[3]	1.29 ug/L	6.45 ug/L
Iron[3]	14.4 ug/L	72 ug/L
Nickel[3]	0.118 ug/L	0.59 ug/L
Lead[3]	0.169 ug/L	0.845 ug/L
Silver[3]	0.0150 ug/L	0.075 ug/L
Vanadium[3]	0.862 ug/L	4.31 ug/L
Antimony[4]	0.504 ug/L	2.52 ug/L
Beryllium[4]	0.142 ug/L	0.71 ug/L
Silver[4]	0.016 ug/L	0.08 ug/L
Antimony[5]	0.412 ug/L	2.06 ug/L
Beryllium[5]	0.069 ug/L	0.345 ug/L
Beryllium[6]	0.047 ug/L	0.235 ug/L

(1) - Maximum concentration found in preparation blank (MB 240-126669/1-A) affecting total and dissolved samples MSA-DMW-11S-041414 and MSA-DMW-11I-041414.

(2) - Maximum concentration found in preparation blank (MB 240-127045/1-A) affecting total and dissolved samples MSA-MW-21D-041414, MSA-MW-21I-041414, MSA-MW-50I-041414, and MSA-MW-50S-041414.

(3) - Maximum concentration found in preparation blank (MB 240-127394/1-A) affecting total and dissolved samples MSA-DMW-7D-041614, MSA-DMW-7I-041614, MSA-DMW-8I-041614, MSA-MW-4-041614, MSA-MW-50D-041614, MSA-MW-51I-041414, and MSA-MW-51S-041414.

(4) – Maximum concentration found in calibration blank (CCB240-126899/72 04/17/14 @ 15:07) affecting total and dissolved samples MSA-DMW-11S-041414 and MSA-DMW-11I-041414.

(5) - Maximum concentration found in calibration blank (CCB240-127674/37 04/23/14 @ 13:18) affecting total and dissolved samples MSA-DMW-7D-041614, MSA-DMW-7I-041614, MSA-DMW-8I-041614, MSA-MW-4-041614, MSA-MW-50D-041614, MSA-MW-51I-041414, and MSA-MW-51S-041414.

(6) - Maximum concentration found in calibration blank (CCB240-127580/55 04/22/14 @ 17:41) affecting total and dissolved samples MSA-MW-21D-041414, MSA-MW-21I-041414, MSA-MW-50I-041414, and MSA-MW-50S-041414.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into

consideration when evaluating for blank contamination. No action was taken on this basis because all results were greater than the action level.

- The internal standard recovery for scandium was outside the 60-125% quality control limit for total sample MSA-DMW-8I-041614. The total sample MSA-DMW-8I-041614 was reanalyzed at a five-fold dilution. The scandium internal standard recovery was still outside for total sample MSA-DMW-8I-041614 and the detected results for cobalt, chromium, copper, iron, manganese, and nickel were qualified as estimated (J). Vanadium was not qualified because it was previously qualified due to blank contamination.

- Positive results less than the reporting limit (RL) were qualified as estimated, (J), due to uncertainty near the detection limit.

Notes

The total and dissolved samples MSA-DMW-8I-041614, MSA-MW-50I-041414 and MSA-MW-50S-041414 were diluted due to sample matrix interference for several metals. This accounts for the elevated detection limit for the nondetected metals.

Executive Summary

Laboratory Performance: Blank contamination resulted in the qualification of metals data.

Other Factors Affecting Data Quality: Internal standard recovery noncompliances resulted in the qualification of several metals. Positive results less than the reporting limit (RL) were qualified as estimated, due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to USEPA National Functional Guidelines for Inorganic Data Validation (January 2010). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Edward Sedlmyer
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 06183	NSAMPLE	MSA-DMW-11I-041414			MSA-DMW-11S-041414			MSA-DMW-7D-041614			MSA-DMW-7I-041614		
SDG: 240-36135-1	LAB_ID	240-36135-3			240-36135-2			240-36320-3			240-36320-2		
FRACTION: MF	SAMP_DATE	4/14/2014			4/14/2014			4/16/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.14	U	A	0.36	U	A	0.29	U	A	0.31	U	A
ARSENIC		0.82	U	A	4.2	J	P	0.4	U	A	8.6		
BARIUM		3.8	U	A	48			40			14		
BERYLLIUM		0.2	U	A	0.21	U	A	0.55	J	P	4.8		
CADMIUM		0.026	U		0.026	U		1			18		
CHROMIUM		0.69	J	P	0.95	J	P	1.5	J	P	6.1		
COBALT		1			7.4			10			100		
COPPER		9.3			0.53	U	A	27			38		
IRON		130			29000			130			31000		
LEAD		0.92	J	P	0.21	U	A	6.5			9.7		
MANGANESE		26			630			35			3400		
MERCURY		0.22			0.12	U		0.17	J	P	0.12	U	
MOLYBDENUM		0.81	U		0.81	U		0.81	U		0.81	U	
NICKEL		1.6	J	P	2.5			19			84		
SELENIUM		0.34	U		0.67	J	P	0.34	U		22		
SILVER		0.013	U	A	0.019	U	A	0.019	U	A	0.0083	U	
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		1.9	U	A	0.77	U	A	0.81	U	A	14		

PROJ_NO: 06183	NSAMPLE	MSA-DMW-8I-041614			MSA-MW-21D-041414			MSA-MW-21I-041414			MSA-MW-4-041614		
SDG: 240-36135-1	LAB_ID	240-36320-4			240-36233-5			240-36233-3			240-36320-5		
FRACTION: MF	SAMP_DATE	4/16/2014			4/14/2014			4/14/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.16	U	A	0.72	J	P	0.11	U		1.8	U	A
ARSENIC		16			0.77	J	P	15			1.4	U	A
BARIUM		11			64			19			25		
BERYLLIUM		8.3			0.034	U	A	0.039	U	A	0.031	U	
CADMIUM		98			0.026	U		0.026	U		11		
CHROMIUM		4.1	J	NP	0.57	J	P	0.27	J	P	0.44	J	P
COBALT		180	J	N	0.36	J	P	6.5			0.79	J	P
COPPER		42	J	N	7.5			0.24	U		15		
IRON		10000	J	N	12	U		21000			250		
LEAD		6.6	J	N	0.14	U		0.14	U		0.29	U	A
MANGANESE		6400	J	N	3.2	U	A	560			320		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		0.81	U		0.88	J	P	2.2	J	P
NICKEL		130	J	N	3.2			1.7	J	P	42		
SELENIUM		42			0.34	U		0.34	U		0.36	J	P
SILVER		0.0083	U		0.0083	U		0.0083	U		0.049	U	A
THALLIUM		2	UJ	N	0.4	U		0.4	U		0.4	U	
VANADIUM		4.5	U	A	1.1	J	P	0.49	J	P	1.6	U	A

PROJ_NO: 06183	NSAMPLE	MSA-MW-50D-041614			MSA-MW-50I-041414			MSA-MW-50S-041414			MSA-MW-51I-041614		
SDG: 240-36135-1	LAB_ID	240-36320-6			240-36233-4			240-36233-2			240-36320-8		
FRACTION: MF	SAMP_DATE	4/16/2014			4/14/2014			4/14/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.64	U	A	0.55	U		0.55	U		0.11	U	
ARSENIC		0.64	U	A	7.9			11			4.7	J	P
BARIUM		48			22	J	P	17	U	A	15		
BERYLLIUM		0.031	U		2.9			2.6			2.1		
CADMIUM		0.026	U		0.026	U		0.026	U		2.5		
CHROMIUM		0.4	J	P	25			7.6			7.6		
COBALT		1.2			130			90			75		
COPPER		1.4	U	A	0.34	U	A	0.24	U		7.4		
IRON		59	U	A	27000			27000			40000		
LEAD		0.14	U		0.7	U		0.7	U		1.8		
MANGANESE		5.7			2600			2000			2300		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		43			0.81	U		0.81	U		0.81	U	
NICKEL		3			37			76			34		
SELENIUM		0.81	J	P	17			25			12		
SILVER		0.0083	U		0.0083	U		0.0083	U		0.0083	U	
THALLIUM		0.4	U		2	U		2	U		0.4	U	
VANADIUM		1.6	U	A	4	J	P	7.8			3.3	U	A

PROJ_NO: 06183	NSAMPLE	MSA-MW-51S-041614
SDG: 240-36135-1	LAB_ID	240-36320-7
FRACTION: MF	SAMP_DATE	4/16/2014
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
ANTIMONY	0.19	U	A
ARSENIC	1.8	J	P
BARIUM	31		
BERYLLIUM	0.055	U	A
CADMIUM	0.026	U	
CHROMIUM	0.21	J	P
COBALT	3.1		
COPPER	2.2	U	A
IRON	560		
LEAD	0.14	U	
MANGANESE	870		
MERCURY	0.12	U	
MOLYBDENUM	1.3	J	P
NICKEL	7.7		
SELENIUM	1	J	P
SILVER	0.0083	U	
THALLIUM	0.4	U	
VANADIUM	2.3	U	A

PROJ_NO: 06183	NSAMPLE	MSA-DMW-11I-041414			MSA-DMW-11S-041414			MSA-DMW-7D-041614			MSA-DMW-7I-041614		
SDG: 240-36135-1	LAB_ID	240-36135-3			240-36135-2			240-36320-3			240-36320-2		
FRACTION: M	SAMP_DATE	4/14/2014			4/14/2014			4/16/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.28	U	A	0.73	U	A	0.3	U	A	1.6	U	A
ARSENIC		2	J	P	4.5	J	P	1	U	A	9.1		
BARIUM		13			47			41			26		
BERYLLIUM		0.41	U	A	0.5	U	A	0.69	J	P	5		
CADMIUM		0.031	J	P	0.18	J	P	1.1			22		
CALCIUM					100000								
CHROMIUM		6.8			1.3	J	P	24			14		
COBALT		1.1			8.4			11			94		
COPPER		10			1	U	A	30			370		
IRON		1100			27000			5500			29000		
LEAD		3.3			0.72	U	A	29			15		
MAGNESIUM					25000								
MANGANESE		30			610			37			3100		
MERCURY		2.1			0.12	U		0.25			0.12	U	
MOLYBDENUM		0.81	U		0.81	U		0.81	U		2.9	J	P
NICKEL		2.2			2.9			21			80		
POTASSIUM					5100								
SELENIUM		0.34	U		1.1	J	P	0.34	U		22		
SILICON DIOXIDE					3000								
SILVER		0.026	U	A	0.041	U	A	0.042	U	A	0.2	J	P
SODIUM					8100								
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		13			1.4	U	A	0.96	U	A	15		

PROJ_NO: 06183	NSAMPLE	MSA-DMW-8I-041614			MSA-MW-21D-041414			MSA-MW-21I-041414			MSA-MW-4-041614		
SDG: 240-36135-1	LAB_ID	240-36320-4			240-36233-5			240-36233-3			240-36320-5		
FRACTION: M	SAMP_DATE	4/16/2014			4/14/2014			4/14/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.39	U	A	0.7	J	P	0.11	U		2.1		
ARSENIC		17			0.74	J	P	15			1.4	U	A
BARIUM		16			61			19			25		
BERYLLIUM		8.5			0.054	U	A	0.099	U	A	0.11	U	A
CADMIUM		130			0.026	U		0.026	U		12		
CALCIUM													
CHROMIUM		40			0.76	J	P	0.35	J	P	0.68	J	P
COBALT		180			0.36	J	P	7.1			0.81	J	P
COPPER		110			6.5			0.24	U		19		
IRON		11000			76	J	P	22000			740		
LEAD		6.9			0.21	J	P	0.71	J	P	1		
MAGNESIUM													
MANGANESE		6200			2.4	U	A	570			320		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.7	J	P	0.81	U		0.98	J	P	2.2	J	P
NICKEL		130			2			1.8	J	P	41		
POTASSIUM													
SELENIUM		43			0.34	U		0.43	J	P	0.42	J	P
SILICON DIOXIDE													
SILVER		0.046	U	A	0.009	J	P	0.0083	U		0.14	J	P
SODIUM													
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		7.9	U	A	1.2	J	P	0.59	J	P	1.7	U	A

PROJ_NO: 06183	NSAMPLE	MSA-MW-50D-041614			MSA-MW-50I-041414			MSA-MW-50S-041414			MSA-MW-51I-041614		
SDG: 240-36135-1	LAB_ID	240-36320-6			240-36233-4			240-36233-2			240-36320-8		
FRACTION: M	SAMP_DATE	4/16/2014			4/14/2014			4/14/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.79	U	A	0.55	U		0.55	U		0.32	U	A
ARSENIC		0.71	U	A	8.7			12			5.6		
BARIUM		51			21	J	P	16	U	A	15		
BERYLLIUM		0.069	U	A	3			2.7			2		
CADMIUM		0.036	J	P	0.026	U		0.026	U		13		
CALCIUM													
CHROMIUM		0.78	J	P	42			7.9			8.8		
COBALT		1.6			130			90			78		
COPPER		1.7	U	A	0.24	U		0.24	U		130		
IRON		250			31000			27000			43000		
LEAD		0.41	U	A	0.7	U		0.7	U		4.7		
MAGNESIUM													
MANGANESE		22			2500			2100			2300		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		45			0.81	U		0.81	U		0.81	U	
NICKEL		2.4			38			77			37		
POTASSIUM													
SELENIUM		0.78	J	P	18			24			12		
SILICON DIOXIDE													
SILVER		0.0083	U		0.0083	U		0.0083	U		0.0083	U	
SODIUM													
THALLIUM		0.4	U		2	U		2	U		0.4	U	
VANADIUM		2	U	A	11			8.3			3.5	U	A

PROJ_NO: 06183	NSAMPLE	MSA-MW-51S-041614		
SDG: 240-36135-1	LAB_ID	240-36320-7		
FRACTION: M	SAMP_DATE	4/16/2014		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ANTIMONY		0.29	U	A
ARSENIC		2.3	J	P
BARIUM		33		
BERYLLIUM		0.13	U	A
CADMIUM		0.055	J	P
CALCIUM				
CHROMIUM		0.77	J	P
COBALT		2.9		
COPPER		1.2	U	A
IRON		6000		
LEAD		0.2	U	A
MAGNESIUM				
MANGANESE		860		
MERCURY		0.12	U	
MOLYBDENUM		1.8	J	P
NICKEL		5.4		
POTASSIUM				
SELENIUM		1.4	J	P
SILICON DIOXIDE				
SILVER		0.0083	U	
SODIUM				
THALLIUM		0.4	U	
VANADIUM		2.5	U	A

PROJ_NO: 06183	NSAMPLE	MSA-DMW-11S-041414		
SDG: 240-36135-1	LAB_ID	240-36135-2		
FRACTION: MISC	SAMP_DATE	4/14/2014		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	MG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ALKALINITY		260		
AMMONIA-N		0.68		
CALCIUM HARDNESS AS CACO3		260		
CHLORIDE		34		
HARDNESS AS CACO3		360		
MAGNESIUM HARDNESS AS CACO3		100		
NITRATE-N		0.023	U	
NITRITE-N		0.012	U	
ORTHOPHOSPHATE-P		0.42	J	P
SULFATE		130		
TOTAL DISSOLVED SOLIDS		510		

PROJ_NO: 06183	NSAMPLE	MSA-DMW-11S-041414		
SDG: 240-36135-1	LAB_ID	240-36135-2		
FRACTION: MISCF	SAMP_DATE	4/14/2014		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	MG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON		13		

Appendix B

Results as Reported by the Laboratory

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-11I-041414 Lab Sample ID: 240-36135-3

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 11:48

Reporting Basis: WET Date Received: 04/15/2014 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	2.1	0.20	0.12	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-11I-041414 Lab Sample ID: 240-36135-3

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 11:48

Reporting Basis: WET Date Received: 04/15/2014 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.28	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	2.0	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	13	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.41	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.031	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	1.1	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	6.8	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	10	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	1100	100	12	ug/L		B	1	6020
7439-96-5	Manganese	30	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	2.2	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	3.3	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	13	5.0	0.15	ug/L		B	1	6020
7440-22-4	Silver	0.026	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-11I-041414 Lab Sample ID: 240-36135-3

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 11:48

Reporting Basis: WET Date Received: 04/15/2014 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.14	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	0.82	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	3.8	5.0	0.32	ug/L	J	B	1	6020
7440-41-7	Beryllium	0.20	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.69	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	1.0	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	9.3	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.92	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	1.6	2.0	0.088	ug/L	J		1	6020
7439-89-6	Iron	130	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	26	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.013	1.0	0.0083	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.9	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.22	0.20	0.12	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-11S-041414 Lab Sample ID: 240-36135-2

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 09:50

Reporting Basis: WET Date Received: 04/15/2014 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-11S-041414 Lab Sample ID: 240-36135-2

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 09:50

Reporting Basis: WET Date Received: 04/15/2014 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	100000	5000	130	ug/L		B	1	6010C
7440-09-7	Potassium	5100	5000	72	ug/L		B	1	6010C
7439-95-4	Magnesium	25000	5000	34	ug/L		B	1	6010C
7440-23-5	Sodium	8100	5000	590	ug/L			1	6010C
14808-60-7	SiO2, Silica	3000	1100	17	ug/L			1	6010C
7440-36-0	Antimony	0.73	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	4.5	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	47	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.50	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.18	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	8.4	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	1.3	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	1.0	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	27000	100	12	ug/L		B	1	6020
7439-96-5	Manganese	610	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	2.9	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.72	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	1.1	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.4	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.041	1.0	0.0083	ug/L	J		1	6020
	Hardness as calcium carbonate	360	33	33	mg/L			1	2340B-1997
	Calcium hardness as calcium carbonate	260	12	12	mg/L			1	2340B-1997
	Magnesium hardness as calcium carbonate	100	21	21	mg/L			1	2340B-1997

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-11S-041414 Lab Sample ID: 240-36135-2

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 09:50

Reporting Basis: WET Date Received: 04/15/2014 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.36	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	4.2	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	48	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.21	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.95	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	7.4	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.53	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.21	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	2.5	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	29000	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.67	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	630	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.019	1.0	0.0083	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.77	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-7D-041614 Lab Sample ID: 240-36320-3

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 10:49

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.25	0.20	0.12	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-7D-041614 Lab Sample ID: 240-36320-3

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 10:49

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.30	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	1.0	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	41	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.69	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	1.1	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	11	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	24	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	30	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	5500	100	12	ug/L		B	1	6020
7439-96-5	Manganese	37	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	21	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	29	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.96	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.042	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-7D-041614 Lab Sample ID: 240-36320-3

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 10:49

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.29	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.40	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	40	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.55	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	1.5	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	10	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	27	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	6.5	1.0	0.14	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	19	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	130	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	35	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.019	1.0	0.0083	ug/L	J	B	1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.81	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.17	0.20	0.12	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-7I-041614 Lab Sample ID: 240-36320-2

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 09:31

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-7I-041614 Lab Sample ID: 240-36320-2

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 09:31

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.6	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	9.1	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	26	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	5.0	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	22	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	94	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	14	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	370	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	29000	100	12	ug/L		B	1	6020
7439-96-5	Manganese	3100	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	2.9	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	80	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	15	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	22	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	15	5.0	0.15	ug/L		B	1	6020
7440-22-4	Silver	0.20	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-7I-041614 Lab Sample ID: 240-36320-2

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 09:31

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.31	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	8.6	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	14	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	4.8	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	18	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	6.1	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	100	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	38	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	9.7	1.0	0.14	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	84	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	31000	100	12	ug/L		B	1	6020
7782-49-2	Selenium	22	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	3400	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	14	5.0	0.15	ug/L		B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-8I-041614 Lab Sample ID: 240-36320-4

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 12:18

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-8I-041614 Lab Sample ID: 240-36320-4

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 12:18

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.39	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	17	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	16	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	8.5	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	130	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	180	5.0	0.10	ug/L			5	6020
7440-47-3	Chromium	40	10	0.65	ug/L			5	6020
7440-50-8	Copper	110	10	1.2	ug/L		B	5	6020
7439-89-6	Iron	11000	500	59	ug/L		B	5	6020
7439-96-5	Manganese	6200	25	2.1	ug/L			5	6020
7439-98-7	Molybdenum	1.7	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	130	10	0.44	ug/L		B	5	6020
7439-92-1	Lead	6.9	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	43	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	7.9	25	0.75	ug/L	J	B	5	6020
7440-22-4	Silver	0.046	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-8I-041614 Lab Sample ID: 240-36320-4

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 12:18

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.16	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	16	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	11	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	8.3	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	98	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	4.1	10	0.65	ug/L	J		5	6020
7440-48-4	Cobalt	180	5.0	0.10	ug/L			5	6020
7440-50-8	Copper	42	10	1.2	ug/L		B	5	6020
7439-92-1	Lead	6.6	5.0	0.70	ug/L		B	5	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	130	10	0.44	ug/L		B	5	6020
7439-89-6	Iron	10000	500	59	ug/L		B	5	6020
7782-49-2	Selenium	42	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	6400	25	2.1	ug/L			5	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	2.0	10	2.0	ug/L	U		5	6020
7440-62-2	Vanadium	4.5	25	0.75	ug/L	J	B	5	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-21D-041414 Lab Sample ID: 240-36233-5

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 16:04

Reporting Basis: WET Date Received: 04/16/2014 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-21D-041414 Lab Sample ID: 240-36233-5

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 16:04

Reporting Basis: WET Date Received: 04/16/2014 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.70	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	0.74	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	61	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.054	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	0.36	1.0	0.020	ug/L	J		1	6020
7440-47-3	Chromium	0.76	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	6.5	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	76	100	12	ug/L	J		1	6020
7439-96-5	Manganese	2.4	5.0	0.41	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	2.0	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.21	1.0	0.14	ug/L	J		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0090	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-21D-041414 Lab Sample ID: 240-36233-5

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 16:04

Reporting Basis: WET Date Received: 04/16/2014 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.72	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	0.77	5.0	0.063	ug/L	J		1	6020
7440-39-3	Barium	64	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.034	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.57	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	0.36	1.0	0.020	ug/L	J		1	6020
7440-50-8	Copper	7.5	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	3.2	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	12	100	12	ug/L	U		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	3.2	5.0	0.41	ug/L	J	B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-21I-041414 Lab Sample ID: 240-36233-3

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 14:50

Reporting Basis: WET Date Received: 04/16/2014 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-21I-041414 Lab Sample ID: 240-36233-3

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 14:50

Reporting Basis: WET Date Received: 04/16/2014 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	15	5.0	0.063	ug/L			1	6020
7440-39-3	Barium	19	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.099	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	7.1	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.35	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-89-6	Iron	22000	100	12	ug/L			1	6020
7439-96-5	Manganese	570	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.98	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	1.8	2.0	0.088	ug/L	J		1	6020
7439-92-1	Lead	0.71	1.0	0.14	ug/L	J		1	6020
7782-49-2	Selenium	0.43	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.59	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-21I-041414 Lab Sample ID: 240-36233-3

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 14:50

Reporting Basis: WET Date Received: 04/16/2014 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	15	5.0	0.063	ug/L			1	6020
7440-39-3	Barium	19	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.039	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.27	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	6.5	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.88	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	1.7	2.0	0.088	ug/L	J		1	6020
7439-89-6	Iron	21000	100	12	ug/L			1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	560	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.49	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-4-041614 Lab Sample ID: 240-36320-5

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 15:20

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-4-041614 Lab Sample ID: 240-36320-5

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 15:20

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.1	2.0	0.11	ug/L		B	1	6020
7440-38-2	Arsenic	1.4	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	25	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.11	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	12	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	0.81	1.0	0.020	ug/L	J		1	6020
7440-47-3	Chromium	0.68	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	19	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	740	100	12	ug/L		B	1	6020
7439-96-5	Manganese	320	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	2.2	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	41	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	1.0	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	0.42	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.7	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.14	1.0	0.0083	ug/L	J	B	1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-4-041614 Lab Sample ID: 240-36320-5

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 15:20

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.8	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	1.4	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	25	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	11	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	0.44	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	0.79	1.0	0.020	ug/L	J		1	6020
7440-50-8	Copper	15	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.29	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	2.2	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	42	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	250	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.36	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	320	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.049	1.0	0.0083	ug/L	J	B	1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.6	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-50D-041614 Lab Sample ID: 240-36320-6

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 09:40

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-50D-041614 Lab Sample ID: 240-36320-6

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 09:40

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.79	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.71	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	51	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.069	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.036	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	1.6	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.78	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	1.7	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	250	100	12	ug/L		B	1	6020
7439-96-5	Manganese	22	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	45	10	0.81	ug/L			1	6020
7440-02-0	Nickel	2.4	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.41	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.78	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.0	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-50D-041614 Lab Sample ID: 240-36320-6

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 09:40

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.64	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.64	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	48	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.40	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	1.2	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	1.4	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	43	10	0.81	ug/L			1	6020
7440-02-0	Nickel	3.0	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	59	100	12	ug/L	J	B	1	6020
7782-49-2	Selenium	0.81	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	5.7	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.6	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-50I-041414 Lab Sample ID: 240-36233-4

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 15:37

Reporting Basis: WET Date Received: 04/16/2014 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-50I-041414 Lab Sample ID: 240-36233-4

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 15:37

Reporting Basis: WET Date Received: 04/16/2014 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.55	10	0.55	ug/L	U		5	6020
7440-38-2	Arsenic	8.7	5.0	0.063	ug/L			1	6020
7440-39-3	Barium	21	25	1.6	ug/L	J	B	5	6020
7440-41-7	Beryllium	3.0	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	130	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	42	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-89-6	Iron	31000	100	12	ug/L			1	6020
7439-96-5	Manganese	2500	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	38	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.70	5.0	0.70	ug/L	U		5	6020
7782-49-2	Selenium	18	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	2.0	10	2.0	ug/L	U		5	6020
7440-62-2	Vanadium	11	5.0	0.15	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-50I-041414 Lab Sample ID: 240-36233-4

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 15:37

Reporting Basis: WET Date Received: 04/16/2014 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.55	10	0.55	ug/L	U		5	6020
7440-38-2	Arsenic	7.9	5.0	0.063	ug/L			1	6020
7440-39-3	Barium	22	25	1.6	ug/L	J	B	5	6020
7440-41-7	Beryllium	2.9	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	25	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	130	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.34	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.70	5.0	0.70	ug/L	U		5	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	37	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	27000	100	12	ug/L			1	6020
7782-49-2	Selenium	17	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	2600	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	2.0	10	2.0	ug/L	U		5	6020
7440-62-2	Vanadium	4.0	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-50S-041414 Lab Sample ID: 240-36233-2

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 10:50

Reporting Basis: WET Date Received: 04/16/2014 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-50S-041414 Lab Sample ID: 240-36233-2

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 10:50

Reporting Basis: WET Date Received: 04/16/2014 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.55	10	0.55	ug/L	U		5	6020
7440-38-2	Arsenic	12	5.0	0.063	ug/L			1	6020
7440-39-3	Barium	16	25	1.6	ug/L	J	B	5	6020
7440-41-7	Beryllium	2.7	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	90	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	7.9	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-89-6	Iron	27000	100	12	ug/L			1	6020
7439-96-5	Manganese	2100	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	77	2.0	0.088	ug/L			1	6020
7439-92-1	Lead	0.70	5.0	0.70	ug/L	U		5	6020
7782-49-2	Selenium	24	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	2.0	10	2.0	ug/L	U		5	6020
7440-62-2	Vanadium	8.3	5.0	0.15	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-50S-041414 Lab Sample ID: 240-36233-2

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 10:50

Reporting Basis: WET Date Received: 04/16/2014 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.55	10	0.55	ug/L	U		5	6020
7440-38-2	Arsenic	11	5.0	0.063	ug/L			1	6020
7440-39-3	Barium	17	25	1.6	ug/L	J	B	5	6020
7440-41-7	Beryllium	2.6	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	7.6	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	90	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.24	2.0	0.24	ug/L	U		1	6020
7439-92-1	Lead	0.70	5.0	0.70	ug/L	U		5	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	76	2.0	0.088	ug/L			1	6020
7439-89-6	Iron	27000	100	12	ug/L			1	6020
7782-49-2	Selenium	25	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	2000	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	2.0	10	2.0	ug/L	U		5	6020
7440-62-2	Vanadium	7.8	5.0	0.15	ug/L			1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-51I-041614 Lab Sample ID: 240-36320-8

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 11:38

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-51I-041614 Lab Sample ID: 240-36320-8

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 11:38

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.32	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	5.6	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	15	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	2.0	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	13	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	78	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	8.8	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	130	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	43000	100	12	ug/L		B	1	6020
7439-96-5	Manganese	2300	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	37	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	4.7	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	12	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	3.5	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-51I-041614 Lab Sample ID: 240-36320-8

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 11:38

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	4.7	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	15	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	2.1	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	2.5	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	7.6	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	75	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	7.4	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	1.8	1.0	0.14	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	34	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	40000	100	12	ug/L		B	1	6020
7782-49-2	Selenium	12	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	2300	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	3.3	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-51S-041614 Lab Sample ID: 240-36320-7

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 14:46

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-51S-041614 Lab Sample ID: 240-36320-7

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 14:46

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.29	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	2.3	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	33	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.13	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.055	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	2.9	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.77	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	1.2	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	6000	100	12	ug/L		B	1	6020
7439-96-5	Manganese	860	5.0	0.41	ug/L			1	6020
7439-98-7	Molybdenum	1.8	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	5.4	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.20	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	1.4	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.5	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-51S-041614 Lab Sample ID: 240-36320-7

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/16/2014 14:46

Reporting Basis: WET Date Received: 04/18/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.19	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	1.8	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	31	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.055	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.21	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	3.1	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	2.2	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	1.3	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	7.7	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	560	100	12	ug/L		B	1	6020
7782-49-2	Selenium	1.0	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	870	5.0	0.41	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.3	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MSA-DMW-11S-041414 Lab Sample ID: 240-36135-2

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 09:50

Reporting Basis: WET Date Received: 04/15/2014 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	260	5.0	1.9	mg/L			1	310.1
	Total Dissolved Solids	510	10	7.4	mg/L			1	160.1
16887-00-6	Chloride	34	1.0	0.10	mg/L			1	300.0
14797-65-0	Nitrite as N	0.012	0.10	0.012	mg/L	U		1	300.0
14797-55-8	Nitrate as N	0.023	0.10	0.023	mg/L	U		1	300.0
14808-79-8	Sulfate	130	1.0	0.12	mg/L			1	300.0
	Orthophosphate as P	0.42	0.50	0.044	mg/L	J		1	300.0
7664-41-7	Ammonia (as N)	0.68	0.20	0.092	mg/L			1	350.3

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-DMW-11S-041414 Lab Sample ID: 240-36135-2

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2014 09:50

Reporting Basis: WET Date Received: 04/15/2014 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	13	1.0	0.24	mg/L			1	9060

Appendix C

Support Documentation

HOLDTIME

PROJ_NO 06183

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	HG	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	HG	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	HG	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	HG	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36135-1	HG	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	HG	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	HG	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	HG	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	HG	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	HG	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	HG	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36112-1	M	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/18/2014	6	2	8
240-36112-1	M	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/16/2014	04/18/2014	6	2	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	M	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	M	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	M	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/16/2014	04/18/2014	6	2	8
240-36112-1	M	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36135-1	M	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/24/2014	4	6	10
240-36135-1	M	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	M	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/24/2014	4	6	10
240-36135-1	M	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	M	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	M	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	M	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	M	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	M	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	M	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	M	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/16/2014	04/18/2014	6	2	8
240-36112-1	MF	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/18/2014	6	2	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	MF	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/17/2014	04/18/2014	6	1	7
240-36112-1	MF	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	MF	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36135-1	MF	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	MF	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	MF	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	MF	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	MF	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/24/2014	4	6	10
240-36135-1	MF	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/22/2014	04/23/2014	6	1	7
240-36135-1	MF	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/24/2014	4	6	10
240-36135-1	MF	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36135-1	MF	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	MF	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	MF	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/22/2014	04/24/2014	6	2	8
240-36112-1	ALK	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/16/2014	6	0	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	ALK	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/16/2014	2	0	2
240-36112-1	CL	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/12/2014	04/12/2014	2	0	2
240-36135-1	CL	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/24/2014	04/24/2014	10	0	10
240-36112-1	HARD	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/16/2014	6	0	6
240-36135-1	HARD	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/21/2014	04/21/2014	7	0	7
240-36112-1	NH3	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/16/2014	6	0	6
240-36135-1	NH3	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/16/2014	2	0	2
240-36112-1	NTA	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/12/2014	04/12/2014	2	0	2
240-36135-1	NTA	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/15/2014	04/15/2014	1	0	1
240-36112-1	NTI	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/12/2014	04/12/2014	2	0	2
240-36135-1	NTI	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/15/2014	04/15/2014	1	0	1
240-36112-1	OPO4	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/12/2014	04/12/2014	2	0	2
240-36135-1	OPO4	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/15/2014	04/15/2014	1	0	1
240-36112-1	PCL	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	PCL	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	PCL	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	PCL	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36135-1	PCL	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	PCL	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/21/2014	04/23/2014	7	2	9

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	PCL	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36135-1	PCL	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36135-1	PCL	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	PCL	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	PCL	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36112-1	SO4	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/29/2014	04/29/2014	19	0	19
240-36135-1	SO4	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/24/2014	04/24/2014	10	0	10
240-36112-1	TDS	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/16/2014	6	0	6
240-36135-1	TDS	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/16/2014	2	0	2
240-36112-1	DOC	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/28/2014	04/28/2014	18	0	18
240-36135-1	DOC	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/28/2014	04/28/2014	14	0	14
240-36112-1	OS	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-MW-49I-041014	240-36112-5	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OS	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-25I-041114	240-36112-17	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	OS	UG/L	MSA-DMW-10I-041014	240-36112-7	SUR	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	OS	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-1B-041014	240-36112-8	SUR	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	OS	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24I-041114	240-36112-12	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OS	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	OS	UG/L	MSA-MW-23D-041114	240-36112-14	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32I-041014	240-36112-2	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-1A-041014	240-36112-9	SUR	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-51I-041614	240-36320-8	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-48I-041414	240-36233-6	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	OS	UG/L	MSA-MW-21I-041414	240-36233-3	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	OS	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-11I-041414	240-36135-3	SUR	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	OS	UG/L	MSA-MW-21D-041414	240-36233-5	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	OS	UG/L	MSA-MW-48I-041414	240-36233-6	SUR	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	OS	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-DMW-7I-041614	240-36320-2	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-8I-041614	240-36320-4	SUR	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	OS	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	OS	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-50I-041414	240-36233-4	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-50D-041614	240-36320-6	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	OS	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-7D-041614	240-36320-3	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	OS	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36112-1	OV	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OV	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-32I-041014	240-36112-2	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-25I-041114	240-36112-17	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-23D-041114	240-36112-14	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1B-041014	240-36112-8	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OV	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-10I-041014	240-36112-7	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1A-041014	240-36112-9	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49I-041014	240-36112-5	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-24I-041114	240-36112-12	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36135-1	OV	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-50D-041614	240-36320-6	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/22/2014	6	0	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	OV	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-51I-041614	240-36320-8	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-DMW-8I-041614	240-36320-4	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-DMW-7D-041614	240-36320-3	SUR	04/16/2014	04/22/2014	04/22/2014	6	0	6
240-36135-1	OV	UG/L	MSA-DMW-7I-041614	240-36320-2	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-21D-041414	240-36233-5	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-50I-041414	240-36233-4	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-21I-041414	240-36233-3	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-DMW-11I-041414	240-36135-3	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	OV	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36112-1	ETHA	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	ETHA	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	ETHE	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	ETHE	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	METH	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	METH	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	OVG	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	OVG	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	DRO	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	DRO	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	DRO	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	DRO	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	DRO	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	DRO	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36135-1	DRO	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	DRO	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	DRO	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	DRO	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36112-1	GRO	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36135-1	GRO	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36135-1	GRO	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/20/2014	04/20/2014	4	0	4

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	GRO	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36135-1	GRO	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/20/2014	04/20/2014	4	0	4
240-36112-1	TPH	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	TPH	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	TPH	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	TPH	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	TPH	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	TPH	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36135-1	TPH	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36135-1	TPH	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	TPH	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	TPH	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36135-1	TPH	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/20/2014	04/20/2014	4	0	4
240-36135-1	TPH	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	TPH	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36135-1	TPH	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/20/2014	04/20/2014	4	0	4

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-36135-1

Job Description: MSA GW 2014

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Tony Apanavage

Approved for release.
John McFadden
Project Manager I
4/30/2014 11:36 AM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
04/30/2014

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2014

Report Number: 240-36135-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 6850 Percholate analysis was performed at TestAmerica Sacramento.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 4/15/2014 10:00 AM, 4/16/2014 9:40 AM and 4/18/2014 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 1.6° C, 1.8° C, 2.0° C and 3.2° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-041414 (240-36135-1), TB-041414 (240-36233-1), TB-041614 (240-36320-1), MSA-DMW-11S-041414 (240-36135-2), MSA-MW-50S-041414 (240-36233-2), MSA-DMW-7I-041614 (240-36320-2), MSA-DMW-11I-041414 (240-36135-3), MSA-MW-21I-041414 (240-36233-3), MSA-DMW-7D-041614 (240-36320-3), MSA-MW-50I-041414 (240-36233-4), MSA-DMW-8I-041614 (240-36320-4), MSA-MW-21D-041414 (240-36233-5), MSA-MW-4-041614 (240-36320-5), MSA-MW-50D-041614 (240-36320-6), MSA-MW-51S-041614 (240-36320-7) and MSA-MW-51I-041614 (240-36320-8) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 04/22/2014 and 04/26/2014.

Samples MSA-DMW-11S-041414 (240-36135-2)[416.67X], MSA-MW-50S-041414 (240-36135-2)[5.71X], MSA-DMW-7I-041614 (240-36135-2)[5.71X], MSA-MW-21I-041414 (240-36135-3)[14.29X], MSA-DMW-11I-041414 (240-36135-3)[5.71X], MSA-MW-50I-041414 (240-36135-4)[2X], MSA-DMW-8I-041614 (240-36135-4)[8.33X] and MSA-MW-51S-041614 (240-36135-7)[25X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) for analytical batch 127413 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The laboratory control sample (LCS) for batch 128028 recovered outside control limits for the following analytes: Dibromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) for analytical batch 128028 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

No other difficulties were encountered during the VOCs analysis. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-DMW-11S-041414 (240-36135-2), MSA-MW-50S-041414 (240-36233-2), MSA-DMW-7I-041614 (240-36320-2),

MSA-DMW-11I-041414 (240-36135-3), MSA-MW-21I-041414 (240-36233-3), MSA-DMW-7D-041614 (240-36320-3), MSA-MW-50I-041414 (240-36233-4), MSA-DMW-8I-041614 (240-36320-4), MSA-MW-21D-041414 (240-36233-5), MSA-MW-4-041614 (240-36320-5), MSA-MW-48I-041414 (240-36233-6), MSA-MW-50D-041614 (240-36320-6), MSA-MW-51S-041614 (240-36320-7) and MSA-MW-51I-041614 (240-36320-8) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 04/16/2014, 04/18/2014 and 04/21/2014 and analyzed on 04/17/2014, 04/21/2014, 04/22/2014 and 04/23/2014.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Samples MSA-DMW-8I-041614 (240-36233-4)[2X] and MSA-MW-48I-041414 (240-36233-6)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch (127063).

No other difficulties were encountered during the SVOCs analysis. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)

Samples MSA-DMW-11S-041414 (240-36135-2), MSA-MW-50S-041414 (240-36233-2), MSA-MW-4-041614 (240-36320-5) and MSA-MW-51S-041614 (240-36320-7) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/19/2014 and 04/20/2014.

Gasoline Range Organics [C6 - C10] was detected in method blank MB 240-127165/5 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Trifluorotoluene (Surr) failed the surrogate recovery criteria low for MSA-MW-50S-041414 (240-36233-2).

Sample MSA-DMW-11S-041414 (240-36135-2)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the GRO analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED GASES

Sample MSA-DMW-11S-041414 (240-36135-2) was analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 04/25/2014.

Methane was detected in method blank MB 240-127844/4 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

MS/MSD run but not reported due to parent sample failure.

The continuing calibration verification (CCV) associated with batch 127844 recovered above the upper control limit for Acetylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: MSA-DMW-11S-041414 (240-36135-2).

No other difficulties were encountered during the dissolved gases analysis. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples MSA-DMW-11S-041414 (240-36135-2), MSA-MW-50S-041414 (240-36233-2), MSA-MW-4-041614 (240-36320-5) and MSA-MW-51S-041614 (240-36320-7) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 04/16/2014 and 04/21/2014 and analyzed on 04/17/2014 and 04/23/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 126690.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 127200, 8015.

No other difficulties were encountered during the DRO analysis. All other quality control parameters were within the acceptance limits.

PERCHLORATE

Samples MSA-MW-50S-041414 (240-36233-2), MSA-DMW-7I-041614 (240-36320-2), MSA-MW-21I-041414 (240-36233-3), MSA-MW-50I-041414 (240-36233-4), MSA-MW-50D-041614 (240-36320-6), MSA-MW-51S-041614 (240-36320-7) and

MSA-MW-51I-041614 (240-36320-8) were analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 04/21/2014 and analyzed on 04/23/2014.

No difficulties were encountered during the perchlorate analysis. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Sample MSA-DMW-11S-041414 (240-36135-2) was analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/16/2014 and analyzed on 04/17/2014.

Calcium, Magnesium and Potassium were detected in method blank MB 240-126669/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)

Samples MSA-DMW-11S-041414 (240-36135-2), MSA-MW-50S-041414 (240-36233-2), MSA-DMW-7I-041614 (240-36320-2), MSA-DMW-11I-041414 (240-36135-3), MSA-MW-21I-041414 (240-36233-3), MSA-DMW-7D-041614 (240-36320-3), MSA-MW-50I-041414 (240-36233-4), MSA-DMW-8I-041614 (240-36320-4), MSA-MW-21D-041414 (240-36233-5), MSA-MW-4-041614 (240-36320-5), MSA-MW-50D-041614 (240-36320-6), MSA-MW-51S-041614 (240-36320-7) and MSA-MW-51I-041614 (240-36320-8) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/16/2014, 04/18/2014 and 04/22/2014 and analyzed on 04/17/2014, 04/22/2014, 04/23/2014 and 04/24/2014.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-MW-50I-041414 (240-36233-4), MSA-MW-50S-041414 (240-36233-2). Elevated reporting limits (RLs) are provided.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-DMW-8I-041614 (240-36320-4). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)

Samples MSA-DMW-11S-041414 (240-36135-2), MSA-MW-50S-041414 (240-36233-2), MSA-DMW-7I-041614 (240-36320-2), MSA-DMW-11I-041414 (240-36135-3), MSA-MW-21I-041414 (240-36233-3), MSA-DMW-7D-041614 (240-36320-3), MSA-MW-50I-041414 (240-36233-4), MSA-DMW-8I-041614 (240-36320-4), MSA-MW-21D-041414 (240-36233-5), MSA-MW-4-041614 (240-36320-5), MSA-MW-50D-041614 (240-36320-6), MSA-MW-51S-041614 (240-36320-7) and MSA-MW-51I-041614 (240-36320-8) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/16/2014, 04/18/2014 and 04/22/2014 and analyzed on 04/17/2014, 04/22/2014, 04/23/2014 and 04/24/2014.

Several analytes were detected in method blank MB 240-126669/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Barium, Copper and Manganese were detected in method blank MB 240-127045/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 240-127394/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples MSA-MW-50S-041414 (240-36233-2)[5X], MSA-MW-50I-041414 (240-36233-4)[5X] and MSA-DMW-8I-041614 (240-36233-4) [5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)

Samples MSA-DMW-11S-041414 (240-36135-2), MSA-MW-50S-041414 (240-36233-2), MSA-DMW-7I-041614 (240-36320-2), MSA-DMW-11I-041414 (240-36135-3), MSA-MW-21I-041414 (240-36233-3), MSA-DMW-7D-041614 (240-36320-3), MSA-MW-50I-041414 (240-36233-4), MSA-DMW-8I-041614 (240-36320-4), MSA-MW-21D-041414 (240-36233-5), MSA-MW-4-041614 (240-36320-5), MSA-MW-50D-041614 (240-36320-6), MSA-MW-51S-041614 (240-36320-7) and MSA-MW-51I-041614 (240-36320-8) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/16/2014, 04/18/2014 and 04/22/2014 and analyzed on 04/17/2014, 04/22/2014 and 04/24/2014.

No difficulties were encountered during the mercury analysis. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples MSA-DMW-11S-041414 (240-36135-2), MSA-MW-50S-041414 (240-36233-2), MSA-DMW-7I-041614 (240-36320-2), MSA-DMW-11I-041414 (240-36135-3), MSA-MW-21I-041414 (240-36233-3), MSA-DMW-7D-041614 (240-36320-3),

MSA-MW-50I-041414 (240-36233-4), MSA-DMW-8I-041614 (240-36320-4), MSA-MW-21D-041414 (240-36233-5), MSA-MW-4-041614 (240-36320-5), MSA-MW-50D-041614 (240-36320-6), MSA-MW-51S-041614 (240-36320-7) and MSA-MW-51I-041614 (240-36320-8) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/16/2014, 04/18/2014 and 04/22/2014 and analyzed on 04/17/2014, 04/22/2014 and 04/24/2014.

No difficulties were encountered during the mercury analysis. All quality control parameters were within the acceptance limits.

HARDNESS
Sample MSA-DMW-11S-041414 (240-36135-2) was analyzed for hardness in accordance with SM 2340B. The samples were analyzed on 04/21/2014.

No difficulties were encountered during the hardness analysis. All quality control parameters were within the acceptance limits.

TOTAL DISSOLVED SOLIDS
Sample MSA-DMW-11S-041414 (240-36135-2) was analyzed for total dissolved solids in accordance with EPA Method 160.1. The samples were analyzed on 04/16/2014.

No difficulties were encountered during the TDS analysis. All quality control parameters were within the acceptance limits.

ANIONS
Sample MSA-DMW-11S-041414 (240-36135-2) was analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/15/2014.

No difficulties were encountered during the anions analysis. All quality control parameters were within the acceptance limits.

ANIONS
Sample MSA-DMW-11S-041414 (240-36135-2) was analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/24/2014.

No difficulties were encountered during the anions analysis. All quality control parameters were within the acceptance limits.

ALKALINITY
Sample MSA-DMW-11S-041414 (240-36135-2) was analyzed for alkalinity in accordance with EPA Method 310.1. The samples were analyzed on 04/16/2014.

No difficulties were encountered during the alkalinity analysis. All quality control parameters were within the acceptance limits.

AMMONIA
Sample MSA-DMW-11S-041414 (240-36135-2) was analyzed for ammonia in accordance with EPA Method 350.3. The samples were analyzed on 04/16/2014.

No difficulties were encountered during the ammonia analysis. All quality control parameters were within the acceptance limits.

DISSOLVED ORGANIC CARBON
Sample MSA-DMW-11S-041414 (240-36135-2) was analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 04/28/2014.

No difficulties were encountered during the TOC analysis. All quality control parameters were within the acceptance limits.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2014

TestAmerica Job ID: 240-36135-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015B	Gasoline Range Organics - (GC)	SW846	TAL CAN
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CAN
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
2340B-1997	Total Hardness (as CaCO3) by calculation	SM	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
160.1	Solids, Total Dissolved (TDS)	MCAWW	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
310.1	Alkalinity	MCAWW	TAL CAN
350.3	Nitrogen, Ammonia	MCAWW	TAL CAN
9060	Organic Carbon, Dissolved (DOC)	SW846	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2014

TestAmerica Job ID: 240-36135-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-36135-1	TB-041414	Water	04/14/14 00:00	04/15/14 10:00
240-36135-2	MSA-DMW-11S-041414	Water	04/14/14 09:50	04/15/14 10:00
240-36135-3	MSA-DMW-11I-041414	Water	04/14/14 11:48	04/15/14 10:00
240-36233-1	TB-041414	Water	04/14/14 00:00	04/16/14 09:40
240-36233-2	MSA-MW-50S-041414	Water	04/14/14 10:50	04/16/14 09:40
240-36233-3	MSA-MW-21I-041414	Water	04/14/14 14:50	04/16/14 09:40
240-36233-4	MSA-MW-50I-041414	Water	04/14/14 15:37	04/16/14 09:40
240-36233-5	MSA-MW-21D-041414	Water	04/14/14 16:04	04/16/14 09:40
240-36233-6	MSA-MW-48I-041414	Water	04/14/14 08:55	04/16/14 09:40
240-36320-1	TB-041614	Water	04/16/14 00:00	04/18/14 09:20
240-36320-2	MSA-DMW-7I-041614	Water	04/16/14 09:31	04/18/14 09:20
240-36320-3	MSA-DMW-7D-041614	Water	04/16/14 10:49	04/18/14 09:20
240-36320-4	MSA-DMW-8I-041614	Water	04/16/14 12:18	04/18/14 09:20
240-36320-5	MSA-MW-4-041614	Water	04/16/14 15:20	04/18/14 09:20
240-36320-6	MSA-MW-50D-041614	Water	04/16/14 09:40	04/18/14 09:20
240-36320-7	MSA-MW-51S-041614	Water	04/16/14 14:46	04/18/14 09:20
240-36320-8	MSA-MW-51I-041614	Water	04/16/14 11:38	04/18/14 09:20

TestAmerica Canton
4101 Shuffel Street, N. W.
North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

Chain of Custody Record

042303
1.6

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact			
Company Name:	Tetra Tech Inc	Project Manager:	Tony Apanavage
Address:	20251 Century Blvd STE 200	Tel/Fax:	301 528-3000
City/State/Zip:	Germantown, MD 20874	Site Contact:	Walt Pryor
Phone:	301 528-2021	Lab Contact:	Pat O'Mara
Fax:	301 528-3000	Date:	4-14-14
Project Name:	MSA GW 2014	Carrier:	Fed EX
Site:	MSA	COC No:	1 of 1 COCs
PO#	Project # 112IC06183	Sampler:	

Analysis Turnaround Time
☐ CALENDAR DAYS ☐ WORKING DAYS
TAT if different from Below _____
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day
21 days

For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	Total metals	Diss metals	1,4 Dioxane	TPH-Dro	TPH-Gro	MEE	Diss Gasses	DOC	Ammonia	Alk, Anions, TDS	Sample Specific Notes:
TB-041414	4-14-14	—	G	Aq	2			X											
MSA-DMW-11s-041414		0950			19	1		X	X	X	X	X	X	X	X	X	X	X	
MSA-DMW-11I-041414		1148			7	1		X	X	X	X								

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
* MSA-DMW-11s has Natural Attenuation Samples 24-48 TAT *

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walter E. Pryor	TT Inc	4-14-14 / 1800	Ryan Rota	Test America	4-15-14 1000
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative Login # : 31035
Canton Facility

Client Petra Tech Inc. Site Name

Cooler unpacked by: Ryan Rotto

Cooler Received on 4-15-14 Opened on 4-15-14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # Foam Box (Client Cooler) Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp. 1.6 °C	Corrected Cooler Temp. 1.6 °C	☐ See Multiple Cooler Form
IR GUN# 4	(CF -1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity ____ (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -~~Were custody seals on the bottle(s)?~~ Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other
Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.
Time preserved: ____ Preservative(s) added/Lot number(s): ____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-DMW-11S-041414	240-36135-P-2	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MSA-DMW-11S-041414	240-36135-Q-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-DMW-11S-041414	240-36135-R-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-DMW-11I-041414	240-36135-F-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-DMW-11I-041414	240-36135-G-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____

TestAmerica Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

2.0

Chain of Custody Record

042302

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact			
Company Name:	Tetra Tech Inc	Project Manager:	Tony Apanavage
Address:	20251 Century Blvd	Tel/Fax:	301 528-3021
City/State/Zip:	Germantown, MD 20874		
Phone:	301 528-3021		
Fax:	3000		
Project Name:	MSA GW 2014		
Site:	MSA		
PO #	Project # 112IC061883		

Analysis Turnaround Time
☐ CALENDAR DAYS ☐ WORKING DAYS
TAT if different from Below _____
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

Site Contact: Walt Pryor
Lab Contact: Pat O'Mean
Date: 4-15-14
Carrier: Fed EX

COC No: 1 of 1 COCs
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	VOCs	1,4 Dioxane	Total metals	Diss metals	Perchlorate	TPH-Gro	TPH-Dro	Sample Specific Notes:
TB-041414	4-14-14	—	G	GW	2			X							
MSA-MW-50s-041414	↓	1050	↓	↓	12			X	X	X	X	X	X	X	* Ignore Bottle Time *
MSA-MW-21I-041414	↓	1450	↓	↓	8			X	X	X	X	X			
MSA-MW-50I-041414	↓	1537	↓	↓	8			X	X	X	X	X			* Ignore Bottle Time *
MSA-MW-21O-041414	↓	1604	↓	↓	7			X	X	X	X				
MSA-MW-48I-041414	↓	0855	↓	↓	2				X						

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No
Custody Seal No.:
Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt Pryor	TT INC	4-15-14/1230	[signature]	Test America	4/16/14 940
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 360233

Client Tetra Tech Inc Site Name

Cooler unpacked by: Ryan Rez

Cooler Received on 4-16-14 Opened on 4-16-14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # 544 Foam Box Client Cooler Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp. 2.0 °C	Corrected Cooler Temp. 2.0 °C
IR GUN# 4	(CF -1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C

☐ See Multiple Cooler Form

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity ____ (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other
Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.
Time preserved: ____ Preservative(s) added/Lot number(s): ____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW-50S-041414	240-36233-K-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-50S-041414	240-36233-L-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-21I-041414	240-36233-G-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-21I-041414	240-36233-H-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-50I-041414	240-36233-G-4	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-50I-041414	240-36233-H-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-210-041414	240-36233-F-5	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-210-041414	240-36233-G-5	Plastic 500ml - w/ Nitric - Dis.	<2		

TestAmerica Canton
4101 Shuffel Street, N. W.
North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

3.2 | 1.8

Chain of Custody Record

042335

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Tony Apanavage	Site Contact: Walt Pryor	Date: 4-16-14	COC No:
Company Name: TetraTech INC	Tel/Fax: 301 528-3021	Lab Contact: Pat O'Meara	Carrier:	1 of ____ COCs
Address: 20251 Century Blvd STE 240	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301 528-3021	TAT if different from Below ____			Walk-in Client:
Fax: 301 528-3000	☐ 2 weeks 21 days			Lab Sampling:
Project Name: MSA GW 2014	☐ 1 week			
Site: MSA	☐ 2 days			Job / SDG No.:
PO# Project # 11ZIC06143	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	Total metals	Diss metals	1,4 Dioxane	Perchlorate	TPH-GRO	TPH-DRO	Sample Specific Notes:
TB-041614	4-16-14	—	G	GW	2			X							
MSA-DMW-7I-041614	↓	0931	↓	↓	8			X	X	X	X	X			
MSA-DMW-7D-041614		1049			7			X	X	X	X				
MSA-DMW-8I-041614		1218			7			X	X	X	X				
MSA-MW-4-041614		1520			11			X	X	X	X		X	X	
MSA-MW-50D-041614		0940						X	X	X	X	X			*Ignore Bottles*
MSA-MW-51S-041614		1446						X	X	X	X	X	X	X	*Ignore Bottles*
MSA-MW-51I-041614	↓	1138	↓	↓				X	X	X	X	X			*Ignore ~~B~~ Bottles

Preservation Used: 1= Ice, 2= HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walter Pryor	TT INC	4-17-14 1205		TestAmerica	4/17/14 1205
Relinquished by:	Company: TestAmerica	Date/Time: 4/17/14 1800	Received by:	Company: TA	Date/Time: 4.18.14 920
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 36320

Client Tetra Tech Site Name

Cooler unpacked by:

Cooler Received on 4-18-14 Opened on 4-18-14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # Foam Box Client Cooler Box (Other)

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp. °C	Corrected Cooler Temp. °C	
IR GUN# 4	(CF -1 °C)	Observed Cooler Temp. °C	Corrected Cooler Temp. °C	☑ See Multiple Cooler Form
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp. °C	Corrected Cooler Temp. °C	
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp. °C	Corrected Cooler Temp. °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) (No) 4-18
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM Date by via Verbal Voice Mail Other
Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

TestAmerica Multiple Cooler Receipt Form/Narrative
Canton Facility

Login # : 363220

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client	A	3.2	3.2	Ice
1	1	1.8	1.8	2

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-DMW-7I-041614	240-36320-G-2	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-7I-041614	240-36320-H-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-7D-041614	240-36320-F-3	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-7D-041614	240-36320-G-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-8I-041614	240-36320-F-4	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-8I-041614	240-36320-G-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-4-041614	240-36320-J-5	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-4-041614	240-36320-K-5	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-50D-041614	240-36320-G-6	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-50D-041614	240-36320-H-6	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-51S-041614	240-36320-I-7	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-51S-041614	240-36320-J-7	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-51I-041614	240-36320-G-8	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-51I-041614	240-36320-H-8	Plastic 500ml - w/ Nitric - Dis.	<2		

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-36135-1

Login Number: 36233
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 04/18/14 01:25 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-36135-1

Login Number: 36320
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 04/19/14 09:47 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG No.:

Project: MSA GW 2014

Client Sample ID	Lab Sample ID
MSA-DMW-11S-041414	240-36135-2
MSA-DMW-11I-041414	240-36135-3
MSA-MW-50S-041414	240-36233-2
MSA-MW-21I-041414	240-36233-3
MSA-MW-50I-041414	240-36233-4
MSA-MW-21D-041414	240-36233-5
MSA-DMW-7I-041614	240-36320-2
MSA-DMW-7D-041614	240-36320-3
MSA-DMW-8I-041614	240-36320-4
MSA-MW-4-041614	240-36320-5
MSA-MW-50D-041614	240-36320-6
MSA-MW-51S-041614	240-36320-7
MSA-MW-51I-041614	240-36320-8

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MT6500ICV_00017 Concentration Units: ug/L

CCV Source: MTICPCCV_00020

Analyte	ICV 240-126876/4 04/17/2014 07:53				CCV 240-126876/73 04/17/2014 12:34				CCV 240-126876/85 04/17/2014 13:22			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	26000		25000	104	50700		50000	101	51900		50000	104
Magnesium	25500		25000	102	48700		50000	97	49500		50000	99
Potassium	25500		25000	102	51300		50000	103	52600		50000	105
SiO2, Silica	6990		6420	109	11000		10700	103	11300		10700	105
Sodium	25600		25000	102	50800		50000	102	52000		50000	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	ICV 240-126899/7 04/17/2014 10:24				CCV 240-126899/59 04/17/2014 14:17				CCV 240-126899/71 04/17/2014 15:03			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	39.7		40.0	99	48.6		50.0	97	47.9		50.0	96
Arsenic	39.9		40.0	100	48.5		50.0	97	47.6		50.0	95
Barium	39.5		40.0	99	47.7		50.0	95	47.1		50.0	94
Beryllium	40.7		40.0	102	48.7		50.0	97	53.0		50.0	106
Cadmium	40.5		40.0	101	48.6		50.0	97	47.8		50.0	96
Chromium	40.1		40.0	100	48.9		50.0	98	48.0		50.0	96
Cobalt	39.2		40.0	98	48.2		50.0	96	46.8		50.0	94
Copper	42.0		40.0	105	49.5		50.0	99	48.2		50.0	96
Iron	9860		10000	99	12500		12500	100	12100		12500	97
Lead	41.5		40.0	104	50.5		50.0	101	49.2		50.0	98
Manganese	206		200	103	253		250	101	245		250	98
Molybdenum	41.5		40.0	104	51.1		50.0	102	50.2		50.0	100
Nickel	41.0		40.0	103	49.0		50.0	98	48.0		50.0	96
Selenium	40.0		40.0	100	48.7		50.0	97	48.0		50.0	96
Silver	40.8		40.0	102	50.3		50.0	101	48.7		50.0	97
Thallium	39.0		40.0	98	47.6		50.0	95	46.5		50.0	93
Vanadium	40.3		40.0	101	49.0		50.0	98	47.9		50.0	96

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00087

Analyte	CCV 240-126899/83 04/17/2014 15:50											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	48.9		50.0	98								
Arsenic	47.0		50.0	94								
Barium	47.7		50.0	95								
Beryllium	53.9		50.0	108								
Cadmium	47.9		50.0	96								
Chromium	47.8		50.0	96								
Cobalt	47.0		50.0	94								
Copper	48.4		50.0	97								
Iron	12200		12500	98								
Lead	49.9		50.0	100								
Manganese	248		250	99								
Molybdenum	50.2		50.0	100								
Nickel	48.2		50.0	96								
Selenium	47.7		50.0	95								
Silver	48.1		50.0	96								
Thallium	47.2		50.0	94								
Vanadium	47.9		50.0	96								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	ICV 240-127674/7 04/23/2014 11:23				CCV 240-127674/24 04/23/2014 12:30				CCV 240-127674/36 04/23/2014 13:14			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	36.0		40.0	90	48.7		50.0	97	48.9		50.0	98
Arsenic	39.5		40.0	99	50.0		50.0	100	50.1		50.0	100
Barium	38.7		40.0	97	49.9		50.0	100	49.7		50.0	99
Beryllium	40.5		40.0	101	50.0		50.0	100	50.2		50.0	100
Cadmium	40.4		40.0	101	51.2		50.0	102	51.1		50.0	102
Chromium	39.2		40.0	98	49.7		50.0	99	51.0		50.0	102
Cobalt	40.2		40.0	100	51.6		50.0	103	52.7		50.0	105
Copper	41.6		40.0	104	52.0		50.0	104	54.6		50.0	109
Iron	9900		10000	99	13000		12500	104	12800		12500	102
Lead	40.6		40.0	102	49.7		50.0	99	51.0		50.0	102
Manganese	201		200	101	261		250	104	253		250	101
Molybdenum	40.0		40.0	100	49.6		50.0	99	49.5		50.0	99
Nickel	41.2		40.0	103	51.7		50.0	103	53.8		50.0	108
Selenium	40.7		40.0	102	49.7		50.0	99	47.6		50.0	95
Silver	40.4		40.0	101	49.6		50.0	99	50.0		50.0	100
Thallium	40.9		40.0	102	50.4		50.0	101	51.1		50.0	102
Vanadium	38.8		40.0	97	49.1		50.0	98	50.5		50.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	CCV 240-127674/48 04/23/2014 14:00				CCV 240-127674/60 04/23/2014 14:46				CCV 240-127674/156 04/23/2014 20:51			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	48.8		50.0	98	49.1		50.0	98	50.9		50.0	102
Arsenic	49.9		50.0	100	49.7		50.0	99	52.0		50.0	104
Barium	49.4		50.0	99	49.4		50.0	99	52.0		50.0	104
Beryllium	49.7		50.0	99	49.7		50.0	99	46.8		50.0	94
Cadmium	51.1		50.0	102	50.2		50.0	100	49.2		50.0	98
Chromium	50.1		50.0	100	49.6		50.0	99	47.8		50.0	96
Cobalt	51.4		50.0	103	50.3		50.0	101	49.1		50.0	98
Copper	52.7		50.0	105	51.3		50.0	103	47.2		50.0	94
Iron	12800		12500	102	12700		12500	102	12600		12500	101
Lead	49.6		50.0	99	49.5		50.0	99	47.5		50.0	95
Manganese	252		250	101	254		250	101	263		250	105
Molybdenum	48.9		50.0	98	49.0		50.0	98	53.7		50.0	107
Nickel	52.1		50.0	104	51.0		50.0	102	46.2		50.0	92
Selenium	48.8		50.0	98	48.8		50.0	98	54.4		50.0	109
Silver	49.2		50.0	98	49.1		50.0	98	50.9		50.0	102
Thallium	49.9		50.0	100	50.4		50.0	101	48.2		50.0	96
Vanadium	49.8		50.0	100	49.4		50.0	99	49.5		50.0	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	CCV 240-127674/170 04/23/2014 21:45				CCV 240-127674/182 04/23/2014 22:31							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	49.3		50.0	99	48.2		50.0	96				
Arsenic	50.8		50.0	102	50.1		50.0	100				
Barium	50.3		50.0	101	49.6		50.0	99				
Beryllium	47.2		50.0	94	45.5		50.0	91				
Cadmium	48.3		50.0	97	47.6		50.0	95				
Chromium	47.2		50.0	94	46.4		50.0	93				
Cobalt	49.0		50.0	98	47.9		50.0	96				
Copper	46.0		50.0	92	44.8		50.0	90				
Iron	12400		12500	99	12500		12500	100				
Lead	46.3		50.0	93	45.0		50.0	90				
Manganese	256		250	102	256		250	102				
Molybdenum	52.4		50.0	105	51.9		50.0	104				
Nickel	45.6		50.0	91	44.7		50.0	89	Not used			
Selenium	52.9		50.0	106	53.3		50.0	107				
Silver	49.4		50.0	99	49.0		50.0	98				
Thallium	47.0		50.0	94	46.5		50.0	93				
Vanadium	48.6		50.0	97	47.3		50.0	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	ICV 240-127907/7 04/24/2014 09:45				CCV 240-127907/38 04/24/2014 11:47				CCV 240-127907/50 04/24/2014 12:34			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Chromium	40.8		40.0	102	51.3		50.0	103	51.3		50.0	103
Cobalt	40.6		40.0	101	51.1		50.0	102	51.6		50.0	103
Copper	42.8		40.0	107	53.2		50.0	106	53.3		50.0	107
Iron	9970		10000	100	12700		12500	102	12800		12500	102
Lead	42.5		40.0	106	51.2		50.0	102	51.8		50.0	104
Manganese	208		200	104	258		250	103	262		250	105
Nickel	41.3		40.0	103	51.9		50.0	104	51.7		50.0	103
Thallium	42.4		40.0	106	50.6		50.0	101	52.1		50.0	104
Vanadium	40.5		40.0	101	51.0		50.0	102	50.6		50.0	101
Antimony	40.1		40.0	100	50.3		50.0	101	50.3		50.0	101
Arsenic	40.9		40.0	102	50.6		50.0	101	51.3		50.0	103
Barium	40.2		40.0	101	49.4		50.0	99	50.6		50.0	101
Beryllium	41.3		40.0	103	48.8		50.0	98	49.8		50.0	100
Cadmium	41.3		40.0	103	51.2		50.0	102	51.9		50.0	104
Molybdenum	41.8		40.0	105	51.4		50.0	103	51.6		50.0	103
Selenium	41.1		40.0	103	50.9		50.0	102	50.9		50.0	102
Silver	43.3		40.0	108	52.7		50.0	105	53.0		50.0	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	CCV 240-127907/62 04/24/2014 13:19											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Chromium	51.7		50.0	103								
Cobalt	51.6		50.0	103								
Copper	53.8		50.0	108								
Iron	12900		12500	103								
Lead	51.3		50.0	103								
Manganese	263		250	105								
Nickel	52.2		50.0	104								
Thallium	52.2		50.0	104								
Vanadium	51.2		50.0	102								
Antimony	50.8		50.0	102								
Arsenic	50.5		50.0	101								
Barium	50.0		50.0	100								
Beryllium	49.0		50.0	98								
Cadmium	50.8		50.0	102								
Molybdenum	52.0		50.0	104								
Selenium	50.5		50.0	101								
Silver	53.2		50.0	106								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	ICV 240-127580/5 04/22/2014 11:24				CCV 240-127580/42 04/22/2014 16:08				CCV 240-127580/54 04/22/2014 17:34			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	39.6		40.0	99	48.6		50.0	97	49.6		50.0	99
Arsenic	40.6		40.0	102	49.3		50.0	99	50.5		50.0	101
Barium	40.5		40.0	101	49.6		50.0	99	50.3		50.0	101
Beryllium	41.6		40.0	104	50.4		50.0	101	51.2		50.0	102
Cadmium	41.5		40.0	104	49.9		50.0	100	49.8		50.0	100
Chromium	41.3		40.0	103	49.5		50.0	99	50.5		50.0	101
Cobalt	41.1		40.0	103	49.6		50.0	99	51.0		50.0	102
Copper	43.1		40.0	108	49.9		50.0	100	51.1		50.0	102
Iron	10200		10000	102	12800		12500	102	12900		12500	103
Lead	42.1		40.0	105	51.4		50.0	103	52.2		50.0	104
Manganese	207		200	103	260		250	104	261		250	104
Molybdenum	40.8		40.0	102	49.6		50.0	99	50.3		50.0	101
Nickel	42.0		40.0	105	49.6		50.0	99	51.2		50.0	102
Selenium	41.0		40.0	102	50.0		50.0	100	50.1		50.0	100
Silver	42.3		40.0	106	51.0		50.0	102	51.3		50.0	103
Thallium	41.8		40.0	104	52.4		50.0	105	52.6		50.0	105
Vanadium	41.4		40.0	104	49.6		50.0	99	50.4		50.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	CCV 240-127580/66 04/22/2014 18:59											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.4		50.0	101								
Arsenic	50.8		50.0	102								
Barium	50.6		50.0	101								
Beryllium	50.6		50.0	101								
Cadmium	51.6		50.0	103								
Chromium	50.7		50.0	101								
Cobalt	50.7		50.0	101								
Copper	51.2		50.0	102								
Iron	13000		12500	104								
Lead	52.6		50.0	105								
Manganese	257		250	103								
Molybdenum	51.4		50.0	103								
Nickel	50.9		50.0	102								
Selenium	51.3		50.0	103								
Silver	52.1		50.0	104								
Thallium	53.4		50.0	107								
Vanadium	51.1		50.0	102								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	ICV 240-127855/5 04/24/2014 10:28				CCV 240-127855/40 04/24/2014 14:36				CCV 240-127855/51 04/24/2014 15:54			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	39.5		40.0	99	49.7		50.0	99	49.4		50.0	99
Barium	40.8		40.0	102	50.1		50.0	100	50.3		50.0	101
Lead	41.7		40.0	104	51.8		50.0	104	51.5		50.0	103
Thallium	41.2		40.0	103	52.3		50.0	105	51.6		50.0	103
Arsenic	40.2		40.0	101	49.9		50.0	100	50.9		50.0	102
Beryllium	40.7		40.0	102	49.9		50.0	100	49.8		50.0	100
Cadmium	41.7		40.0	104	50.6		50.0	101	51.4		50.0	103
Chromium	40.9		40.0	102	49.4		50.0	99	50.1		50.0	100
Cobalt	40.6		40.0	102	49.6		50.0	99	50.5		50.0	101
Copper	41.9		40.0	105	49.8		50.0	100	50.5		50.0	101
Iron	10000		10000	100	12400		12500	99	12500		12500	100
Manganese	206		200	103	254		250	102	257		250	103
Molybdenum	40.4		40.0	101	50.1		50.0	100	50.8		50.0	102
Nickel	41.0		40.0	102	49.6		50.0	99	50.4		50.0	101
Selenium	41.3		40.0	103	51.1		50.0	102	51.4		50.0	103
Silver	41.6		40.0	104	50.5		50.0	101	51.1		50.0	102
Vanadium	41.2		40.0	103	50.3		50.0	101	50.5		50.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	CCV 240-127855/63 04/24/2014 17:20											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.0		50.0	100								
Barium	50.7		50.0	101								
Lead	52.5		50.0	105								
Thallium	52.4		50.0	105								
Arsenic	51.2		50.0	102								
Beryllium	50.1		50.0	100								
Cadmium	51.1		50.0	102								
Chromium	50.3		50.0	101								
Cobalt	50.7		50.0	101								
Copper	51.5		50.0	103								
Iron	12400		12500	99								
Manganese	258		250	103								
Molybdenum	51.1		50.0	102								
Nickel	51.0		50.0	102								
Selenium	51.1		50.0	102								
Silver	51.3		50.0	103								
Vanadium	50.9		50.0	102								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00615

Analyte	ICV 240-126900/7-A 04/17/2014 10:56				CCVL 240-126900/10-A 04/17/2014 11:00				CCV 240-126900/11-A 04/17/2014 11:20			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.56		2.50	102	5.13		5.00	103	5.04		5.00	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00615

Analyte	CCV 240-126900/11-A 04/17/2014 11:38				CCV 240-126900/11-A 04/17/2014 11:56							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.00		5.00	100	5.01		5.00	100				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00617

Analyte	ICV 240-127258/7-A 04/22/2014 09:40				CCVL 240-127258/10-A 04/22/2014 09:45				CCV 240-127258/11-A 04/22/2014 10:03			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.44		2.50	98	5.08		5.00	102	5.08		5.00	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00617

Analyte	CCV 240-127258/11-A 04/22/2014 10:21				CCV 240-127258/11-A 04/22/2014 10:39							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.08		5.00	102	5.09		5.00	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00619

Analyte	ICV 240-127799/7-A 04/24/2014 07:35				CCVL 240-127799/10-A 04/24/2014 08:38				CCV 240-127799/11-A 04/24/2014 12:43			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.50		2.50	100	5.07		5.00	101	5.01		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00619

Analyte	CCV 240-127799/11-A 04/24/2014 13:02				CCV 240-127799/11-A 04/24/2014 13:20				CCV 240-127799/11-A 04/24/2014 13:32			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.07		5.00	101	5.05		5.00	101	5.03		5.00	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Method: 6010C Instrument ID: I9

Lab Sample ID: CRI 240-126876/39 Concentration Units: ug/L

CRQL Check Standard Source:

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium		4990	J		
Potassium		5040			
Magnesium		5010			
Sodium		5060			
SiO2, Silica		1050	J		

Lab Sample ID: CRI 240-126876/82 Concentration Units: ug/L

CRQL Check Standard Source:

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium		4970	J		
Potassium		5120			
Magnesium		4910	J		
Sodium		5050			
SiO2, Silica		1030	J		

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Method: 6020 Instrument ID: I10

Lab Sample ID: CRI 240-126899/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.14		107	50-150
Arsenic	5.00	4.74	J	95	50-150
Barium	5.00	4.74	J	95	50-150
Beryllium	1.00	1.01		101	50-150
Cadmium	1.00	0.961	J	96	50-150
Chromium	2.00	2.18		109	50-150
Cobalt	1.00	1.01		101	50-150
Copper	2.00	2.17		109	50-150
Molybdenum	10.0	9.84	J	98	50-150
Iron	100	121		121	50-150
Nickel	2.00	2.11		106	50-150
Lead	1.00	1.11		111	50-150
Manganese	5.00	4.88	J	98	50-150
Selenium	5.00	4.67	J	93	50-150
Thallium	2.00	1.96	J	98	50-150
Silver	1.00	1.02		102	50-150
Vanadium	5.00	4.68	J	94	50-150

Lab Sample ID: CRI 240-127674/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.09		104	50-150
Arsenic	5.00	4.98	J	100	50-150
Barium	5.00	4.97	J	99	50-150
Beryllium	1.00	1.15		115	50-150
Cadmium	1.00	1.00		100	50-150
Chromium	2.00	2.19		110	50-150
Cobalt	1.00	1.05		105	50-150
Copper	2.00	2.21		111	50-150
Molybdenum	10.0	9.60	J	96	50-150
Iron	100	110		110	50-150
Nickel	2.00	2.23		111	50-150
Lead	1.00	1.13		113	50-150
Manganese	5.00	5.25		105	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Method: 6020 Instrument ID: I10

Lab Sample ID: CRI 240-127674/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Selenium	5.00	5.04		101	50-150
Thallium	2.00	2.08		104	50-150
Silver	1.00	1.07		107	50-150
Vanadium	5.00	4.88	J	98	50-150

Lab Sample ID: CRI 240-127907/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.17		109	50-150
Arsenic	5.00	4.96	J	99	50-150
Barium	5.00	4.96	J	99	50-150
Beryllium	1.00	1.02		102	50-150
Cadmium	1.00	1.01		101	50-150
Chromium	2.00	2.29		115	50-150
Cobalt	1.00	1.06		106	50-150
Copper	2.00	2.20		110	50-150
Molybdenum	10.0	10.1		101	50-150
Iron	100	110		110	50-150
Nickel	2.00	2.33		116	50-150
Lead	1.00	1.15		115	50-150
Manganese	5.00	5.33		107	50-150
Selenium	5.00	5.03		101	50-150
Thallium	2.00	2.18		109	50-150
Silver	1.00	1.13		113	50-150
Vanadium	5.00	5.15		103	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Method: 6020 Instrument ID: I11

Lab Sample ID: CRI 240-127580/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	1.86	J	93	50-150
Arsenic	5.00	4.89	J	98	50-150
Barium	5.00	4.25	J	85	50-150
Beryllium	1.00	0.987	J	99	50-150
Cadmium	1.00	0.829	J	83	50-150
Chromium	2.00	2.04		102	50-150
Cobalt	1.00	0.869	J	87	50-150
Copper	2.00	1.96	J	98	50-150
Molybdenum	10.0	9.61	J	96	50-150
Iron	100	85.4	J	85	50-150
Nickel	2.00	1.98	J	99	50-150
Lead	1.00	0.887	J	89	50-150
Manganese	5.00	4.83	J	97	50-150
Selenium	5.00	4.55	J	91	50-150
Thallium	2.00	1.96	J	98	50-150
Silver	1.00	1.08		108	50-150
Vanadium	5.00	4.78	J	96	50-150

Lab Sample ID: CRI 240-127855/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.00		100	50-150
Arsenic	5.00	5.10		102	50-150
Barium	5.00	4.95	J	99	50-150
Beryllium	1.00	1.02		102	50-150
Cadmium	1.00	1.04		104	50-150
Chromium	2.00	2.27		113	50-150
Cobalt	1.00	1.05		105	50-150
Copper	2.00	2.16		108	50-150
Molybdenum	10.0	9.62	J	96	50-150
Iron	100	111		111	50-150
Nickel	2.00	2.12		106	50-150
Lead	1.00	1.14		114	50-150
Manganese	5.00	4.98	J	100	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Method: 6020 Instrument ID: I11

Lab Sample ID: CRI 240-127855/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Selenium	5.00	4.87	J	97	50-150
Thallium	2.00	2.17		109	50-150
Silver	1.00	1.09		109	50-150
Vanadium	5.00	4.94	J	99	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Method: 7470A Instrument ID: H1

Lab Sample ID: CRA 240-126900/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00615

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.179	J	90	50-150

Lab Sample ID: CRA 240-127258/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00617

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.164	J	82	50-150

Lab Sample ID: CRA 240-127799/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00619

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.204		102	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-126876/5 04/17/2014 07:57		CCB 240-126876/74 04/17/2014 12:38		CCB 240-126876/86 04/17/2014 13:26			
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	130	U	130	U	130	U		
Magnesium	5000	34	U	34	U	34	U		
Potassium	5000	72	U	72	U	74.5	J		
SiO2, Silica	1100	17	U	17	U	17	U		
Sodium	5000	590	U	590	U	590	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-126899/8 04/17/2014 10:28		CCB 240-126899/60 04/17/2014 14:21		CCB 240-126899/72 04/17/2014 15:07		CCB 240-126899/84 04/17/2014 15:54	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.588	J	0.307	J	0.504	J	0.503	J
Arsenic	5.0	0.063	U	0.063	U	0.063	U	0.063	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.031	U	0.142	J	0.0320	J
Cadmium	1.0	0.026	U	0.026	U	0.026	U	0.026	U
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	12	U	12	U	12	U
Lead	1.0	0.14	U	0.14	U	0.156	J	0.14	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0083	U	0.0083	U	0.0160	J	0.0160	J
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Not used

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-127674/8 04/23/2014 11:27		CCB 240-127674/25 04/23/2014 12:33		CCB 240-127674/37 04/23/2014 13:18		CCB 240-127674/49 04/23/2014 14:04	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.582	J	0.256	J	0.412	J	0.410	J
Arsenic	5.0	0.063	U	0.063	U	0.063	U	0.063	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.031	U	0.0690	J	0.031	U
Cadmium	1.0	0.026	U	0.026	U	0.026	U	0.026	U
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	12	U	12	U	12	U
Lead	1.0	0.14	U	0.14	U	0.14	U	0.14	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0083	U	0.0083	U	0.0083	U	0.0083	U
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Not used

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-127674/61 04/23/2014 14:50		CCB 240-127674/157 04/23/2014 20:55		CCB 240-127674/171 04/23/2014 21:48		CCB 240-127674/183 04/23/2014 22:34	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.398	J	0.206	J	0.164	J	0.148	J
Arsenic	5.0	0.063	U	0.063	U	0.063	U	0.063	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.0370	J	0.031	U	0.031	U	0.031	U
Cadmium	1.0	0.026	U	0.026	U	0.026	U	0.026	U
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Copper	2.0	0.24	U	0.638	J	0.24	U	0.884	J
Iron	100	12	U	12	U	12	U	12	U
Lead	1.0	0.14	U	0.14	U	0.14	U	0.14	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	1.04	J	1.06	J	1.26	J
Silver	1.0	0.0083	U	0.0083	U	0.0083	U	0.0083	U
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Not used

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-127907/8 04/24/2014 09:48		CCB 240-127907/39 04/24/2014 11:51		CCB 240-127907/51 04/24/2014 12:37		CCB 240-127907/63 04/24/2014 13:23	
		Found	C	Found	C	Found	C	Found	C
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Copper	2.0	0.24	U	0.24	U	0.24	U	0.594	J
Iron	100	12	U	12	U	12	U	12	U
Lead	1.0	0.14	U	0.14	U	0.14	U	0.14	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U
Antimony	2.0	0.517	J	0.291	J	0.314	J	0.323	J
Arsenic	5.0	0.063	U	0.063	U	0.063	U	0.063	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.031	U	0.031	U	0.0690	J
Cadmium	1.0	0.026	U	0.026	U	0.026	U	0.026	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0083	U	0.0083	U	0.0083	U	0.0100	J

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-127580/6 04/22/2014 11:31		CCB 240-127580/43 04/22/2014 16:16		CCB 240-127580/55 04/22/2014 17:41		CCB 240-127580/67 04/22/2014 19:06	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.138	J	0.11	U	0.11	U	0.11	U
Arsenic	5.0	0.141	J	0.063	U	0.063	U	0.063	U
Barium	5.0	0.401	J	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.031	U	0.0470	J	0.031	U
Cadmium	1.0	0.201	J	0.026	U	0.026	U	0.026	U
Chromium	2.0	0.193	J	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.211	J	0.020	U	0.020	U	0.020	U
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	32.9	J	12	U	12	U	12	U
Lead	1.0	0.217	J	0.14	U	0.14	U	0.14	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.178	J	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0980	J	0.0083	U	0.0083	U	0.0083	U
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.169	J	0.15	U	0.15	U	0.15	U

Not used

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-127855/6 04/24/2014 10:35		CCB 240-127855/41 04/24/2014 14:43		CCB 240-127855/52 04/24/2014 16:01		CCB 240-127855/64 04/24/2014 17:27	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.11	U	0.11	U	0.11	U	0.11	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Lead	1.0	0.14	U	0.14	U	0.14	U	0.14	U
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Arsenic	5.0	0.063	U	0.0630	J	0.0660	J	0.0980	J
Beryllium	1.0	0.031	U	0.031	U	0.031	U	0.031	U
Cadmium	1.0	0.026	U	0.026	U	0.0270	J	0.0650	J
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.020	U	0.020	U	0.0260	J	0.0770	J
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	12	U	12	U	33.4	J
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0083	U	0.0120	J	0.0190	J	0.0410	J
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-126900/8-A 04/17/2014 10:57		CCB 240-126900/12-A 04/17/2014 11:21		CCB 240-126900/12-A 04/17/2014 11:39		CCB 240-126900/12-A 04/17/2014 11:58	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-127258/8-A 04/22/2014 09:42		CCB 240-127258/12-A 04/22/2014 09:47		CCB 240-127258/12-A 04/22/2014 10:05		CCB 240-127258/12-A 04/22/2014 10:22	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-127258/12-A 04/22/2014 10:41							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-127799/8-A 04/24/2014 07:37		CCB 240-127799/12-A 04/24/2014 12:45		CCB 240-127799/12-A 04/24/2014 13:04		CCB 240-127799/12-A 04/24/2014 13:22	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-127799/12-A 04/24/2014 13:33							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-126671/1-A

Instrument Code: H1 Batch No.: 126897

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-127051/1-A

Instrument Code: H1 Batch No.: 127474

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-127395/1-A

Instrument Code: H1 Batch No.: 127806

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: ICSA 240-126876/8 Instrument ID: I9

Lab File ID: I9041714A.asc ICS Source: MTTRICSAW_00022

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Calcium	**500000**	**482950**	**97**
Magnesium	**500000**	**496880**	**99**
Potassium		**-26.3**	
Sodium		**19.9**	
Aluminum	*500000*	*501050*	*100*
Antimony		*4.06*	
Arsenic		*-2.64*	
Barium		*0.441*	
Beryllium		*-0.215*	
Boron		*1.19*	
Cadmium		*-0.161*	
Chromium		*2.91*	
Cobalt		*-0.543*	
Copper		*-0.808*	
Iron	*200000*	*189580*	*95*
Lead		*-1.48*	
Lithium		*-8.97*	
Manganese		*2.35*	
Molybdenum		*-1.29*	
Nickel		*0.979*	
Selenium		*-1.06*	
Silicon		*3.52*	
Silver		*-0.308*	
Strontium		*23.8*	
Thallium		*-5.70*	
Tin		*2.28*	
Titanium		*-0.608*	
Vanadium		*2.29*	
Zinc		*0.686*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: ICSAB 240-126876/9 Instrument ID: I9

Lab File ID: I9041714A.asc ICS Source: MTICPICSABW_00003

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Calcium	**500000**	**489600**	**98**
Magnesium	**500000**	**499630**	**100**
Potassium	**10000**	**10425**	**104**
Sodium	**10000**	**10495**	**105**
Aluminum	*500000*	*511870*	*102*
Antimony	*1000*	*1017*	*102*
Arsenic	*1000*	*1020*	*102*
Barium	*500*	*494*	*99*
Beryllium	*500*	*487*	*97*
Boron	*500*	*522*	*104*
Cadmium	*1000*	*1037*	*104*
Chromium	*500*	*496*	*99*
Cobalt	*500*	*494*	*99*
Copper	*500*	*532*	*106*
Iron	*200000*	*189940*	*95*
Lead	*1000*	*954*	*95*
Lithium	*500*	*499*	*100*
Manganese	*500*	*501*	*100*
Molybdenum	*1000*	*992*	*99*
Nickel	*1000*	*981*	*98*
Selenium	*1000*	*1012*	*101*
Silicon	*10000*	*9909*	*99*
Silver	*1000*	*1076*	*108*
Strontium	*1500*	*1445*	*96*
Thallium	*1000*	*973*	*97*
Tin	*500*	*505*	*101*
Titanium	*500*	*511*	*102*
Vanadium	*500*	*490*	*98*
Zinc	*1000*	*975*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: ICSA 240-126899/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.320**	
Arsenic		**0.134**	
Barium		**0.167**	
Beryllium		**0.0070**	
Cadmium		**0.0390**	
Chromium		**0.526**	
Cobalt		**0.0140**	
Copper		**0.179**	
Iron	**50000**	**48321**	**97**
Lead		**0.0770**	
Manganese		**0.920**	
Molybdenum	**1000**	**1016**	**102**
Nickel		**1.69**	
Selenium		**0.122**	
Silver		**0.0200**	
Thallium		**0.0050**	
Vanadium		**-0.143**	
Aluminum	*50000*	*44984*	*90*
Boron		*-0.225*	
Calcium	*50000*	*47846*	*96*
Magnesium	*50000*	*48211*	*96*
Potassium	*50000*	*48022*	*96*
Sodium	*50000*	*47929*	*96*
Strontium		*2.21*	
Tin		*0.281*	
Titanium	*1000*	*967*	*97*
Tungsten		*0.213*	
Zinc		*1.19*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: ICSAB 240-126899/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**101**	**101**
Arsenic	**100**	**103**	**103**
Barium	**100**	**103**	**103**
Beryllium	**100**	**99.5**	**100**
Cadmium	**100**	**103**	**103**
Chromium	**100**	**97.5**	**98**
Cobalt	**100**	**96.9**	**97**
Copper	**100**	**99.5**	**99**
Iron	**50000**	**49431**	**99**
Lead	**100**	**101**	**101**
Manganese	**100**	**100**	**100**
Molybdenum	**1100**	**1147**	**104**
Nickel	**100**	**99.9**	**100**
Selenium	**100**	**103**	**103**
Silver	**100**	**98.3**	**98**
Thallium	**100**	**103**	**103**
Vanadium	**100**	**98.1**	**98**
Aluminum	*50000*	*45953*	*92*
Boron	*100*	*95.8*	*96*
Calcium	*50000*	*48227*	*96*
Magnesium	*50000*	*48244*	*96*
Potassium	*50000*	*48503*	*97*
Sodium	*50000*	*48510*	*97*
Strontium	*100*	*100*	*100*
Tin	*100*	*99.3*	*99*
Titanium	*1100*	*1080*	*98*
Tungsten	*100*	*100*	*100*
Zinc	*100*	*101*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: ICSA 240-127674/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.278**	
Arsenic		**0.141**	
Barium		**0.0990**	
Beryllium		**0.0000**	
Cadmium		**0.0430**	
Chromium		**0.515**	
Cobalt		**0.0190**	
Copper		**0.178**	
Iron	**50000**	**50553**	**101**
Lead		**0.103**	
Manganese		**0.0830**	
Molybdenum	**1000**	**1037**	**104**
Nickel		**0.360**	
Selenium		**0.178**	
Silver		**0.0230**	
Thallium		**0.0040**	
Vanadium		**0.0880**	
Aluminum	*50000*	*48080*	*96*
Boron		*0.743*	
Calcium	*50000*	*49398*	*99*
Magnesium	*50000*	*50434*	*101*
Potassium	*50000*	*50111*	*100*
Sodium	*50000*	*50666*	*101*
Strontium		*2.25*	
Tin		*0.189*	
Titanium	*1000*	*994*	*99*
Tungsten		*0.191*	
Zinc		*1.10*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: ICSAB 240-127674/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**102**	**102**
Arsenic	**100**	**106**	**106**
Barium	**100**	**105**	**105**
Beryllium	**100**	**101**	**101**
Cadmium	**100**	**105**	**105**
Chromium	**100**	**105**	**105**
Cobalt	**100**	**108**	**108**
Copper	**100**	**106**	**106**
Iron	**50000**	**52521**	**105**
Lead	**100**	**103**	**103**
Manganese	**100**	**106**	**106**
Molybdenum	**1100**	**1141**	**104**
Nickel	**100**	**106**	**106**
Selenium	**100**	**106**	**106**
Silver	**100**	**99.3**	**99**
Thallium	**100**	**103**	**103**
Vanadium	**100**	**103**	**103**
Aluminum	*50000*	*50293*	*101*
Boron	*100*	*97.5*	*97*
Calcium	*50000*	*51680*	*103*
Magnesium	*50000*	*51993*	*104*
Potassium	*50000*	*52719*	*105*
Sodium	*50000*	*52258*	*105*
Strontium	*100*	*105*	*105*
Tin	*100*	*97.8*	*98*
Titanium	*1100*	*1132*	*103*
Tungsten	*100*	*104*	*104*
Zinc	*100*	*106*	*106*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: ICSA 240-127907/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Chromium		**0.570**	
Cobalt		**0.0150**	
Copper		**0.0730**	
Iron	**50000**	**51612**	**103**
Lead		**0.109**	
Manganese		**0.0990**	
Nickel		**0.390**	
Thallium		**0.0070**	
Vanadium		**-0.0430**	
Aluminum	*50000*	*47574*	*95*
Antimony		*0.299*	
Arsenic		*0.0830*	
Barium		*0.109*	
Beryllium		*-0.0020*	
Boron		*0.408*	
Cadmium		*0.0150*	
Calcium	*50000*	*50541*	*101*
Magnesium	*50000*	*50056*	*100*
Molybdenum	*1000*	*1017*	*102*
Potassium	*50000*	*50895*	*102*
Selenium		*-0.0240*	
Silver		*0.0230*	
Sodium	*50000*	*50254*	*101*
Strontium		*2.32*	
Tin		*0.255*	
Titanium	*1000*	*1033*	*103*
Tungsten		*0.313*	
Zinc		*0.852*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: ICSAB 240-127907/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Chromium	**100**	**101**	**101**
Cobalt	**100**	**102**	**102**
Copper	**100**	**103**	**103**
Iron	**50000**	**50932**	**102**
Lead	**100**	**102**	**102**
Manganese	**100**	**105**	**105**
Nickel	**100**	**103**	**103**
Thallium	**100**	**102**	**102**
Vanadium	**100**	**101**	**101**
Aluminum	*50000*	*46450*	*93*
Antimony	*100*	*98.1*	*98*
Arsenic	*100*	*103*	*103*
Barium	*100*	*102*	*102*
Beryllium	*100*	*115*	*115*
Boron	*100*	*118*	*118*
Cadmium	*100*	*102*	*102*
Calcium	*50000*	*49783*	*100*
Magnesium	*50000*	*49058*	*98*
Molybdenum	*1100*	*1125*	*102*
Potassium	*50000*	*50050*	*100*
Selenium	*100*	*103*	*103*
Silver	*100*	*102*	*102*
Sodium	*50000*	*49691*	*99*
Strontium	*100*	*102*	*102*
Tin	*100*	*104*	*104*
Titanium	*1100*	*1123*	*102*
Tungsten	*100*	*103*	*103*
Zinc	*100*	*103*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: ICSA 240-127580/8 Instrument ID: I11

Lab File ID: I11042214C.csv ICS Source: MTMSICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Antimony		**0.0860**	
Arsenic		**-0.0700**	
Barium		**-0.343**	
Beryllium		**-0.0200**	
Cadmium		**-0.331**	
Chromium		**0.417**	
Cobalt		**-0.107**	
Copper		**-0.0400**	
Iron	**50000**	**51170**	**102**
Lead		**-0.0870**	
Manganese		**-0.178**	
Molybdenum	**1000**	**1003**	**100**
Nickel		**0.195**	
Selenium		**-0.113**	
Silver		**-0.0030**	
Thallium		**-0.131**	
Vanadium		**-0.130**	
Aluminum	*50000*	*47460*	*95*
Boron		*-0.102*	
Calcium	*50000*	*51450*	*103*
Magnesium	*50000*	*50540*	*101*
Potassium	*50000*	*52460*	*105*
Sodium	*50000*	*51600*	*103*
Strontium		*1.19*	
Tin		*0.0090*	
Titanium	*1000*	*1019*	*102*
Tungsten		*0.0300*	
Zinc		*0.565*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: ICSAB 240-127580/9 Instrument ID: I11

Lab File ID: I11042214C.csv ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**97.4**	**97**
Arsenic	**100**	**101**	**101**
Barium	**100**	**101**	**101**
Beryllium	**100**	**99.7**	**100**
Cadmium	**100**	**100**	**100**
Chromium	**100**	**103**	**103**
Cobalt	**100**	**101**	**101**
Copper	**100**	**99.8**	**100**
Iron	**50000**	**52140**	**104**
Lead	**100**	**105**	**105**
Manganese	**100**	**106**	**106**
Molybdenum	**1100**	**1117**	**102**
Nickel	**100**	**101**	**101**
Selenium	**100**	**99.6**	**100**
Silver	**100**	**101**	**101**
Thallium	**100**	**106**	**106**
Vanadium	**100**	**101**	**101**
Aluminum	*50000*	*47530*	*95*
Boron	*100*	*99.4*	*99*
Calcium	*50000*	*51750*	*104*
Magnesium	*50000*	*51010*	*102*
Potassium	*50000*	*53030*	*106*
Sodium	*50000*	*51820*	*104*
Strontium	*100*	*100*	*100*
Tin	*100*	*98.4*	*98*
Titanium	*1100*	*1133*	*103*
Tungsten	*100*	*105*	*105*
Zinc	*100*	*101*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: ICSA 240-127855/8 Instrument ID: I11

Lab File ID: I11042414A.csv ICS Source: MTMSICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.163**	
Barium		**0.131**	
Lead		**0.118**	
Thallium		**0.0910**	
Aluminum	*50000*	*49340*	*99*
Arsenic		*0.0710*	
Beryllium		*-0.0010*	
Boron		*-0.412*	
Cadmium		*-0.161*	
Calcium	*50000*	*50190*	*100*
Chromium		*0.570*	
Cobalt		*0.0590*	
Copper		*0.140*	
Iron	*50000*	*50940*	*102*
Magnesium	*50000*	*50930*	*102*
Manganese		*-0.0760*	
Molybdenum	*1000*	*1004*	*100*
Nickel		*0.358*	
Potassium	*50000*	*51810*	*104*
Selenium		*0.0150*	
Silver		*0.0280*	
Sodium	*50000*	*51800*	*104*
Strontium		*2.30*	
Tin		*0.0890*	
Titanium	*1000*	*1004*	*100*
Tungsten		*0.155*	
Vanadium		*-0.0020*	
Zinc		*0.471*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: ICSAB 240-127855/9 Instrument ID: I11

Lab File ID: I11042414A.csv ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True	Found	
	Solution AB	Solution AB	Percent Recovery
Antimony	**100**	**100.0**	**100**
Barium	**100**	**102**	**102**
Lead	**100**	**106**	**106**
Thallium	**100**	**104**	**104**
Aluminum	*50000*	*49250*	*99*
Arsenic	*100*	*101*	*101*
Beryllium	*100*	*101*	*101*
Boron	*100*	*102*	*102*
Cadmium	*100*	*101*	*101*
Calcium	*50000*	*50960*	*102*
Chromium	*100*	*102*	*102*
Cobalt	*100*	*99.7*	*100*
Copper	*100*	*99.0*	*99*
Iron	*50000*	*50730*	*101*
Magnesium	*50000*	*50460*	*101*
Manganese	*100*	*105*	*105*
Molybdenum	*1100*	*1114*	*101*
Nickel	*100*	*98.7*	*99*
Potassium	*50000*	*52410*	*105*
Selenium	*100*	*100*	*100*
Silver	*100*	*100*	*100*
Sodium	*50000*	*51620*	*103*
Strontium	*100*	*103*	*103*
Tin	*100*	*96.9*	*97*
Titanium	*1100*	*1118*	*102*
Tungsten	*100*	*105*	*105*
Vanadium	*100*	*103*	*103*
Zinc	*100*	*102*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-126669/2-A

Lab Name: TestAmerica Canton Job No.: 240-36135-1

Sample Matrix: Water LCS Source: MTICP2A_00036

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	47000		94	80	120		6010C
Potassium	50000	48100		96	80	120		6010C
Magnesium	50000	45500		91	80	120		6010C
Sodium	50000	47400		95	80	120		6010C
SiO2, Silica	2140	2150		100	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-126669/3-A

Lab Name: TestAmerica Canton Job No.: 240-36135-1

Sample Matrix: Water LCS Source: MTICPMSB_00017

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	92.0		92	80	120		6020
Arsenic	1000	899		90	80	120		6020
Barium	1000	942		94	80	120		6020
Beryllium	1000	878		88	80	120		6020
Cadmium	1000	979		98	80	120		6020
Chromium	1000	903		90	80	120		6020
Cobalt	1000	912		91	80	120		6020
Copper	1000	943		94	80	120		6020
Molybdenum	100	92.5		93	80	120		6020
Iron	10000	9460		95	80	120		6020
Nickel	1000	952		95	80	120		6020
Lead	1000	1000		100	80	120		6020
Manganese	1000	930		93	80	120		6020
Selenium	1000	907		91	80	120		6020
Thallium	250	238		95	80	120		6020
Silver	100	93.8		94	80	120		6020
Vanadium	1000	878		88	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-127045/2-A

Lab Name: TestAmerica Canton Job No.: 240-36135-1

Sample Matrix: Water LCS Source: MTICPMSB_00017

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	97.6		98	80	120		6020
Arsenic	1000	1010		101	80	120		6020
Barium	1000	971		97	80	120		6020
Beryllium	1000	1010		101	80	120		6020
Cadmium	1000	1000		100	80	120		6020
Chromium	1000	971		97	80	120		6020
Cobalt	1000	965		96	80	120		6020
Copper	1000	1030		103	80	120		6020
Molybdenum	100	99.3		99	80	120		6020
Iron	10000	10300		103	80	120		6020
Nickel	1000	1000		100	80	120		6020
Lead	1000	984		98	80	120		6020
Manganese	1000	1020		102	80	120		6020
Selenium	1000	1020		102	80	120		6020
Thallium	250	247		99	80	120		6020
Silver	100	105		105	80	120		6020
Vanadium	1000	957		96	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-127394/2-A

Lab Name: TestAmerica Canton Job No.: 240-36135-1

Sample Matrix: Water LCS Source: MTICPMSB_00017

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	97.5		97	80	120		6020
Arsenic	1000	963		96	80	120		6020
Barium	1000	969		97	80	120		6020
Beryllium	1000	1040		104	80	120		6020
Cadmium	1000	1000		100	80	120		6020
Chromium	1000	945		94	80	120		6020
Cobalt	1000	981		98	80	120		6020
Copper	1000	1000		100	80	120		6020
Molybdenum	100	92.3		92	80	120		6020
Iron	10000	9940		99	80	120		6020
Nickel	1000	987		99	80	120		6020
Lead	1000	932		93	80	120		6020
Manganese	1000	961		96	80	120		6020
Selenium	1000	963		96	80	120		6020
Thallium	250	232		93	80	120		6020
Silver	100	95.2		95	80	120		6020
Vanadium	1000	912		91	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-126671/2-A

Lab Name: TestAmerica Canton Job No.: 240-36135-1

Sample Matrix: Water LCS Source: MTHGCALW_00614

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.17		103	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-127051/2-A

Lab Name: TestAmerica Canton Job No.: 240-36135-1

Sample Matrix: Water LCS Source: MTHGCALW_00616

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.93		99	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-127395/2-A

Lab Name: TestAmerica Canton Job No.: 240-36135-1

Sample Matrix: Water LCS Source: MTHGCALW_00618

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.81		96	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C MDL Date: 02/05/2014 10:38

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	317.933	5000	130
Magnesium	279.078	5000	34
Potassium	766.491	5000	72
SiO2, Silica	251.6	1070	17.34
Sodium	330.232	5000	590

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C XMDL Date: 02/05/2014 10:39

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	317.933	5000	130
Magnesium	279.078	5000	34
Potassium	766.491	5000	72
SiO2, Silica	251.6	1070	17.34
Sodium	330.232	5000	590

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A XMDL Date: 02/08/2010 16:06

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A XMDL Date: 02/08/2010 16:06

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 MDL Date: 04/14/2011 14:06

Prep Method: None

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Calcium hardness as calcium carbonate		12	0.325
Hardness as calcium carbonate		33	0.465
Magnesium hardness as calcium carbonate		21	0.14

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 2340B-1997 XMDL Date: 04/14/2011 14:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium hardness as calcium carbonate		12000	325
Hardness as calcium carbonate		33000	465
Magnesium hardness as calcium carbonate		21000	140

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG No.:

ICP-AES Instrument ID: I9 Date: 03/26/2014

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	Tl	V
Aluminum										0.025824					0.030943
Antimony		-0.000069			-0.000614			-0.000030							0.002351
Arsenic		0.000028			-0.000174	0.000536			-0.000355	0.001157					
Barium															
Beryllium															0.000470
Boron															
Cadmium			0.005676					-0.000001							
Calcium															
Chromium															
Cobalt													0.002095		
Copper				0.000029	0.000140			0.000007							
Iron															
Lead		-0.000114					0.000068	0.000044			0.000321	0.000060			
Lithium				0.000084											
Magnesium															
Manganese															
Molybdenum															
Nickel					0.000518			0.000077							
Potassium															
Selenium									0.000338						
Silver															
Sodium															
Strontium															
Thallium					0.001471				0.001238				-0.000905		-0.006245
Tin															
Titanium															
Vanadium								0.000020							
Zinc						-0.000592									

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-36135-1

SDG No.:

Instrument ID: I9 Date: 04/01/2014 10:54

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		500000	6010C
Potassium		500000	6010C
Magnesium		500000	6010C
Sodium		500000	6010C
SiO2, Silica		428000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-36135-1

SDG No.:

Instrument ID: I10 Date: 04/14/2014 15:35

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		300	6020
Arsenic		10000	6020
Barium		10000	6020
Beryllium		10000	6020
Cadmium		4000	6020
Chromium		10000	6020
Cobalt		10000	6020
Copper		10000	6020
Molybdenum		2000	6020
Iron		200000	6020
Nickel		10000	6020
Lead		4000	6020
Manganese		10000	6020
Selenium		10000	6020
Thallium		5000	6020
Silver		300	6020
Vanadium		10000	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-36135-1

SDG No.:

Instrument ID: I11 Date: 03/10/2014 12:42

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		1000	6020
Arsenic		10000	6020
Barium		10000	6020
Beryllium		10000	6020
Cadmium		10000	6020
Chromium		10000	6020
Cobalt		10000	6020
Copper		10000	6020
Molybdenum		2000	6020
Iron		500000	6020
Nickel		10000	6020
Lead		10000	6020
Manganese		10000	6020
Selenium		10000	6020
Thallium		500	6020
Silver		500	6020
Vanadium		10000	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-36135-1

SDG No.:

Instrument ID: I11 Date: 04/14/2014 15:35

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		300	6020
Arsenic		10000	6020
Barium		10000	6020
Beryllium		10000	6020
Cadmium		4000	6020
Chromium		10000	6020
Cobalt		10000	6020
Copper		10000	6020
Molybdenum		2000	6020
Iron		200000	6020
Nickel		10000	6020
Lead		4000	6020
Manganese		10000	6020
Selenium		10000	6020
Thallium		5000	6020
Silver		300	6020
Vanadium		10000	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-36135-1

SDG No.:

Instrument ID: H1 Date: 12/10/2013 15:54

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-127394/1-A	04/22/2014 09:28	127394		50	50
LCS 240-127394/2-A	04/22/2014 09:28	127394		50	50
240-36320-2	04/22/2014 09:28	127394		50	50
240-36320-3	04/22/2014 09:28	127394		50	50
240-36320-4	04/22/2014 09:28	127394		50	50
240-36320-5	04/22/2014 09:28	127394		50	50
240-36320-6	04/22/2014 09:28	127394		50	50
240-36320-7	04/22/2014 09:28	127394		50	50
240-36320-8	04/22/2014 09:28	127394		50	50
240-36320-2	04/22/2014 09:28	127394		50	50
240-36320-3	04/22/2014 09:28	127394		50	50
240-36320-4	04/22/2014 09:28	127394		50	50
240-36320-5	04/22/2014 09:28	127394		50	50
240-36320-6	04/22/2014 09:28	127394		50	50
240-36320-7	04/22/2014 09:28	127394		50	50
240-36320-8	04/22/2014 09:28	127394		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-127394/1-A

Instrument Code: I10 Batch No.: 127674

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.314	J		6020
7440-38-2	Arsenic	0.342	J		6020
7440-39-3	Barium	1.25	J		6020
7440-41-7	Beryllium	0.031	U		6020
7440-43-9	Cadmium	0.026	U		6020
7440-47-3	Chromium	0.13	U		6020
7440-48-4	Cobalt	0.020	U		6020
7440-50-8	Copper	1.29	J		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-89-6	Iron	14.4	J		6020
7440-02-0	Nickel	0.118	J		6020
7439-92-1	Lead	0.169	J		6020
7439-96-5	Manganese	0.41	U		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-22-4	Silver	0.0150	J		6020
7440-62-2	Vanadium	0.862	J		6020

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/17/2014 10:01 End Date: 04/17/2014 18:05

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V											
ZZZZZZ			10:01																												
ICIS 240-126899/2			10:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
STD1 240-126899/3 IC	1		10:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
STD2 240-126899/4 IC	1		10:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
STD3 240-126899/5 IC	1		10:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
STD4 240-126899/6 IC	1		10:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ICV 240-126899/7	1		10:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ICB 240-126899/8	1		10:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CRI 240-126899/9	1		10:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ICSA 240-126899/10	1		10:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ICSAB 240-126899/11	1		10:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCV 240-126899/12			10:44																												
CCB 240-126899/13			10:48																												
CCV 240-126899/14			10:54																												
CCB 240-126899/15			10:58																												
ZZZZZZ			11:02																												
ZZZZZZ			11:06																												
ZZZZZZ			11:10																												
ZZZZZZ			11:14																												
ZZZZZZ			11:18																												
ZZZZZZ			11:21																												
ZZZZZZ			11:25																												
CCV 240-126899/23			11:29																												
CCB 240-126899/24			11:32																												
ZZZZZZ			12:02																												
ZZZZZZ			12:06																												
ZZZZZZ			12:10																												
ZZZZZZ			12:14																												
ZZZZZZ			12:18																												
ZZZZZZ			12:22																												
ZZZZZZ			12:26																												
ZZZZZZ			12:30																												
ZZZZZZ			12:34																												
ZZZZZZ			12:38																												
CCV 240-126899/35			12:42																												
CCB 240-126899/36			12:45																												
ZZZZZZ			12:49																												
ZZZZZZ			12:53																												
ZZZZZZ			12:57																												
ZZZZZZ			13:01																												
ZZZZZZ			13:05																												
ZZZZZZ			13:09																												

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/17/2014 10:01 End Date: 04/17/2014 18:05

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V										
ZZZZZZ			13:13																											
ZZZZZZ			13:17																											
ZZZZZZ			13:21																											
ZZZZZZ			13:25																											
CCV 240-126899/47			13:29																											
CCB 240-126899/48			13:33																											
ZZZZZZ			13:37																											
ZZZZZZ			13:41																											
ZZZZZZ			13:45																											
ZZZZZZ			13:49																											
ZZZZZZ			13:53																											
ZZZZZZ			13:57																											
ZZZZZZ			14:01																											
ZZZZZZ			14:05																											
ZZZZZZ			14:09																											
ZZZZZZ			14:13																											
CCV 240-126899/59	1		14:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-126899/60	1		14:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			14:25																											
ZZZZZZ			14:28																											
MB 240-126669/1-A	1	R	14:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
LCS 240-126669/3-A	1	R	14:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			14:40																											
ZZZZZZ			14:44																											
ZZZZZZ			14:48																											
ZZZZZZ			14:51																											
240-36135-2	1	R	14:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-36135-3	1	R	14:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCV 240-126899/71	1		15:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-126899/72	1		15:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-36135-2	1	D	15:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-36135-3	1	D	15:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			15:19																											
ZZZZZZ			15:23																											
ZZZZZZ			15:26																											
ZZZZZZ			15:30																											
ZZZZZZ			15:34																											
ZZZZZZ			15:38																											
ZZZZZZ			15:42																											
ZZZZZZ			15:46																											
CCV 240-126899/83	1		15:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-126899/84	1		15:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/17/2014 10:01 End Date: 04/17/2014 18:05

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V										
ZZZZZZ			15:58																											
ZZZZZZ			16:02																											
ZZZZZZ			16:06																											
ZZZZZZ			16:10																											
ZZZZZZ			16:14																											
ZZZZZZ			16:17																											
ZZZZZZ			16:21																											
ZZZZZZ			16:25																											
ZZZZZZ			16:29																											
ZZZZZZ			16:32																											
CCV 240-126899/95			16:36																											
CCB 240-126899/96			16:40																											
ZZZZZZ			16:44																											
ZZZZZZ			16:48																											
ZZZZZZ			16:52																											
ZZZZZZ			16:55																											
ZZZZZZ			16:59																											
ZZZZZZ			17:03																											
ZZZZZZ			17:07																											
ZZZZZZ			17:11																											
ZZZZZZ			17:15																											
ZZZZZZ			17:19																											
CCV 240-126899/107			17:23																											
CCB 240-126899/108			17:26																											
ZZZZZZ			17:30																											
ZZZZZZ			17:34																											
ZZZZZZ			17:38																											
ZZZZZZ			17:42																											
ZZZZZZ			17:46																											
ZZZZZZ			17:50																											
ZZZZZZ			17:54																											
ZZZZZZ			17:58																											
CCV 240-126899/117			18:01																											
CCB 240-126899/118			18:05																											

Prep Types:
D = Dissolved
R = Total Recoverable

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/17/2014 End Date: 04/17/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-126899/3 IC	10:09	101		95		104		95		94	
STD2 240-126899/4 IC	10:12	97		95		100		92		93	
STD3 240-126899/5 IC	10:16	97		91		102		88		89	
STD4 240-126899/6 IC	10:20	102		92		100		94		94	
ICV 240-126899/7	10:24	100		94		102		92		93	
ICB 240-126899/8	10:28	105		94		105		96		97	
CRI 240-126899/9	10:32	104		97		104		98		99	
ICSA 240-126899/10	10:36	85		88		87		85		83	
ICSAB 240-126899/11	10:40	87		84		91		82		80	
CCV 240-126899/59	14:17	109		101		112		97		100	
CCB 240-126899/60	14:21	111		103		112		101		104	
MB 240-126669/1-A	14:32	110		106		114		104		104	
LCS 240-126669/3-A	14:36	101		98		107		96		98	
240-36135-2	14:55	99		103		108		99		100	
240-36135-3	14:59	98		105		107		103		101	
CCV 240-126899/71	15:03	106		108		111		102		105	
CCB 240-126899/72	15:07	105		107		108		105		109	
240-36135-2	15:11	101		102		109		98		98	
240-36135-3	15:15	101		105		107		105		105	
CCV 240-126899/83	15:50	103		104		104		101		103	
CCB 240-126899/84	15:54	107		105		107		105		106	

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/17/2014 End Date: 04/17/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-126899/3 IC	10:09	96		97		95					
STD2 240-126899/4 IC	10:12	96		97		97					
STD3 240-126899/5 IC	10:16	92		94		92					
STD4 240-126899/6 IC	10:20	94		96		97					
ICV 240-126899/7	10:24	96		97		99					
ICB 240-126899/8	10:28	96		98		97					
CRI 240-126899/9	10:32	97		99		99					
ICSA 240-126899/10	10:36	90		92		100					
ICSAB 240-126899/11	10:40	87		89		90					
CCV 240-126899/59	14:17	103		104		97					
CCB 240-126899/60	14:21	102		104		101					
MB 240-126669/1-A	14:32	105		104		112					
LCS 240-126669/3-A	14:36	101		101		107					
240-36135-2	14:55	103		105		107					
240-36135-3	14:59	104		106		112					
CCV 240-126899/71	15:03	106		107		101					
CCB 240-126899/72	15:07	106		106		109					
240-36135-2	15:11	103		104		118					
240-36135-3	15:15	105		107		115					
CCV 240-126899/83	15:50	105		107		103					
CCB 240-126899/84	15:54	105		106		111					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/23/2014 End Date: 04/23/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1 (HE)	Q	Element Sc/2	Q	Element Rh (103)	Q	Element In (115)	Q
STD1 240-127674/3 IC	11:07	101		101		98		99		99	
STD2 240-127674/4 IC	11:11	97		96		97		94		94	
STD3 240-127674/5 IC	11:15	97		99		98		93		97	
STD4 240-127674/6 IC	11:19	101		101		100		100		100	
ICV 240-127674/7	11:23	102		103		101		99		103	
ICB 240-127674/8	11:27	99		103		95		104		103	
CRI 240-127674/9	11:31	94		103		89		103		103	
ICSA 240-127674/10	11:35	96		99		99		92		96	
ICSAB 240-127674/11	11:38	94		95		97		92		93	
CCV 240-127674/24	12:30	95		95		98		95		94	
CCB 240-127674/25	12:33	97		99		96		102		102	
MB 240-127394/1-A	12:37	98		94		94		96		95	
LCS 240-127394/2-A	12:41	87		91		81		94		90	
240-36320-2	13:03	86		111		111		90		89	
240-36320-3	13:07	85		88		88		91		89	
240-36320-4 BE	13:11	82		144	*	145	*	85		83	
~~CCV 240-127674/36~~	13:14	83		~~89~~		~~93~~		90		89	
CCB 240-127674/37	13:18	86		91		92		96		94	
240-36320-5	13:22	92		87		89		87		87	
240-36320-6	13:26	99		91		93		92		89	
240-36320-7	13:30	92		88		91		86		86	
240-36320-8	13:34	95		100		106		91		91	
240-36320-2	13:57	96		113		117		95		93	
CCV 240-127674/48	14:00	94		97		97		98		97	
CCB 240-127674/49	14:04	100		98		102		101		97	
240-36320-3	14:08	96		97		90		99		97	
240-36320-4 BE	14:12	100		160	*	170	*	94		94	
~~240-36320-5~~	14:16	101		~~94~~		~~102~~		93		93	
240-36320-6	14:20	105		99		103		99		96	
240-36320-7	14:23	102		97		102		92		93	
240-36320-8	14:27	104		113		115		100		101	
CCV 240-127674/60	14:46	104		104		106		103		104	
CCB 240-127674/61	14:50	108		103		109		104		103	
CCV 240-127674/156	20:51	130	*	126	*	149	*	112		124	*
CCB 240-127674/157	20:55	134	*	133	*	147	*	125	*	135	*
240-36233-2	21:10	135	*	133	*	159	*	114		127	*
240-36233-2	21:14	143	*	141	*	159	*	127	*	141	*
240-36233-2	21:18	141	*	142	*	156	*	129	*	142	*
240-36233-4	21:29	139	*	138	*	162	*	118		130	*
240-36233-4	21:33	140	*	139	*	160	*	124	*	136	*
240-36233-4	21:37	143	*	141	*	161	*	129	*	141	*
240-36233-2	21:41	140	*	136	*	169	*	116		130	*

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/23/2014 End Date: 04/23/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb 159	Q	Element Ho 165	Q	Element Bi 209	Q	Element	Q	Element	Q
STD1 240-127674/3 IC	11:07	100		102		93					
STD2 240-127674/4 IC	11:11	96		98		91					
STD3 240-127674/5 IC	11:15	98		99		95					
STD4 240-127674/6 IC	11:19	100		102		95					
ICV 240-127674/7	11:23	103		104		95					
ICB 240-127674/8	11:27	103		103		94					
CRI 240-127674/9	11:31	103		103		98					
ICSA 240-127674/10	11:35	98		99		106					
ICSAB 240-127674/11	11:38	95		96		94					
CCV 240-127674/24	12:30	98		100		85					
CCB 240-127674/25	12:33	100		102		106					
MB 240-127394/1-A	12:37	96		98		106					
LCS 240-127394/2-A	12:41	98		98		95					
240-36320-2	13:03	111		113		90					
240-36320-3	13:07	94		95		90					
240-36320-4	13:11	121	*	119		84					
CCV 240-127674/36	13:14	94		95		80					
CCB 240-127674/37	13:18	95		98		96					
240-36320-5	13:22	93		95		92					
240-36320-6	13:26	97		100		91					
240-36320-7	13:30	93		95		83					
240-36320-8	13:34	107		109		87					
240-36320-2	13:57	115		117		91					
CCV 240-127674/48	14:00	100		103		85					
CCB 240-127674/49	14:04	102		103		91					
240-36320-3	14:08	103		105		106					
240-36320-4	14:12	134	*	132	*	91					
240-36320-5	14:16	101		102		91					
240-36320-6	14:20	102		104		95					
240-36320-7	14:23	101		102		87					
240-36320-8	14:27	117		118		94					
CCV 240-127674/60	14:46	106		108		89					
CCB 240-127674/61	14:50	103		105		92					
CCV 240-127674/156	20:51	113		113		89					
CCB 240-127674/157	20:55	118		118		94					
240-36233-2	21:10	132	*	134	*	96					
240-36233-2	21:14	128	*	126	*	103					
240-36233-2	21:18	126	*	127	*	100					
240-36233-4	21:29	131	*	131	*	98					
240-36233-4	21:33	124	*	125	*	100					
240-36233-4	21:37	124	*	124	*	98					
240-36233-2	21:41	134	*	136	*	104					

FORM XV - IN

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/23/2014 End Date: 04/23/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
CCV 240-127674/170	21:45	134	*	136	*	159	*	122	*	135	*
CCB 240-127674/171	21:48	136	*	143	*	152	*	132	*	143	*
240-36233-2 5D4	21:52	141	*	138	*	159	*	125	*	138	*
240-36233-2	21:56	139	*	140	*	157	*	126	*	138	*
240-36233-4 5D5	22:00	136	*	135	*	160	*	116		130	*
240-36233-4	22:04	141	*	140	*	160	*	126	*	140	*
240-36233-4	22:08	128	*	142	*	141	*	130	*	143	*
240-36320-4	22:19	121	*	151	*	157	*	117		134	*
240-36320-4	22:23	150	*	157	*	183	*	123	*	138	*
CCV 240-127674/182	22:31	141	*	137	*	159	*	121	*	135	*
CCB 240-127674/183	22:34	141	*	141	*	157	*	127	*	142	*

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/23/2014 End Date: 04/23/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
CCV 240-127674/170	21:45	120		119		90					
CCB 240-127674/171	21:48	126	*	124	*	106					
240-36233-2	21:52	126	*	124	*	111					
240-36233-2	21:56	123	*	123	*	103					
240-36233-4	22:00	130	*	131	*	102					
240-36233-4	22:04	128	*	126	*	102					
240-36233-4	22:08	124	*	124	*	107					
240-36320-4	22:19	124	*	122	*	99					
240-36320-4	22:23	127	*	126	*	103					
CCV 240-127674/182	22:31	117		117		93					
CCB 240-127674/183	22:34	120		119		97					

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/23/2014 11:00 End Date: 04/23/2014 22:49

Lab Sample Id	D/F	Type	Time	Analytes																													
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V													
ZZZZZZ			11:00																														
ICIS 240-127674/2			11:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
STD1 240-127674/3 IC	1		11:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
STD2 240-127674/4 IC	1		11:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
STD3 240-127674/5 IC	1		11:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
STD4 240-127674/6 IC	1		11:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
ICV 240-127674/7	1		11:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
ICB 240-127674/8	1		11:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
CRI 240-127674/9	1		11:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
ICSA 240-127674/10	1		11:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
ICSAB 240-127674/11	1		11:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
CCV 240-127674/12			11:42																														
CCB 240-127674/13			11:46																														
ZZZZZZ			11:50																														
ZZZZZZ			11:54																														
ZZZZZZ			11:58																														
ZZZZZZ			12:02																														
ZZZZZZ			12:06																														
ZZZZZZ			12:10																														
ZZZZZZ			12:14																														
ZZZZZZ			12:18																														
ZZZZZZ			12:22																														
ZZZZZZ			12:26																														
CCV 240-127674/24	1		12:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
CCB 240-127674/25	1		12:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
MB 240-127394/1-A	1	R	12:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
LCS 240-127394/2-A	1	R	12:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
ZZZZZZ			12:45																														
ZZZZZZ			12:49																														
ZZZZZZ			12:52																														
ZZZZZZ			12:56																														
ZZZZZZ			12:59																														
240-36320-2	1	R	13:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
~~240-36320-3~~	1	R	13:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
240-36320-4 to mL	1	R	13:11	X	X	X	X	X						X		X	X	X	X													
~~CCV 240-127674/36~~	1		13:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
CCB 240-127674/37	1		13:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
240-36320-5	1	R	13:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
240-36320-6	1	R	13:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
240-36320-7	1	R	13:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
240-36320-8	1	R	13:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
ZZZZZZ			13:37																														

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/23/2014 11:00 End Date: 04/23/2014 22:49

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V									
ZZZZZZ			13:41																										
ZZZZZZ			13:45																										
ZZZZZZ			13:49																										
ZZZZZZ			13:53																										
240-36320-2	1	D	13:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-127674/48	1		14:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCB 240-127674/49	1		14:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
~~240-36320-3~~	1	D	14:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-36320-4 FILTERED	1	D	14:12	X	X	X	X	X						X			X	X											
240-36320-5	1	D	14:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-36320-6	1	D	14:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-36320-7	1	D	14:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-36320-8	1	D	14:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			14:31																										
ZZZZZZ			14:35																										
ZZZZZZ			14:39																										
ZZZZZZ			14:42																										
CCV 240-127674/60	1		14:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCB 240-127674/61	1		14:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			14:54																										
ZZZZZZ			14:58																										
ZZZZZZ			15:01																										
ZZZZZZ			15:05																										
ZZZZZZ			15:08																										
ZZZZZZ			15:12																										
ZZZZZZ			15:15																										
ZZZZZZ			15:19																										
ZZZZZZ			15:23																										
ZZZZZZ			15:27																										
CCV 240-127674/72			15:31																										
CCB 240-127674/73			15:35																										
ZZZZZZ			15:39																										
ZZZZZZ			15:42																										
ZZZZZZ			15:46																										
ZZZZZZ			15:50																										
ZZZZZZ			15:54																										
ZZZZZZ			15:58																										
ZZZZZZ			16:02																										
ZZZZZZ			16:06																										
ZZZZZZ			16:10																										
ZZZZZZ			16:13																										
CCV 240-127674/84			16:17																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/23/2014 11:00 End Date: 04/23/2014 22:49

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V											
CCB 240-127674/85			16:21																												
ZZZZZZ			16:25																												
ZZZZZZ			16:29																												
ZZZZZZ			16:33																												
ZZZZZZ			16:36																												
ZZZZZZ			16:40																												
ZZZZZZ			16:44																												
ZZZZZZ			16:48																												
ZZZZZZ			16:51																												
ZZZZZZ			16:55																												
ZZZZZZ			16:59																												
CCV 240-127674/96			17:02																												
CCB 240-127674/97			17:06																												
ZZZZZZ			17:10																												
ZZZZZZ			17:14																												
ZZZZZZ			17:18																												
ZZZZZZ			17:21																												
ZZZZZZ			17:25																												
ZZZZZZ			17:29																												
ZZZZZZ			17:33																												
ZZZZZZ			17:37																												
ZZZZZZ			17:41																												
ZZZZZZ			17:45																												
CCV 240-127674/108			17:48																												
CCB 240-127674/109			17:52																												
ZZZZZZ			17:56																												
ZZZZZZ			18:00																												
ZZZZZZ			18:04																												
ZZZZZZ			18:08																												
ZZZZZZ			18:11																												
ZZZZZZ			18:15																												
ZZZZZZ			18:19																												
ZZZZZZ			18:23																												
ZZZZZZ			18:27																												
ZZZZZZ			18:31																												
CCV 240-127674/120			18:35																												
CCB 240-127674/121			18:39																												
ZZZZZZ			18:42																												
ZZZZZZ			18:46																												
ZZZZZZ			18:50																												
ZZZZZZ			18:54																												
ZZZZZZ			18:57																												

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/23/2014 11:00 End Date: 04/23/2014 22:49

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V											
ZZZZZZ			19:00																												
ZZZZZZ			19:04																												
ZZZZZZ			19:08																												
ZZZZZZ			19:12																												
ZZZZZZ			19:16																												
CCV 240-127674/132			19:20																												
CCB 240-127674/133			19:24																												
ZZZZZZ			19:27																												
ZZZZZZ			19:31																												
ZZZZZZ			19:35																												
ZZZZZZ			19:39																												
ZZZZZZ			19:43																												
ZZZZZZ			19:47																												
ZZZZZZ			19:50																												
ZZZZZZ			19:54																												
ZZZZZZ			19:58																												
ZZZZZZ			20:01																												
CCV 240-127674/144			20:05																												
CCB 240-127674/145			20:09																												
ZZZZZZ			20:13																												
ZZZZZZ			20:17																												
ZZZZZZ			20:21																												
ZZZZZZ			20:24																												
ZZZZZZ			20:28																												
ZZZZZZ			20:32																												
ZZZZZZ			20:36																												
ZZZZZZ			20:40																												
ZZZZZZ			20:44																												
ZZZZZZ			20:47																												
CCV 240-127674/156	1		20:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-127674/157	1		20:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			20:59																												
ZZZZZZ			21:03																												
ZZZZZZ			21:07																												
ZZZZZZ			21:10																												
ZZZZZZ			21:14																												
ZZZZZZ			21:18																												
ZZZZZZ			21:22																												
ZZZZZZ			21:26																												
ZZZZZZ			21:29																												
ZZZZZZ			21:33																												
ZZZZZZ			21:37																												

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/23/2014 11:00 End Date: 04/23/2014 22:49

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V											
ZZZZZZ			21:41																												
CCV 240-127674/170	1		21:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-127674/171	1		21:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ZZZZZZ			21:52																												
ZZZZZZ			21:56																												
ZZZZZZ			22:00																												
ZZZZZZ			22:04																												
ZZZZZZ			22:08																												
ZZZZZZ			22:12																												
ZZZZZZ			22:15																												
ZZZZZZ			22:19																												
ZZZZZZ			22:23																												
ZZZZZZ			22:27																												
CCV 240-127674/182	1		22:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-127674/183	1		22:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ZZZZZZ			22:38																												
ZZZZZZ			22:42																												
CCV 240-127674/186			22:45																												
CCB 240-127674/187			22:49																												

Prep Types:
D = Dissolved
R = Total Recoverable

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/22/2014 End Date: 04/22/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
STD2 240-127580/2 IC	11:02	97		97		97		95		95	
STD3 240-127580/3 IC	11:09	94		96		96		93		94	
STD4 240-127580/4 IC	11:17	100		100		99		100		100	
ICV 240-127580/5	11:24	98		98		98		96		98	
ICB 240-127580/6	11:31	102		101		100		99		101	
CRI 240-127580/7	11:38	102		100		100		100		102	
ICSA 240-127580/8	11:45	88		88		91		90		94	
ICSAB 240-127580/9	11:52	86		91		91		91		97	
CCV 240-127580/42	16:08	94		93		91		88		89	
CCB 240-127580/43	16:16	93		92		90		90		92	
MB 240-127045/1-A	16:23	90		86		88		88		89	
LCS 240-127045/2-A	16:30	85		81		84		80		85	
240-36233-2 5D	17:12	total 81		83		86		93		84	
240-36233-3 1:5 I	17:20	total 75		78		84		79		81	
240-36233-4 5D.I	17:27	total 84		86		87		90		85	
CCV 240-127580/54	17:34	88		92		90		89		91	
CCB 240-127580/55	17:41	93		94		92		93		94	
240-36233-5 21D	17:48	total 88		87		91		92		91	
240-36233-2	18:09	84		86		89		96		86	
240-36233-3	18:16	76		79		85		80		82	
240-36233-4	18:23	84		85		89		92		87	
240-36233-5	18:31	89		88		91		92		91	
CCV 240-127580/66	18:59	92		91		89		87		89	
CCB 240-127580/67	19:06	96		95		92		93		95	

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/22/2014 End Date: 04/22/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD2 240-127580/2 IC	11:02			97							
STD3 240-127580/3 IC	11:09			96							
STD4 240-127580/4 IC	11:17			101							
ICV 240-127580/5	11:24			99							
ICB 240-127580/6	11:31			102							
CRI 240-127580/7	11:38			102							
ICSA 240-127580/8	11:45			97							
ICSAB 240-127580/9	11:52			101							
CCV 240-127580/42	16:08			91							
CCB 240-127580/43	16:16			93							
MB 240-127045/1-A	16:23			91							
LCS 240-127045/2-A	16:30			89							
240-36233-2 505	17:12	fatal		188	*						
240-36233-3	17:20			86							
240-36233-4 505	17:27	fatal		164	*						
CCV 240-127580/54	17:34			93							
CCB 240-127580/55	17:41			94							
240-36233-5 DL	17:48	fatal		94							
240-36233-2	18:09			190	*						
240-36233-3	18:16			88							
240-36233-4	18:23			164	*						
240-36233-5	18:31			95							
CCV 240-127580/66	18:59			92							
CCB 240-127580/67	19:06			95							

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/22/2014 10:55 End Date: 04/23/2014 10:26

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V									
ICIS 240-127580/1			10:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD2 240-127580/2 IC	1		11:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD3 240-127580/3 IC	1		11:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD4 240-127580/4 IC	1		11:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICV 240-127580/5	1		11:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICB 240-127580/6	1		11:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CRI 240-127580/7	1		11:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSA 240-127580/8	1		11:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-127580/9	1		11:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-127580/10			11:59																										
CCB 240-127580/11			12:06																										
ZZZZZZ			12:13																										
ZZZZZZ			12:21																										
ZZZZZZ			12:28																										
CCV 240-127580/15			12:35																										
CCB 240-127580/16			12:42																										
ZZZZZZ			12:49																										
ZZZZZZ			12:56																										
ZZZZZZ			13:03																										
ZZZZZZ			13:10																										
CCV 240-127580/21			13:17																										
CCB 240-127580/22			13:25																										
ZZZZZZ			13:32																										
ZZZZZZ			13:39																										
ZZZZZZ			13:46																										
ZZZZZZ			13:53																										
ZZZZZZ			14:00																										
ZZZZZZ			14:07																										
ZZZZZZ			14:14																										
ZZZZZZ			14:21																										
ZZZZZZ			14:29																										
CCV 240-127580/32			14:36																										
CCB 240-127580/33			14:43																										
ZZZZZZ			14:52																										
ZZZZZZ			14:59																										
ZZZZZZ			15:07																										
ZZZZZZ			15:14																										
ZZZZZZ			15:21																										
ZZZZZZ			15:28																										
ZZZZZZ			15:35																										
ZZZZZZ			16:01																										
CCV 240-127580/42	1		16:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/22/2014 10:55 End Date: 04/23/2014 10:26

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V										
CCB 240-127580/43	1		16:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
MB 240-127045/1-A	1	R	16:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
LCS 240-127045/2-A	1	R	16:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			16:37																											
ZZZZZZ			16:44																											
ZZZZZZ			16:51																											
ZZZZZZ			16:58																											
ZZZZZZ			17:05																											
240-36233-2 505	1	R	17:12	X	X		X	X	X	X	X	X	X	X	X			X		X										
240-36233-3	1	R	17:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-36233-4	1	R	17:27	X	X		X	X	X	X	X	X	X	X	X			X		X										
CCV 240-127580/54	1		17:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-127580/55	1		17:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-36233-5	1	R	17:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			17:55																											
ZZZZZZ			18:02																											
240-36233-2	1	D	18:09	X	X		X	X	X	X	X	X	X	X	X			X		X										
240-36233-3	1	D	18:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-36233-4	1	D	18:23	X	X		X	X	X	X	X	X	X	X	X			X		X										
240-36233-5	1	D	18:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			18:38																											
ZZZZZZ			18:45																											
ZZZZZZ			18:52																											
CCV 240-127580/66	1		18:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-127580/67	1		19:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			19:13																											
ZZZZZZ			19:20																											
ZZZZZZ			19:27																											
ZZZZZZ			19:34																											
ZZZZZZ			19:42																											
ZZZZZZ			19:49																											
CCV 240-127580/74			19:56																											
CCB 240-127580/75			20:03																											
ZZZZZZ			20:10																											
ZZZZZZ			20:17																											
ZZZZZZ			20:24																											
ZZZZZZ			20:31																											
ZZZZZZ			20:39																											
ZZZZZZ			20:46																											
ZZZZZZ			20:53																											
ZZZZZZ			21:00																											
ZZZZZZ			21:07																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/22/2014 10:55 End Date: 04/23/2014 10:26

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V										
ZZZZZZ			21:14																											
CCV 240-127580/86			21:21																											
CCB 240-127580/87			21:28																											
ZZZZZZ			21:35																											
ZZZZZZ			21:43																											
ZZZZZZ			21:50																											
ZZZZZZ			21:57																											
ZZZZZZ			22:04																											
ZZZZZZ			22:11																											
CCV 240-127580/94			22:18																											
CCB 240-127580/95			22:25																											
ICSA 240-127580/96			22:33																											
ICSAB 240-127580/97			22:40																											
CCV 240-127580/98			22:47																											
CCB 240-127580/99			22:54																											
ZZZZZZ			23:01																											
CCV 240-127580/101			23:08																											
CCB 240-127580/102			23:15																											
ZZZZZZ			23:22																											
ZZZZZZ			23:30																											
ZZZZZZ			23:37																											
ZZZZZZ			23:44																											
ZZZZZZ			23:51																											
ZZZZZZ			23:58																											
ZZZZZZ			00:05																											
ZZZZZZ			00:12																											
ZZZZZZ			00:20																											
ZZZZZZ			00:27																											
CCV 240-127580/113			00:34																											
CCB 240-127580/114			00:41																											
ZZZZZZ			00:48																											
ZZZZZZ			00:55																											
ZZZZZZ			01:02																											
ZZZZZZ			01:09																											
ZZZZZZ			01:17																											
ZZZZZZ			01:24																											
ZZZZZZ			01:31																											
ZZZZZZ			01:38																											
ZZZZZZ			01:45																											
ZZZZZZ			01:52																											
CCV 240-127580/125			01:59																											
CCB 240-127580/126			02:06																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/22/2014 10:55 End Date: 04/23/2014 10:26

Lab Sample Id	D/F	Type	Time	Analytes
ZZZZZZ			02:14	
ZZZZZZ			02:21	
ZZZZZZ			02:28	
ZZZZZZ			02:35	
ZZZZZZ			02:42	
ZZZZZZ			02:49	
ZZZZZZ			02:56	
ZZZZZZ			03:03	
ZZZZZZ			03:11	
ZZZZZZ			03:18	
CCV 240-127580/137			03:25	
CCB 240-127580/138			03:32	
ZZZZZZ			03:39	
ZZZZZZ			03:46	
ZZZZZZ			03:53	
ZZZZZZ			04:01	
ZZZZZZ			04:08	
ZZZZZZ			04:15	
ZZZZZZ			04:22	
ZZZZZZ			04:29	
ZZZZZZ			04:36	
ZZZZZZ			04:43	
CCV 240-127580/149			04:50	
CCB 240-127580/150			04:58	
ZZZZZZ			05:05	
ZZZZZZ			05:12	
ZZZZZZ			05:19	
ZZZZZZ			05:26	
ZZZZZZ			05:33	
ZZZZZZ			05:40	
ZZZZZZ			05:47	
ZZZZZZ			05:54	
CCV 240-127580/159			06:02	
CCB 240-127580/160			06:09	
ZZZZZZ			06:16	
ZZZZZZ			06:23	
ZZZZZZ			06:30	
ZZZZZZ			06:37	
ZZZZZZ			06:44	
ZZZZZZ			06:52	
ZZZZZZ			06:59	
ZZZZZZ			07:06	

Analytes: Ag, As, Ba, Be, Cd, Co, Cr, Cu, Fe, Mn, Mo, Ni, Pb, Sb, Se, Tl, V

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/22/2014 10:55 End Date: 04/23/2014 10:26

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V											
ZZZZZZ			07:13																												
ZZZZZZ			07:20																												
CCV 240-127580/171			07:27																												
CCB 240-127580/172			07:34																												
ZZZZZZ			07:42																												
ZZZZZZ			07:49																												
ZZZZZZ			07:56																												
ZZZZZZ			08:03																												
ZZZZZZ			08:10																												
CCV 240-127580/178			08:17																												
CCB 240-127580/179			08:25																												
ZZZZZZ			08:32																												
ZZZZZZ			08:39																												
ZZZZZZ			08:46																												
ZZZZZZ			08:53																												
ZZZZZZ			09:00																												
ZZZZZZ			09:08																												
ZZZZZZ			09:15																												
ZZZZZZ			09:22																												
ZZZZZZ			09:29																												
ZZZZZZ			09:36																												
CCV 240-127580/190			09:43																												
CCB 240-127580/191			09:51																												
ZZZZZZ			09:58																												
ZZZZZZ			10:05																												
ZZZZZZ			10:12																												
CCV 240-127580/195			10:19																												
CCB 240-127580/196			10:26																												

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/24/2014 End Date: 04/24/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-127907/3 IC	09:29	101		98		98		98		99	
STD2 240-127907/4 IC	09:33	98		101		98		96		98	
STD3 240-127907/5 IC	09:37	97		98		97		95		97	
STD4 240-127907/6 IC	09:41	101		100		98		100		101	
ICV 240-127907/7	09:45	96		100		99		96		98	
ICB 240-127907/8	09:48	98		100		101		101		102	
CRI 240-127907/9	09:52	98		101		100		100		102	
ICSA 240-127907/10	09:56	92		96		97		92		94	
ICSAB 240-127907/11	10:00	81		97		83		92		95	
CCV 240-127907/38	11:47	94		100		101		98		99	
CCB 240-127907/39	11:51	92		101		99		101		103	
240-36320-4 IL	12:26	81		115		100		100		102	
240-36320-4 IL	12:30	89		114		112		101		102	
CCV 240-127907/50	12:34	94		101		104		98		98	
CCB 240-127907/51	12:37	94		103		100		105		104	
240-36320-4 IL	12:41	94		106		104		104		104	
CCV 240-127907/62	13:19	95		95		99		92		94	
CCB 240-127907/63	13:23	98		96		100		98		98	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/24/2014 End Date: 04/24/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-127907/3 IC	09:29	99		100		104					
STD2 240-127907/4 IC	09:33	101		103		104					
STD3 240-127907/5 IC	09:37	99		101		107					
STD4 240-127907/6 IC	09:41	101		102		104					
ICV 240-127907/7	09:45	100		101		102					
ICB 240-127907/8	09:48	100		102		102					
CRI 240-127907/9	09:52	102		102		105					
ICSA 240-127907/10	09:56	96		98		115					
ICSAB 240-127907/11	10:00	98		100		101					
CCV 240-127907/38	11:47	100		103		95					
CCB 240-127907/39	11:51	102		102		101					
240-36320-4	12:26	110		110		105					
240-36320-4	12:30	111		111		112					
CCV 240-127907/50	12:34	101		102		97					
CCB 240-127907/51	12:37	103		104		104					
240-36320-4	12:41	105		106		105					
CCV 240-127907/62	13:19	97		97		94					
CCB 240-127907/63	13:23	97		97		96					

FORM XV - IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/24/2014 09:21 End Date: 04/24/2014 20:48

Lab Sample Id	D/F	Type	Time	Analytes									
				Co	Cr	Cu	Fe	Mn	Ni	Pb	Tl	V	
ZZZZZZ			09:21										
ICIS 240-127907/2			09:25	X	X	X	X	X	X	X	X	X	
STD1 240-127907/3 IC	1		09:29	X	X	X	X	X	X	X	X	X	
STD2 240-127907/4 IC	1		09:33	X	X	X	X	X	X	X	X	X	
STD3 240-127907/5 IC	1		09:37	X	X	X	X	X	X	X	X	X	
STD4 240-127907/6 IC	1		09:41	X	X	X	X	X	X	X	X	X	
ICV 240-127907/7	1		09:45	X	X	X	X	X	X	X	X	X	
ICB 240-127907/8	1		09:48	X	X	X	X	X	X	X	X	X	
CRI 240-127907/9	1		09:52	X	X	X	X	X	X	X	X	X	
ICSA 240-127907/10	1		09:56	X	X	X	X	X	X	X	X	X	
ICSAB 240-127907/11	1		10:00	X	X	X	X	X	X	X	X	X	
CCV 240-127907/12			10:04										
CCB 240-127907/13			10:08										
CCV 240-127907/14			10:14										
CCB 240-127907/15			10:18										
EMPTY 240-127907/16			10:22										
EMPTY 240-127907/17			10:25										
ZZZZZZ			10:29										
ZZZZZZ			10:33										
ZZZZZZ			10:37										
ZZZZZZ			10:41										
ZZZZZZ			10:45										
ZZZZZZ			10:49										
ZZZZZZ			10:53										
ZZZZZZ			10:57										
CCV 240-127907/26			11:01										
CCB 240-127907/27			11:04										
ZZZZZZ			11:08										
ZZZZZZ			11:12										
ZZZZZZ			11:16										
ZZZZZZ			11:20										
ZZZZZZ			11:24										
ZZZZZZ			11:28										
ZZZZZZ			11:32										
ZZZZZZ			11:36										
ZZZZZZ			11:39										
ZZZZZZ			11:43										
CCV 240-127907/38	1		11:47	X	X	X	X	X	X	X	X	X	
CCB 240-127907/39	1		11:51	X	X	X	X	X	X	X	X	X	
ZZZZZZ			11:55										
ZZZZZZ			11:59										
ZZZZZZ			12:03										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/24/2014 09:21 End Date: 04/24/2014 20:48

| Lab Sample Id | D/F | Type | Time | Analytes | | |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/24/2014 09:21 End Date: 04/24/2014 20:48

| Lab Sample Id | D/F | Type | Time | Analytes | | |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/24/2014 09:21 End Date: 04/24/2014 20:48

| Lab Sample Id | D/F | Type | Time | Analytes | | |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/24/2014 09:21 End Date: 04/24/2014 20:48

Lab Sample Id	D/F	Type	Time	Analytes																												
				Co	Cr	Cu	Fe	Mn	Ni	Pb	Tl	V																				
ZZZZZZ			20:10																													
ZZZZZZ			20:14																													
ZZZZZZ			20:18																													
CCV 240-127907/172			20:21																													
CCB 240-127907/173			20:25																													
ZZZZZZ			20:29																													
ZZZZZZ			20:33																													
ZZZZZZ			20:37																													
ZZZZZZ			20:41																													
CCV 240-127907/178			20:44																													
CCB 240-127907/179			20:48																													

Prep Types:
D = Dissolved
R = Total Recoverable

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/24/2014 End Date: 04/24/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
STD2 240-127855/2 IC	10:05	95		96		94		92		94	
STD3 240-127855/3 IC	10:12	89		93		91		88		91	
STD4 240-127855/4 IC	10:19	94		97		93		93		97	
ICV 240-127855/5	10:28	93		96		94		93		97	
ICB 240-127855/6	10:35	95		97		93		93		97	
CRI 240-127855/7	10:42	96		98		95		95		100	
ICSA 240-127855/8	10:49	85		88		83		83		90	
ICSAB 240-127855/9	10:56	81		87		82		83		89	
CCV 240-127855/40	14:36	86		92		86		85		90	
CCB 240-127855/41	14:43	✓ 88		92		86		87		92	
240-36233-2 50S	15:12	✓ 85		88		81		84		89	
240-36233-2	15:19	88		91		85		86		91	
240-36233-4 50I	15:26	M 86		89		82		84		88	
240-36233-4	15:33	✓ 89		91		84		86		91	
240-36233-2 50S	15:40	✓ 86		88		82		84		89	
240-36233-2	15:47	88		91		84		86		91	
CCV 240-127855/51	15:54	87		92		84		84		90	
CCB 240-127855/52	16:01	89		91		83		85		91	
240-36233-4 50I	16:08	MF 84		87		79		82		87	
240-36233-4	16:16	87		89		82		84		90	
CCV 240-127855/63	17:20	85		89		79		78		83	
CCB 240-127855/64	17:27	84		88		78		80		86	

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/24/2014 End Date: 04/24/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD2 240-127855/2 IC	10:05			99							
STD3 240-127855/3 IC	10:12			98							
STD4 240-127855/4 IC	10:19			102							
ICV 240-127855/5	10:28			102							
ICB 240-127855/6	10:35			101							
CRI 240-127855/7	10:42			103							
ICSA 240-127855/8	10:49			96							
ICSAB 240-127855/9	10:56			98							
CCV 240-127855/40	14:36			95							
CCB 240-127855/41	14:43			98							
240-36233-2	15:12			116							
240-36233-2	15:19			101							
240-36233-4	15:26			111							
240-36233-4	15:33			100							
240-36233-2	15:40			117							
240-36233-2	15:47			102							
CCV 240-127855/51	15:54			97							
CCB 240-127855/52	16:01			98							
240-36233-4	16:08			110							
240-36233-4	16:16			99							
CCV 240-127855/63	17:20			91							
CCB 240-127855/64	17:27			92							

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Batch Number: 126669 Batch Start Date: 04/16/14 08:41 Batch Analyst: Sutherland, Aaron

Batch Method: 3005A Batch End Date: 04/16/14 16:11

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAGSPIKEW 00037	MTICP1 00030	MTICP2A 00036	MTTMHCL 00031
MB 240-126669/1		3005A, 6010C		50 mL	50 mL				2.5 mL
LCS 240-126669/2		3005A, 6010C		50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-36135-Q-2	MSA-DMW-11S-041414	3005A, 6010C	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-126669/1		3005A, 6010C		1 mL					
LCS 240-126669/2		3005A, 6010C		1 mL					
240-36135-Q-2	MSA-DMW-11S-041414	3005A, 6010C	R	1 mL					

Batch Notes	
Filter Paper Lot Number	9546553
Hot Block ID number	hb2
Pipette ID	383363-383364
Digestion Tube/Cup Lot #	1308-077

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Batch Number: 126669 Batch Start Date: 04/16/14 08:41 Batch Analyst: Sutherland, Aaron

Batch Method: 3005A Batch End Date: 04/16/14 16:11

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00015	MTICPMSA 00017	MTICPMSB 00017	MTTMHCL 00031
MB 240-126669/1		3005A, 6020		50 mL	50 mL				2.5 mL
LCS 240-126669/3		3005A, 6020		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-36135-Q-2	MSA-DMW-11S-041414	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36135-F-3	MSA-DMW-11I-041414	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36135-R-2	MSA-DMW-11S-041414	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36135-G-3	MSA-DMW-11I-041414	3005A, 6020	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027
MB 240-126669/1		3005A, 6020		1 mL
LCS 240-126669/3		3005A, 6020		1 mL
240-36135-Q-2	MSA-DMW-11S-041414	3005A, 6020	R	1 mL
240-36135-F-3	MSA-DMW-11I-041414	3005A, 6020	R	1 mL
240-36135-R-2	MSA-DMW-11S-041414	3005A, 6020	D	1 mL
240-36135-G-3	MSA-DMW-11I-041414	3005A, 6020	D	1 mL

Batch Notes	
Filter Paper Lot Number	9546553
Hot Block ID number	hb2
Pipette ID	383363-383364
Digestion Tube/Cup Lot #	1308-077

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

6020

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/24/2014 09:57 End Date: 04/25/2014 04:43

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ba	Pb	Sb	Tl																									
ICIS 240-127855/1			09:57	X	X	X	X																									
STD2 240-127855/2 IC	1		10:05	X	X	X	X																									
STD3 240-127855/3 IC	1		10:12	X	X	X	X																									
STD4 240-127855/4 IC	1		10:19	X	X	X	X																									
ICV 240-127855/5	1		10:28	X	X	X	X																									
ICB 240-127855/6	1		10:35	X	X	X	X																									
CRI 240-127855/7	1		10:42	X	X	X	X																									
ICSA 240-127855/8	1		10:49	X	X	X	X																									
ICSAB 240-127855/9	1		10:56	X	X	X	X																									
CCV 240-127855/10			11:03																													
CCB 240-127855/11			11:10																													
CCV 240-127855/12			11:17																													
CCB 240-127855/13			11:24																													
ZZZZZZ			11:31																													
ZZZZZZ			11:39																													
ZZZZZZ			11:46																													
ZZZZZZ			11:53																													
ZZZZZZ			12:00																													
ZZZZZZ			12:07																													
ZZZZZZ			12:14																													
ZZZZZZ			12:21																													
ZZZZZZ			12:28																													
ZZZZZZ			12:35																													
CCV 240-127855/24			12:42																													
CCB 240-127855/25			12:49																													
ZZZZZZ			12:57																													
ZZZZZZ			13:04																													
CCV 240-127855/28			13:11																													
CCB 240-127855/29			13:18																													
ZZZZZZ			13:25																													
ZZZZZZ			13:32																													
ZZZZZZ			13:39																													
ZZZZZZ			13:46																													
ZZZZZZ			13:53																													
ZZZZZZ			14:00																													
ZZZZZZ			14:08																													
ZZZZZZ			14:15																													
ZZZZZZ			14:22																													
ZZZZZZ			14:29																													
CCV 240-127855/40	1		14:36	X	X	X	X																									
CCB 240-127855/41	1		14:43	X	X	X	X																									
ZZZZZZ			14:50																													

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/24/2014 09:57 End Date: 04/25/2014 04:43

Lab Sample Id	D/F	Type	Time	Analytes				
				Ba	Pb	Sb	Tl	
ZZZZZZ			14:57					
ZZZZZZ			15:04					
240-36233-2 505 M	5	R	15:12	X	X	X	X	
ZZZZZZ			15:19					
240-36233-4 M	5	R	15:26	X	X	X	X	
ZZZZZZ			15:33					
240-36233-2 505 MF	5	D	15:40	X	X	X	X	
ZZZZZZ			15:47					
CCV 240-127855/51	1		15:54	X	X	X	X	
CCB 240-127855/52	1		16:01	X	X	X	X	
240-36233-4 MF	5	D	16:08	X	X	X	X	
ZZZZZZ			16:16					
ZZZZZZ			16:23					
ZZZZZZ			16:30					
ZZZZZZ			16:37					
ZZZZZZ			16:44					
ZZZZZZ			16:51					
ZZZZZZ			16:58					
ZZZZZZ			17:05					
ZZZZZZ			17:13					
CCV 240-127855/63	1		17:20	X	X	X	X	
CCB 240-127855/64	1		17:27	X	X	X	X	
ZZZZZZ			17:34					
ZZZZZZ			17:41					
ZZZZZZ			17:48					
ZZZZZZ			17:55					
ZZZZZZ			18:02					
ZZZZZZ			18:09					
ZZZZZZ			18:16					
ZZZZZZ			18:24					
ZZZZZZ			18:31					
ZZZZZZ			18:38					
CCV 240-127855/75			18:45					
CCB 240-127855/76			18:52					
ZZZZZZ			18:59					
ZZZZZZ			19:06					
ZZZZZZ			19:13					
ZZZZZZ			19:20					
ZZZZZZ			19:27					
ZZZZZZ			19:35					
ZZZZZZ			19:42					
CCV 240-127855/84			19:49					

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/24/2014 09:57 End Date: 04/25/2014 04:43

Lab Sample Id	D/F	Type	Time	Analytes																													
				Ba	Pb	Sb	Tl																										
CCB 240-127855/85			19:56																														
ICSA 240-127855/86			20:03																														
ICSAB 240-127855/87			20:10																														
CCV 240-127855/88			20:17																														
CCB 240-127855/89			20:24																														
ZZZZZZ			20:31																														
CCV 240-127855/91			20:39																														
CCB 240-127855/92			20:46																														
ZZZZZZ			20:53																														
ZZZZZZ			21:00																														
ZZZZZZ			21:07																														
ZZZZZZ			21:14																														
ZZZZZZ			21:21																														
ZZZZZZ			21:28																														
ZZZZZZ			21:35																														
ZZZZZZ			21:42																														
ZZZZZZ			21:49																														
ZZZZZZ			21:57																														
CCV 240-127855/103			22:04																														
CCB 240-127855/104			22:11																														
ZZZZZZ			22:18																														
ZZZZZZ			22:25																														
ZZZZZZ			22:32																														
ZZZZZZ			22:39																														
ZZZZZZ			22:46																														
ZZZZZZ			22:53																														
ZZZZZZ			23:00																														
ZZZZZZ			23:08																														
ZZZZZZ			23:15																														
ZZZZZZ			23:22																														
CCV 240-127855/115			23:29																														
CCB 240-127855/116			23:36																														
ZZZZZZ			23:43																														
ZZZZZZ			23:50																														
ZZZZZZ			23:57																														
ZZZZZZ			00:04																														
ZZZZZZ			00:12																														
ZZZZZZ			00:19																														
ZZZZZZ			00:26																														
ZZZZZZ			00:33																														
ZZZZZZ			00:40																														
ZZZZZZ			00:47																														

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/24/2014 09:57 End Date: 04/25/2014 04:43

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ba	Pb	Sb	Tl																									
CCV 240-127855/127			00:54																													
CCB 240-127855/128			01:02																													
ZZZZZZ			01:09																													
CCV 240-127855/130			01:16																													
CCB 240-127855/131			01:23																													
ZZZZZZ			01:30																													
ZZZZZZ			01:37																													
ZZZZZZ			01:44																													
ZZZZZZ			01:51																													
ZZZZZZ			01:59																													
CCV 240-127855/137			02:06																													
CCB 240-127855/138			02:13																													
ZZZZZZ			02:20																													
ZZZZZZ			02:27																													
ZZZZZZ			02:34																													
ZZZZZZ			02:41																													
ZZZZZZ			02:49																													
ZZZZZZ			02:56																													
ZZZZZZ			03:03																													
ZZZZZZ			03:10																													
ZZZZZZ			03:17																													
CCV 240-127855/148			03:24																													
CCB 240-127855/149			03:31																													
ZZZZZZ			03:39																													
ZZZZZZ			03:46																													
ZZZZZZ			03:53																													
ZZZZZZ			04:00																													
ZZZZZZ			04:07																													
ZZZZZZ			04:14																													
ZZZZZZ			04:21																													
ZZZZZZ			04:28																													
ZZZZZZ			04:36																													
ZZZZZZ			04:43																													

Prep Types:
D = Dissolved
R = Total Recoverable

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-126669/1-A

Instrument Code: I10 Batch No.: 126899

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.11	U		6020
7440-38-2	Arsenic	0.385	J		6020
7440-39-3	Barium	1.29	J		6020
7440-41-7	Beryllium	0.031	U		6020
7440-43-9	Cadmium	0.026	U		6020
7440-47-3	Chromium	0.13	U		6020
7440-48-4	Cobalt	0.020	U		6020
7440-50-8	Copper	0.718	J		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-89-6	Iron	13.0	J		6020
7440-02-0	Nickel	0.088	U		6020
7439-92-1	Lead	0.177	J		6020
7439-96-5	Manganese	0.41	U		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-22-4	Silver	0.0083	U		6020
7440-62-2	Vanadium	0.799	J		6020

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-126669/1-A	04/16/2014 08:41	126669		50	50
LCS 240-126669/3-A	04/16/2014 08:41	126669		50	50
240-36135-2	04/16/2014 08:41	126669		50	50
240-36135-3	04/16/2014 08:41	126669		50	50
240-36135-2	04/16/2014 08:41	126669		50	50
240-36135-3	04/16/2014 08:41	126669		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-127045/1-A

Instrument Code: I11 Batch No.: 127580

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.11	U		6020
7440-38-2	Arsenic	0.063	U		6020
7440-39-3	Barium	0.762	J		6020
7440-41-7	Beryllium	0.031	U		6020
7440-43-9	Cadmium	0.026	U		6020
7440-47-3	Chromium	0.13	U		6020
7440-48-4	Cobalt	0.020	U		6020
7440-50-8	Copper	0.625	J		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-89-6	Iron	12	U		6020
7440-02-0	Nickel	0.088	U		6020
7439-92-1	Lead	0.14	U		6020
7439-96-5	Manganese	0.925	J		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-22-4	Silver	0.0083	U		6020
7440-62-2	Vanadium	0.15	U		6020

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-127045/1-A	04/18/2014 09:57	127045		50	50
LCS 240-127045/2-A	04/18/2014 09:57	127045		50	50
240-36233-2	04/18/2014 09:57	127045		50	50
240-36233-3	04/18/2014 09:57	127045		50	50
240-36233-4	04/18/2014 09:57	127045		50	50
240-36233-5	04/18/2014 09:57	127045		50	50
240-36233-2	04/18/2014 09:57	127045		50	50
240-36233-3	04/18/2014 09:57	127045		50	50
240-36233-4	04/18/2014 09:57	127045		50	50
240-36233-5	04/18/2014 09:57	127045		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-126671/1-A	04/16/2014 13:10	126671		50	50
LCS 240-126671/2-A	04/16/2014 13:10	126671		50	50
240-36135-2	04/16/2014 13:10	126671		50	50
240-36135-3	04/16/2014 13:10	126671		50	50
240-36135-2	04/16/2014 13:10	126671		50	50
240-36135-3	04/16/2014 13:10	126671		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-127051/1-A	04/18/2014 15:20	127051		50	50
LCS 240-127051/2-A	04/18/2014 15:20	127051		50	50
240-36233-2	04/18/2014 15:20	127051		50	50
240-36233-3	04/18/2014 15:20	127051		50	50
240-36233-4	04/18/2014 15:20	127051		50	50
240-36233-5	04/18/2014 15:20	127051		50	50
240-36233-2	04/18/2014 15:20	127051		50	50
240-36233-3	04/18/2014 15:20	127051		50	50
240-36233-4	04/18/2014 15:20	127051		50	50
240-36233-5	04/18/2014 15:20	127051		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-127395/1-A	04/22/2014 15:35	127395		50	50
LCS 240-127395/2-A	04/22/2014 15:35	127395		50	50
240-36320-2	04/22/2014 15:35	127395		50	50
240-36320-3	04/22/2014 15:35	127395		50	50
240-36320-4	04/22/2014 15:35	127395		50	50
240-36320-5	04/22/2014 15:35	127395		50	50
240-36320-6	04/22/2014 15:35	127395		50	50
240-36320-7	04/22/2014 15:35	127395		50	50
240-36320-8	04/22/2014 15:35	127395		50	50
240-36320-2	04/22/2014 15:35	127395		50	50
240-36320-3	04/22/2014 15:35	127395		50	50
240-36320-4	04/22/2014 15:35	127395		50	50
240-36320-5	04/22/2014 15:35	127395		50	50
240-36320-6	04/22/2014 15:35	127395		50	50
240-36320-7	04/22/2014 15:35	127395		50	50
240-36320-8	04/22/2014 15:35	127395		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/17/2014 10:47 End Date: 04/17/2014 14:53

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-126900/1-A			10:47	X
IC 240-126900/2-A			10:48	X
IC 240-126900/3-A			10:50	X
IC 240-126900/4-A			10:51	X
IC 240-126900/5-A			10:53	X
IC 240-126900/6-A			10:54	X
ICV 240-126900/7-A	1		10:56	X
ICB 240-126900/8-A	1		10:57	X
CRA 240-126900/9-A	1		10:59	X
CCVL 240-126900/10-A	1		11:00	X
CCB 240-126900/12-A			11:02	
ZZZZZZ			11:04	
ZZZZZZ			11:06	
ZZZZZZ			11:07	
ZZZZZZ			11:09	
ZZZZZZ			11:10	
ZZZZZZ			11:12	
ZZZZZZ			11:14	
ZZZZZZ			11:15	
ZZZZZZ			11:17	
ZZZZZZ			11:18	
CCV 240-126900/11-A	1		11:20	X
CCB 240-126900/12-A	1		11:21	X
ZZZZZZ			11:23	
ZZZZZZ			11:24	
ZZZZZZ			11:26	
ZZZZZZ			11:27	
ZZZZZZ			11:29	
ZZZZZZ			11:30	
ZZZZZZ			11:32	
ZZZZZZ			11:33	
MB 240-126671/1-A	1	T	11:35	X
LCS 240-126671/2-A	1	T	11:37	X
CCV 240-126900/11-A	1		11:38	X
CCB 240-126900/12-A	1		11:39	X
ZZZZZZ			11:41	
ZZZZZZ			11:42	
ZZZZZZ			11:43	
240-36135-2	1	T	11:45	X
240-36135-3	1	T	11:46	X
240-36135-2	1	D	11:48	X
240-36135-3	1	D	11:49	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/17/2014 10:47 End Date: 04/17/2014 14:53

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			11:52	
ZZZZZZ			11:53	
ZZZZZZ			11:55	
CCV 240-126900/11-A	1		11:56	X
CCB 240-126900/12-A	1		11:58	X
ZZZZZZ			12:00	
ZZZZZZ			12:01	
ZZZZZZ			12:04	
ZZZZZZ			12:05	
ZZZZZZ			12:07	
ZZZZZZ			12:09	
ZZZZZZ			12:10	
ZZZZZZ			12:12	
ZZZZZZ			12:13	
ZZZZZZ			12:14	
CCV 240-126900/11-A			12:17	
CCB 240-126900/12-A			12:19	
ZZZZZZ			12:21	
ZZZZZZ			12:22	
ZZZZZZ			12:24	
ZZZZZZ			12:25	
ZZZZZZ			12:27	
ZZZZZZ			12:29	
ZZZZZZ			12:31	
ZZZZZZ			12:32	
ZZZZZZ			12:33	
ZZZZZZ			12:35	
CCV 240-126900/11-A			12:36	
CCB 240-126900/12-A			12:39	
ZZZZZZ			12:40	
ZZZZZZ			12:42	
ZZZZZZ			12:44	
ZZZZZZ			12:46	
ZZZZZZ			12:47	
ZZZZZZ			12:49	
ZZZZZZ			12:51	
ZZZZZZ			12:52	
ZZZZZZ			12:54	
ZZZZZZ			12:55	
CCV 240-126900/11-A			12:57	
CCB 240-126900/12-A			12:59	
ZZZZZZ			13:00	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/17/2014 10:47 End Date: 04/17/2014 14:53

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			13:02	
ZZZZZZ			13:04	
ZZZZZZ			13:05	
ZZZZZZ			13:06	
ZZZZZZ			13:09	
ZZZZZZ			13:10	
ZZZZZZ			13:12	
ZZZZZZ			13:14	
ZZZZZZ			13:15	
CCV 240-126900/11-A			13:17	
CCB 240-126900/12-A			13:18	
ZZZZZZ			13:19	
ZZZZZZ			13:21	
ZZZZZZ			13:23	
ZZZZZZ			13:24	
ZZZZZZ			13:25	
ZZZZZZ			13:27	
ZZZZZZ			13:30	
ZZZZZZ			13:31	
ZZZZZZ			13:34	
ZZZZZZ			13:35	
CCV 240-126900/11-A			13:37	
CCB 240-126900/12-A			13:39	
ZZZZZZ			13:40	
ZZZZZZ			13:42	
ZZZZZZ			13:43	
CCV 240-126900/11-A			13:45	
CCB 240-126900/12-A			13:46	
CCV 240-126900/11-A			14:00	
CCB 240-126900/12-A			14:01	
ZZZZZZ			14:03	
ZZZZZZ			14:05	
ZZZZZZ			14:07	
ZZZZZZ			14:09	
ZZZZZZ			14:10	
ZZZZZZ			14:12	
ZZZZZZ			14:13	
ZZZZZZ			14:14	
ZZZZZZ			14:16	
ZZZZZZ			14:18	
CCV 240-126900/11-A			14:19	
CCB 240-126900/12-A			14:20	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/17/2014 10:47 End Date: 04/17/2014 14:53

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			14:22	
ZZZZZZ			14:24	
ZZZZZZ			14:26	
ZZZZZZ			14:27	
ZZZZZZ			14:29	
ZZZZZZ			14:30	
ZZZZZZ			14:32	
ZZZZZZ			14:33	
ZZZZZZ			14:35	
ZZZZZZ			14:36	
CCV 240-126900/11-A			14:38	
CCB 240-126900/12-A			14:40	
ZZZZZZ			14:41	
ZZZZZZ			14:44	
ZZZZZZ			14:46	
ZZZZZZ			14:48	
ZZZZZZ			14:50	
CCV 240-126900/11-A			14:52	
CCB 240-126900/12-A			14:53	

Prep Types:
D = Dissolved
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/22/2014 08:53 End Date: 04/22/2014 17:04

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-127258/1-A			08:53	X
IC 240-127258/2-A			08:55	X
IC 240-127258/3-A			08:56	X
IC 240-127258/4-A			08:58	X
IC 240-127258/5-A			09:00	X
IC 240-127258/6-A			09:01	X
ICV 240-127258/7-A	1		09:40	X
ICB 240-127258/8-A	1		09:42	X
CRA 240-127258/9-A	1		09:43	X
CCVL 240-127258/10-A	1		09:45	X
CCB 240-127258/12-A	1		09:47	X
MB 240-127051/1-A	1	T	09:48	X
LCS 240-127051/2-A	1	T	09:49	X
ZZZZZZ			09:51	
ZZZZZZ			09:52	
ZZZZZZ			09:54	
ZZZZZZ			09:56	
240-36233-2	1	T	09:58	X
240-36233-3	1	T	09:59	X
240-36233-4	1	T	10:00	X
240-36233-5	1	T	10:02	X
CCV 240-127258/11-A	1		10:03	X
CCB 240-127258/12-A	1		10:05	X
ZZZZZZ			10:06	
ZZZZZZ			10:08	
ZZZZZZ			10:09	
ZZZZZZ			10:11	
ZZZZZZ			10:12	
ZZZZZZ			10:14	
ZZZZZZ			10:15	
ZZZZZZ			10:17	
240-36233-2	1	D	10:18	X
240-36233-3	1	D	10:20	X
CCV 240-127258/11-A	1		10:21	X
CCB 240-127258/12-A	1		10:22	X
240-36233-4	1	D	10:24	X
240-36233-5	1	D	10:26	X
ZZZZZZ			10:27	
ZZZZZZ			10:29	
ZZZZZZ			10:31	
ZZZZZZ			10:32	
ZZZZZZ			10:33	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/22/2014 08:53 End Date: 04/22/2014 17:04

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			10:35	
ZZZZZZ			10:36	
ZZZZZZ			10:38	
CCV 240-127258/11-A	1		10:39	X
CCB 240-127258/12-A	1		10:41	X
ZZZZZZ			10:42	
ZZZZZZ			10:43	
ZZZZZZ			10:45	
ZZZZZZ			10:46	
ZZZZZZ			10:48	
ZZZZZZ			10:49	
ZZZZZZ			10:51	
ZZZZZZ			10:53	
ZZZZZZ			10:54	
ZZZZZZ			10:56	
CCV 240-127258/11-A			10:57	
CCB 240-127258/12-A			10:58	
ZZZZZZ			11:00	
ZZZZZZ			11:01	
ZZZZZZ			11:03	
ZZZZZZ			11:04	
ZZZZZZ			11:07	
ZZZZZZ			11:09	
ZZZZZZ			11:11	
ZZZZZZ			11:12	
ZZZZZZ			11:14	
ZZZZZZ			11:15	
CCV 240-127258/11-A			11:17	
CCB 240-127258/12-A			11:18	
CCV 240-127258/11-A			15:32	
CCB 240-127258/12-A			15:33	
ZZZZZZ			15:35	
ZZZZZZ			15:37	
ZZZZZZ			15:38	
ZZZZZZ			15:39	
ZZZZZZ			15:41	
ZZZZZZ			15:42	
ZZZZZZ			15:44	
ZZZZZZ			15:45	
ZZZZZZ			15:47	
ZZZZZZ			15:49	
CCV 240-127258/11-A			15:50	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/22/2014 08:53 End Date: 04/22/2014 17:04

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
CCB 240-127258/12-A			15:52	
ZZZZZZ			15:53	
ZZZZZZ			15:55	
ZZZZZZ			15:56	
ZZZZZZ			15:58	
ZZZZZZ			15:59	
ZZZZZZ			16:01	
ZZZZZZ			16:03	
ZZZZZZ			16:04	
ZZZZZZ			16:05	
ZZZZZZ			16:07	
CCV 240-127258/11-A			16:08	
CCB 240-127258/12-A			16:10	
ZZZZZZ			16:11	
ZZZZZZ			16:13	
ZZZZZZ			16:14	
ZZZZZZ			16:16	
ZZZZZZ			16:19	
ZZZZZZ			16:20	
ZZZZZZ			16:22	
ZZZZZZ			16:24	
ZZZZZZ			16:25	
ZZZZZZ			16:27	
CCV 240-127258/11-A			16:29	
CCB 240-127258/12-A			16:30	
ZZZZZZ			16:32	
ZZZZZZ			16:33	
ZZZZZZ			16:34	
ZZZZZZ			16:36	
ZZZZZZ			16:37	
ZZZZZZ			16:39	
ZZZZZZ			16:40	
ZZZZZZ			16:42	
ZZZZZZ			16:43	
ZZZZZZ			16:45	
CCV 240-127258/11-A			16:46	
CCB 240-127258/12-A			16:48	
ZZZZZZ			16:49	
ZZZZZZ			16:51	
ZZZZZZ			16:52	
ZZZZZZ			16:54	
ZZZZZZ			16:56	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/22/2014 08:53 End Date: 04/22/2014 17:04

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			16:58	
ZZZZZZ			16:59	
ZZZZZZ			17:01	
CCV 240-127258/11-A			17:03	
CCB 240-127258/12-A			17:04	

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/24/2014 07:03 End Date: 04/24/2014 14:22

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-127799/1-A			07:03	X
IC 240-127799/2-A			07:05	X
IC 240-127799/3-A			07:06	X
IC 240-127799/4-A			07:08	X
IC 240-127799/5-A			07:09	X
IC 240-127799/6-A			07:11	X
ICV 240-127799/7-A	1		07:35	X
ICB 240-127799/8-A	1		07:37	X
CRA 240-127799/9-A	1		07:38	X
CCVL 240-127799/10-A	1		08:38	X
CCB 240-127799/12-A			08:39	
ZZZZZZ			08:40	
ZZZZZZ			08:42	
ZZZZZZ			08:43	
ZZZZZZ			08:45	
ZZZZZZ			08:46	
ZZZZZZ			08:48	
ZZZZZZ			08:49	
ZZZZZZ			08:51	
ZZZZZZ			08:52	
ZZZZZZ			08:54	
CCV 240-127799/11-A			08:55	
CCB 240-127799/12-A			08:56	
ZZZZZZ			08:58	
ZZZZZZ			09:00	
ZZZZZZ			09:01	
ZZZZZZ			09:03	
ZZZZZZ			09:04	
ZZZZZZ			09:06	
ZZZZZZ			09:08	
ZZZZZZ			09:09	
ZZZZZZ			09:10	
ZZZZZZ			09:12	
CCV 240-127799/11-A			09:13	
CCB 240-127799/12-A			09:15	
ZZZZZZ			09:16	
ZZZZZZ			09:19	
ZZZZZZ			09:20	
ZZZZZZ			09:23	
ZZZZZZ			09:24	
ZZZZZZ			09:26	
ZZZZZZ			09:27	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/24/2014 07:03 End Date: 04/24/2014 14:22

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			09:29	
ZZZZZZ			09:31	
ZZZZZZ			09:32	
CCV 240-127799/11-A			09:34	
CCB 240-127799/12-A			09:35	
ZZZZZZ			09:37	
ZZZZZZ			09:38	
ZZZZZZ			09:40	
ZZZZZZ			09:41	
ZZZZZZ			09:43	
ZZZZZZ			09:44	
ZZZZZZ			09:46	
ZZZZZZ			09:48	
ZZZZZZ			09:49	
ZZZZZZ			09:51	
CCV 240-127799/11-A			09:53	
CCB 240-127799/12-A			09:54	
ZZZZZZ			09:56	
ZZZZZZ			09:57	
ZZZZZZ			09:59	
ZZZZZZ			10:00	
ZZZZZZ			10:03	
ZZZZZZ			10:04	
ZZZZZZ			10:06	
ZZZZZZ			10:08	
ZZZZZZ			10:09	
ZZZZZZ			10:10	
CCV 240-127799/11-A			10:12	
CCB 240-127799/12-A			10:13	
ZZZZZZ			10:15	
ZZZZZZ			10:16	
ZZZZZZ			10:18	
ZZZZZZ			10:19	
ZZZZZZ			10:21	
ZZZZZZ			10:23	
ZZZZZZ			10:25	
ZZZZZZ			10:26	
ZZZZZZ			10:28	
ZZZZZZ			10:29	
CCV 240-127799/11-A			10:31	
CCB 240-127799/12-A			10:32	
ZZZZZZ			10:34	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/24/2014 07:03 End Date: 04/24/2014 14:22

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			10:35	
CCV 240-127799/11-A			10:37	
CCB 240-127799/12-A			10:38	
CCV 240-127799/11-A			11:39	
CCB 240-127799/12-A			11:40	
ZZZZZZ			11:42	
ZZZZZZ			11:43	
ZZZZZZ			11:45	
ZZZZZZ			11:47	
ZZZZZZ			11:48	
ZZZZZZ			11:50	
ZZZZZZ			11:52	
ZZZZZZ			11:53	
ZZZZZZ			11:55	
ZZZZZZ			11:57	
CCV 240-127799/11-A			11:58	
CCB 240-127799/12-A			11:59	
ZZZZZZ			12:01	
ZZZZZZ			12:02	
ZZZZZZ			12:04	
CCV 240-127799/11-A			12:05	
CCB 240-127799/12-A			12:07	
CCV 240-127799/11-A	1		12:43	X
CCB 240-127799/12-A	1		12:45	X
MB 240-127395/1-A	1	T	12:47	X
LCS 240-127395/2-A	1	T	12:49	X
ZZZZZZ			12:50	
ZZZZZZ			12:52	
ZZZZZZ			12:53	
240-36320-2	1	T	12:54	X
240-36320-3	1	T	12:56	X
240-36320-4	1	T	12:58	X
240-36320-5	1	T	12:59	X
240-36320-6	1	T	13:00	X
CCV 240-127799/11-A	1		13:02	X
CCB 240-127799/12-A	1		13:04	X
240-36320-7	1	T	13:05	X
240-36320-8	1	T	13:07	X
ZZZZZZ			13:08	
ZZZZZZ			13:10	
ZZZZZZ			13:11	
ZZZZZZ			13:13	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/24/2014 07:03 End Date: 04/24/2014 14:22

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			13:15	
240-36320-2	1	D	13:16	X
240-36320-3	1	D	13:17	X
240-36320-4	1	D	13:19	X
CCV 240-127799/11-A	1		13:20	X
CCB 240-127799/12-A	1		13:22	X
240-36320-5	1	D	13:23	X
240-36320-6	1	D	13:25	X
240-36320-7	1	D	13:26	X
240-36320-8	1	D	13:28	X
ZZZZZZ			13:29	
CCV 240-127799/11-A	1		13:32	X
CCB 240-127799/12-A	1		13:33	X
ZZZZZZ			13:35	
ZZZZZZ			13:36	
ZZZZZZ			13:37	
ZZZZZZ			13:39	
ZZZZZZ			13:40	
ZZZZZZ			13:42	
ZZZZZZ			13:43	
ZZZZZZ			13:45	
ZZZZZZ			13:46	
ZZZZZZ			13:48	
CCV 240-127799/11-A			13:49	
CCB 240-127799/12-A			13:51	
ZZZZZZ			13:52	
ZZZZZZ			13:53	
ZZZZZZ			13:55	
ZZZZZZ			13:56	
ZZZZZZ			13:58	
ZZZZZZ			13:59	
ZZZZZZ			14:01	
ZZZZZZ			14:02	
ZZZZZZ			14:04	
ZZZZZZ			14:05	
CCV 240-127799/11-A			14:07	
CCB 240-127799/12-A			14:08	
ZZZZZZ			14:11	
ZZZZZZ			14:13	
ZZZZZZ			14:14	
ZZZZZZ			14:15	
ZZZZZZ			14:17	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/24/2014 07:03 End Date: 04/24/2014 14:22

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			14:19	
CCV 240-127799/11-A			14:20	
CCB 240-127799/12-A			14:22	

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 2340B-1997

Start Date: 04/21/2014 09:31 End Date: 04/21/2014 09:31

Lab Sample Id	D/F	Type	Time	Analytes																												
				CaCO3	HardCC	MgHARD																											
240-36135-2	1	R	09:31	X	X	X																											
ZZZZZZ			09:31																													

Prep Types:
R = Total Recoverable

FORM XIII-IN

Sample Report

Sample Table

Sample Name	500-74775-b-1-e msd
Data File Name	022SMPL.d
Data Path Name	D:\Analytical Runs\I10041714A.b
Acq Date Time	2014-04-17T11:25:29-04:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Be	9	6	2	NoGas	891.786	891.786	9.55	7790449	0.01	10000	
B	11	45	2	NoGas	140.440	140.440	12.87	786925	0.02	500	
Na	23	45	1	He	16263.191	16263.191	2.55	36194586	0.04	500000	
Mg	24	45	1	He	9904.670	9904.670	1.26	13062621	0.08	500000	
Al	27	45	1	He	10418.270	10418.270	1.32	9485817	0.11	200000	
K	39	45	1	He	42809.415	42809.415	2.12	74108497	0.06	500000	
Ca	44	45	1	He	128340.931	128340.931	1.43	10806194	1.19	500000	
Ti	47	45	1	He	96.100	96.100	1.04	43465	0.22	2500	
V	51	45	1	He	921.664	921.664	0.50	9687759	0.01	10000	
Cr	52	45	1	He	914.245	914.245	1.03	10198956	0.01	10000	
Mn	55	45	1	He	943.247	943.247	0.87	8417619	0.01	10000	
Fe	56	45	1	He	9735.480	9735.480	1.14	86563761	0.01	200000	
Co	59	45	1	He	904.569	904.569	0.43	13917824	0.01	10000	
Ni	60	45	1	He	928.589	928.589	0.67	3418910	0.03	10000	
Cu	63	45	1	He	916.149	916.149	1.47	8580545	0.01	10000	
Zn	66	45	1	He	982.626	982.626	1.42	1908353	0.05	10000	
As	75	115	1	He	977.462	977.462	2.33	1578330	0.06	10000	
Se	78	115	1	He	569.458	569.458	2.18	97876	0.58	10000	
Sr	88	45	1	He	1177.183	1177.183	0.62	15307423	0.01	10000	
Mo	95	103	1	He	95.555	95.555	1.34	453973	0.02	2000	
Ag	107	103	1	He	13.407	13.407	2.54	172979	0.01	300	
Cd	111	115	1	He	980.720	980.720	3.02	2411779	0.04	4000	
Sn	118	115	1	He	84.246	84.246	3.72	542245	0.02	2000	
Sb	123	115	1	He	96.365	96.365	2.40	627782	0.02	300	
Ba	137	115	1	He	1037.049	1037.049	2.35	3480547	0.03	10000	
W	182	159	1	He	87.043	87.043	1.04	837660	0.01	2500	
Tl	205	165	1	He	237.134	237.134	0.63	5542546	0.00	5000	
Pb	208	165	1	He	987.500	987.500	0.47	29781137	0.00	4000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	2	NoGas	1696948	9.55	1565199	108.42	30	120	
Sc	45	1	He	398363	0.76	401486	99.22	30	120	
Sc	45	2	NoGas	3149534	12.86	2782037	113.21	30	120	
Rh	103	1	He	2174777	1.82	2266714	95.94	30	120	
In	115	1	He	1698843	2.70	1719277	98.81	30	120	
Tb	159	1	He	3142096	1.41	3064239	102.54	30	120	
Ho	165	1	He	3047573	0.85	2909960	104.73	30	120	
Bi	209	1	He	1465922	12.10	1848440	79.31	30	120	

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Batch Number: 127045 Batch Start Date: 04/18/14 09:57 Batch Analyst: Sutherland, Aaron

Batch Method: 3005A Batch End Date: 04/18/14 17:27

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00016	MTICPMSA 00017	MTICPMSB 00017	MTTMHCL 00031
MB 240-127045/1		3005A, 6020		50 mL	50 mL				2.5 mL
LCS 240-127045/2		3005A, 6020		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-36233-K-2	MSA-MW-50S-041414	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36233-G-3	MSA-MW-21I-041414	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36233-G-4	MSA-MW-50I-041414	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36233-F-5	MSA-MW-21D-041414	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36233-L-2	MSA-MW-50S-041414	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36233-H-3	MSA-MW-21I-041414	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36233-H-4	MSA-MW-50I-041414	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36233-G-5	MSA-MW-21D-041414	3005A, 6020	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-127045/1		3005A, 6020		1 mL					
LCS 240-127045/2		3005A, 6020		1 mL					
240-36233-K-2	MSA-MW-50S-041414	3005A, 6020	R	1 mL					
240-36233-G-3	MSA-MW-21I-041414	3005A, 6020	R	1 mL					
240-36233-G-4	MSA-MW-50I-041414	3005A, 6020	R	1 mL					
240-36233-F-5	MSA-MW-21D-041414	3005A, 6020	R	1 mL					
240-36233-L-2	MSA-MW-50S-041414	3005A, 6020	D	1 mL					
240-36233-H-3	MSA-MW-21I-041414	3005A, 6020	D	1 mL					
240-36233-H-4	MSA-MW-50I-041414	3005A, 6020	D	1 mL					
240-36233-G-5	MSA-MW-21D-041414	3005A, 6020	D	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Batch Number: 127045 Batch Start Date: 04/18/14 09:57 Batch Analyst: Sutherland, Aaron

Batch Method: 3005A Batch End Date: 04/18/14 17:27

Batch Notes	
Filter Paper Lot Number	9546553
Hot Block ID number	hb2
Pipette ID	383363
Digestion Tube/Cup Lot #	1309271

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Batch Number: 127394 Batch Start Date: 04/22/14 09:28 Batch Analyst: Sutherland, Aaron

Batch Method: 3005A Batch End Date: 04/22/14 16:58

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00016	MTICPMSA 00017	MTICPMSB 00017	MTTMHCL 00031
MB 240-127394/1		3005A, 6020		50 mL	50 mL				2.5 mL
LCS 240-127394/2		3005A, 6020		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-36320-G-2	MSA-DMW-7I-041614	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36320-F-3	MSA-DMW-7D-041614	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36320-F-4	MSA-DMW-8I-041614	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36320-J-5	MSA-MW-4-041614	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36320-G-6	MSA-MW-50D-041614	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36320-I-7	MSA-MW-51S-041614	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36320-G-8	MSA-MW-51I-041614	3005A, 6020	R	50 mL	50 mL				2.5 mL
240-36320-H-2	MSA-DMW-7I-041614	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36320-G-3	MSA-DMW-7D-041614	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36320-G-4	MSA-DMW-8I-041614	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36320-K-5	MSA-MW-4-041614	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36320-H-6	MSA-MW-50D-041614	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36320-J-7	MSA-MW-51S-041614	3005A, 6020	D	50 mL	50 mL				2.5 mL
240-36320-H-8	MSA-MW-51I-041614	3005A, 6020	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-127394/1		3005A, 6020		1 mL					
LCS 240-127394/2		3005A, 6020		1 mL					
240-36320-G-2	MSA-DMW-7I-041614	3005A, 6020	R	1 mL					
240-36320-F-3	MSA-DMW-7D-041614	3005A, 6020	R	1 mL					
240-36320-F-4	MSA-DMW-8I-041614	3005A, 6020	R	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Batch Number: 127394 Batch Start Date: 04/22/14 09:28 Batch Analyst: Sutherland, Aaron

Batch Method: 3005A Batch End Date: 04/22/14 16:58

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
240-36320-J-5	MSA-MW-4-041614	3005A, 6020	R	1 mL					
240-36320-G-6	MSA-MW-50D-041614	3005A, 6020	R	1 mL					
240-36320-I-7	MSA-MW-51S-041614	3005A, 6020	R	1 mL					
240-36320-G-8	MSA-MW-51I-041614	3005A, 6020	R	1 mL					
240-36320-H-2	MSA-DMW-7I-041614	3005A, 6020	D	1 mL					
240-36320-G-3	MSA-DMW-7D-041614	3005A, 6020	D	1 mL					
240-36320-G-4	MSA-DMW-8I-041614	3005A, 6020	D	1 mL					
240-36320-K-5	MSA-MW-4-041614	3005A, 6020	D	1 mL					
240-36320-H-6	MSA-MW-50D-041614	3005A, 6020	D	1 mL					
240-36320-J-7	MSA-MW-51S-041614	3005A, 6020	D	1 mL					
240-36320-H-8	MSA-MW-51I-041614	3005A, 6020	D	1 mL					

Batch Notes	
Filter Paper Lot Number	9546553
Hot Block ID number	c4
Pipette ID	383363
Digestion Tube/Cup Lot #	1309271

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Batch Number: 126671 Batch Start Date: 04/16/14 13:10 Batch Analyst: Sutherland, Aaron

Batch Method: 7470A Batch End Date: 04/16/14 15:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00015	MTHGCALW 00614	MTK2S208RGNT 00052	MTKMN04W 00058
MB 240-126671/1		7470A, 7470A		50 mL	50 mL	2.5 mL		4 mL	7.5 mL
LCS 240-126671/2		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL	4 mL	7.5 mL
240-36135-Q-2	MSA-DMW-11S-041414	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36135-F-3	MSA-DMW-11I-041414	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36135-R-2	MSA-DMW-11S-041414	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36135-G-3	MSA-DMW-11I-041414	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027
MB 240-126671/1		7470A, 7470A		1.25 mL
LCS 240-126671/2		7470A, 7470A		1.25 mL
240-36135-Q-2	MSA-DMW-11S-041414	7470A, 7470A	T	1.25 mL
240-36135-F-3	MSA-DMW-11I-041414	7470A, 7470A	T	1.25 mL
240-36135-R-2	MSA-DMW-11S-041414	7470A, 7470A	D	1.25 mL
240-36135-G-3	MSA-DMW-11I-041414	7470A, 7470A	D	1.25 mL

Batch Notes	
Hot Block ID number	b1
Pipette ID	383363 383366
Digestion Tube/Cup Lot #	1309271

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Batch Number: 126900 Batch Start Date: 04/17/14 07:30 Batch Analyst: Martin, Aaron

Batch Method: 7470A Batch End Date: 04/17/14 09:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00016	MTHGCALW 00615	MTHgStd 00010	MTHNO3 00045
ICV 240-126900/7		7470A, 7470A		50 mL	50 mL	2.5 mL		0.125 mL	1.25 mL
ICB 240-126900/8		7470A, 7470A		50 mL	50 mL	2.5 mL			1.25 mL
CRA 240-126900/9		7470A, 7470A		50 mL	50 mL	2.5 mL	0.1 mL		1.25 mL
CCVL 240-126900/10		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL		1.25 mL
CCV 240-126900/11		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL		1.25 mL
CCB 240-126900/12		7470A, 7470A		50 mL	50 mL	2.5 mL			1.25 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTK2S208RGNT 00054	MTKMN04W 00059				
ICV 240-126900/7		7470A, 7470A		4 mL	7.5 mL				
ICB 240-126900/8		7470A, 7470A		4 mL	7.5 mL				
CRA 240-126900/9		7470A, 7470A		4 mL	7.5 mL				
CCVL 240-126900/10		7470A, 7470A		4 mL	7.5 mL				
CCV 240-126900/11		7470A, 7470A		4 mL	7.5 mL				
CCB 240-126900/12		7470A, 7470A		4 mL	7.5 mL				

Batch Notes	
Hot Block ID number	B1
Pipette ID	383364-383366
Digestion Tube/Cup Lot #	1309271

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Batch Number: 127051 Batch Start Date: 04/18/14 15:20 Batch Analyst: Sutherland, Aaron

Batch Method: 7470A Batch End Date: 04/18/14 17:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00015	MTHGCALW 00616	MTK2S208RGNT 00054	MTKMN04W 00058
MB 240-127051/1		7470A, 7470A		50 mL	50 mL	2.5 mL		4 mL	7.5 mL
LCS 240-127051/2		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL	4 mL	7.5 mL
240-36233-K-2	MSA-MW-50S-041414	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36233-G-3	MSA-MW-21I-041414	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36233-G-4	MSA-MW-50I-041414	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36233-F-5	MSA-MW-21D-041414	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36233-L-2	MSA-MW-50S-041414	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36233-H-3	MSA-MW-21I-041414	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36233-H-4	MSA-MW-50I-041414	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36233-G-5	MSA-MW-21D-041414	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-127051/1		7470A, 7470A		1.25 mL					
LCS 240-127051/2		7470A, 7470A		1.25 mL					
240-36233-K-2	MSA-MW-50S-041414	7470A, 7470A	T	1.25 mL					
240-36233-G-3	MSA-MW-21I-041414	7470A, 7470A	T	1.25 mL					
240-36233-G-4	MSA-MW-50I-041414	7470A, 7470A	T	1.25 mL					
240-36233-F-5	MSA-MW-21D-041414	7470A, 7470A	T	1.25 mL					
240-36233-L-2	MSA-MW-50S-041414	7470A, 7470A	D	1.25 mL					
240-36233-H-3	MSA-MW-21I-041414	7470A, 7470A	D	1.25 mL					
240-36233-H-4	MSA-MW-50I-041414	7470A, 7470A	D	1.25 mL					
240-36233-G-5	MSA-MW-21D-041414	7470A, 7470A	D	1.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Batch Number: 127051 Batch Start Date: 04/18/14 15:20 Batch Analyst: Sutherland, Aaron

Batch Method: 7470A Batch End Date: 04/18/14 17:20

Batch Notes	
Hot Block ID number	b1
Pipette ID	383363 383366
Digestion Tube/Cup Lot #	1309271

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Batch Number: 127258 Batch Start Date: 04/21/14 08:25 Batch Analyst: Martin, Aaron

Batch Method: 7470A Batch End Date: 04/21/14 10:25

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00016	MTHGCALW 00617	MTHgStd 00010	MTHNO3 00045
ICV 240-127258/7		7470A, 7470A		50 mL	50 mL	2.5 mL		0.125 mL	1.25 mL
ICB 240-127258/8		7470A, 7470A		50 mL	50 mL	2.5 mL			1.25 mL
CRA 240-127258/9		7470A, 7470A		50 mL	50 mL	2.5 mL	0.1 mL		1.25 mL
CCVL 240-127258/10		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL		1.25 mL
CCV 240-127258/11		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL		1.25 mL
CCB 240-127258/12		7470A, 7470A		50 mL	50 mL	2.5 mL			1.25 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTK2S208RGNT 00054	MTKMN04W 00059				
ICV 240-127258/7		7470A, 7470A		4 mL	7.5 mL				
ICB 240-127258/8		7470A, 7470A		4 mL	7.5 mL				
CRA 240-127258/9		7470A, 7470A		4 mL	7.5 mL				
CCVL 240-127258/10		7470A, 7470A		4 mL	7.5 mL				
CCV 240-127258/11		7470A, 7470A		4 mL	7.5 mL				
CCB 240-127258/12		7470A, 7470A		4 mL	7.5 mL				

Batch Notes	
Hot Block ID number	B1
Pipette ID	383364-383366
Digestion Tube/Cup Lot #	1309271

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Batch Number: 127395 Batch Start Date: 04/22/14 15:35 Batch Analyst: Sutherland, Aaron

Batch Method: 7470A Batch End Date: 04/22/14 17:35

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00015	MTHGCALW 00618	MTK2S208RGNT 00054	MTKMN04W 00059
MB 240-127395/1		7470A, 7470A		50 mL	50 mL	2.5 mL		4 mL	7.5 mL
LCS 240-127395/2		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL	4 mL	7.5 mL
240-36320-G-2	MSA-DMW-7I-041614	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36320-F-3	MSA-DMW-7D-041614	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36320-F-4	MSA-DMW-8I-041614	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36320-J-5	MSA-MW-4-041614	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36320-G-6	MSA-MW-50D-041614	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36320-I-7	MSA-MW-51S-041614	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36320-G-8	MSA-MW-51I-041614	7470A, 7470A	T	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36320-H-2	MSA-DMW-7I-041614	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36320-G-3	MSA-DMW-7D-041614	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36320-G-4	MSA-DMW-8I-041614	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36320-K-5	MSA-MW-4-041614	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36320-H-6	MSA-MW-50D-041614	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36320-J-7	MSA-MW-51S-041614	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL
240-36320-H-8	MSA-MW-51I-041614	7470A, 7470A	D	50 mL	50 mL	2.5 mL		4 mL	7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
MB 240-127395/1		7470A, 7470A		1.25 mL					
LCS 240-127395/2		7470A, 7470A		1.25 mL					
240-36320-G-2	MSA-DMW-7I-041614	7470A, 7470A	T	1.25 mL					
240-36320-F-3	MSA-DMW-7D-041614	7470A, 7470A	T	1.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Batch Number: 127395 Batch Start Date: 04/22/14 15:35 Batch Analyst: Sutherland, Aaron

Batch Method: 7470A Batch End Date: 04/22/14 17:35

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00027					
240-36320-F-4	MSA-DMW-8I-041614	7470A, 7470A	T	1.25 mL					
240-36320-J-5	MSA-MW-4-041614	7470A, 7470A	T	1.25 mL					
240-36320-G-6	MSA-MW-50D-041614	7470A, 7470A	T	1.25 mL					
240-36320-I-7	MSA-MW-51S-041614	7470A, 7470A	T	1.25 mL					
240-36320-G-8	MSA-MW-51I-041614	7470A, 7470A	T	1.25 mL					
240-36320-H-2	MSA-DMW-7I-041614	7470A, 7470A	D	1.25 mL					
240-36320-G-3	MSA-DMW-7D-041614	7470A, 7470A	D	1.25 mL					
240-36320-G-4	MSA-DMW-8I-041614	7470A, 7470A	D	1.25 mL					
240-36320-K-5	MSA-MW-4-041614	7470A, 7470A	D	1.25 mL					
240-36320-H-6	MSA-MW-50D-041614	7470A, 7470A	D	1.25 mL					
240-36320-J-7	MSA-MW-51S-041614	7470A, 7470A	D	1.25 mL					
240-36320-H-8	MSA-MW-51I-041614	7470A, 7470A	D	1.25 mL					

Batch Notes	
Hot Block ID number	c1
Pipette ID	383363 383366
Digestion Tube/Cup Lot #	1309271

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Batch Number: 127799 Batch Start Date: 04/23/14 08:00 Batch Analyst: Martin, Aaron

Batch Method: 7470A Batch End Date: 04/23/14 10:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTH2S04 00017	MTHGCALW 00619	MTHgStd 00010	MTHNO3 00045
ICV 240-127799/7		7470A, 7470A		50 mL	50 mL	2.5 mL		0.125 mL	1.25 mL
ICB 240-127799/8		7470A, 7470A		50 mL	50 mL	2.5 mL			1.25 mL
CRA 240-127799/9		7470A, 7470A		50 mL	50 mL	2.5 mL	0.1 mL		1.25 mL
CCVL 240-127799/10		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL		1.25 mL
CCV 240-127799/11		7470A, 7470A		50 mL	50 mL	2.5 mL	2.5 mL		1.25 mL
CCB 240-127799/12		7470A, 7470A		50 mL	50 mL	2.5 mL			1.25 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTK2S208RGNT 00054	MTKMN04W 00059				
ICV 240-127799/7		7470A, 7470A		4 mL	7.5 mL				
ICB 240-127799/8		7470A, 7470A		4 mL	7.5 mL				
CRA 240-127799/9		7470A, 7470A		4 mL	7.5 mL				
CCVL 240-127799/10		7470A, 7470A		4 mL	7.5 mL				
CCV 240-127799/11		7470A, 7470A		4 mL	7.5 mL				
CCB 240-127799/12		7470A, 7470A		4 mL	7.5 mL				

Batch Notes	
Hot Block ID number	B1
Pipette ID	383364-383366
Digestion Tube/Cup Lot #	1309271

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG No.:

Project: MSA GW 2014

Client Sample ID	Lab Sample ID
MSA-DMW-11S-041414	240-36135-2

Comments:

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Analyst: JMB Batch Start Date: 03/19/2014

Reporting Units: mg/L Analytical Batch No.: 123158

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
12	ICV	22:57	Nitrite as N	2.51	2.50	100	90-110		WCICLCS_00279
			Nitrate as N	2.43	2.50	97	90-110		WCICLCS_00279
			Orthophosphate as P	2.58	2.50	103	90-110		WCICLCS_00279

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Analyst: JMB Batch Start Date: 03/20/2014

Reporting Units: mg/L Analytical Batch No.: 123351

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	15:43	Chloride	51.5	50.0	103	90-110		WCICLCS_00278
			Sulfate	51.9	50.0	104	90-110		WCICLCS_00278

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Analyst: LCN Batch Start Date: 04/15/2014

Reporting Units: mg/L Analytical Batch No.: 126590

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	11:00	Nitrite as N	2.24	2.50	90	90-110		WCICCCV_00395
			Nitrate as N	2.39	2.50	96	90-110		WCICCCV_00395
			Orthophosphate as P	2.24	2.50	90	90-110		WCICCCV_00395
2	CCB	11:17	Nitrite as N	0.012				U	
			Nitrate as N	0.023				U	
			Orthophosphate as P	0.044				U	
13	CCV	17:22	Nitrite as N	2.32	2.50	93	90-110		WCICCCV_00395
			Nitrate as N	2.39	2.50	96	90-110		WCICCCV_00395
			Orthophosphate as P	2.56	2.50	102	90-110		WCICCCV_00395
14	CCB	17:39	Nitrite as N	0.012				U	
			Nitrate as N	0.023				U	
			Orthophosphate as P	0.044				U	
25	CCV	20:39	Nitrite as N	2.39	2.50	95	90-110		WCICCCV_00395
			Nitrate as N	2.38	2.50	95	90-110		WCICCCV_00395
			Orthophosphate as P	2.40	2.50	96	90-110		WCICCCV_00395
26	CCB	20:55	Nitrite as N	0.012				U	
			Nitrate as N	0.023				U	
			Orthophosphate as P	0.044				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Analyst: LCN Batch Start Date: 04/23/2014

Reporting Units: mg/L Analytical Batch No.: 127642

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
25	CCV	23:28	Chloride	50.5	50.0	101	90-110		WCICCCV_00398
			Sulfate	52.1	50.0	104	90-110		WCICCCV_00398
26	CCB	23:48	Chloride	0.10				U	
			Sulfate	0.12				U	
37	CCV	03:22	Chloride	50.5	50.0	101	90-110		WCICCCV_00398
			Sulfate	52.1	50.0	104	90-110		WCICCCV_00398
38	CCB	03:42	Chloride	0.10				U	
			Sulfate	0.12				U	
47	CCV	06:37	Chloride	50.5	50.0	101	90-110		WCICCCV_00398
			Sulfate	52.0	50.0	104	90-110		WCICCCV_00398
48	CCB	06:56	Chloride	0.10				U	
			Sulfate	0.12				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Analyst: JAK Batch Start Date: 04/16/2014

Reporting Units: mg/L Analytical Batch No.: 126751

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
5	ICV	12:24	Ammonia (as N)	10.2	10.1	101	90-110		WCWIBBYNUTRIE_00011
6	ICB	12:36	Ammonia (as N)	0.092				U	
17	CCV	13:29	Ammonia (as N)	2.54	2.50	102	90-110		WCNH31000_00028
18	CCB	13:46	Ammonia (as N)	0.092				U	
21	CCV	14:17	Ammonia (as N)	2.38	2.50	95	90-110		WCNH31000_00028
22	CCB	14:32	Ammonia (as N)	0.092				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Analyst: TPH Batch Start Date: 04/28/2014

Reporting Units: mg/L Analytical Batch No.: 128206

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	08:04	Dissolved Organic Carbon	25.3	25.0	101	90-110		WC TOC CCV_00193
2	CCB	08:15	Dissolved Organic Carbon	0.24				U	
10	CCV	11:14	Dissolved Organic Carbon	25.3	25.0	101	90-110		WC TOC CCV_00193
11	CCB	11:25	Dissolved Organic Carbon	0.24				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 126705	Date: 04/16/2014 10:00						
160.1	MB 240-126705/1	Total Dissolved Solids	7.4	U	mg/L	10	1
Batch ID: 126590	Date: 04/15/2014 11:33						
300.0	MB 240-126590/3	Nitrite as N	0.012	U	mg/L	0.10	1
300.0	MB 240-126590/3	Nitrate as N	0.023	U	mg/L	0.10	1
300.0	MB 240-126590/3	Orthophosphate as P	0.044	U	mg/L	0.50	1
Batch ID: 127642	Date: 04/24/2014 00:07						
300.0	MB 240-127642/27	Chloride	0.10	U	mg/L	1.0	1
300.0	MB 240-127642/27	Sulfate	0.12	U	mg/L	1.0	1
Batch ID: 126823	Date: 04/16/2014 12:03						
310.1	MB 240-126823/5	Alkalinity	1.9	U	mg/L	5.0	1
Batch ID: 126751	Date: 04/16/2014 12:36						
350.3	MB 240-126751/7	Ammonia (as N)	0.092	U	mg/L	0.20	1
Batch ID: 128206	Date: 04/28/2014 08:26						
9060	MB 240-128206/3	Dissolved Organic Carbon	0.24	U	mg/L	1.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 128206		Date: 04/28/2014 09:29									
9060	240-36135-2	Dissolved Organic Carbon	13		mg/L						
9060	240-36135-2 MS	Dissolved Organic Carbon	37.1		mg/L	25.0	97	72-136			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 128206		Date: 04/28/2014 09:40									
9060	240-36135-2 MSD	Dissolved Organic Carbon	37.1		mg/L	25.0	97	72-136	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 126705	Date: 04/16/2014 10:00										
						LCS Source: WCWIBBYSOLIDS_00010					
160.1	LCS 240-126705/2	Total Dissolved Solids	586		mg/L	622	94	88-110			
Batch ID: 126590	Date: 04/15/2014 11:49										
						LCS Source: WCICLCS_00284					
300.0	LCS 240-126590/4	Nitrite as N	2.36		mg/L	2.50	94	90-110			
300.0	LCS 240-126590/4	Nitrate as N	2.45		mg/L	2.50	98	90-110			
300.0	LCS 240-126590/4	Orthophosphate as P	2.34		mg/L	2.50	94	90-110			
Batch ID: 127642	Date: 04/24/2014 00:27										
						LCS Source: WCICLCS_00285					
300.0	LCS 240-127642/28	Chloride	53.5		mg/L	50.0	107	90-110			
300.0	LCS 240-127642/28	Sulfate	54.1		mg/L	50.0	108	90-110			
Batch ID: 126823	Date: 04/16/2014 11:56										
						LCS Source: WCPHENOMINER_00006					
310.1	LCS 240-126823/4	Alkalinity	126		mg/L	120	105	90-127			
Batch ID: 126751	Date: 04/16/2014 12:36										
						LCS Source: WCWIBBYNUTRIE_00011					
350.3	LCS 240-126751/8	Ammonia (as N)	9.97		mg/L	10.1	99	85-114			
Batch ID: 128206	Date: 04/28/2014 08:37										
						LCS Source: WC LCS_00019					
9060	LCS 240-128206/4	Dissolved Organic Carbon	36.9		mg/L	40.8	90	88-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 310.1 MDL Date: 07/12/2013 09:18

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	1.9

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 310.1 XMDL Date: 07/12/2013 09:19

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	1.9

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 160.1 MDL Date: 01/28/2010 09:50

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 160.1 XMDL Date: 01/28/2010 09:51

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: SIMON

Method: 300.0 MDL Date: 01/27/2010 17:40

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Nitrate as N		0.1	0.023
Nitrite as N		0.1	0.012
Orthophosphate as P		0.5	0.044

9-IN

CALIBRATION BLANK DETECTION LIMITS

GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: SIMON

Method: 300.0 XMDL Date: 01/27/2010 17:40

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate as N		0.1	0.023
Nitrite as N		0.1	0.012
Orthophosphate as P		0.5	0.044

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 MDL Date: 01/27/2010 17:40

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Chloride		1	0.1
Sulfate		1	0.12

9-IN

CALIBRATION BLANK DETECTION LIMITS

GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 XMDL Date: 01/27/2010 17:40

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chloride		1	0.1
Sulfate		1	0.12

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: DAVE

Method: 350.3 MDL Date: 04/11/2014 12:30

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Ammonia (as N)		0.2	0.092

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: DAVE

Method: 350.3 XMDL Date: 04/11/2014 12:31

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia (as N)		0.2	0.092

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: SPARKY

Method: 9060 MDL Date: 01/27/2010 15:20

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Dissolved Organic Carbon		1	0.24

9-IN

CALIBRATION BLANK DETECTION LIMITS

GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36135-1

SDG Number:

Matrix: Water Instrument ID: SPARKY

Method: 9060 XMDL Date: 01/27/2010 15:20

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon		1	0.24

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: STEVE Analysis Method: 310.1

Start Date: 04/16/2014 11:26 End Date: 04/16/2014 19:05

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
ZZZZZZ			11:26	
RINSE 240-126823/2			11:32	
ZZZZZZ			11:47	
LCS 240-126823/4	1	T	11:56	X
MB 240-126823/5	1	T	12:03	X
ZZZZZZ			12:07	
ZZZZZZ			16:22	
ZZZZZZ			16:36	
ZZZZZZ			16:55	
ZZZZZZ			17:16	
ZZZZZZ			17:30	
ZZZZZZ			17:38	
ZZZZZZ			17:48	
ZZZZZZ			17:59	
ZZZZZZ			18:09	
ZZZZZZ			18:21	
ZZZZZZ			18:25	
ZZZZZZ			18:37	
ZZZZZZ			18:50	
240-36135-2	1	T	19:01	X
ZZZZZZ			19:05	

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 160.1

Start Date: 04/16/2014 10:00 End Date: 04/16/2014 10:00

Lab Sample Id	D/F	Type	Time	Analytes
				TDS
MB 240-126705/1	1	T	10:00	X
LCS 240-126705/2	1	T	10:00	X
ZZZZZZ			10:00	
ZZZZZZ			10:00	
240-36135-2	1	T	10:00	X
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	
ZZZZZZ			10:00	

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 03/19/2014 19:56 End Date: 03/19/2014 23:13

| Lab Sample Id | D/F | Type | Time | Analytes | | |

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: SIMON Analysis Method: 300.0

Start Date: 04/15/2014 11:00 End Date: 04/15/2014 23:56

Lab Sample Id	D/F	Type	Time	Analytes		
				N-No2	NO3	Orthophosasp
CCV 240-126590/1	1		11:00	X	X	X
CCB 240-126590/2	1		11:17	X	X	X
MB 240-126590/3	1	T	11:33	X	X	X
LCS 240-126590/4	1	T	11:49	X	X	X
ZZZZZZ			15:11			
ZZZZZZ			15:27			
ZZZZZZ			15:44			
ZZZZZZ			16:00			
CCV 240-126590/13	1		17:22	X	X	X
CCB 240-126590/14	1		17:39	X	X	X
240-36135-2	1	T	19:33	X	X	X
CCV 240-126590/25	1		20:39	X	X	X
CCB 240-126590/26	1		20:55	X	X	X
ZZZZZZ			21:12			
ZZZZZZ			21:28			
ZZZZZZ			21:45			
ZZZZZZ			22:01			
ZZZZZZ			22:18			
CCV 240-126590/36			23:40			
CCB 240-126590/37			23:56			

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 03/20/2014 12:48 End Date: 03/20/2014 16:03

Lab Sample Id	D/F	Type	Time	Analytes																											
				Cl-	SO4																										
STD1 240-123351/1 IC	1		12:48	X	X																										
STD2 240-123351/2 IC	1		13:07	X	X																										
STD3 240-123351/3 IC	1		13:27	X	X																										
STD4 240-123351/4 IC	1		13:46	X	X																										
STD5 240-123351/5 ICRT	1		14:06	X	X																										
STD6 240-123351/6 IC	1		14:25	X	X																										
STD7 240-123351/7 IC	1		14:45	X	X																										
STD8 240-123351/8 IC	1		15:04	X	X																										
STD9 240-123351/9 IC	1		15:24	X	X																										
ICV 240-123351/10	1		15:43	X	X																										
ICB 240-123351/11			16:03																												

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/23/2014 15:40 End Date: 04/24/2014 06:56

| Lab Sample Id | D/F | Type | Time | Analytes | | |

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/23/2014 15:40 End Date: 04/24/2014 06:56

Lab Sample Id	D/F	Type	Time	Analytes																												
				Cl-	SO4																											
ZZZZZZ			05:00																													
ZZZZZZ			05:19																													
ZZZZZZ			05:39																													
ZZZZZZ			05:58																													
240-36135-2	1	T	06:17	X	X																											
CCV 240-127642/47	1		06:37	X	X																											
CCB 240-127642/48	1		06:56	X	X																											

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: DAVE Analysis Method: 350.3

Start Date: 04/16/2014 12:24 End Date: 04/16/2014 14:32

Lab Sample Id	D/F	Type	Time	Analytes
				NH3
IC 240-126751/1			12:24	X
IC 240-126751/2			12:24	X
IC 240-126751/3			12:24	X
IC 240-126751/4			12:24	X
ICV 240-126751/5	10		12:24	X
ICB 240-126751/6	1		12:36	X
MB 240-126751/7	1	T	12:36	X
LCS 240-126751/8	10	T	12:36	X
ZZZZZZ			12:59	
ZZZZZZ			12:59	
ZZZZZZ			12:59	
ZZZZZZ			12:59	
ZZZZZZ			12:59	
ZZZZZZ			13:13	
ZZZZZZ			13:25	
ZZZZZZ			13:25	
CCV 240-126751/17	1		13:29	X
CCB 240-126751/18	1		13:46	X
240-36135-2	1	T	13:53	X
ZZZZZZ			14:11	
CCV 240-126751/21	1		14:17	X
CCB 240-126751/22	1		14:32	X

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: SPARKY Analysis Method: 9060

Start Date: 04/28/2014 08:04 End Date: 04/28/2014 11:25

Lab Sample Id	D/F	Type	Time	Analytes
				DOC
CCV 240-128206/1	1		08:04	X
CCB 240-128206/2	1		08:15	X
MB 240-128206/3	1	D	08:26	X
LCS 240-128206/4	1	D	08:37	X
240-36135-2	1	D	08:48	X
240-36135-2 MS	2	D	09:29	X
240-36135-2 MSD	2	D	09:40	X
ZZZZZZ			09:51	
ZZZZZZ			10:32	
CCV 240-128206/10	1		11:14	X
CCB 240-128206/11	1		11:25	X

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/17/2014 07:41 End Date: 04/18/2014 05:06

| Lab Sample Id | D/F | Type | Time | Analytes | | |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/17/2014 07:41 End Date: 04/18/2014 05:06

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ca	K	Mg	Na	SiO2																								
ZZZZZZ			10:27																													
ZZZZZZ			10:31																													
ZZZZZZ			10:35																													
ZZZZZZ			10:39																													
ZZZZZZ			10:43																													
ZZZZZZ			10:47																													
ZZZZZZ			10:51																													
ZZZZZZ			10:55																													
CCV 240-126876/49			10:59																													
CCB 240-126876/50			11:03																													
ZZZZZZ			11:07																													
ZZZZZZ			11:11																													
ZZZZZZ			11:15																													
ZZZZZZ			11:19																													
ZZZZZZ			11:23																													
ZZZZZZ			11:26																													
ZZZZZZ			11:30																													
ZZZZZZ			11:34																													
ZZZZZZ			11:38																													
ZZZZZZ			11:42																													
CCV 240-126876/61			11:46																													
CCB 240-126876/62			11:50																													
ZZZZZZ			11:54																													
ZZZZZZ			11:58																													
ZZZZZZ			12:02																													
ZZZZZZ			12:06																													
ZZZZZZ			12:10																													
ZZZZZZ			12:14																													
ZZZZZZ			12:18																													
ZZZZZZ			12:22																													
ZZZZZZ			12:26																													
ZZZZZZ			12:30																													
CCV 240-126876/73	1		12:34	X	X	X	X	X																								
CCB 240-126876/74	1		12:38	X	X	X	X	X																								
ZZZZZZ			12:42																													
ZZZZZZ			12:46																													
ZZZZZZ			12:50																													
ZZZZZZ			12:54																													
MB 240-126669/1-A	1	R	12:58	X	X	X	X	X																								
LCS 240-126669/2-A	1	R	13:02	X	X	X	X	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/17/2014 07:41 End Date: 04/18/2014 05:06

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ca	K	Mg	Na	SiO2																								
240-36135-2	1	R	13:06	X	X	X	X	X																								
CRI 240-126876/82	1		13:10	X	X	X	X	X																								
ZZZZZZ			13:14																													
ZZZZZZ			13:18																													
CCV 240-126876/85	1		13:22	X	X	X	X	X																								
CCB 240-126876/86	1		13:26	X	X	X	X	X																								
ZZZZZZ			13:30																													
ZZZZZZ			13:34																													
ZZZZZZ			13:38																													
ZZZZZZ			13:42																													
ZZZZZZ			13:46																													
ZZZZZZ			13:50																													
ZZZZZZ			13:54																													
ZZZZZZ			13:58																													
ZZZZZZ			14:02																													
ZZZZZZ			14:05																													
CCV 240-126876/97			14:09																													
CCB 240-126876/98			14:13																													
ZZZZZZ			14:17																													
ZZZZZZ			14:21																													
ZZZZZZ			14:26																													
ZZZZZZ			14:30																													
ZZZZZZ			14:34																													
ZZZZZZ			14:38																													
ZZZZZZ			14:41																													
ZZZZZZ			14:45																													
ZZZZZZ			14:49																													
ZZZZZZ			14:53																													
CCV 240-126876/109			14:57																													
CCB 240-126876/110			15:01																													
ZZZZZZ			15:05																													
ZZZZZZ			15:09																													
ZZZZZZ			15:13																													
ZZZZZZ			15:17																													
ZZZZZZ			15:21																													
ZZZZZZ			15:25																													
ZZZZZZ			15:29																													
ZZZZZZ			15:33																													
ZZZZZZ			15:37																													
ZZZZZZ			15:41																													

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/17/2014 07:41 End Date: 04/18/2014 05:06

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ca	K	Mg	Na	SiO2																									
CCV 240-126876/121			15:45																													
CCB 240-126876/122			15:49																													
ZZZZZZ			15:53																													
ZZZZZZ			15:57																													
ZZZZZZ			16:01																													
ZZZZZZ			16:05																													
ZZZZZZ			16:09																													
ZZZZZZ			16:13																													
ZZZZZZ			16:17																													
ZZZZZZ			16:21																													
ZZZZZZ			16:26																													
ZZZZZZ			16:30																													
CCV 240-126876/133			16:34																													
CCB 240-126876/134			16:38																													
ZZZZZZ			16:42																													
ZZZZZZ			16:46																													
ZZZZZZ			16:50																													
ZZZZZZ			16:54																													
ZZZZZZ			16:59																													
ZZZZZZ			17:03																													
ZZZZZZ			17:07																													
ZZZZZZ			17:11																													
ZZZZZZ			17:15																													
ZZZZZZ			17:19																													
CCV 240-126876/145			17:24																													
CCB 240-126876/146			17:27																													
ZZZZZZ			17:32																													
ZZZZZZ			17:36																													
ZZZZZZ			17:39																													
ZZZZZZ			17:43																													
ZZZZZZ			17:47																													
ZZZZZZ			17:52																													
ZZZZZZ			17:56																													
ZZZZZZ			18:00																													
ZZZZZZ			18:04																													
ZZZZZZ			18:08																													
CCV 240-126876/157			18:12																													
CCB 240-126876/158			18:16																													
ZZZZZZ			18:20																													
ZZZZZZ			18:24																													

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/17/2014 07:41 End Date: 04/18/2014 05:06

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ca	K	Mg	Na	SiO2																								
ZZZZZZ			18:29																													
ZZZZZZ			18:33																													
ZZZZZZ			18:37																													
ZZZZZZ			18:40																													
ZZZZZZ			18:45																													
ZZZZZZ			18:49																													
ZZZZZZ			18:53																													
ZZZZZZ			18:57																													
CCV 240-126876/169			19:01																													
CCB 240-126876/170			19:05																													
ZZZZZZ			19:09																													
ZZZZZZ			19:13																													
ZZZZZZ			19:17																													
ZZZZZZ			19:21																													
ZZZZZZ			19:25																													
ZZZZZZ			19:29																													
ZZZZZZ			19:33																													
ZZZZZZ			19:37																													
ZZZZZZ			19:40																													
ZZZZZZ			19:44																													
CCV 240-126876/181			19:48																													
CCB 240-126876/182			19:52																													
ZZZZZZ			19:56																													
ZZZZZZ			20:00																													
ZZZZZZ			20:04																													
ZZZZZZ			20:08																													
ZZZZZZ			20:12																													
ZZZZZZ			20:16																													
ZZZZZZ			20:20																													
ZZZZZZ			20:24																													
ZZZZZZ			20:28																													
ZZZZZZ			20:32																													
CCV 240-126876/193			20:36																													
CCB 240-126876/194			20:40																													
ZZZZZZ			20:44																													
ZZZZZZ			20:48																													
ZZZZZZ			20:52																													
ZZZZZZ			20:56																													
ZZZZZZ			21:00																													
ZZZZZZ			21:03																													

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/17/2014 07:41 End Date: 04/18/2014 05:06

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ca	K	Mg	Na	SiO2																								
ZZZZZZ			21:07																													
ZZZZZZ			21:11																													
ZZZZZZ			21:15																													
ZZZZZZ			21:19																													
CCV 240-126876/205			21:23																													
CCB 240-126876/206			21:27																													
ZZZZZZ			21:31																													
ZZZZZZ			21:35																													
ZZZZZZ			21:39																													
ZZZZZZ			21:43																													
ZZZZZZ			21:47																													
ZZZZZZ			21:51																													
ZZZZZZ			21:55																													
ZZZZZZ			21:59																													
ZZZZZZ			22:03																													
ZZZZZZ			22:07																													
CCV 240-126876/217			22:11																													
CCB 240-126876/218			22:15																													
ZZZZZZ			22:19																													
ZZZZZZ			22:23																													
ZZZZZZ			22:27																													
ZZZZZZ			22:31																													
ZZZZZZ			22:35																													
ZZZZZZ			22:39																													
ZZZZZZ			22:43																													
ZZZZZZ			22:47																													
ZZZZZZ			22:51																													
ZZZZZZ			22:55																													
CCV 240-126876/229			22:58																													
CCB 240-126876/230			23:02																													
ZZZZZZ			23:06																													
ZZZZZZ			23:10																													
ZZZZZZ			23:14																													
ZZZZZZ			23:18																													
ZZZZZZ			23:22																													
ZZZZZZ			23:26																													
ZZZZZZ			23:30																													
ZZZZZZ			23:34																													
ZZZZZZ			23:38																													
ZZZZZZ			23:42																													

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/17/2014 07:41 End Date: 04/18/2014 05:06

Lab Sample Id	D/F	Type	Time	Analytes																														
				Ca	K	Mg	Na	SiO2																												
CCV 240-126876/241			23:46																																
CCB 240-126876/242			23:50																																
ZZZZZZ			23:54																																
ZZZZZZ			23:58																																
ZZZZZZ			00:02																																
ZZZZZZ			00:06																																
ZZZZZZ			00:10																																
ZZZZZZ			00:14																																
ZZZZZZ			00:18																																
ZZZZZZ			00:22																																
ZZZZZZ			00:26																																
ZZZZZZ			00:31																																
CCV 240-126876/253			00:35																																
CCB 240-126876/254			00:38																																
ZZZZZZ			00:42																																
ZZZZZZ			00:46																																
ZZZZZZ			00:50																																
ZZZZZZ			00:54																																
ZZZZZZ			00:58																																
ZZZZZZ			01:02																																
ZZZZZZ			01:06																																
ZZZZZZ			01:10																																
ZZZZZZ			01:14																																
ZZZZZZ			01:18																																
CCV 240-126876/265			01:22																																
CCB 240-126876/266			01:26																																
ZZZZZZ			01:30																																
ZZZZZZ			01:34																																
ZZZZZZ			01:38																																
ZZZZZZ			01:42																																
ZZZZZZ			01:46																																
ZZZZZZ			01:50																																
ZZZZZZ			01:54																																
ZZZZZZ			01:58																																
ZZZZZZ			02:02																																
ZZZZZZ			02:06																																
CCV 240-126876/277			02:10																																
CCB 240-126876/278			02:14																																
ZZZZZZ			02:18																																
ZZZZZZ			02:22																																

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/17/2014 07:41 End Date: 04/18/2014 05:06

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ca	K	Mg	Na	SiO2																								
ZZZZZZ			02:26																													
ZZZZZZ			02:30																													
ZZZZZZ			02:33																													
CCV 240-126876/284			02:37																													
CCB 240-126876/285			02:41																													
CCV 240-126876/286			04:26																													
CCB 240-126876/287			04:30																													
ZZZZZZ			04:34																													
ZZZZZZ			04:38																													
ZZZZZZ			04:42																													
ZZZZZZ			04:46																													
ZZZZZZ			04:50																													
ZZZZZZ			04:54																													
ZZZZZZ			04:58																													
CCV 240-126876/295			05:02																													
CCB 240-126876/296			05:06																													

Prep Types:
R = Total Recoverable

FORM XIII-IN

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-126669/1-A

Instrument Code: I9 Batch No.: 126876

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	264	J		6010C
7440-09-7	Potassium	126	J		6010C
7439-95-4	Magnesium	55.0	J		6010C
7440-23-5	Sodium	590	U		6010C
14808-60-7	SiO2, Silica	17	U		6010C

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-126669/1-A	04/16/2014 08:41	126669		50	50
LCS 240-126669/2-A	04/16/2014 08:41	126669		50	50
240-36135-2	04/16/2014 08:41	126669		50	50

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE:** **JULY 10, 2014**

FROM: **J. KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION - VOC/1,4-DIOXANE/OVG/TPH C06-C10/TPH C10-C32**
LOCKHEED MARTIN STATE AIRPORT (MSA)
SAMPLE DELIVERY GROUP (SDG) 240-36135-1

SAMPLES: 15 / Aqueous - VOC

MSA-DMW-11I-041414	MSA-DMW-11S-041414	MSA-DMW-7D-041614
MSA-DMW-7I-041614	MSA-DMW-8I-041614	MSA-MW-21D-041414
MSA-MW-21I-041414	MSA-MW-4-041614	MSA-MW-50D-041614
MSA-MW-50I-041414	MSA-MW-50S-041414	MSA-MW-51I-041614
MSA-MW-51S-041614	TB-041414	TB-041614

14 / Aqueous – 1.4-Dioxane

MSA-DMW-11I-041414	MSA-DMW-11S-041414	MSA-DMW-7D-041614
MSA-DMW-7I-041614	MSA-DMW-8I-041614	MSA-MW-21D-041414
MSA-MW-21I-041414	MSA-MW-4-041614	MSA-MW-48I-041414
MSA-MW-50D-041614	MSA-MW-50I-041414	MSA-MW-50S-041414
MSA-MW-51I-041614	MSA-MW-51S-041614	

4 / Aqueous - TPH C06-C10 / TPH C10-C32

MSA-DMW-11S-041414	MSA-MW-4-041614	MSA-MW-50S-041414
MSA-MW-51S-041614		

1 / Aqueous - OVG

MSA-DMW-11S-041414

Overview

The sample set for Lockheed MSA, SDG 240-36135-1, consisted of fourteen (14) aqueous samples and two (2) aqueous trip blank samples. Fifteen (15) samples were analyzed for volatile organic compounds (VOCs) as listed above. Fourteen (14) aqueous samples were analyzed for the semi-volatile organic compound (SVOC) 1,4-dioxane as listed above. Four (4) aqueous samples were analyzed for the total petroleum hydrocarbons (TPH) TPH C06-C10 & TPH C10-C32 as listed above. One (1) aqueous sample was analyzed for organic volatile compounds (OVG) as listed above. No field duplicate sample pairs were included in the sample delivery group (SDG).

The samples were collected by Tetra Tech on April 14 and 16, 2014 and analyzed by TestAmerica Laboratories, Inc., North Canton for all analyses. All analyses were conducted in accordance with EPA SW-846 Methods 8260C for VOCs, 8270C for 1,4-dioxane, 8015B for TPH C06-C10 & TPH C10-C32, and RSK-175 for OVG, analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, blank results, blank spike/blank spike duplicate results, matrix spike/matrix spike duplicate results, surrogate spike recoveries, internal standard recoveries, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major Problems

- The matrix spike (MS) and MS duplicate (MSD) percent recoveries (%Rs) were less than the quality control limit at 0% for 2-chloroethyl vinyl ether for sample MSA-DMW-11I-041414.
  Affected Sample: MSA-DMW-11I-041414
  Actions: The sample non-detected 2-chloroethyl vinyl ether result was qualified rejected, (UR).

- Sample MSA-MW-50D-041614 had a silanol compound VOC tentatively identified compound (TIC) result.
  Actions: The sample silanol related compound result was qualified rejected (R), as it was considered present due to analytical column bleed.

Minor Problems

- Detected results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

- The following laboratory VOC contaminants were detected in the trip blank samples at the following maximum concentration affecting all VOC samples.

Analytes	Maximum Conc.	Action Level
Acetone [1]	1.1 µg/l	11 µg/l
Methylene chloride [1]	0.34 µg/l	3.40 µg/l
Acetone [2]	1.2 µg/l	12 µg/l
Methylene chloride [2]	0.36 µg/l	3.60 µg/l

[1] Trip blank sample TB-041414.
[2] Trip blank sample TB-041614.

An action level of ten times the maximum level for the common laboratory contaminants acetone and methylene chloride were used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive sample results less than the action level were qualified non-detected, (U), for blank contamination. The trip blank samples were not qualified for blank contamination.

- The VOC continuing calibration verification (CCV) percent differences (%Ds) were greater than the 20% quality control limit for bromomethane and 2,2'-dichloropropane for instrument A3UX10 on 04/22/14 @ 11:32.
  Affected Samples:

MSA-DMW-11I-041414	MSA-DMW-11S-041414	MSA-DMW-7D-041614
MSA-MW-21D-041414	MSA-MW-21I-041414	MSA-MW-50I-041414
MSA-MW-50S-041414	TB-041414	TB-041614

  Action: The sample non-detected aforementioned analyte results were qualified estimated, (UJ).

- The VOC continuing calibration verification (CCV) percent differences (%Ds) were greater than the 20% quality control limit for bromomethane, tert-butyl alcohol, dibromomethane, bromoform, 1,2,4-trimethylbenzene, sec-butyl benzene, n-butylbenzene, and hexachlorobutadiene for instrument A3UX12 on 04/26/14 @ 09:26.

  Affected Samples:

MSA-DMW-7I-041614	MSA-DMW-8I-041614	MSA-MW-4-041614
MSA-MW-50D-041614	MSA-MW-51I-041614	MSA-MW-51S-041614

  Action: The sample non-detected aforementioned analyte results were qualified estimated, (UJ).

- Samples MSA-MW-21D-041414 and MSA-MW-50I-041414 had a detected VOC TIC result. The detected result was qualified presumptively present, (NJ).

- The MS and MSD %Rs were less than the quality control limit for cis-1,2-dichloroethene and trichloroethene for spiked sample MSA-DMW-11I-041414.

  Affected Sample: MSA-DMW-11I-041414

  Actions: The sample detected cis-1,2-dichloroethene and trichloroethene results were qualified estimated, (J).

- The laboratory contaminant TPH C06-C10 was detected in the method blank sample MB 240-127165 at the following maximum concentration affecting all TPH C06-C10 samples.

Analytes	Maximum Conc.	Action Level
TPH C06-C10	38.7 µg/l	193.5 µg/l

  An action level of 5X the maximum level for the TPH C06-C10 contamination was used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive sample results less than the action level were qualified non-detected, (U), for blank contamination.

- The TPH C06-C10 surrogate %R for trifluorotoluene was less than quality control limit for sample MSA-MW-50S-041414.

  Affected Sample: MSA-MW-50S-041414

  Actions: The sample detected TPH C06-C10 result was qualified estimated, (J).

- The OVG CCV %Ds were greater than the 15% quality control limit for ethane and ethene for instrument ZPID on 04/25/14 @ 10:02.

  Affected Sample: MSA-DMW-11S-041414

  Action: Detected ethane and ethene results were qualified estimated, (J).

- Samples MSA-MW11S-041414, MSA-MW50S-041414, and MSA-MW51S-041414 contain high concentrations of chlorinated organic compounds as reported in the volatile organic fraction analysis. The compounds vinyl chloride, cis-1,2-dichloroethene, and trichloroethene were detected and reported at high concentrations in the aforementioned samples. Because of the presence of the chlorinated compounds in the samples, the reported concentrations of TPH (C06-C10) in samples MSA-MW11S-041414, MSA-MW50S-041414, and MSA-MW51S-041414 likely contain contribution from chlorinated organic compounds thus elevating the concentrations of TPH (C06-C10). The results for TPH (C06-C10) in both samples are qualified as estimated, J.

Notes

The VOC LCS %R was greater than the quality control limit for dibromomethane for LCS 240-128028. No validation action was taken as the samples had non-detected dibromomethane results.

The VOC MS %R was greater than the quality control limit for 1,1,2,2-tetrachloroethane for sample MSA-DMW-11I-041414. No action was taken as the sample analyte result was non-detected.

The trip blank sample TB-041414 was re-analyzed by the laboratory. No explanation was found in the laboratory narrative the sample re-analysis. Both sample analyses had compliant quality control limit results for surrogates, internal standards, and the associated LCS. The original trip blank sample TB-041414 analysis was validated/reported.

The OVG laboratory contaminant methane was detected in the method blank sample MB 240-127844 at the maximum concentration of 0.0822 µg/l affecting OVG sample MSA-DMW-11S-041414. An action level of five times the maximum level for the OVG contamination was used to evaluate the sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. No validation action was necessary.

Samples were diluted as listed below for the VOC analysis resulting in elevated levels reported for non-detected VOC analytes.

Sample	Dilution
MSA-DMW-11I-041414	5.71X
MSA-DMW-11S-041414	416.67X
MSA-DMW-7I-041614	5.71X
MSA-DMW-8I-041614	8.33x
MSA-MW-21I-041414	14.29X
MSA-MW-50I-041414	2X
MSA-MW-50S-041414	5.71X
MSA-MW-51S-041614	25X

Sample MSA-MW-48I-041414 was diluted 5X and sample MSA-DMW-8I-041614 was diluted 2X for the 1,4-dioxane analysis.

Sample analyte results were reported to the Method Detection Limit (MDL).

EXECUTIVE SUMMARY

Laboratory Performance Issues: A VOC silanol compound result was rejected for column bleed. VOC sample results were qualified for trip blank contamination. VOC and OVG sample results were qualified for CCV %D non-compliances. One TPH C06-C10 sample result was qualified for method blank contamination and one TPH C06-C10 results was qualified for a surrogate %R non-compliance.

Other Factors Affecting Data Quality: Detected results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J). VOC TIC results were qualified presumptively present. A sample VOC non-detected result for 2-chloroethyl vinyl ether was rejected due to 0% MS/MSD recoveries. A sample VOC results were qualified for MS/MSD %R non-compliances.

The data for these analyses were reviewed with reference to EPA SW-846 Methods 8260C, 8270C, 8015B, RSK-175, and the USEPA National Functional Guidelines for Organic Data Validation (June 2008).

Tetra Tech
Joseph Kalinyak
Data Validator/Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 06183	NSAMPLE	MSA-DMW-11I-041414			MSA-DMW-11S-041414			MSA-DMW-7D-041614			MSA-DMW-7I-041614		
SDG: 240-36135-1	LAB_ID	240-36135-3			240-36135-2			240-36320-3			240-36320-2		
FRACTION: OV	SAMP_DATE	4/14/2014			4/14/2014			4/16/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	1.3	U		96	U		0.23	U		1.3	U	
1,1,1-TRICHLOROETHANE	1.3	U		92	U		0.22	U		4.5	J	P
1,1,2,2-TETRACHLOROETHANE	1	U		75	U		0.18	U		1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1.6	U		120	U		0.28	U		1.6	U	
1,1-DICHLOROETHANE	0.86	U		63	U		0.15	U		0.86	U	
1,1-DICHLOROETHENE	1.8	J	P	120	J	P	0.19	U		1.3	J	P
1,1-DICHLOROPROPENE	0.74	U		54	U		0.13	U		0.74	U	
1,2,3-TRICHLOROBENZENE	0.97	U		71	U		0.17	U		0.97	U	
1,2,3-TRICHLOROPROPANE	2.5	U		180	U		0.43	U		2.5	U	
1,2,3-TRIMETHYLBENZENE	0.034	U		2.5	U		0.0059	U		0.034	U	
1,2,4-TRICHLOROBENZENE	0.86	U		63	U		0.15	U		0.86	U	
1,2,4-TRIMETHYLBENZENE	0.69	U		50	U		0.12	U		0.69	UJ	C
1,2-DIBROMO-3-CHLOROPROPANE	3.8	U		280	U		0.67	U		3.8	U	
1,2-DIBROMOETHANE	1.4	U		100	U		0.24	U		1.4	U	
1,2-DICHLOROBENZENE	0.74	U		54	U		0.13	U		0.74	U	
1,2-DICHLOROETHANE	1.3	U		92	U		0.22	U		2.5	J	P
1,2-DICHLOROPROPANE	1	U		75	U		0.18	U		1	U	
1,3-DICHLOROBENZENE	0.8	U		58	U		0.14	U		0.8	U	
1,3-DICHLOROPROPANE	0.91	U		67	U		0.16	U		0.91	U	
1,4-DICHLOROBENZENE	0.74	U		54	U		0.13	U		0.74	U	
2,2-DICHLOROPROPANE	0.74	UJ	C	54	UJ	C	0.13	UJ	C	0.74	U	
2-BUTANONE	3.3	U		240	U		0.57	U		3.3	U	
2-CHLOROETHYL VINYL ETHER	5.7	UR	E	410	U		0.99	U		5.7	U	
2-CHLOROTOLUENE	0.63	U		46	U		0.11	U		0.63	U	
2-HEXANONE	2.3	U		170	U		0.41	U		2.3	U	
4-CHLOROTOLUENE	1	U		75	U		0.18	U		1	U	
4-ISOPROPYLTOLUENE	0.69	U		50	U		0.12	U		0.69	U	
4-METHYL-2-PENTANONE	1.8	U		130	U		0.32	U		1.8	U	
ACETONE	6.3	U		460	U		1.1	U		6.3	U	
BENZENE	0.74	U		54	U		0.13	U		0.76	J	P
BROMOBENZENE	0.74	U		54	U		0.13	U		0.74	U	
BROMOCHLOROMETHANE	1.7	U		120	U		0.29	U		1.7	U	
BROMODICHLOROMETHANE	0.86	U		63	U		0.15	U		0.86	U	
BROMOFORM	3.7	U		270	U		0.64	U		3.7	UJ	C
BROMOMETHANE	2.3	UJ	C	170	UJ	C	0.41	UJ	C	2.3	UJ	C

PROJ_NO: 06183	NSAMPLE	MSA-DMW-8I-041614			MSA-MW-21D-041414			MSA-MW-21I-041414			MSA-MW-4-041614		
SDG: 240-36135-1	LAB_ID	240-36320-4			240-36233-5			240-36233-3			240-36320-5		
FRACTION: OV	SAMP_DATE	4/16/2014			4/14/2014			4/14/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	1.9	U		0.23	U		3.3	U		0.23	U	
1,1,1-TRICHLOROETHANE	1.8	U		0.22	U		3.1	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE	1.5	U		0.18	U		2.6	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	2.3	U		0.28	U		4	U		0.28	U	
1,1-DICHLOROETHANE	1.2	U		0.15	U		2.1	U		0.15	U	
1,1-DICHLOROETHENE	2	J	P	0.19	U		5.4	J	P	0.19	U	
1,1-DICHLOROPROPENE	1.1	U		0.13	U		1.9	U		0.13	U	
1,2,3-TRICHLOROBENZENE	1.4	U		0.17	U		2.4	U		0.17	U	
1,2,3-TRICHLOROPROPANE	3.6	U		0.43	U		6.1	U		0.43	U	
1,2,3-TRIMETHYLBENZENE	0.049	U		0.0059	U		0.084	U		0.0059	U	
1,2,4-TRICHLOROBENZENE	1.2	U		0.15	U		2.1	U		0.15	U	
1,2,4-TRIMETHYLBENZENE	1	UJ	C	0.12	U		1.7	U		0.12	UJ	C
1,2-DIBROMO-3-CHLOROPROPANE	5.6	U		0.67	U		9.6	U		0.67	U	
1,2-DIBROMOETHANE	2	U		0.24	U		3.4	U		0.24	U	
1,2-DICHLOROBENZENE	1.1	U		0.13	U		1.9	U		0.13	U	
1,2-DICHLOROETHANE	5.3	J	P	0.22	U		3.1	U		0.22	U	
1,2-DICHLOROPROPANE	1.5	U		0.18	U		2.6	U		0.18	U	
1,3-DICHLOROBENZENE	1.2	U		0.14	U		2	U		0.14	U	
1,3-DICHLOROPROPANE	1.3	U		0.16	U		2.3	U		0.16	U	
1,4-DICHLOROBENZENE	1.1	U		0.13	U		1.9	U		0.13	U	
2,2-DICHLOROPROPANE	1.1	U		0.13	UJ	C	1.9	UJ	C	0.13	U	
2-BUTANONE	4.7	U		0.57	U		8.1	U		0.57	U	
2-CHLOROETHYL VINYL ETHER	8.2	U		0.99	U		14	U		0.99	U	
2-CHLOROTOLUENE	0.92	U		0.11	U		1.6	U		0.11	U	
2-HEXANONE	3.4	U		0.41	U		5.9	U		0.41	U	
4-CHLOROTOLUENE	1.5	U		0.18	U		2.6	U		0.18	U	
4-ISOPROPYLTOLUENE	1	U		0.12	U		1.7	U		0.12	U	
4-METHYL-2-PENTANONE	2.7	U		0.32	U		4.6	U		0.32	U	
ACETONE	9.2	U		3.2	U	A	16	U		1.1	U	
BENZENE	2.7	J	P	0.13	U		1.9	U		0.19	J	P
BROMOBENZENE	1.1	U		0.13	U		1.9	U		0.13	U	
BROMOCHLOROMETHANE	2.4	U		0.29	U		4.1	U		0.29	U	
BROMODICHLOROMETHANE	1.2	U		0.15	U		2.1	U		0.15	U	
BROMOFORM	5.3	UJ	C	0.64	U		9.1	U		0.64	UJ	C
BROMOMETHANE	3.4	UJ	C	0.41	UJ	C	5.9	UJ	C	0.41	UJ	C

PROJ_NO: 06183	NSAMPLE	MSA-MW-50D-041614			MSA-MW-50I-041414			MSA-MW-50S-041414			MSA-MW-51I-041614		
SDG: 240-36135-1	LAB_ID	240-36320-6			240-36233-4			240-36233-2			240-36320-8		
FRACTION: OV	SAMP_DATE	4/16/2014			4/14/2014			4/14/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.46	U		1.3	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.44	U		1.3	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.36	U		1	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.56	U		1.6	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.3	U		0.86	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.38	U		1.1	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.26	U		0.74	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.34	U		0.97	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.86	U		2.5	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.012	U		0.034	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.3	U		0.86	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	UJ	C	0.24	U		0.69	U		0.12	UJ	C
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		1.3	U		3.8	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.48	U		1.4	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.26	U		0.74	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.54	J	P	1.6	J	P	0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.36	U		1	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.28	U		0.8	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.32	U		0.91	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.26	U		0.74	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.26	UJ	C	0.74	UJ	C	0.13	U	
2-BUTANONE		0.57	U		1.1	U		3.3	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		2	U		5.7	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.22	U		0.63	U		0.11	U	
2-HEXANONE		0.41	U		0.82	U		2.3	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.36	U		1	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.24	U		0.69	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.64	U		1.8	U		0.32	U	
ACETONE		1.1	U		3	U	A	6.3	U		1.1	U	
BENZENE		0.13	U		0.26	U		0.74	U		0.13	U	
BROMOBENZENE		0.13	U		0.26	U		0.74	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.58	U		1.7	U		0.29	U	
BROMODICHLOROMETHANE		3.6			0.3	U		0.86	U		0.15	U	
BROMOFORM		0.64	UJ	C	1.3	U		3.7	U		0.64	UJ	C
BROMOMETHANE		0.41	UJ	C	0.82	UJ	C	2.3	UJ	C	0.41	UJ	C

PROJ_NO: 06183	NSAMPLE	MSA-MW-51S-041614			TB-041414			TB-041614		
SDG: 240-36135-1	LAB_ID	240-36320-7			240-36135-1			240-36320-1		
FRACTION: OV	SAMP_DATE	4/16/2014			4/14/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		5.8	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		5.5	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		4.5	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		7	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		3.8	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		4.8	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		3.3	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		4.3	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		11	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.15	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		3.8	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		3	UJ	C	0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		17	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		6	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		3.3	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		5.5	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		4.5	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		3.5	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		4	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		3.3	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		3.3	U		0.13	UJ	C	0.13	UJ	C
2-BUTANONE		14	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		25	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		2.8	U		0.11	U		0.11	U	
2-HEXANONE		10	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		4.5	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		3	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		8	U		0.32	U		0.32	U	
ACETONE		28	U		1.1	J	P	1.2	J	P
BENZENE		3.3	U		0.13	U		0.13	U	
BROMOBENZENE		3.3	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		7.3	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		3.8	U		0.15	U		0.15	U	
BROMOFORM		16	UJ	C	0.64	U		0.64	U	
BROMOMETHANE		10	UJ	C	0.41	UJ	C	0.41	UJ	C

PROJ_NO: 06183	NSAMPLE	MSA-DMW-11I-041414			MSA-DMW-11S-041414			MSA-DMW-7D-041614			MSA-DMW-7I-041614		
SDG: 240-36135-1	LAB_ID	240-36135-3			240-36135-2			240-36320-3			240-36320-2		
FRACTION: OV	SAMP_DATE	4/14/2014			4/14/2014			4/16/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.74	U		54	U		0.13	U		0.74	U	
CARBON TETRACHLORIDE		0.74	U		54	U		0.13	U		0.74	U	
CHLOROBENZENE		0.86	U		63	U		0.15	U		5.1	J	P
CHLORODIBROMOMETHANE		1	U		75	U		0.18	U		1	U	
CHLOROETHANE		1.7	U		120	U		0.29	U		1.7	U	
CHLOROFORM		2.7	J	P	67	U		0.16	U		0.91	U	
CHLOROMETHANE		1.7	U		130	U		0.3	U		1.7	U	
CIS-1,2-DICHLOROETHENE		190	J	E	11000			0.17	U		360		
CIS-1,3-DICHLOROPROPENE		0.8	U		58	U		0.14	U		0.8	U	
DIBROMOMETHANE		1.6	U		120	U		0.28	U		1.6	UJ	C
DICHLORODIFLUOROMETHANE		1.8	U		130	U		0.31	U		1.8	U	
DIISOPROPYL ETHER		8.6	U		630	U		1.5	U		8.6	U	
ETHYL TERT-BUTYL ETHER		0.63	U		46	U		0.11	U		0.63	U	
ETHYLBENZENE		0.97	U		71	U		0.17	U		0.97	U	
HEXACHLOROBUTADIENE		1.7	U		130	U		0.3	U		1.7	UJ	C
ISOPROPYLBENZENE		0.74	U		54	U		0.13	U		0.74	U	
M+P-XYLENES		1.4	U		100	U		0.24	U		1.4	U	
METHYL TERT-BUTYL ETHER		0.97	U		71	U		0.17	U		0.97	U	
METHYLENE CHLORIDE		1.9	U		140	U		0.33	U		1.9	U	
NAPHTHALENE		1.4	U		100	U		0.24	U		1.4	U	
N-BUTYLBENZENE		0.69	U		50	U		0.12	U		0.69	UJ	C
N-PROPYLBENZENE		0.8	U		58	U		0.14	U		0.8	U	
O-XYLENE		0.8	U		58	U		0.14	U		0.8	U	
SEC-BUTYLBENZENE		0.74	U		54	U		0.13	U		0.74	UJ	C
STYRENE		0.63	U		46	U		0.11	U		0.63	U	
TERT-AMYL METHYL ETHER		0.38	U		28	U		0.067	U		0.38	U	
TERT-BUTYLBENZENE		0.74	U		54	U		0.13	U		0.74	U	
TERTIARY-BUTYL ALCOHOL		22	U		1600	U		3.9	U		22	UJ	C
TETRACHLOROETHENE		1.7	U		120	U		0.29	U		1.7	U	
TOLUENE		0.74	U		100	J	P	0.13	U		0.74	U	
TOTAL XYLENES		0.8	U		58	U		0.14	U		0.8	U	
TRANS-1,2-DICHLOROETHENE		1.1	U		79	U		0.19	U		9		
TRANS-1,3-DICHLOROPROPENE		1.1	U		79	U		0.19	U		1.1	U	
TRICHLOROETHENE		110	J	E	3100			0.17	U		270		
TRICHLOROFLUOROMETHANE		1.2	U		88	U		0.21	U		1.2	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW-8I-041614			MSA-MW-21D-041414			MSA-MW-21I-041414			MSA-MW-4-041614		
SDG: 240-36135-1	LAB_ID	240-36320-4			240-36233-5			240-36233-3			240-36320-5		
FRACTION: OV	SAMP_DATE	4/16/2014			4/14/2014			4/14/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		1.1	U		0.13	U		1.9	U		0.13	U	
CARBON TETRACHLORIDE		1.1	U		0.13	U		1.9	U		0.13	U	
CHLOROBENZENE		1.2	U		0.15	U		2.1	U		0.15	U	
CHLORODIBROMOMETHANE		1.5	U		0.18	U		2.6	U		0.18	U	
CHLOROETHANE		2.4	U		0.29	U		4.1	U		0.29	U	
CHLOROFORM		2.3	J	P	0.59	J	P	2.3	U		0.16	U	
CHLOROMETHANE		2.5	U		0.3	U		4.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		440			0.17	U		440			0.17	U	
CIS-1,3-DICHLOROPROPENE		1.2	U		0.14	U		2	U		0.14	U	
DIBROMOMETHANE		2.3	UJ	C	0.28	U		4	U		0.28	UJ	C
DICHLORODIFLUOROMETHANE		2.6	U		0.31	U		4.4	U		0.31	U	
DIISOPROPYL ETHER		12	U		1.5	U		21	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.92	U		0.11	U		1.6	U		0.11	U	
ETHYLBENZENE		1.4	U		0.17	U		2.4	U		0.17	U	
HEXACHLOROBUTADIENE		2.5	UJ	C	0.3	U		4.3	U		0.3	UJ	C
ISOPROPYLBENZENE		1.1	U		0.13	U		1.9	U		0.13	U	
M+P-XYLENES		2	U		0.24	U		3.4	U		0.24	U	
METHYL TERT-BUTYL ETHER		1.4	U		0.17	U		2.4	U		0.17	U	
METHYLENE CHLORIDE		6.3	U	A	0.33	U		4.7	U		0.33	U	
NAPHTHALENE		2	U		0.24	U		3.4	U		0.24	U	
N-BUTYLBENZENE		1	UJ	C	0.12	U		1.7	U		0.12	UJ	C
N-PROPYLBENZENE		1.2	U		0.14	U		2	U		0.14	U	
O-XYLENE		1.2	U		0.14	U		2	U		0.14	U	
SEC-BUTYLBENZENE		1.1	UJ	C	0.13	U		1.9	U		0.13	UJ	C
STYRENE		0.92	U		0.11	U		1.6	U		0.11	U	
TERT-AMYL METHYL ETHER		0.56	U		0.067	U		0.96	U		0.067	U	
TERT-BUTYLBENZENE		1.1	U		0.13	U		1.9	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		32	UJ	C	3.9	U		56	U		3.9	UJ	C
TETRACHLOROETHENE		2.4	U		0.29	U		4.1	U		0.29	U	
TOLUENE		1.1	U		0.13	U		1.9	U		0.13	U	
TOTAL XYLENES		1.2	U		0.14	U		2	U		0.14	U	
TRANS-1,2-DICHLOROETHENE		2.2	J	P	0.19	U		4.7	J	P	0.19	U	
TRANS-1,3-DICHLOROPROPENE		1.6	U		0.19	U		2.7	U		0.19	U	
TRICHLOROETHENE		640			0.17	U		150			0.17	U	
TRICHLOROFLUOROMETHANE		1.7	U		0.21	U		3	U		0.21	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-50D-041614			MSA-MW-50I-041414			MSA-MW-50S-041414			MSA-MW-51I-041614		
SDG: 240-36135-1	LAB_ID	240-36320-6			240-36233-4			240-36233-2			240-36320-8		
FRACTION: OV	SAMP_DATE	4/16/2014			4/14/2014			4/14/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.19	J	P	0.38	J	P	0.74	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.26	U		0.74	U		0.13	U	
CHLOROBENZENE		0.15	U		0.3	U		1.3	J	P	0.15	U	
CHLORODIBROMOMETHANE		0.31	J	P	0.36	U		1	U		0.18	U	
CHLOROETHANE		0.29	U		0.58	U		1.7	U		0.29	U	
CHLOROFORM		25			0.32	U		0.91	U		0.16	U	
CHLOROMETHANE		0.3	U		0.6	U		1.7	U		0.3	U	
CIS-1,2-DICHLOROETHENE		1.4			18			57			9.9		
CIS-1,3-DICHLOROPROPENE		0.14	U		0.28	U		0.8	U		0.14	U	
DIBROMOMETHANE		0.28	UJ	C	0.56	U		1.6	U		0.28	UJ	C
DICHLORODIFLUOROMETHANE		0.31	U		0.62	U		1.8	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		3	U		8.6	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.22	U		0.63	U		0.11	U	
ETHYLBENZENE		0.17	U		0.34	U		0.97	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	UJ	C	0.6	U		1.7	U		0.3	UJ	C
ISOPROPYLBENZENE		0.13	U		0.26	U		0.74	U		0.13	U	
M+P-XYLENES		0.24	U		0.48	U		1.4	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.34	U		0.97	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.66	U		1.9	U		0.33	U	
NAPHTHALENE		0.24	U		0.48	U		1.4	U		0.24	U	
N-BUTYLBENZENE		0.12	UJ	C	0.24	U		0.69	U		0.12	UJ	C
N-PROPYLBENZENE		0.14	U		0.28	U		0.8	U		0.14	U	
O-XYLENE		0.14	U		0.28	U		0.8	U		0.14	U	
SEC-BUTYLBENZENE		0.13	UJ	C	0.26	U		0.74	U		0.13	UJ	C
STYRENE		0.11	U		0.22	U		0.63	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.13	U		0.38	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.26	U		0.74	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UJ	C	7.8	U		22	U		3.9	UJ	C
TETRACHLOROETHENE		0.29	U		0.58	U		1.7	U		0.29	U	
TOLUENE		0.13	U		0.26	U		0.74	U		0.13	U	
TOTAL XYLENES		0.14	U		0.28	U		0.8	U		0.14	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.48	J	P	1.6	J	P	0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.38	U		1.1	U		0.19	U	
TRICHLOROETHENE		2.3			60			170			9.9		
TRICHLOROFLUOROMETHANE		0.21	U		0.42	U		1.2	U		0.21	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-51S-041614			TB-041414			TB-041614		
SDG: 240-36135-1	LAB_ID	240-36320-7			240-36135-1			240-36320-1		
FRACTION: OV	SAMP_DATE	4/16/2014			4/14/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		3.3	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		3.3	U		0.13	U		0.13	U	
CHLOROBENZENE		3.8	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		4.5	U		0.18	U		0.18	U	
CHLOROETHANE		7.3	U		0.29	U		0.29	U	
CHLOROFORM		4	U		0.16	U		0.16	U	
CHLOROMETHANE		7.5	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		1100			0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		3.5	U		0.14	U		0.14	U	
DIBROMOMETHANE		7	UJ	C	0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		7.8	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		38	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		2.8	U		0.11	U		0.11	U	
ETHYLBENZENE		4.3	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		7.5	UJ	C	0.3	U		0.3	U	
ISOPROPYLBENZENE		3.3	U		0.13	U		0.13	U	
M+P-XYLENES		6	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		4.3	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		8.3	U		0.34	J	P	0.36	J	P
NAPHTHALENE		6	U		0.24	U		0.24	U	
N-BUTYLBENZENE		3	UJ	C	0.12	U		0.12	U	
N-PROPYLBENZENE		3.5	U		0.14	U		0.14	U	
O-XYLENE		3.5	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		3.3	UJ	C	0.13	U		0.13	U	
STYRENE		2.8	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		1.7	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		3.3	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		98	UJ	C	3.9	U		3.9	U	
TETRACHLOROETHENE		7.3	U		0.29	U		0.29	U	
TOLUENE		3.3	U		0.13	U		0.13	U	
TOTAL XYLENES		3.5	U		0.14	U		0.14	U	
TRANS-1,2-DICHLOROETHENE		13	J	P	0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		4.8	U		0.19	U		0.19	U	
TRICHLOROETHENE		730			0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		5.3	U		0.21	U		0.21	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW-11I-041414			MSA-DMW-11S-041414			MSA-DMW-7D-041614			MSA-DMW-7I-041614		
SDG: 240-36135-1	LAB_ID	240-36135-3			240-36135-2			240-36320-3			240-36320-2		
FRACTION: OV	SAMP_DATE	4/14/2014			4/14/2014			4/16/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		1.1	U		79	U		0.19	U		1.1	U	
VINYL CHLORIDE		24			4900			0.22	U		87		

PROJ_NO: 06183	NSAMPLE	MSA-DMW-8I-041614			MSA-MW-21D-041414			MSA-MW-21I-041414			MSA-MW-4-041614		
SDG: 240-36135-1	LAB_ID	240-36320-4			240-36233-5			240-36233-3			240-36320-5		
FRACTION: OV	SAMP_DATE	4/16/2014			4/14/2014			4/14/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		1.6	U		0.19	U		2.7	U		0.19	U	
VINYL CHLORIDE		220			0.22	U		200			0.22	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-50D-041614			MSA-MW-50I-041414			MSA-MW-50S-041414			MSA-MW-51I-041614		
SDG: 240-36135-1	LAB_ID	240-36320-6			240-36233-4			240-36233-2			240-36320-8		
FRACTION: OV	SAMP_DATE	4/16/2014			4/14/2014			4/14/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	U		0.38	U		1.1	U		0.19	U	
VINYL CHLORIDE		0.22	U		3.8			16			0.37	J	P

PROJ_NO: 06183	NSAMPLE	MSA-MW-51S-041614			TB-041414			TB-041614		
SDG: 240-36135-1	LAB_ID	240-36320-7			240-36135-1			240-36320-1		
FRACTION: OV	SAMP_DATE	4/16/2014			4/14/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		4.8	U		0.19	U		0.19	U	
VINYL CHLORIDE		30			0.22	U		0.22	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW-11I-041414			MSA-DMW-11S-041414			MSA-DMW-7D-041614			MSA-DMW-7I-041614		
SDG: 240-36135-1	LAB_ID	240-36135-3			240-36135-2			240-36320-3			240-36320-2		
FRACTION: OS	SAMP_DATE	4/14/2014			4/14/2014			4/16/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.26	U		3.8			0.23	U		12		

PROJ_NO: 06183	NSAMPLE	MSA-DMW-8I-041614			MSA-MW-21D-041414			MSA-MW-21I-041414			MSA-MW-4-041614		
SDG: 240-36135-1	LAB_ID	240-36320-4			240-36233-5			240-36233-3			240-36320-5		
FRACTION: OS	SAMP_DATE	4/16/2014			4/14/2014			4/14/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		55			0.26	U		3.2			0.26	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-48I-041414			MSA-MW-50D-041614			MSA-MW-50I-041414			MSA-MW-50S-041414		
SDG: 240-36135-1	LAB_ID	240-36233-6			240-36320-6			240-36233-4			240-36233-2		
FRACTION: OS	SAMP_DATE	4/14/2014			4/16/2014			4/14/2014			4/14/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		140			0.26	U		2.1			5		

PROJ_NO: 06183	NSAMPLE	MSA-MW-51I-041614			MSA-MW-51S-041614		
SDG: 240-36135-1	LAB_ID	240-36320-8			240-36320-7		
FRACTION: OS	SAMP_DATE	4/16/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		1.2			5.4		

PROJ_NO: 06183	NSAMPLE	MSA-DMW-11S-041414			MSA-MW-4-041614			MSA-MW-50S-041414			MSA-MW-51S-041614		
SDG: 240-36135-1	LAB_ID	240-36135-2			240-36320-5			240-36233-2			240-36320-7		
FRACTION: PET	SAMP_DATE	4/14/2014			4/16/2014			4/14/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		5100	J	QR	40	U	A	170	J	Q	790	J	Q
TPH (C10-C32)		1100			230	U		240	U		640		

PROJ_NO: 06183	NSAMPLE	MSA-DMW-7I-041614			MSA-MW-21I-041414			MSA-MW-50D-041614			MSA-MW-50I-041414		
SDG: 240-36135-1	LAB_ID	240-36320-2			240-36233-3			240-36320-6			240-36233-4		
FRACTION: MISCO	SAMP_DATE	4/16/2014			4/14/2014			4/16/2014			4/14/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.082	U		0.082	U		0.082	U		0.12	J	P

PROJ_NO: 06183	NSAMPLE	MSA-MW-50S-041414			MSA-MW-51I-041614			MSA-MW-51S-041614		
SDG: 240-36135-1	LAB_ID	240-36233-2			240-36320-8			240-36320-7		
FRACTION: MISCO	SAMP_DATE	4/14/2014			4/16/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.082	U		0.13	J	P	0.48	J	P

PROJ_NO: 06183	NSAMPLE	MSA-DMW-11S-041414		
SDG: 240-36135-1	LAB_ID	240-36135-2		
FRACTION: OVG	SAMP_DATE	4/14/2014		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ETHANE		260	J	C
ETHENE		250	J	C
METHANE		1000		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-11I-041414 | Lab Sample ID: 240-36135-3

Matrix: Water | Lab File ID: UXX9887.D

Analysis Method: 8260C | Date Collected: 04/14/2014 11:48

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 15:51

Soil Aliquot Vol: | Dilution Factor: 5.71

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.3	U	5.7	1.3
71-55-6	1,1,1-Trichloroethane	1.3	U	5.7	1.3
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	5.7	1.0
76-13-1	1,1,2-Trichlorotrifluoroethane	1.6	U	5.7	1.6
75-34-3	1,1-Dichloroethane	0.86	U	5.7	0.86
75-35-4	1,1-Dichloroethene	1.8	J	5.7	1.1
563-58-6	1,1-Dichloropropene	0.74	U	5.7	0.74
87-61-6	1,2,3-Trichlorobenzene	0.97	U	5.7	0.97
96-18-4	1,2,3-Trichloropropane	2.5	U	5.7	2.5
526-73-8	1,2,3-Trimethylbenzene	0.034	U	29	0.034
120-82-1	1,2,4-Trichlorobenzene	0.86	U	5.7	0.86
95-63-6	1,2,4-Trimethylbenzene	0.69	U	5.7	0.69
96-12-8	1,2-Dibromo-3-Chloropropane	3.8	U	11	3.8
95-50-1	1,2-Dichlorobenzene	0.74	U	5.7	0.74
107-06-2	1,2-Dichloroethane	1.3	U	5.7	1.3
78-87-5	1,2-Dichloropropane	1.0	U	5.7	1.0
541-73-1	1,3-Dichlorobenzene	0.80	U	5.7	0.80
142-28-9	1,3-Dichloropropane	0.91	U	5.7	0.91
106-46-7	1,4-Dichlorobenzene	0.74	U	5.7	0.74
594-20-7	2,2-Dichloropropane	0.74	U	5.7	0.74
78-93-3	2-Butanone (MEK)	3.3	U	57	3.3
110-75-8	2-Chloroethyl vinyl ether	5.7	U	57	5.7
95-49-8	2-Chlorotoluene	0.63	U	5.7	0.63
591-78-6	2-Hexanone	2.3	U	57	2.3
106-43-4	4-Chlorotoluene	1.0	U	5.7	1.0
99-87-6	4-Isopropyltoluene	0.69	U	5.7	0.69
108-10-1	4-Methyl-2-pentanone (MIBK)	1.8	U	57	1.8
67-64-1	Acetone	6.3	U	57	6.3
71-43-2	Benzene	0.74	U	5.7	0.74
108-86-1	Bromobenzene	0.74	U	5.7	0.74
75-25-2	Bromoform	3.7	U	5.7	3.7
74-83-9	Bromomethane	2.3	U	5.7	2.3
75-15-0	Carbon disulfide	0.74	U	5.7	0.74
56-23-5	Carbon tetrachloride	0.74	U	5.7	0.74
108-90-7	Chlorobenzene	0.86	U	5.7	0.86
124-48-1	Chlorodibromomethane	1.0	U	5.7	1.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-11I-041414 | Lab Sample ID: 240-36135-3

Matrix: Water | Lab File ID: UXX9887.D

Analysis Method: 8260C | Date Collected: 04/14/2014 11:48

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 15:51

Soil Aliquot Vol: | Dilution Factor: 5.71

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	1.7	U	5.7	1.7
67-66-3	Chloroform	2.7	J	5.7	0.91
74-87-3	Chloromethane	1.7	U	5.7	1.7
156-59-2	cis-1,2-Dichloroethene	190		5.7	0.97
10061-01-5	cis-1,3-Dichloropropene	0.80	U	5.7	0.80
74-95-3	Dibromomethane	1.6	U	5.7	1.6
74-97-5	Bromochloromethane	1.7	U	5.7	1.7
75-71-8	Dichlorodifluoromethane	1.8	U	5.7	1.8
75-27-4	Bromodichloromethane	0.86	U	5.7	0.86
75-65-0	tert-Butyl alcohol	22	U	290	22
100-41-4	Ethylbenzene	0.97	U	5.7	0.97
87-68-3	Hexachlorobutadiene	1.7	U	5.7	1.7
108-20-3	Diisopropyl ether	8.6	U	57	8.6
98-82-8	Isopropylbenzene	0.74	U	5.7	0.74
1634-04-4	Methyl tert-butyl ether	0.97	U	5.7	0.97
75-09-2	Methylene Chloride	1.9	U	5.7	1.9
179601-23-1	m-Xylene & p-Xylene	1.4	U	11	1.4
91-20-3	Naphthalene	1.4	U	5.7	1.4
104-51-8	n-Butylbenzene	0.69	U	5.7	0.69
103-65-1	N-Propylbenzene	0.80	U	5.7	0.80
95-47-6	o-Xylene	0.80	U	5.7	0.80
135-98-8	sec-Butylbenzene	0.74	U	5.7	0.74
100-42-5	Styrene	0.63	U	5.7	0.63
994-05-8	Tert-amyl methyl ether	0.38	U	29	0.38
637-92-3	Ethyl tert-butyl ether	0.63	U	29	0.63
127-18-4	Tetrachloroethene	1.7	U	5.7	1.7
108-88-3	Toluene	0.74	U	5.7	0.74
156-60-5	trans-1,2-Dichloroethene	1.1	U	5.7	1.1
10061-02-6	trans-1,3-Dichloropropene	1.1	U	5.7	1.1
79-01-6	Trichloroethene	110		5.7	0.97
75-69-4	Trichlorofluoromethane	1.2	U	5.7	1.2
108-05-4	Vinyl acetate	1.1	U	11	1.1
75-01-4	Vinyl chloride	24		5.7	1.3
1330-20-7	Xylenes, Total	0.80	U	11	0.80
98-06-6	tert-Butylbenzene	0.74	U	5.7	0.74
106-93-4	1,2-Dibromoethane	1.4	U	5.7	1.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-11I-041414 Lab Sample ID: 240-36135-3

Matrix: Water Lab File ID: UXX9887.D

Analysis Method: 8260C Date Collected: 04/14/2014 11:48

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 15:51

Soil Aliquot Vol: Dilution Factor: 5.71

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	89		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-11I-041414 | Lab Sample ID: 240-36135-3

Matrix: Water | Lab File ID: UXX9887.D

Analysis Method: 8260C | Date Collected: 04/14/2014 11:48

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 15:51

Soil Aliquot Vol: | Dilution Factor: 5.71

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-11S-041414 Lab Sample ID: 240-36135-2

Matrix: Water Lab File ID: UXX9886.D

Analysis Method: 8260C Date Collected: 04/14/2014 09:50

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 15:29

Soil Aliquot Vol: Dilution Factor: 416.67

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	96	U	420	96
71-55-6	1,1,1-Trichloroethane	92	U	420	92
79-34-5	1,1,2,2-Tetrachloroethane	75	U	420	75
76-13-1	1,1,2-Trichlorotrifluoroethane	120	U	420	120
75-34-3	1,1-Dichloroethane	63	U	420	63
75-35-4	1,1-Dichloroethene	120	J	420	79
563-58-6	1,1-Dichloropropene	54	U	420	54
87-61-6	1,2,3-Trichlorobenzene	71	U	420	71
96-18-4	1,2,3-Trichloropropane	180	U	420	180
526-73-8	1,2,3-Trimethylbenzene	2.5	U	2100	2.5
120-82-1	1,2,4-Trichlorobenzene	63	U	420	63
95-63-6	1,2,4-Trimethylbenzene	50	U	420	50
96-12-8	1,2-Dibromo-3-Chloropropane	280	U	830	280
95-50-1	1,2-Dichlorobenzene	54	U	420	54
107-06-2	1,2-Dichloroethane	92	U	420	92
78-87-5	1,2-Dichloropropane	75	U	420	75
541-73-1	1,3-Dichlorobenzene	58	U	420	58
142-28-9	1,3-Dichloropropane	67	U	420	67
106-46-7	1,4-Dichlorobenzene	54	U	420	54
594-20-7	2,2-Dichloropropane	54	U	420	54
78-93-3	2-Butanone (MEK)	240	U	4200	240
110-75-8	2-Chloroethyl vinyl ether	410	U	4200	410
95-49-8	2-Chlorotoluene	46	U	420	46
591-78-6	2-Hexanone	170	U	4200	170
106-43-4	4-Chlorotoluene	75	U	420	75
99-87-6	4-Isopropyltoluene	50	U	420	50
108-10-1	4-Methyl-2-pentanone (MIBK)	130	U	4200	130
67-64-1	Acetone	460	U	4200	460
71-43-2	Benzene	54	U	420	54
108-86-1	Bromobenzene	54	U	420	54
75-25-2	Bromoform	270	U	420	270
74-83-9	Bromomethane	170	U	420	170
75-15-0	Carbon disulfide	54	U	420	54
56-23-5	Carbon tetrachloride	54	U	420	54
108-90-7	Chlorobenzene	63	U	420	63
124-48-1	Chlorodibromomethane	75	U	420	75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-11S-041414 | Lab Sample ID: 240-36135-2

Matrix: Water | Lab File ID: UXX9886.D

Analysis Method: 8260C | Date Collected: 04/14/2014 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 15:29

Soil Aliquot Vol: | Dilution Factor: 416.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	120	U	420	120
67-66-3	Chloroform	67	U	420	67
74-87-3	Chloromethane	130	U	420	130
156-59-2	cis-1,2-Dichloroethene	11000		420	71
10061-01-5	cis-1,3-Dichloropropene	58	U	420	58
74-95-3	Dibromomethane	120	U	420	120
74-97-5	Bromochloromethane	120	U	420	120
75-71-8	Dichlorodifluoromethane	130	U	420	130
75-27-4	Bromodichloromethane	63	U	420	63
75-65-0	tert-Butyl alcohol	1600	U	21000	1600
100-41-4	Ethylbenzene	71	U	420	71
87-68-3	Hexachlorobutadiene	130	U	420	130
108-20-3	Diisopropyl ether	630	U	4200	630
98-82-8	Isopropylbenzene	54	U	420	54
1634-04-4	Methyl tert-butyl ether	71	U	420	71
75-09-2	Methylene Chloride	140	U	420	140
179601-23-1	m-Xylene & p-Xylene	100	U	830	100
91-20-3	Naphthalene	100	U	420	100
104-51-8	n-Butylbenzene	50	U	420	50
103-65-1	N-Propylbenzene	58	U	420	58
95-47-6	o-Xylene	58	U	420	58
135-98-8	sec-Butylbenzene	54	U	420	54
100-42-5	Styrene	46	U	420	46
994-05-8	Tert-amyl methyl ether	28	U	2100	28
637-92-3	Ethyl tert-butyl ether	46	U	2100	46
127-18-4	Tetrachloroethene	120	U	420	120
108-88-3	Toluene	100	J	420	54
156-60-5	trans-1,2-Dichloroethene	79	U	420	79
10061-02-6	trans-1,3-Dichloropropene	79	U	420	79
79-01-6	Trichloroethene	3100		420	71
75-69-4	Trichlorofluoromethane	88	U	420	88
108-05-4	Vinyl acetate	79	U	830	79
75-01-4	Vinyl chloride	4900		420	92
1330-20-7	Xylenes, Total	58	U	830	58
98-06-6	tert-Butylbenzene	54	U	420	54
106-93-4	1,2-Dibromoethane	100	U	420	100

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-11S-041414 Lab Sample ID: 240-36135-2

Matrix: Water Lab File ID: UXX9886.D

Analysis Method: 8260C Date Collected: 04/14/2014 09:50

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 15:29

Soil Aliquot Vol: Dilution Factor: 416.67

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	91		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-11S-041414 Lab Sample ID: 240-36135-2

Matrix: Water Lab File ID: UXX9886.D

Analysis Method: 8260C Date Collected: 04/14/2014 09:50

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 15:29

Soil Aliquot Vol: Dilution Factor: 416.67

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-7D-041614 | Lab Sample ID: 240-36320-3

Matrix: Water | Lab File ID: UXX9884.D

Analysis Method: 8260C | Date Collected: 04/16/2014 10:49

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 14:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-7D-041614 Lab Sample ID: 240-36320-3

Matrix: Water Lab File ID: UXX9884.D

Analysis Method: 8260C Date Collected: 04/16/2014 10:49

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 14:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-7D-041614 Lab Sample ID: 240-36320-3

Matrix: Water Lab File ID: UXX9884.D

Analysis Method: 8260C Date Collected: 04/16/2014 10:49

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 14:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		74-120
1868-53-7	Dibromofluoromethane (Surr)	90		75-121
460-00-4	4-Bromofluorobenzene (Surr)	86		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-7D-041614 Lab Sample ID: 240-36320-3

Matrix: Water Lab File ID: UXX9884.D

Analysis Method: 8260C Date Collected: 04/16/2014 10:49

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 14:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-7I-041614 Lab Sample ID: 240-36320-2

Matrix: Water Lab File ID: U1237311.D

Analysis Method: 8260C Date Collected: 04/16/2014 09:31

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 11:49

Soil Aliquot Vol: Dilution Factor: 5.71

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.3	U	5.7	1.3
71-55-6	1,1,1-Trichloroethane	4.5	J	5.7	1.3
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	5.7	1.0
76-13-1	1,1,2-Trichlorotrifluoroethane	1.6	U	5.7	1.6
75-34-3	1,1-Dichloroethane	0.86	U	5.7	0.86
75-35-4	1,1-Dichloroethene	1.3	J	5.7	1.1
563-58-6	1,1-Dichloropropene	0.74	U	5.7	0.74
87-61-6	1,2,3-Trichlorobenzene	0.97	U	5.7	0.97
96-18-4	1,2,3-Trichloropropane	2.5	U	5.7	2.5
526-73-8	1,2,3-Trimethylbenzene	0.034	U	29	0.034
120-82-1	1,2,4-Trichlorobenzene	0.86	U	5.7	0.86
95-63-6	1,2,4-Trimethylbenzene	0.69	U	5.7	0.69
96-12-8	1,2-Dibromo-3-Chloropropane	3.8	U	11	3.8
95-50-1	1,2-Dichlorobenzene	0.74	U	5.7	0.74
107-06-2	1,2-Dichloroethane	2.5	J	5.7	1.3
78-87-5	1,2-Dichloropropane	1.0	U	5.7	1.0
541-73-1	1,3-Dichlorobenzene	0.80	U	5.7	0.80
142-28-9	1,3-Dichloropropane	0.91	U	5.7	0.91
106-46-7	1,4-Dichlorobenzene	0.74	U	5.7	0.74
594-20-7	2,2-Dichloropropane	0.74	U	5.7	0.74
78-93-3	2-Butanone (MEK)	3.3	U	57	3.3
110-75-8	2-Chloroethyl vinyl ether	5.7	U	57	5.7
95-49-8	2-Chlorotoluene	0.63	U	5.7	0.63
591-78-6	2-Hexanone	2.3	U	57	2.3
106-43-4	4-Chlorotoluene	1.0	U	5.7	1.0
99-87-6	4-Isopropyltoluene	0.69	U	5.7	0.69
108-10-1	4-Methyl-2-pentanone (MIBK)	1.8	U	57	1.8
67-64-1	Acetone	6.3	U	57	6.3
71-43-2	Benzene	0.76	J	5.7	0.74
108-86-1	Bromobenzene	0.74	U	5.7	0.74
75-25-2	Bromoform	3.7	U	5.7	3.7
74-83-9	Bromomethane	2.3	U	5.7	2.3
75-15-0	Carbon disulfide	0.74	U	5.7	0.74
56-23-5	Carbon tetrachloride	0.74	U	5.7	0.74
108-90-7	Chlorobenzene	5.1	J	5.7	0.86
124-48-1	Chlorodibromomethane	1.0	U	5.7	1.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-7I-041614 Lab Sample ID: 240-36320-2

Matrix: Water Lab File ID: U1237311.D

Analysis Method: 8260C Date Collected: 04/16/2014 09:31

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 11:49

Soil Aliquot Vol: Dilution Factor: 5.71

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	1.7	U	5.7	1.7
67-66-3	Chloroform	0.91	U	5.7	0.91
74-87-3	Chloromethane	1.7	U	5.7	1.7
156-59-2	cis-1,2-Dichloroethene	360		5.7	0.97
10061-01-5	cis-1,3-Dichloropropene	0.80	U	5.7	0.80
74-95-3	Dibromomethane	1.6	U *	5.7	1.6
74-97-5	Bromochloromethane	1.7	U	5.7	1.7
75-71-8	Dichlorodifluoromethane	1.8	U	5.7	1.8
75-27-4	Bromodichloromethane	0.86	U	5.7	0.86
75-65-0	tert-Butyl alcohol	22	U	290	22
100-41-4	Ethylbenzene	0.97	U	5.7	0.97
87-68-3	Hexachlorobutadiene	1.7	U	5.7	1.7
108-20-3	Diisopropyl ether	8.6	U	57	8.6
98-82-8	Isopropylbenzene	0.74	U	5.7	0.74
1634-04-4	Methyl tert-butyl ether	0.97	U	5.7	0.97
75-09-2	Methylene Chloride	1.9	U	5.7	1.9
179601-23-1	m-Xylene & p-Xylene	1.4	U	11	1.4
91-20-3	Naphthalene	1.4	U	5.7	1.4
104-51-8	n-Butylbenzene	0.69	U	5.7	0.69
103-65-1	N-Propylbenzene	0.80	U	5.7	0.80
95-47-6	o-Xylene	0.80	U	5.7	0.80
135-98-8	sec-Butylbenzene	0.74	U	5.7	0.74
100-42-5	Styrene	0.63	U	5.7	0.63
994-05-8	Tert-amyl methyl ether	0.38	U	29	0.38
637-92-3	Ethyl tert-butyl ether	0.63	U	29	0.63
127-18-4	Tetrachloroethene	1.7	U	5.7	1.7
108-88-3	Toluene	0.74	U	5.7	0.74
156-60-5	trans-1,2-Dichloroethene	9.0		5.7	1.1
10061-02-6	trans-1,3-Dichloropropene	1.1	U	5.7	1.1
79-01-6	Trichloroethene	270		5.7	0.97
75-69-4	Trichlorofluoromethane	1.2	U	5.7	1.2
108-05-4	Vinyl acetate	1.1	U	11	1.1
75-01-4	Vinyl chloride	87		5.7	1.3
1330-20-7	Xylenes, Total	0.80	U	11	0.80
98-06-6	tert-Butylbenzene	0.74	U	5.7	0.74
106-93-4	1,2-Dibromoethane	1.4	U	5.7	1.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-7I-041614 Lab Sample ID: 240-36320-2

Matrix: Water Lab File ID: U1237311.D

Analysis Method: 8260C Date Collected: 04/16/2014 09:31

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 11:49

Soil Aliquot Vol: Dilution Factor: 5.71

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		74-120
1868-53-7	Dibromofluoromethane (Surr)	101		75-121
460-00-4	4-Bromofluorobenzene (Surr)	83		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-7I-041614 | Lab Sample ID: 240-36320-2

Matrix: Water | Lab File ID: U1237311.D

Analysis Method: 8260C | Date Collected: 04/16/2014 09:31

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 11:49

Soil Aliquot Vol: | Dilution Factor: 5.71

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-8I-041614 | Lab Sample ID: 240-36320-4

Matrix: Water | Lab File ID: U1237312.D

Analysis Method: 8260C | Date Collected: 04/16/2014 12:18

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 12:12

Soil Aliquot Vol: | Dilution Factor: 8.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.9	U	8.3	1.9
71-55-6	1,1,1-Trichloroethane	1.8	U	8.3	1.8
79-34-5	1,1,2,2-Tetrachloroethane	1.5	U	8.3	1.5
76-13-1	1,1,2-Trichlorotrifluoroethane	2.3	U	8.3	2.3
75-34-3	1,1-Dichloroethane	1.2	U	8.3	1.2
75-35-4	1,1-Dichloroethene	2.0	J	8.3	1.6
563-58-6	1,1-Dichloropropene	1.1	U	8.3	1.1
87-61-6	1,2,3-Trichlorobenzene	1.4	U	8.3	1.4
96-18-4	1,2,3-Trichloropropane	3.6	U	8.3	3.6
526-73-8	1,2,3-Trimethylbenzene	0.049	U	42	0.049
120-82-1	1,2,4-Trichlorobenzene	1.2	U	8.3	1.2
95-63-6	1,2,4-Trimethylbenzene	1.0	U	8.3	1.0
96-12-8	1,2-Dibromo-3-Chloropropane	5.6	U	17	5.6
95-50-1	1,2-Dichlorobenzene	1.1	U	8.3	1.1
107-06-2	1,2-Dichloroethane	5.3	J	8.3	1.8
78-87-5	1,2-Dichloropropane	1.5	U	8.3	1.5
541-73-1	1,3-Dichlorobenzene	1.2	U	8.3	1.2
142-28-9	1,3-Dichloropropane	1.3	U	8.3	1.3
106-46-7	1,4-Dichlorobenzene	1.1	U	8.3	1.1
594-20-7	2,2-Dichloropropane	1.1	U	8.3	1.1
78-93-3	2-Butanone (MEK)	4.7	U	83	4.7
110-75-8	2-Chloroethyl vinyl ether	8.2	U	83	8.2
95-49-8	2-Chlorotoluene	0.92	U	8.3	0.92
591-78-6	2-Hexanone	3.4	U	83	3.4
106-43-4	4-Chlorotoluene	1.5	U	8.3	1.5
99-87-6	4-Isopropyltoluene	1.0	U	8.3	1.0
108-10-1	4-Methyl-2-pentanone (MIBK)	2.7	U	83	2.7
67-64-1	Acetone	9.2	U	83	9.2
71-43-2	Benzene	2.7	J	8.3	1.1
108-86-1	Bromobenzene	1.1	U	8.3	1.1
75-25-2	Bromoform	5.3	U	8.3	5.3
74-83-9	Bromomethane	3.4	U	8.3	3.4
75-15-0	Carbon disulfide	1.1	U	8.3	1.1
56-23-5	Carbon tetrachloride	1.1	U	8.3	1.1
108-90-7	Chlorobenzene	1.2	U	8.3	1.2
124-48-1	Chlorodibromomethane	1.5	U	8.3	1.5

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-8I-041614 | Lab Sample ID: 240-36320-4

Matrix: Water | Lab File ID: U1237312.D

Analysis Method: 8260C | Date Collected: 04/16/2014 12:18

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 12:12

Soil Aliquot Vol: | Dilution Factor: 8.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	2.4	U	8.3	2.4
67-66-3	Chloroform	2.3	J	8.3	1.3
74-87-3	Chloromethane	2.5	U	8.3	2.5
156-59-2	cis-1,2-Dichloroethene	440		8.3	1.4
10061-01-5	cis-1,3-Dichloropropene	1.2	U	8.3	1.2
74-95-3	Dibromomethane	2.3	U *	8.3	2.3
74-97-5	Bromochloromethane	2.4	U	8.3	2.4
75-71-8	Dichlorodifluoromethane	2.6	U	8.3	2.6
75-27-4	Bromodichloromethane	1.2	U	8.3	1.2
75-65-0	tert-Butyl alcohol	32	U	420	32
100-41-4	Ethylbenzene	1.4	U	8.3	1.4
87-68-3	Hexachlorobutadiene	2.5	U	8.3	2.5
108-20-3	Diisopropyl ether	12	U	83	12
98-82-8	Isopropylbenzene	1.1	U	8.3	1.1
1634-04-4	Methyl tert-butyl ether	1.4	U	8.3	1.4
75-09-2	Methylene Chloride	6.3	J	8.3	2.7
179601-23-1	m-Xylene & p-Xylene	2.0	U	17	2.0
91-20-3	Naphthalene	2.0	U	8.3	2.0
104-51-8	n-Butylbenzene	1.0	U	8.3	1.0
103-65-1	N-Propylbenzene	1.2	U	8.3	1.2
95-47-6	o-Xylene	1.2	U	8.3	1.2
135-98-8	sec-Butylbenzene	1.1	U	8.3	1.1
100-42-5	Styrene	0.92	U	8.3	0.92
994-05-8	Tert-amyl methyl ether	0.56	U	42	0.56
637-92-3	Ethyl tert-butyl ether	0.92	U	42	0.92
127-18-4	Tetrachloroethene	2.4	U	8.3	2.4
108-88-3	Toluene	1.1	U	8.3	1.1
156-60-5	trans-1,2-Dichloroethene	2.2	J	8.3	1.6
10061-02-6	trans-1,3-Dichloropropene	1.6	U	8.3	1.6
79-01-6	Trichloroethene	640		8.3	1.4
75-69-4	Trichlorofluoromethane	1.7	U	8.3	1.7
108-05-4	Vinyl acetate	1.6	U	17	1.6
75-01-4	Vinyl chloride	220		8.3	1.8
1330-20-7	Xylenes, Total	1.2	U	17	1.2
98-06-6	tert-Butylbenzene	1.1	U	8.3	1.1
106-93-4	1,2-Dibromoethane	2.0	U	8.3	2.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-8I-041614 | Lab Sample ID: 240-36320-4

Matrix: Water | Lab File ID: U1237312.D

Analysis Method: 8260C | Date Collected: 04/16/2014 12:18

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 12:12

Soil Aliquot Vol: | Dilution Factor: 8.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		74-120
1868-53-7	Dibromofluoromethane (Surr)	98		75-121
460-00-4	4-Bromofluorobenzene (Surr)	84		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-8I-041614 Lab Sample ID: 240-36320-4

Matrix: Water Lab File ID: U1237312.D

Analysis Method: 8260C Date Collected: 04/16/2014 12:18

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 12:12

Soil Aliquot Vol: Dilution Factor: 8.33

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-21D-041414 | Lab Sample ID: 240-36233-5

Matrix: Water | Lab File ID: UXX9897.D

Analysis Method: 8260C | Date Collected: 04/14/2014 16:04

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 19:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	3.2	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-21D-041414 Lab Sample ID: 240-36233-5

Matrix: Water Lab File ID: UXX9897.D

Analysis Method: 8260C Date Collected: 04/14/2014 16:04

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 19:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.59	J	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-21D-041414 Lab Sample ID: 240-36233-5

Matrix: Water Lab File ID: UXX9897.D

Analysis Method: 8260C Date Collected: 04/14/2014 16:04

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 19:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	91		75-121
460-00-4	4-Bromofluorobenzene (Surr)	91		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-21D-041414 Lab Sample ID: 240-36233-5

Matrix: Water Lab File ID: UXX9897.D

Analysis Method: 8260C Date Collected: 04/14/2014 16:04

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 19:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

Number TICs Found: 1 TIC Result Total: 0.78

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1000196-87-7	Formamide, N-methylthio	4.50	0.78	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-21I-041414 Lab Sample ID: 240-36233-3

Matrix: Water Lab File ID: UXX9895.D

Analysis Method: 8260C Date Collected: 04/14/2014 14:50

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 18:50

Soil Aliquot Vol: Dilution Factor: 14.29

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.3	U	14	3.3
71-55-6	1,1,1-Trichloroethane	3.1	U	14	3.1
79-34-5	1,1,2,2-Tetrachloroethane	2.6	U	14	2.6
76-13-1	1,1,2-Trichlorotrifluoroethane	4.0	U	14	4.0
75-34-3	1,1-Dichloroethane	2.1	U	14	2.1
75-35-4	1,1-Dichloroethene	5.4	J	14	2.7
563-58-6	1,1-Dichloropropene	1.9	U	14	1.9
87-61-6	1,2,3-Trichlorobenzene	2.4	U	14	2.4
96-18-4	1,2,3-Trichloropropane	6.1	U	14	6.1
526-73-8	1,2,3-Trimethylbenzene	0.084	U	71	0.084
120-82-1	1,2,4-Trichlorobenzene	2.1	U	14	2.1
95-63-6	1,2,4-Trimethylbenzene	1.7	U	14	1.7
96-12-8	1,2-Dibromo-3-Chloropropane	9.6	U	29	9.6
95-50-1	1,2-Dichlorobenzene	1.9	U	14	1.9
107-06-2	1,2-Dichloroethane	3.1	U	14	3.1
78-87-5	1,2-Dichloropropane	2.6	U	14	2.6
541-73-1	1,3-Dichlorobenzene	2.0	U	14	2.0
142-28-9	1,3-Dichloropropane	2.3	U	14	2.3
106-46-7	1,4-Dichlorobenzene	1.9	U	14	1.9
594-20-7	2,2-Dichloropropane	1.9	U	14	1.9
78-93-3	2-Butanone (MEK)	8.1	U	140	8.1
110-75-8	2-Chloroethyl vinyl ether	14	U	140	14
95-49-8	2-Chlorotoluene	1.6	U	14	1.6
591-78-6	2-Hexanone	5.9	U	140	5.9
106-43-4	4-Chlorotoluene	2.6	U	14	2.6
99-87-6	4-Isopropyltoluene	1.7	U	14	1.7
108-10-1	4-Methyl-2-pentanone (MIBK)	4.6	U	140	4.6
67-64-1	Acetone	16	U	140	16
71-43-2	Benzene	1.9	U	14	1.9
108-86-1	Bromobenzene	1.9	U	14	1.9
75-25-2	Bromoform	9.1	U	14	9.1
74-83-9	Bromomethane	5.9	U	14	5.9
75-15-0	Carbon disulfide	1.9	U	14	1.9
56-23-5	Carbon tetrachloride	1.9	U	14	1.9
108-90-7	Chlorobenzene	2.1	U	14	2.1
124-48-1	Chlorodibromomethane	2.6	U	14	2.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-21I-041414 | Lab Sample ID: 240-36233-3

Matrix: Water | Lab File ID: UXX9895.D

Analysis Method: 8260C | Date Collected: 04/14/2014 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 18:50

Soil Aliquot Vol: | Dilution Factor: 14.29

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	4.1	U	14	4.1
67-66-3	Chloroform	2.3	U	14	2.3
74-87-3	Chloromethane	4.3	U	14	4.3
156-59-2	cis-1,2-Dichloroethene	440		14	2.4
10061-01-5	cis-1,3-Dichloropropene	2.0	U	14	2.0
74-95-3	Dibromomethane	4.0	U	14	4.0
74-97-5	Bromochloromethane	4.1	U	14	4.1
75-71-8	Dichlorodifluoromethane	4.4	U	14	4.4
75-27-4	Bromodichloromethane	2.1	U	14	2.1
75-65-0	tert-Butyl alcohol	56	U	710	56
100-41-4	Ethylbenzene	2.4	U	14	2.4
87-68-3	Hexachlorobutadiene	4.3	U	14	4.3
108-20-3	Diisopropyl ether	21	U	140	21
98-82-8	Isopropylbenzene	1.9	U	14	1.9
1634-04-4	Methyl tert-butyl ether	2.4	U	14	2.4
75-09-2	Methylene Chloride	4.7	U	14	4.7
179601-23-1	m-Xylene & p-Xylene	3.4	U	29	3.4
91-20-3	Naphthalene	3.4	U	14	3.4
104-51-8	n-Butylbenzene	1.7	U	14	1.7
103-65-1	N-Propylbenzene	2.0	U	14	2.0
95-47-6	o-Xylene	2.0	U	14	2.0
135-98-8	sec-Butylbenzene	1.9	U	14	1.9
100-42-5	Styrene	1.6	U	14	1.6
994-05-8	Tert-amyl methyl ether	0.96	U	71	0.96
637-92-3	Ethyl tert-butyl ether	1.6	U	71	1.6
127-18-4	Tetrachloroethene	4.1	U	14	4.1
108-88-3	Toluene	1.9	U	14	1.9
156-60-5	trans-1,2-Dichloroethene	4.7	J	14	2.7
10061-02-6	trans-1,3-Dichloropropene	2.7	U	14	2.7
79-01-6	Trichloroethene	150		14	2.4
75-69-4	Trichlorofluoromethane	3.0	U	14	3.0
108-05-4	Vinyl acetate	2.7	U	29	2.7
75-01-4	Vinyl chloride	200		14	3.1
1330-20-7	Xylenes, Total	2.0	U	29	2.0
98-06-6	tert-Butylbenzene	1.9	U	14	1.9
106-93-4	1,2-Dibromoethane	3.4	U	14	3.4

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-21I-041414 Lab Sample ID: 240-36233-3

Matrix: Water Lab File ID: UXX9895.D

Analysis Method: 8260C Date Collected: 04/14/2014 14:50

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 18:50

Soil Aliquot Vol: Dilution Factor: 14.29

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	91		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-21I-041414 | Lab Sample ID: 240-36233-3

Matrix: Water | Lab File ID: UXX9895.D

Analysis Method: 8260C | Date Collected: 04/14/2014 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 18:50

Soil Aliquot Vol: | Dilution Factor: 14.29

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-4-041614 | Lab Sample ID: 240-36320-5

Matrix: Water | Lab File ID: U1237313.D

Analysis Method: 8260C | Date Collected: 04/16/2014 15:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 12:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.19	J	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-4-041614 | Lab Sample ID: 240-36320-5

Matrix: Water | Lab File ID: U1237313.D

Analysis Method: 8260C | Date Collected: 04/16/2014 15:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 12:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-4-041614 | Lab Sample ID: 240-36320-5

Matrix: Water | Lab File ID: U1237313.D

Analysis Method: 8260C | Date Collected: 04/16/2014 15:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 12:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		74-120
1868-53-7	Dibromofluoromethane (Surr)	94		75-121
460-00-4	4-Bromofluorobenzene (Surr)	88		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-4-041614 Lab Sample ID: 240-36320-5

Matrix: Water Lab File ID: U1237313.D

Analysis Method: 8260C Date Collected: 04/16/2014 15:20

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 12:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50D-041614 | Lab Sample ID: 240-36320-6

Matrix: Water | Lab File ID: U1237314.D

Analysis Method: 8260C | Date Collected: 04/16/2014 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 13:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.19	J	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.31	J	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50D-041614 | Lab Sample ID: 240-36320-6

Matrix: Water | Lab File ID: U1237314.D

Analysis Method: 8260C | Date Collected: 04/16/2014 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 13:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	25		1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.4		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	3.6		1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	2.3		1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50D-041614 Lab Sample ID: 240-36320-6

Matrix: Water Lab File ID: U1237314.D

Analysis Method: 8260C Date Collected: 04/16/2014 09:40

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 13:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		74-120
1868-53-7	Dibromofluoromethane (Surr)	95		75-121
460-00-4	4-Bromofluorobenzene (Surr)	82		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50D-041614 Lab Sample ID: 240-36320-6

Matrix: Water Lab File ID: U1237314.D

Analysis Method: 8260C Date Collected: 04/16/2014 09:40

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 13:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 1 TIC Result Total: 3.5

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.30	3.5	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50I-041414 | Lab Sample ID: 240-36233-4

Matrix: Water | Lab File ID: UXX9896.D

Analysis Method: 8260C | Date Collected: 04/14/2014 15:37

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 19:13

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	2.0	0.46
71-55-6	1,1,1-Trichloroethane	0.44	U	2.0	0.44
79-34-5	1,1,2,2-Tetrachloroethane	0.36	U	2.0	0.36
76-13-1	1,1,2-Trichlorotrifluoroethane	0.56	U	2.0	0.56
75-34-3	1,1-Dichloroethane	0.30	U	2.0	0.30
75-35-4	1,1-Dichloroethene	0.38	U	2.0	0.38
563-58-6	1,1-Dichloropropene	0.26	U	2.0	0.26
87-61-6	1,2,3-Trichlorobenzene	0.34	U	2.0	0.34
96-18-4	1,2,3-Trichloropropane	0.86	U	2.0	0.86
526-73-8	1,2,3-Trimethylbenzene	0.012	U	10	0.012
120-82-1	1,2,4-Trichlorobenzene	0.30	U	2.0	0.30
95-63-6	1,2,4-Trimethylbenzene	0.24	U	2.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	1.3	U	4.0	1.3
95-50-1	1,2-Dichlorobenzene	0.26	U	2.0	0.26
107-06-2	1,2-Dichloroethane	0.54	J	2.0	0.44
78-87-5	1,2-Dichloropropane	0.36	U	2.0	0.36
541-73-1	1,3-Dichlorobenzene	0.28	U	2.0	0.28
142-28-9	1,3-Dichloropropane	0.32	U	2.0	0.32
106-46-7	1,4-Dichlorobenzene	0.26	U	2.0	0.26
594-20-7	2,2-Dichloropropane	0.26	U	2.0	0.26
78-93-3	2-Butanone (MEK)	1.1	U	20	1.1
110-75-8	2-Chloroethyl vinyl ether	2.0	U	20	2.0
95-49-8	2-Chlorotoluene	0.22	U	2.0	0.22
591-78-6	2-Hexanone	0.82	U	20	0.82
106-43-4	4-Chlorotoluene	0.36	U	2.0	0.36
99-87-6	4-Isopropyltoluene	0.24	U	2.0	0.24
108-10-1	4-Methyl-2-pentanone (MIBK)	0.64	U	20	0.64
67-64-1	Acetone	3.0	J	20	2.2
71-43-2	Benzene	0.26	U	2.0	0.26
108-86-1	Bromobenzene	0.26	U	2.0	0.26
75-25-2	Bromoform	1.3	U	2.0	1.3
74-83-9	Bromomethane	0.82	U	2.0	0.82
75-15-0	Carbon disulfide	0.38	J	2.0	0.26
56-23-5	Carbon tetrachloride	0.26	U	2.0	0.26
108-90-7	Chlorobenzene	0.30	U	2.0	0.30
124-48-1	Chlorodibromomethane	0.36	U	2.0	0.36

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50I-041414 | Lab Sample ID: 240-36233-4

Matrix: Water | Lab File ID: UXX9896.D

Analysis Method: 8260C | Date Collected: 04/14/2014 15:37

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 19:13

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.58	U	2.0	0.58
67-66-3	Chloroform	0.32	U	2.0	0.32
74-87-3	Chloromethane	0.60	U	2.0	0.60
156-59-2	cis-1,2-Dichloroethene	18		2.0	0.34
10061-01-5	cis-1,3-Dichloropropene	0.28	U	2.0	0.28
74-95-3	Dibromomethane	0.56	U	2.0	0.56
74-97-5	Bromochloromethane	0.58	U	2.0	0.58
75-71-8	Dichlorodifluoromethane	0.62	U	2.0	0.62
75-27-4	Bromodichloromethane	0.30	U	2.0	0.30
75-65-0	tert-Butyl alcohol	7.8	U	100	7.8
100-41-4	Ethylbenzene	0.34	U	2.0	0.34
87-68-3	Hexachlorobutadiene	0.60	U	2.0	0.60
108-20-3	Diisopropyl ether	3.0	U	20	3.0
98-82-8	Isopropylbenzene	0.26	U	2.0	0.26
1634-04-4	Methyl tert-butyl ether	0.34	U	2.0	0.34
75-09-2	Methylene Chloride	0.66	U	2.0	0.66
179601-23-1	m-Xylene & p-Xylene	0.48	U	4.0	0.48
91-20-3	Naphthalene	0.48	U	2.0	0.48
104-51-8	n-Butylbenzene	0.24	U	2.0	0.24
103-65-1	N-Propylbenzene	0.28	U	2.0	0.28
95-47-6	o-Xylene	0.28	U	2.0	0.28
135-98-8	sec-Butylbenzene	0.26	U	2.0	0.26
100-42-5	Styrene	0.22	U	2.0	0.22
994-05-8	Tert-amyl methyl ether	0.13	U	10	0.13
637-92-3	Ethyl tert-butyl ether	0.22	U	10	0.22
127-18-4	Tetrachloroethene	0.58	U	2.0	0.58
108-88-3	Toluene	0.26	U	2.0	0.26
156-60-5	trans-1,2-Dichloroethene	0.48	J	2.0	0.38
10061-02-6	trans-1,3-Dichloropropene	0.38	U	2.0	0.38
79-01-6	Trichloroethene	60		2.0	0.34
75-69-4	Trichlorofluoromethane	0.42	U	2.0	0.42
108-05-4	Vinyl acetate	0.38	U	4.0	0.38
75-01-4	Vinyl chloride	3.8		2.0	0.44
1330-20-7	Xylenes, Total	0.28	U	4.0	0.28
98-06-6	tert-Butylbenzene	0.26	U	2.0	0.26
106-93-4	1,2-Dibromoethane	0.48	U	2.0	0.48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50I-041414 Lab Sample ID: 240-36233-4

Matrix: Water Lab File ID: UXX9896.D

Analysis Method: 8260C Date Collected: 04/14/2014 15:37

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 19:13

Soil Aliquot Vol: Dilution Factor: 2

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		74-120
1868-53-7	Dibromofluoromethane (Surr)	89		75-121
460-00-4	4-Bromofluorobenzene (Surr)	90		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50I-041414 Lab Sample ID: 240-36233-4

Matrix: Water Lab File ID: UXX9896.D

Analysis Method: 8260C Date Collected: 04/14/2014 15:37

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 19:13

Soil Aliquot Vol: Dilution Factor: 2

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

Number TICs Found: 1 TIC Result Total: 1.1

CAS NO.	COMPOUND NAME	RT	RESULT	Q
540-84-1	Pentane, 2,2,4-trimethyl-	5.35	1.1	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50S-041414 | Lab Sample ID: 240-36233-2

Matrix: Water | Lab File ID: UXX9894.D

Analysis Method: 8260C | Date Collected: 04/14/2014 10:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 18:28

Soil Aliquot Vol: | Dilution Factor: 5.71

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.3	U	5.7	1.3
71-55-6	1,1,1-Trichloroethane	1.3	U	5.7	1.3
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	5.7	1.0
76-13-1	1,1,2-Trichlorotrifluoroethane	1.6	U	5.7	1.6
75-34-3	1,1-Dichloroethane	0.86	U	5.7	0.86
75-35-4	1,1-Dichloroethene	1.1	U	5.7	1.1
563-58-6	1,1-Dichloropropene	0.74	U	5.7	0.74
87-61-6	1,2,3-Trichlorobenzene	0.97	U	5.7	0.97
96-18-4	1,2,3-Trichloropropane	2.5	U	5.7	2.5
526-73-8	1,2,3-Trimethylbenzene	0.034	U	29	0.034
120-82-1	1,2,4-Trichlorobenzene	0.86	U	5.7	0.86
95-63-6	1,2,4-Trimethylbenzene	0.69	U	5.7	0.69
96-12-8	1,2-Dibromo-3-Chloropropane	3.8	U	11	3.8
95-50-1	1,2-Dichlorobenzene	0.74	U	5.7	0.74
107-06-2	1,2-Dichloroethane	1.6	J	5.7	1.3
78-87-5	1,2-Dichloropropane	1.0	U	5.7	1.0
541-73-1	1,3-Dichlorobenzene	0.80	U	5.7	0.80
142-28-9	1,3-Dichloropropane	0.91	U	5.7	0.91
106-46-7	1,4-Dichlorobenzene	0.74	U	5.7	0.74
594-20-7	2,2-Dichloropropane	0.74	U	5.7	0.74
78-93-3	2-Butanone (MEK)	3.3	U	57	3.3
110-75-8	2-Chloroethyl vinyl ether	5.7	U	57	5.7
95-49-8	2-Chlorotoluene	0.63	U	5.7	0.63
591-78-6	2-Hexanone	2.3	U	57	2.3
106-43-4	4-Chlorotoluene	1.0	U	5.7	1.0
99-87-6	4-Isopropyltoluene	0.69	U	5.7	0.69
108-10-1	4-Methyl-2-pentanone (MIBK)	1.8	U	57	1.8
67-64-1	Acetone	6.3	U	57	6.3
71-43-2	Benzene	0.74	U	5.7	0.74
108-86-1	Bromobenzene	0.74	U	5.7	0.74
75-25-2	Bromoform	3.7	U	5.7	3.7
74-83-9	Bromomethane	2.3	U	5.7	2.3
75-15-0	Carbon disulfide	0.74	U	5.7	0.74
56-23-5	Carbon tetrachloride	0.74	U	5.7	0.74
108-90-7	Chlorobenzene	1.3	J	5.7	0.86
124-48-1	Chlorodibromomethane	1.0	U	5.7	1.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50S-041414 | Lab Sample ID: 240-36233-2

Matrix: Water | Lab File ID: UXX9894.D

Analysis Method: 8260C | Date Collected: 04/14/2014 10:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 18:28

Soil Aliquot Vol: | Dilution Factor: 5.71

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	1.7	U	5.7	1.7
67-66-3	Chloroform	0.91	U	5.7	0.91
74-87-3	Chloromethane	1.7	U	5.7	1.7
156-59-2	cis-1,2-Dichloroethene	57		5.7	0.97
10061-01-5	cis-1,3-Dichloropropene	0.80	U	5.7	0.80
74-95-3	Dibromomethane	1.6	U	5.7	1.6
74-97-5	Bromochloromethane	1.7	U	5.7	1.7
75-71-8	Dichlorodifluoromethane	1.8	U	5.7	1.8
75-27-4	Bromodichloromethane	0.86	U	5.7	0.86
75-65-0	tert-Butyl alcohol	22	U	290	22
100-41-4	Ethylbenzene	0.97	U	5.7	0.97
87-68-3	Hexachlorobutadiene	1.7	U	5.7	1.7
108-20-3	Diisopropyl ether	8.6	U	57	8.6
98-82-8	Isopropylbenzene	0.74	U	5.7	0.74
1634-04-4	Methyl tert-butyl ether	0.97	U	5.7	0.97
75-09-2	Methylene Chloride	1.9	U	5.7	1.9
179601-23-1	m-Xylene & p-Xylene	1.4	U	11	1.4
91-20-3	Naphthalene	1.4	U	5.7	1.4
104-51-8	n-Butylbenzene	0.69	U	5.7	0.69
103-65-1	N-Propylbenzene	0.80	U	5.7	0.80
95-47-6	o-Xylene	0.80	U	5.7	0.80
135-98-8	sec-Butylbenzene	0.74	U	5.7	0.74
100-42-5	Styrene	0.63	U	5.7	0.63
994-05-8	Tert-amyl methyl ether	0.38	U	29	0.38
637-92-3	Ethyl tert-butyl ether	0.63	U	29	0.63
127-18-4	Tetrachloroethene	1.7	U	5.7	1.7
108-88-3	Toluene	0.74	U	5.7	0.74
156-60-5	trans-1,2-Dichloroethene	1.6	J	5.7	1.1
10061-02-6	trans-1,3-Dichloropropene	1.1	U	5.7	1.1
79-01-6	Trichloroethene	170		5.7	0.97
75-69-4	Trichlorofluoromethane	1.2	U	5.7	1.2
108-05-4	Vinyl acetate	1.1	U	11	1.1
75-01-4	Vinyl chloride	16		5.7	1.3
1330-20-7	Xylenes, Total	0.80	U	11	0.80
98-06-6	tert-Butylbenzene	0.74	U	5.7	0.74
106-93-4	1,2-Dibromoethane	1.4	U	5.7	1.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50S-041414 | Lab Sample ID: 240-36233-2

Matrix: Water | Lab File ID: UXX9894.D

Analysis Method: 8260C | Date Collected: 04/14/2014 10:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 18:28

Soil Aliquot Vol: | Dilution Factor: 5.71

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	90		75-121
460-00-4	4-Bromofluorobenzene (Surr)	88		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50S-041414 Lab Sample ID: 240-36233-2

Matrix: Water Lab File ID: UXX9894.D

Analysis Method: 8260C Date Collected: 04/14/2014 10:50

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 18:28

Soil Aliquot Vol: Dilution Factor: 5.71

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-51I-041614 | Lab Sample ID: 240-36320-8

Matrix: Water | Lab File ID: U1237316.D

Analysis Method: 8260C | Date Collected: 04/16/2014 11:38

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 13:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-51I-041614 | Lab Sample ID: 240-36320-8

Matrix: Water | Lab File ID: U1237316.D

Analysis Method: 8260C | Date Collected: 04/16/2014 11:38

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 13:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	9.9		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	9.9		1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.37	J	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-51I-041614 Lab Sample ID: 240-36320-8

Matrix: Water Lab File ID: U1237316.D

Analysis Method: 8260C Date Collected: 04/16/2014 11:38

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 13:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	93		75-121
460-00-4	4-Bromofluorobenzene (Surr)	83		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-51I-041614 Lab Sample ID: 240-36320-8

Matrix: Water Lab File ID: U1237316.D

Analysis Method: 8260C Date Collected: 04/16/2014 11:38

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 13:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-51S-041614 | Lab Sample ID: 240-36320-7

Matrix: Water | Lab File ID: U1237315.D

Analysis Method: 8260C | Date Collected: 04/16/2014 14:46

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 13:24

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.8	U	25	5.8
71-55-6	1,1,1-Trichloroethane	5.5	U	25	5.5
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U	25	4.5
76-13-1	1,1,2-Trichlorotrifluoroethane	7.0	U	25	7.0
75-34-3	1,1-Dichloroethane	3.8	U	25	3.8
75-35-4	1,1-Dichloroethene	4.8	U	25	4.8
563-58-6	1,1-Dichloropropene	3.3	U	25	3.3
87-61-6	1,2,3-Trichlorobenzene	4.3	U	25	4.3
96-18-4	1,2,3-Trichloropropane	11	U	25	11
526-73-8	1,2,3-Trimethylbenzene	0.15	U	130	0.15
120-82-1	1,2,4-Trichlorobenzene	3.8	U	25	3.8
95-63-6	1,2,4-Trimethylbenzene	3.0	U	25	3.0
96-12-8	1,2-Dibromo-3-Chloropropane	17	U	50	17
95-50-1	1,2-Dichlorobenzene	3.3	U	25	3.3
107-06-2	1,2-Dichloroethane	5.5	U	25	5.5
78-87-5	1,2-Dichloropropane	4.5	U	25	4.5
541-73-1	1,3-Dichlorobenzene	3.5	U	25	3.5
142-28-9	1,3-Dichloropropane	4.0	U	25	4.0
106-46-7	1,4-Dichlorobenzene	3.3	U	25	3.3
594-20-7	2,2-Dichloropropane	3.3	U	25	3.3
78-93-3	2-Butanone (MEK)	14	U	250	14
110-75-8	2-Chloroethyl vinyl ether	25	U	250	25
95-49-8	2-Chlorotoluene	2.8	U	25	2.8
591-78-6	2-Hexanone	10	U	250	10
106-43-4	4-Chlorotoluene	4.5	U	25	4.5
99-87-6	4-Isopropyltoluene	3.0	U	25	3.0
108-10-1	4-Methyl-2-pentanone (MIBK)	8.0	U	250	8.0
67-64-1	Acetone	28	U	250	28
71-43-2	Benzene	3.3	U	25	3.3
108-86-1	Bromobenzene	3.3	U	25	3.3
75-25-2	Bromoform	16	U	25	16
74-83-9	Bromomethane	10	U	25	10
75-15-0	Carbon disulfide	3.3	U	25	3.3
56-23-5	Carbon tetrachloride	3.3	U	25	3.3
108-90-7	Chlorobenzene	3.8	U	25	3.8
124-48-1	Chlorodibromomethane	4.5	U	25	4.5

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-51S-041614 | Lab Sample ID: 240-36320-7

Matrix: Water | Lab File ID: U1237315.D

Analysis Method: 8260C | Date Collected: 04/16/2014 14:46

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 13:24

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	7.3	U	25	7.3
67-66-3	Chloroform	4.0	U	25	4.0
74-87-3	Chloromethane	7.5	U	25	7.5
156-59-2	cis-1,2-Dichloroethene	1100		25	4.3
10061-01-5	cis-1,3-Dichloropropene	3.5	U	25	3.5
74-95-3	Dibromomethane	7.0	U *	25	7.0
74-97-5	Bromochloromethane	7.3	U	25	7.3
75-71-8	Dichlorodifluoromethane	7.8	U	25	7.8
75-27-4	Bromodichloromethane	3.8	U	25	3.8
75-65-0	tert-Butyl alcohol	98	U	1300	98
100-41-4	Ethylbenzene	4.3	U	25	4.3
87-68-3	Hexachlorobutadiene	7.5	U	25	7.5
108-20-3	Diisopropyl ether	38	U	250	38
98-82-8	Isopropylbenzene	3.3	U	25	3.3
1634-04-4	Methyl tert-butyl ether	4.3	U	25	4.3
75-09-2	Methylene Chloride	8.3	U	25	8.3
179601-23-1	m-Xylene & p-Xylene	6.0	U	50	6.0
91-20-3	Naphthalene	6.0	U	25	6.0
104-51-8	n-Butylbenzene	3.0	U	25	3.0
103-65-1	N-Propylbenzene	3.5	U	25	3.5
95-47-6	o-Xylene	3.5	U	25	3.5
135-98-8	sec-Butylbenzene	3.3	U	25	3.3
100-42-5	Styrene	2.8	U	25	2.8
994-05-8	Tert-amyl methyl ether	1.7	U	130	1.7
637-92-3	Ethyl tert-butyl ether	2.8	U	130	2.8
127-18-4	Tetrachloroethene	7.3	U	25	7.3
108-88-3	Toluene	3.3	U	25	3.3
156-60-5	trans-1,2-Dichloroethene	13	J	25	4.8
10061-02-6	trans-1,3-Dichloropropene	4.8	U	25	4.8
79-01-6	Trichloroethene	730		25	4.3
75-69-4	Trichlorofluoromethane	5.3	U	25	5.3
108-05-4	Vinyl acetate	4.8	U	50	4.8
75-01-4	Vinyl chloride	30		25	5.5
1330-20-7	Xylenes, Total	3.5	U	50	3.5
98-06-6	tert-Butylbenzene	3.3	U	25	3.3
106-93-4	1,2-Dibromoethane	6.0	U	25	6.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-51S-041614 Lab Sample ID: 240-36320-7

Matrix: Water Lab File ID: U1237315.D

Analysis Method: 8260C Date Collected: 04/16/2014 14:46

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 13:24

Soil Aliquot Vol: Dilution Factor: 25

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		74-120
1868-53-7	Dibromofluoromethane (Surr)	103		75-121
460-00-4	4-Bromofluorobenzene (Surr)	85		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-51S-041614 Lab Sample ID: 240-36320-7

Matrix: Water Lab File ID: U1237315.D

Analysis Method: 8260C Date Collected: 04/16/2014 14:46

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 13:24

Soil Aliquot Vol: Dilution Factor: 25

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: TB-041414 | Lab Sample ID: 240-36135-1

Matrix: Water | Lab File ID: UXX9885.D

Analysis Method: 8260C | Date Collected: 04/14/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 15:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: TB-041414 | Lab Sample ID: 240-36135-1

Matrix: Water | Lab File ID: UXX9885.D

Analysis Method: 8260C | Date Collected: 04/14/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 15:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.34	J	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: TB-041414 Lab Sample ID: 240-36135-1

Matrix: Water Lab File ID: UXX9885.D

Analysis Method: 8260C Date Collected: 04/14/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 15:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: TB-041414 | Lab Sample ID: 240-36135-1

Matrix: Water | Lab File ID: UXX9885.D

Analysis Method: 8260C | Date Collected: 04/14/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 15:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: TB-041414 RE | Lab Sample ID: 240-36233-1

Matrix: Water | Lab File ID: UXX9893.D

Analysis Method: 8260C | Date Collected: 04/14/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 18:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: TB-041414 Lab Sample ID: 240-36233-1

Matrix: Water Lab File ID: UXX9893.D

Analysis Method: 8260C Date Collected: 04/14/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 18:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: TB-041414 | Lab Sample ID: 240-36233-1

Matrix: Water | Lab File ID: UXX9893.D

Analysis Method: 8260C | Date Collected: 04/14/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 18:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		74-120
1868-53-7	Dibromofluoromethane (Surr)	89		75-121
460-00-4	4-Bromofluorobenzene (Surr)	89		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: TB-041414 | Lab Sample ID: 240-36233-1

Matrix: Water | Lab File ID: UXX9893.D

Analysis Method: 8260C | Date Collected: 04/14/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 18:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: TB-041614 | Lab Sample ID: 240-36320-1

Matrix: Water | Lab File ID: UXX9898.D

Analysis Method: 8260C | Date Collected: 04/16/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 19:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.2	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: TB-041614 | Lab Sample ID: 240-36320-1

Matrix: Water | Lab File ID: UXX9898.D

Analysis Method: 8260C | Date Collected: 04/16/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 19:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.36	J	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: TB-041614 Lab Sample ID: 240-36320-1

Matrix: Water Lab File ID: UXX9898.D

Analysis Method: 8260C Date Collected: 04/16/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 19:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		74-120
1868-53-7	Dibromofluoromethane (Surr)	90		75-121
460-00-4	4-Bromofluorobenzene (Surr)	89		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: TB-041614 Lab Sample ID: 240-36320-1

Matrix: Water Lab File ID: UXX9898.D

Analysis Method: 8260C Date Collected: 04/16/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 19:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-11I-041414 | Lab Sample ID: 240-36135-3

Matrix: Water | Lab File ID: 0417007.D

Analysis Method: 8270C | Date Collected: 04/14/2014 11:48

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 09:06

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126796 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	66		29-110
367-12-4	2-Fluorophenol (Surr)	67		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	73		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	74		31-110
4165-62-2	Phenol-d5 (Surr)	55		10-110
1718-51-0	Terphenyl-d14 (Surr)	75		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-11S-041414 | Lab Sample ID: 240-36135-2

Matrix: Water | Lab File ID: 0417008.D

Analysis Method: 8270C | Date Collected: 04/14/2014 09:50

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 09:29

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126796 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	3.8		1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	65		29-110
367-12-4	2-Fluorophenol (Surr)	65		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	79		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	74		31-110
4165-62-2	Phenol-d5 (Surr)	56		10-110
1718-51-0	Terphenyl-d14 (Surr)	89		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-7D-041614 | Lab Sample ID: 240-36320-3

Matrix: Water | Lab File ID: 0422007.D

Analysis Method: 8270C | Date Collected: 04/16/2014 10:49

Extract. Method: 3510C | Date Extracted: 04/21/2014 07:41

Sample wt/vol: 280(mL) | Date Analyzed: 04/22/2014 15:21

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127443 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.23	U	0.89	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	64		29-110
367-12-4	2-Fluorophenol (Surr)	70		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	69		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	73		31-110
4165-62-2	Phenol-d5 (Surr)	77		10-110
1718-51-0	Terphenyl-d14 (Surr)	79		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-7I-041614 | Lab Sample ID: 240-36320-2

Matrix: Water | Lab File ID: 0422006.D

Analysis Method: 8270C | Date Collected: 04/16/2014 09:31

Extract. Method: 3510C | Date Extracted: 04/21/2014 07:41

Sample wt/vol: 260(mL) | Date Analyzed: 04/22/2014 14:58

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127443 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	12		0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	68		29-110
367-12-4	2-Fluorophenol (Surr)	75		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	73		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	78		31-110
4165-62-2	Phenol-d5 (Surr)	83		10-110
1718-51-0	Terphenyl-d14 (Surr)	81		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-8I-041614 | Lab Sample ID: 240-36320-4

Matrix: Water | Lab File ID: 0423004.D

Analysis Method: 8270C | Date Collected: 04/16/2014 12:18

Extract. Method: 3510C | Date Extracted: 04/21/2014 07:41

Sample wt/vol: 280(mL) | Date Analyzed: 04/23/2014 08:25

Con. Extract Vol.: 5(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127513 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	55		1.8	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	67		29-110
367-12-4	2-Fluorophenol (Surr)	49		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	76		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	70		31-110
4165-62-2	Phenol-d5 (Surr)	51		10-110
1718-51-0	Terphenyl-d14 (Surr)	88		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-21D-041414 | Lab Sample ID: 240-36233-5

Matrix: Water | Lab File ID: 0421010.D

Analysis Method: 8270C | Date Collected: 04/14/2014 16:04

Extract. Method: 3510C | Date Extracted: 04/18/2014 10:21

Sample wt/vol: 250(mL) | Date Analyzed: 04/21/2014 15:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127269 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	72		29-110
367-12-4	2-Fluorophenol (Surr)	76		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	72		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	80		31-110
4165-62-2	Phenol-d5 (Surr)	68		10-110
1718-51-0	Terphenyl-d14 (Surr)	89		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-21I-041414 | Lab Sample ID: 240-36233-3

Matrix: Water | Lab File ID: 0421008.D

Analysis Method: 8270C | Date Collected: 04/14/2014 14:50

Extract. Method: 3510C | Date Extracted: 04/18/2014 10:21

Sample wt/vol: 250(mL) | Date Analyzed: 04/21/2014 14:46

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127269 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	3.2		1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	77		29-110
367-12-4	2-Fluorophenol (Surr)	80		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	86		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	87		31-110
4165-62-2	Phenol-d5 (Surr)	71		10-110
1718-51-0	Terphenyl-d14 (Surr)	102		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-4-041614 | Lab Sample ID: 240-36320-5

Matrix: Water | Lab File ID: 0422009.D

Analysis Method: 8270C | Date Collected: 04/16/2014 15:20

Extract. Method: 3510C | Date Extracted: 04/21/2014 07:41

Sample wt/vol: 250(mL) | Date Analyzed: 04/22/2014 16:08

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127443 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	62		29-110
367-12-4	2-Fluorophenol (Surr)	73		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	67		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	74		31-110
4165-62-2	Phenol-d5 (Surr)	79		10-110
1718-51-0	Terphenyl-d14 (Surr)	77		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-48I-041414 | Lab Sample ID: 240-36233-6

Matrix: Water | Lab File ID: 0422005.D

Analysis Method: 8270C | Date Collected: 04/14/2014 08:55

Extract. Method: 3510C | Date Extracted: 04/18/2014 10:21

Sample wt/vol: 250(mL) | Date Analyzed: 04/22/2014 14:35

Con. Extract Vol.: 5(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127443 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	140		5.0	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	64		29-110
367-12-4	2-Fluorophenol (Surr)	70		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	71		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	75		31-110
4165-62-2	Phenol-d5 (Surr)	61		10-110
1718-51-0	Terphenyl-d14 (Surr)	76		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50D-041614 | Lab Sample ID: 240-36320-6

Matrix: Water | Lab File ID: 0422010.D

Analysis Method: 8270C | Date Collected: 04/16/2014 09:40

Extract. Method: 3510C | Date Extracted: 04/21/2014 07:41

Sample wt/vol: 250(mL) | Date Analyzed: 04/22/2014 16:31

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127443 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	60		29-110
367-12-4	2-Fluorophenol (Surr)	67		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	67		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	71		31-110
4165-62-2	Phenol-d5 (Surr)	72		10-110
1718-51-0	Terphenyl-d14 (Surr)	79		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50I-041414 | Lab Sample ID: 240-36233-4

Matrix: Water | Lab File ID: 0421009.D

Analysis Method: 8270C | Date Collected: 04/14/2014 15:37

Extract. Method: 3510C | Date Extracted: 04/18/2014 10:21

Sample wt/vol: 250(mL) | Date Analyzed: 04/21/2014 15:10

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127269 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	2.1		1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	70		29-110
367-12-4	2-Fluorophenol (Surr)	72		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	75		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	76		31-110
4165-62-2	Phenol-d5 (Surr)	66		10-110
1718-51-0	Terphenyl-d14 (Surr)	85		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50S-041414 | Lab Sample ID: 240-36233-2

Matrix: Water | Lab File ID: 0421007.D

Analysis Method: 8270C | Date Collected: 04/14/2014 10:50

Extract. Method: 3510C | Date Extracted: 04/18/2014 10:21

Sample wt/vol: 280(mL) | Date Analyzed: 04/21/2014 14:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127269 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	5.0		0.89	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	86		29-110
367-12-4	2-Fluorophenol (Surr)	88		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	93		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	94		31-110
4165-62-2	Phenol-d5 (Surr)	78		10-110
1718-51-0	Terphenyl-d14 (Surr)	110		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-51I-041614 | Lab Sample ID: 240-36320-8

Matrix: Water | Lab File ID: 0422012.D

Analysis Method: 8270C | Date Collected: 04/16/2014 11:38

Extract. Method: 3510C | Date Extracted: 04/21/2014 07:41

Sample wt/vol: 260(mL) | Date Analyzed: 04/22/2014 17:17

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127443 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.2		0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	67		29-110
367-12-4	2-Fluorophenol (Surr)	80		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	74		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	81		31-110
4165-62-2	Phenol-d5 (Surr)	89		10-110
1718-51-0	Terphenyl-d14 (Surr)	82		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-51S-041614 | Lab Sample ID: 240-36320-7

Matrix: Water | Lab File ID: 0422011.D

Analysis Method: 8270C | Date Collected: 04/16/2014 14:46

Extract. Method: 3510C | Date Extracted: 04/21/2014 07:41

Sample wt/vol: 250(mL) | Date Analyzed: 04/22/2014 16:54

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127443 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	5.4		1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	64		29-110
367-12-4	2-Fluorophenol (Surr)	71		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	69		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	75		31-110
4165-62-2	Phenol-d5 (Surr)	75		10-110
1718-51-0	Terphenyl-d14 (Surr)	77		31-115

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-11S-041414 | Lab Sample ID: 240-36135-2

Matrix: Water | Lab File ID: YF041908.D

Analysis Method: 8015B | Date Collected: 04/14/2014 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2014 17:28

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127165 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	5100	B	500	130

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	76		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-4-041614 | Lab Sample ID: 240-36320-5

Matrix: Water | Lab File ID: YF041920.D

Analysis Method: 8015B | Date Collected: 04/16/2014 15:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/20/2014 01:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127165 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	40	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	71		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50S-041414 | Lab Sample ID: 240-36233-2

Matrix: Water | Lab File ID: YF041916.D

Analysis Method: 8015B | Date Collected: 04/14/2014 10:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2014 22:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127165 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	170	B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	33	X	40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-51S-041614 | Lab Sample ID: 240-36320-7

Matrix: Water | Lab File ID: YF041921.D

Analysis Method: 8015B | Date Collected: 04/16/2014 14:46

Sample wt/vol: 5(mL) | Date Analyzed: 04/20/2014 01:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127165 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	790	B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	80		40-133

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-11S-041414 | Lab Sample ID: 240-36135-2

Matrix: Water | Lab File ID: P14F041727.D

Analysis Method: 8015B | Date Collected: 04/14/2014 09:50

Extraction Method: 3510C | Date Extracted: 04/16/2014 09:39

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 22:24

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126912 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	1100		500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	74		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-4-041614 Lab Sample ID: 240-36320-5

Matrix: Water Lab File ID: P14F042311.D

Analysis Method: 8015B Date Collected: 04/16/2014 15:20

Extraction Method: 3510C Date Extracted: 04/21/2014 07:48

Sample wt/vol: 260(mL) Date Analyzed: 04/23/2014 15:30

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 127592 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	73		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-50S-041414 | Lab Sample ID: 240-36233-2

Matrix: Water | Lab File ID: P14F042313.D

Analysis Method: 8015B | Date Collected: 04/14/2014 10:50

Extraction Method: 3510C | Date Extracted: 04/21/2014 07:48

Sample wt/vol: 250(mL) | Date Analyzed: 04/23/2014 16:12

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127592 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	76		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-51S-041614 | Lab Sample ID: 240-36320-7

Matrix: Water | Lab File ID: P14F042312.D

Analysis Method: 8015B | Date Collected: 04/16/2014 14:46

Extraction Method: 3510C | Date Extracted: 04/21/2014 07:48

Sample wt/vol: 260(mL) | Date Analyzed: 04/23/2014 15:51

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127592 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	640		480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	75		40-160

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-11S-041414 Lab Sample ID: 240-36135-2

Matrix: Water Lab File ID: Z0042510.D

Analysis Method: RSK-175 Date Collected: 04/14/2014 09:50

Sample wt/vol: 17(mL) Date Analyzed: 04/25/2014 11:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ID:

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127844 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	1000	B	0.10	0.070
74-84-0	Ethane	260		0.26	0.19
74-85-1	Ethene	250		0.31	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	100		66-132

APPENDIX C

SUPPORT DOCUMENTATION

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	PCL	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36135-1	PCL	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36135-1	PCL	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	PCL	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	PCL	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36112-1	SO4	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/29/2014	04/29/2014	19	0	19
240-36135-1	SO4	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/24/2014	04/24/2014	10	0	10
240-36112-1	TDS	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/16/2014	04/16/2014	6	0	6
240-36135-1	TDS	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/16/2014	2	0	2
240-36112-1	DOC	MG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/28/2014	04/28/2014	18	0	18
240-36135-1	DOC	MG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/28/2014	04/28/2014	14	0	14
240-36112-1	OS	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-MW-49I-041014	240-36112-5	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OS	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-25I-041114	240-36112-17	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	OS	UG/L	MSA-DMW-10I-041014	240-36112-7	SUR	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	OS	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-1B-041014	240-36112-8	SUR	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	OS	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24I-041114	240-36112-12	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OS	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/16/2014	04/17/2014	6	1	7
240-36112-1	OS	UG/L	MSA-MW-23D-041114	240-36112-14	SUR	04/11/2014	04/16/2014	04/17/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32I-041014	240-36112-2	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36112-1	OS	UG/L	MSA-DMW-1A-041014	240-36112-9	SUR	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/16/2014	04/21/2014	6	5	11
240-36112-1	OS	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/15/2014	04/16/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-51I-041614	240-36320-8	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-MW-48I-041414	240-36233-6	NM	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	OS	UG/L	MSA-MW-21I-041414	240-36233-3	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	OS	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-11I-041414	240-36135-3	SUR	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	OS	UG/L	MSA-MW-21D-041414	240-36233-5	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	OS	UG/L	MSA-MW-48I-041414	240-36233-6	SUR	04/14/2014	04/18/2014	04/22/2014	4	4	8
240-36135-1	OS	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-DMW-7I-041614	240-36320-2	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-8I-041614	240-36320-4	SUR	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	OS	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	OS	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-50I-041414	240-36233-4	SUR	04/14/2014	04/18/2014	04/21/2014	4	3	7
240-36135-1	OS	UG/L	MSA-MW-50D-041614	240-36320-6	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	OS	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-7D-041614	240-36320-3	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36135-1	OS	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	OS	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/21/2014	04/22/2014	5	1	6
240-36112-1	OV	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OV	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-23D-041114	240-36112-14	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-32I-041014	240-36112-2	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-25I-041114	240-36112-17	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1B-041014	240-36112-8	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-25I-041114	240-36112-17	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-23D-041114	240-36112-14	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1B-041014	240-36112-8	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-32I-041014	240-36112-2	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	OV	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-10I-041014	240-36112-7	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1A-041014	240-36112-9	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49I-041014	240-36112-5	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-24I-041114	240-36112-12	NM	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-24I-041114	240-36112-12	SUR	04/11/2014	04/21/2014	04/21/2014	10	0	10
240-36112-1	OV	UG/L	MSA-DMW-10I-041014	240-36112-7	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/22/2014	04/22/2014	11	0	11
240-36112-1	OV	UG/L	MSA-DMW-1A-041014	240-36112-9	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36112-1	OV	UG/L	MSA-MW-49I-041014	240-36112-5	NM	04/10/2014	04/21/2014	04/21/2014	11	0	11
240-36135-1	OV	UG/L	MSA-DMW-8I-041614	240-36320-4	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-50D-041614	240-36320-6	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-DMW-7D-041614	240-36320-3	NM	04/16/2014	04/22/2014	04/22/2014	6	0	6

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	OV	UG/L	MSA-MW-51I-041614	240-36320-8	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-DMW-7I-041614	240-36320-2	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-51I-041614	240-36320-8	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-DMW-8I-041614	240-36320-4	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-DMW-7D-041614	240-36320-3	SUR	04/16/2014	04/22/2014	04/22/2014	6	0	6
240-36135-1	OV	UG/L	MSA-DMW-7I-041614	240-36320-2	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-21D-041414	240-36233-5	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-21I-041414	240-36233-3	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-50I-041414	240-36233-4	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-50I-041414	240-36233-4	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-21I-041414	240-36233-3	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-50D-041614	240-36320-6	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-21D-041414	240-36233-5	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-DMW-11I-041414	240-36135-3	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-DMW-11I-041414	240-36135-3	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	OV	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36135-1	OV	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/26/2014	04/26/2014	10	0	10
240-36135-1	OV	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/22/2014	04/22/2014	8	0	8
240-36112-1	ETHA	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	ETHA	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	ETHE	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	ETHE	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	METH	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	METH	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	OVG	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/23/2014	04/23/2014	13	0	13
240-36135-1	OVG	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/25/2014	04/25/2014	11	0	11
240-36112-1	DRO	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	DRO	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	DRO	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	DRO	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	DRO	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	DRO	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	DRO	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36135-1	DRO	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	DRO	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	DRO	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	DRO	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36112-1	GRO	UG/L	MSA-MW-32S-041014	240-36112-1	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-36S-041114	240-36112-15	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-DMW-10S-041014	240-36112-6	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-37S-041114	240-36112-18	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-MW-48S-041014	240-36112-3	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-6-041014	240-36112-10	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-49S-041014	240-36112-4	NM	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	GRO	UG/L	MSA-MW-23S-041114	240-36112-13	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-MW-24S-041114	240-36112-11	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	GRO	UG/L	MSA-MW-25S-041114	240-36112-16	NM	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36135-1	GRO	UG/L	MSA-DMW-11S-041414	240-36135-2	NM	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36135-1	GRO	UG/L	MSA-MW-4-041614	240-36320-5	NM	04/16/2014	04/20/2014	04/20/2014	4	0	4

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36135-1	GRO	UG/L	MSA-MW-50S-041414	240-36233-2	NM	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36135-1	GRO	UG/L	MSA-MW-51S-041614	240-36320-7	NM	04/16/2014	04/20/2014	04/20/2014	4	0	4
240-36112-1	TPH	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	TPH	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-48S-041014	240-36112-3	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-49S-041014	240-36112-4	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-6-041014	240-36112-10	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	TPH	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-23S-041114	240-36112-13	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	TPH	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-24S-041114	240-36112-11	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36112-1	TPH	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-25S-041114	240-36112-16	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-37S-041114	240-36112-18	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/15/2014	04/17/2014	5	2	7
240-36112-1	TPH	UG/L	MSA-MW-32S-041014	240-36112-1	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-36112-1	TPH	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/15/2014	04/17/2014	4	2	6
240-36112-1	TPH	UG/L	MSA-DMW-10S-041014	240-36112-6	SUR	04/10/2014	04/18/2014	04/18/2014	8	0	8
240-36112-1	TPH	UG/L	MSA-MW-36S-041114	240-36112-15	SUR	04/11/2014	04/18/2014	04/18/2014	7	0	7
240-36135-1	TPH	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36135-1	TPH	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	TPH	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/21/2014	04/23/2014	5	2	7
240-36135-1	TPH	UG/L	MSA-MW-50S-041414	240-36233-2	SUR	04/14/2014	04/21/2014	04/23/2014	7	2	9
240-36135-1	TPH	UG/L	MSA-MW-4-041614	240-36320-5	SUR	04/16/2014	04/20/2014	04/20/2014	4	0	4
240-36135-1	TPH	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/16/2014	04/17/2014	2	1	3
240-36135-1	TPH	UG/L	MSA-DMW-11S-041414	240-36135-2	SUR	04/14/2014	04/19/2014	04/19/2014	5	0	5
240-36135-1	TPH	UG/L	MSA-MW-51S-041614	240-36320-7	SUR	04/16/2014	04/20/2014	04/20/2014	4	0	4

TestAmerica Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

Chain of Custody Record

042303
1.6

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact			
Company Name:	Tetra Tech Inc	Project Manager:	Tony Apanavage
Address:	20251 Century Blvd STE 200	Tel/Fax:	301 528-3000
City/State/Zip:	Germantown, MD 20874	Site Contact:	Walt Pryor
Phone:	301 528-3021	Lab Contact:	Pat O'Mara
Fax:	301 528-3000	Date:	4-14-14
Project Name:	MSA GW 2014	Carrier:	FedEX
Site:	MSA	COC No:	1 of 1 COCs
PO#	Project # 112FC06183	Sampler:	

Analysis Turnaround Time
☐ CALENDAR DAYS ☐ WORKING DAYS
TAT if different from Below
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day
21 days

For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	Total metals	Diss metals	1,4 Dioxane	TPH-Dro	TPH-Gro	MEE	Diss Gasses	DOC	Ammonia	Alk, Anions, TDS	Sample Specific Notes:
TB-041414	4-14-14	—	G	Aq	2			X											
MSA-DMW-11s-041414		0950			19	1		X	X	X	X	X	X	X	X	X	X	X	
MSA-DMW-11I-041414		1148			7	1		X	X	X	X								

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
* MSA-DMW-11s has Natural Attenuation Samples 24-48 TAT *

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walter E. Pryor	TT Inc	4-14-14/1800	Tiquan Rota	Test America	4-15-14 1000
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative Login # : 31035
Canton Facility

Client Petro Tech Inc. Site Name _____ Cooler unpacked by: Ryan Rapp

Cooler Received on 4-15-14 Opened on 4-15-14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box (Client Cooler) Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp. 1.6 °C	Corrected Cooler Temp. 1.6 °C	☐ See Multiple Cooler Form
IR GUN# 4	(CF -1 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____ (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Sample(s) processed by: [signature]

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Canton
4101 Shuffel Street, N. U.
North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

2.0

Chain of Custody Record

042302

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Tony Agnavarge	Site Contact: Walt Pryor	Date: 4-15-14	COC No:
Company Name: Tetra Tech INC	Tel/Fax: 301 528-3021	Lab Contact: Pat O'Mara	Carrier: Fed EX	1 of 1 COCs
Address: 20251 Century Blvd	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301 528-3021	TAT if different from Below _____			Walk-in Client:
Fax: 3000	☐ 2 weeks			Lab Sampling:
Project Name: MSA GW 2014	☐ 1 week			
Site: MSA	☐ 2 days			Job / SDG No.:
PO # Project # 112IC061883	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	4 Dioxane	Total metals	Diss metals	Perchlorate	TPH - Gro	TPH - Dro	Sample Specific Notes:
TB-041414	4-14-14	—	G	GW	2			X							
MSA-MW-50S-041414		1050			12			X	X	X	X	X	X	X	* Ignore Bottle Time *
MSA-MW-21I-041414		1450			8			X	X	X	X	X			
MSA-MW-50I-041414		1537			8			X	X	X	X	X			* Ignore Bottle Time *
MSA-MW-21D-041414		1604			7			X	X	X	X				
MSA-MW-48I-041414	↓	0855	↓	↓	2				X						

Page 3 of 3375

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6=Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by: Walter Pryor	Company: TT INC	Date/Time: 4-15-14 1230	Received by: Lynn Rose	Company: Test America	Date/Time: 9/16/14 940
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 360233

Client Tetra Tech Inc Site Name

Cooler unpacked by: Ryan Lor

Cooler Received on 4-16-14 Opened on 4-16-14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # 594 Foam Box Client Cooler Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C) Observed Cooler Temp. 2.0 °C	Corrected Cooler Temp. 2.0 °C	☐ See Multiple Cooler Form
IR GUN# 4	(CF -1 °C) Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	
IR GUN# 5	(CF +1 °C) Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	
IR GUN# 8	(CF +1 °C) Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity ____ (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other
Concerning ____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.
Time preserved: ____ Preservative(s) added/Lot number(s): ____

TestAmerica Canton

4101 Shuffel Street, N. U.

North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

3.2, 1.8

Chain of Custody Record

042335

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Tony Apanavage	Site Contact: Walt Pugsley	Date: 4-16-14	COC No:
Company Name: Tetra Tech INC	Tel/Fax: 301 528-3021	Lab Contact: Pat O'Meara	Carrier:	1 of ____ COCs
Address: 20251 Century Blvd STE 200	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301 528-3021	TAT if different from Below ____			Walk-in Client:
Fax: 301 528-3060	☐ 2 weeks 21 days			Lab Sampling:
Project Name: MSA GW 2014	☐ 1 week			
Site: MSA	☐ 2 days			Job / SDG No.:
PO# Project # 112IC06143	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	Total metals	Diss metals	1,4 Dioxane	Perchlorate	TPH-GRO	TPH-DRO	Sample Specific Notes:
TB-041614	4-16-14	—	G	GW	2			X							
MSA-DMW-7I-041614	↓	0931	↓	↓	8			X	X	X	X	X			
MSA-DMW-7D-041614		1049			7			X	X	X	X				
MSA-DMW-8I-041614		1218			7			X	X	X	X				
MSA-MW-4-041614		1520			11			X	X	X	X		X	X	
MSA-MW-50D-041614		0940						X	X	X	X	X			*Ignore Bottles*
MSA-MW-51S-041614		1446						X	X	X	X	X	X	X	*Ignore Bottles*
MSA-MW-51I-041614	↓	1138	↓	↓				X	X	X	X	X			*Ignore ~~B041~~ Bottles

Page 70 of 75

Preservation Used: 1=Ice, 2=HCL, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: ____ Corr'd: ____	Therm ID No.: ____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walter Pugsley	TT INC	4-17-14 1205		TestAmerica	4/17/14 1205
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TestAmerica	4/17/14 1800		TA	4.18.14 920
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 36320

Client Tetra Tech Site Name

Cooler unpacked by:

Cooler Received on 4-18-14 Opened on 4-18-14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # Foam Box Client Cooler Box (Other)

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp. °C	Corrected Cooler Temp. °C	
IR GUN# 4	(CF -1 °C)	Observed Cooler Temp. °C	Corrected Cooler Temp. °C	☑ See Multiple Cooler Form
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp. °C	Corrected Cooler Temp. °C	
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp. °C	Corrected Cooler Temp. °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No NA 4-18-14
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM Date by via Verbal Voice Mail Other
Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-36135-1

Login Number: 36233
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 04/18/14 01:25 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-36135-1

Login Number: 36320
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 04/19/14 09:47 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2014

Report Number: 240-36135-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 6850 Percholate analysis was performed at TestAmerica Sacramento.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 4/15/2014 10:00 AM, 4/16/2014 9:40 AM and 4/18/2014 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 1.6° C, 1.8° C, 2.0° C and 3.2° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-041414 (240-36135-1), TB-041414 (240-36233-1), TB-041614 (240-36320-1), MSA-DMW-11S-041414 (240-36135-2), MSA-MW-50S-041414 (240-36233-2), MSA-DMW-7I-041614 (240-36320-2), MSA-DMW-11I-041414 (240-36135-3), MSA-MW-21I-041414 (240-36233-3), MSA-DMW-7D-041614 (240-36320-3), MSA-MW-50I-041414 (240-36233-4), MSA-DMW-8I-041614 (240-36320-4), MSA-MW-21D-041414 (240-36233-5), MSA-MW-4-041614 (240-36320-5), MSA-MW-50D-041614 (240-36320-6), MSA-MW-51S-041614 (240-36320-7) and MSA-MW-51I-041614 (240-36320-8) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 04/22/2014 and 04/26/2014.

Samples MSA-DMW-11S-041414 (240-36135-2)[416.67X], MSA-MW-50S-041414 (240-36135-2)[5.71X], MSA-DMW-7I-041614 (240-36135-2)[5.71X], MSA-MW-21I-041414 (240-36135-3)[14.29X], MSA-DMW-11I-041414 (240-36135-3)[5.71X], MSA-MW-50I-041414 (240-36135-4)[2X], MSA-DMW-8I-041614 (240-36135-4)[8.33X] and MSA-MW-51S-041614 (240-36135-7)[25X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) for analytical batch 127413 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The laboratory control sample (LCS) for batch 128028 recovered outside control limits for the following analytes: Dibromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) for analytical batch 128028 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

No other difficulties were encountered during the VOCs analysis. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-DMW-11S-041414 (240-36135-2), MSA-MW-50S-041414 (240-36233-2), MSA-DMW-7I-041614 (240-36320-2),

MSA-DMW-11I-041414 (240-36135-3), MSA-MW-21I-041414 (240-36233-3), MSA-DMW-7D-041614 (240-36320-3), MSA-MW-50I-041414 (240-36233-4), MSA-DMW-8I-041614 (240-36320-4), MSA-MW-21D-041414 (240-36233-5), MSA-MW-4-041614 (240-36320-5), MSA-MW-48I-041414 (240-36233-6), MSA-MW-50D-041614 (240-36320-6), MSA-MW-51S-041614 (240-36320-7) and MSA-MW-51I-041614 (240-36320-8) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 04/16/2014, 04/18/2014 and 04/21/2014 and analyzed on 04/17/2014, 04/21/2014, 04/22/2014 and 04/23/2014.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Samples MSA-DMW-8I-041614 (240-36233-4)[2X] and MSA-MW-48I-041414 (240-36233-6)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch (127063).

No other difficulties were encountered during the SVOCs analysis. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)

Samples MSA-DMW-11S-041414 (240-36135-2), MSA-MW-50S-041414 (240-36233-2), MSA-MW-4-041614 (240-36320-5) and MSA-MW-51S-041614 (240-36320-7) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/19/2014 and 04/20/2014.

Gasoline Range Organics [C6 - C10] was detected in method blank MB 240-127165/5 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Trifluorotoluene (Surr) failed the surrogate recovery criteria low for MSA-MW-50S-041414 (240-36233-2).

Sample MSA-DMW-11S-041414 (240-36135-2)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the GRO analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED GASES

Sample MSA-DMW-11S-041414 (240-36135-2) was analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 04/25/2014.

Methane was detected in method blank MB 240-127844/4 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

MS/MSD run but not reported due to parent sample failure.

The continuing calibration verification (CCV) associated with batch 127844 recovered above the upper control limit for Acetylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: MSA-DMW-11S-041414 (240-36135-2).

No other difficulties were encountered during the dissolved gases analysis. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples MSA-DMW-11S-041414 (240-36135-2), MSA-MW-50S-041414 (240-36233-2), MSA-MW-4-041614 (240-36320-5) and MSA-MW-51S-041614 (240-36320-7) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 04/16/2014 and 04/21/2014 and analyzed on 04/17/2014 and 04/23/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 126690.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 127200, 8015.

No other difficulties were encountered during the DRO analysis. All other quality control parameters were within the acceptance limits.

PERCHLORATE

Samples MSA-MW-50S-041414 (240-36233-2), MSA-DMW-7I-041614 (240-36320-2), MSA-MW-21I-041414 (240-36233-3), MSA-MW-50I-041414 (240-36233-4), MSA-MW-50D-041614 (240-36320-6), MSA-MW-51S-041614 (240-36320-7) and

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery exceeds the control limits
*	LCS or LCSD exceeds the control limits

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	This flag indicates the presumptive evidence of a compound.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2014

TestAmerica Job ID: 240-36135-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015B	Gasoline Range Organics - (GC)	SW846	TAL CAN
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CAN
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
2340B-1997	Total Hardness (as CaCO3) by calculation	SM	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
160.1	Solids, Total Dissolved (TDS)	MCAWW	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
310.1	Alkalinity	MCAWW	TAL CAN
350.3	Nitrogen, Ammonia	MCAWW	TAL CAN
9060	Organic Carbon, Dissolved (DOC)	SW846	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2014

TestAmerica Job ID: 240-36135-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-36135-1	TB-041414	Water	04/14/14 00:00	04/15/14 10:00
240-36135-2	MSA-DMW-11S-041414	Water	04/14/14 09:50	04/15/14 10:00
240-36135-3	MSA-DMW-11I-041414	Water	04/14/14 11:48	04/15/14 10:00
240-36233-1	TB-041414	Water	04/14/14 00:00	04/16/14 09:40
240-36233-2	MSA-MW-50S-041414	Water	04/14/14 10:50	04/16/14 09:40
240-36233-3	MSA-MW-21I-041414	Water	04/14/14 14:50	04/16/14 09:40
240-36233-4	MSA-MW-50I-041414	Water	04/14/14 15:37	04/16/14 09:40
240-36233-5	MSA-MW-21D-041414	Water	04/14/14 16:04	04/16/14 09:40
240-36233-6	MSA-MW-48I-041414	Water	04/14/14 08:55	04/16/14 09:40
240-36320-1	TB-041614	Water	04/16/14 00:00	04/18/14 09:20
240-36320-2	MSA-DMW-7I-041614	Water	04/16/14 09:31	04/18/14 09:20
240-36320-3	MSA-DMW-7D-041614	Water	04/16/14 10:49	04/18/14 09:20
240-36320-4	MSA-DMW-8I-041614	Water	04/16/14 12:18	04/18/14 09:20
240-36320-5	MSA-MW-4-041614	Water	04/16/14 15:20	04/18/14 09:20
240-36320-6	MSA-MW-50D-041614	Water	04/16/14 09:40	04/18/14 09:20
240-36320-7	MSA-MW-51S-041614	Water	04/16/14 14:46	04/18/14 09:20
240-36320-8	MSA-MW-51I-041614	Water	04/16/14 11:38	04/18/14 09:20

Detection Limit Exceptions Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2014

TestAmerica Job ID: 240-36135-1

The requested project specific reporting limits listed below were less than laboratory standard quantitation limits (PQL) but greater than or equal to the laboratory method detection limits (MDL). It must be noted that results reported below lab standard quantitation limits may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Matrix	Analyte	Units	Client RL	Lab PQL
RSK-175	Water	Ethane	ug/L	0.26	0.5
RSK-175	Water	Ethene	ug/L	0.31	0.5
RSK-175	Water	Methane	ug/L	0.10	0.5

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab File ID: BFB5580.D BFB Injection Date: 03/13/2014

Instrument ID: A3UX10 BFB Injection Time: 08:39

Analysis Batch No.: 122371

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.3	
75	30.0 - 60.0 % of mass 95	49.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.1	(0.1)1
174	50.0 - 120.00 % of mass 95	86.9	
175	5.0 - 9.0 % of mass 174	6.5	(7.5)1
176	95.0 - 101.0 % of mass 174	83.3	(95.8)1
177	5.0 - 9.0 % of mass 176	5.7	(6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-122371/2	UXX8834.D	03/13/2014	09:02
	STD8260 240-122371/3	UXX8835.D	03/13/2014	09:24
	STD8260 240-122371/4	UXX8836.D	03/13/2014	09:48
	STD8260 240-122371/5	UXX8837.D	03/13/2014	10:10
	STD8260 240-122371/6	UXX8838.D	03/13/2014	10:33
	STD8260 240-122371/7	UXX8839.D	03/13/2014	10:55
	STDA9 240-122371/8	UXX8840.D	03/13/2014	11:18
	STDA9 240-122371/9	UXX8841.D	03/13/2014	11:40
	STDA9 240-122371/10	UXX8842.D	03/13/2014	12:02
	STDA9 240-122371/11	UXX8843.D	03/13/2014	12:25
	STDA9 240-122371/12	UXX8844.D	03/13/2014	12:47
	STDA9 240-122371/13	UXX8845.D	03/13/2014	13:09
	ICV 240-122371/14	UXX8846.D	03/13/2014	13:50
	ICV 240-122371/15	UXX8847.D	03/13/2014	14:12

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-122371/7	UXX8839.D
Level 2	STD8260 240-122371/6	UXX8838.D
Level 3	STD8260 240-122371/5	UXX8837.D
Level 4	STD8260 240-122371/4	UXX8836.D
Level 5	STD8260 240-122371/3	UXX8835.D
Level 6	STD8260 240-122371/2	UXX8834.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2351 0.2522	0.2412	0.2233	0.2482	0.2522	Ave		0.2420			0.1000	4.7		15.0			
Chloromethane	0.3337 0.2770	0.3055	0.2809	0.2718	0.2761	Ave		0.2908			0.1000	8.3		15.0			
Vinyl chloride	0.2986 0.2843	0.2917	0.2749	0.2772	0.2823	Ave		0.2848			0.1000	3.1		15.0			
Bromomethane	0.1623 0.1036	0.1528	0.1378	0.1183	0.1263	Lin1	0.0764	0.1096			0.0500				0.9900		0.9900
Chloroethane	0.1738 0.1443	0.1643	0.1606	0.1470	0.1562	Ave		0.1577				7.0		15.0			
Dichlorofluoromethane	0.3860 0.2893	0.3416	0.3193	0.3006	0.3122	Ave		0.3248				11.0		15.0			
Trichlorofluoromethane	0.2911 0.2690	0.2877	0.2724	0.2839	0.2803	Ave		0.2807			0.1000	3.1		15.0			
Ethyl ether	0.1766 0.1775	0.1636	0.1606	0.1726	0.1710	Ave		0.1703				4.0		15.0			
Acrolein	0.0265 0.0260	0.0260	0.0244	0.0255	0.0267	Ave		0.0258				3.2		15.0			
1,1-Dichloroethene	0.2302 0.2164	0.2257	0.2045	0.2099	0.2186	Ave		0.2175			0.1000	4.4		15.0			
1,1,2-Trichlorotrifluoroethane	0.1862 0.1940	0.1959	0.1601	0.1824	0.1859	Ave		0.1841			0.0500	7.0		15.0			
Acetone	0.0617 0.0612	0.0527	0.0531	0.0617	0.0619	Ave		0.0587			0.0500	7.7		15.0			
Iodomethane	0.3782 0.3597	0.3626	0.3430	0.3520	0.3540	Ave		0.3583				3.3		15.0			
Carbon disulfide	0.7303 0.7175	0.7152	0.6643	0.6891	0.7109	Ave		0.7045			0.1000	3.4		15.0			
3-Chloro-1-propene	0.1611 0.1518	0.1494	0.1430	0.1476	0.1531	Ave		0.1510				4.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl acetate	0.1415 0.1427	0.1313	0.1280	0.1366	0.1443	Ave		0.1374			0.1000	4.8		15.0			
Methylene Chloride	0.3443 0.2359	0.2861	0.2451	0.2408	0.2412	Lin1	0.1037	0.2332			0.1000				1.0000		0.9900
tert-Butyl alcohol	0.0124 0.0185	0.0112	0.0115	0.0177	0.0193	Lin1	-0.118	0.0188							0.9910		0.9900
Acrylonitrile	0.0686 0.0713	0.0647	0.0637	0.0691	0.0727	Ave		0.0683				5.2		15.0			
Methyl tert-butyl ether	0.7053 0.7033	0.6530	0.6488	0.6670	0.7001	Ave		0.6796			0.1000	3.9		15.0			
trans-1,2-Dichloroethene	0.2715 0.2373	0.2550	0.2346	0.2414	0.2467	Ave		0.2478			0.1000	5.5		15.0			
Hexane	0.0622 0.0621	0.0576	0.0519	0.0604	0.0608	Ave		0.0592				6.6		15.0			
1,1-Dichloroethane	0.4200 0.4123	0.4127	0.3962	0.4073	0.4136	Ave		0.4104			0.1000	2.0		15.0			
Vinyl acetate	0.2499 0.2755	0.2458	0.2461	0.2668	0.2648	Ave		0.2581				4.9		15.0			
2,2-Dichloropropane	0.3404 0.3338	0.3346	0.3152	0.3274	0.3346	Ave		0.3310				2.6		15.0			
cis-1,2-Dichloroethene	0.2844 0.2570	0.2691	0.2526	0.2566	0.2589	Ave		0.2631			0.1000	4.5		15.0			
2-Butanone (MEK)	0.0717 0.0776	0.0661	0.0658	0.0765	0.0798	Ave		0.0729			0.0500	8.2		15.0			
Bromochloromethane	0.1277 0.1212	0.1199	0.1166	0.1182	0.1214	Ave		0.1208				3.2		15.0			
Tetrahydrofuran	0.0628 0.0532	0.0561	0.0513	0.0525	0.0532	Ave		0.0549				7.7		15.0			
Chloroform	0.4091 0.3998	0.3965	0.3883	0.3936	0.4001	Ave		0.3979				1.8		15.0			
1,1,1-Trichloroethane	0.3758 0.3613	0.3620	0.3441	0.3590	0.3657	Ave		0.3613			0.1000	2.9		15.0			
Cyclohexane	0.3882 0.4002	0.4071	0.3482	0.3903	0.3980	Ave		0.3887			0.1000	5.4		15.0			
1,1-Dichloropropene	0.3153 0.3039	0.2969	0.2821	0.2999	0.3027	Ave		0.3001				3.6		15.0			
Carbon tetrachloride	0.3030 0.3273	0.3113	0.2889	0.3134	0.3260	Ave		0.3117			0.1000	4.6		15.0			
Isobutyl alcohol	0.0120 0.0080	0.0058	0.0066	0.0078	0.0084	Lin1	0.0127	0.0080							0.9900		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzene	0.9808 0.9463	0.9526	0.9016	0.9385	0.9429	Ave		0.9438			0.5000	2.7		15.0			
1,2-Dichloroethane	0.3005 0.2997	0.2897	0.2882	0.2961	0.3020	Ave		0.2960			0.1000	2.0		15.0			
n-Heptane	0.0505 0.0556	0.0518	0.0461	0.0536	0.0524	Ave		0.0517				6.3		15.0			
Trichloroethene	0.2524 0.2505	0.2456	0.2399	0.2491	0.2498	Ave		0.2479			0.2000	1.8		15.0			
Methylcyclohexane	0.3681 0.4035	0.3938	0.3403	0.3883	0.3998	Ave		0.3823			0.1000	6.3		15.0			
1,2-Dichloropropane	0.2019 0.2137	0.2038	0.2037	0.2136	0.2120	Ave		0.2081			0.1000	2.7		15.0			
Dibromomethane	0.1206 0.1236	0.1157	0.1190	0.1229	0.1246	Ave		0.1211				2.8		15.0			
1,4-Dioxane	0.0008 0.0018	0.0009	0.0009	0.0021	0.0020	Qua	-0.068	0.0024	0						0.9950		0.9900
Bromodichloromethane	0.2704 0.3046	0.2793	0.2780	0.2879	0.2969	Ave		0.2862			0.1000	4.5		15.0			
2-Chloroethyl vinyl ether	0.0585 0.0866	0.0595	0.0675	0.0807	0.0839	Lin1	-0.086	0.0862							0.9980		0.9900
cis-1,3-Dichloropropene	0.2912 0.3568	0.3047	0.3100	0.3419	0.3479	Ave		0.3254			0.1500	8.2		15.0			
4-Methyl-2-pentanone (MIBK)	0.1394 0.1665	0.1418	0.1396	0.1571	0.1664	Ave		0.1518			0.0500	8.6		15.0			
Toluene	1.4615 1.4216	1.4050	1.3791	1.3802	1.4160	Ave		1.4106			0.4000	2.2		15.0			
trans-1,3-Dichloropropene	0.3681 0.4292	0.3691	0.3915	0.4066	0.4240	Ave		0.3981			0.1000	6.6		15.0			
Ethyl methacrylate	0.2764 0.3465	0.2842	0.3048	0.3292	0.3516	Ave		0.3155				10.0		15.0			
1,1,2-Trichloroethane	0.2496 0.2460	0.2437	0.2522	0.2472	0.2515	Ave		0.2484			0.1000	1.3		15.0			
Tetrachloroethene	0.3038 0.2845	0.2924	0.2800	0.2816	0.2863	Ave		0.2881			0.2000	3.1		15.0			
1,3-Dichloropropane	0.4404 0.4501	0.4282	0.4405	0.4460	0.4519	Ave		0.4429				1.9		15.0			
2-Hexanone	0.1455 0.1559	0.1340	0.1386	0.1487	0.1580	Ave		0.1468			0.0500	6.4		15.0			
Chlorodibromomethane	0.2685 0.3074	0.2662	0.2766	0.2873	0.2992	Ave		0.2842				5.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dibromoethane	0.2466 0.2471	0.2388	0.2432	0.2450	0.2511	Ave		0.2453				1.7		15.0			
Chlorobenzene	0.9392 0.8969	0.8870	0.8903	0.8959	0.8955	Ave		0.9008			0.3000	2.1		15.0			
1,1,1,2-Tetrachloroethane	0.3260 0.3371	0.3274	0.3251	0.3256	0.3359	Ave		0.3295				1.7		15.0			
Ethylbenzene	0.5064 0.4957	0.5011	0.4823	0.4955	0.4939	Ave		0.4958				1.6		15.0			
m-Xylene & p-Xylene	0.6292 0.6215	0.6094	0.6004	0.6209	0.6169	Ave		0.6164				1.6		15.0			
o-Xylene	0.6243 0.6252	0.6043	0.6016	0.6140	0.6187	Ave		0.6147				1.6		15.0			
Styrene	0.9381 1.0159	0.9504	0.9419	0.9932	0.9975	Ave		0.9728			0.3000	3.4		15.0			
Bromoform	0.1632 0.2063	0.1645	0.1721	0.1874	0.1986	Ave		0.1820			0.1000	10.0		15.0			
Isopropylbenzene	1.6147 1.6860	1.5898	1.5513	1.6099	1.6605	Ave		1.6187			0.1000	3.0		15.0			
1,1,2,2-Tetrachloroethane	0.5333 0.5596	0.5116	0.5282	0.5479	0.5583	Ave		0.5398			0.3000	3.5		15.0			
Bromobenzene	0.6529 0.6798	0.6842	0.6558	0.6754	0.6708	Ave		0.6698				1.9		15.0			
1,2,3-Trichloropropane	0.1807 0.1854	0.1717	0.1772	0.1867	0.1839	Ave		0.1809				3.1		15.0			
trans-1,4-Dichloro-2-butene	0.1370 0.1791	0.1386	0.1524	0.1630	0.1776	Ave		0.1580				12.0		15.0			
N-Propylbenzene	0.7026 0.7789	0.7350	0.7186	0.7608	0.7476	Ave		0.7406				3.8		15.0			
2-Chlorotoluene	0.6347 0.6511	0.6436	0.6256	0.6430	0.6435	Ave		0.6402				1.4		15.0			
1,3,5-Trimethylbenzene	2.0564 2.3932	2.1199	2.1145	2.2765	2.2962	Ave		2.2095				5.9		15.0			
4-Chlorotoluene	0.6512 0.6798	0.6715	0.6531	0.6824	0.6626	Ave		0.6668				2.0		15.0			
tert-Butylbenzene	1.8314 2.0767	1.8513	1.8431	1.9884	2.0086	Ave		1.9332				5.4		15.0			
1,2,4-Trimethylbenzene	2.1662 2.5065	2.2638	2.2108	2.3707	2.4062	Ave		2.3207				5.6		15.0			
sec-Butylbenzene	2.4320 2.8708	2.5721	2.4472	2.7018	2.7748	Ave		2.6331				6.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	1.3366 1.3205	1.3324	1.2710	1.3072	1.3175	Ave		1.3142			0.6000	1.8		15.0			
4-Isopropyltoluene	2.1208 2.5218	2.2477	2.1782	2.4228	2.4882	Ave		2.3299				7.3		15.0			
1,4-Dichlorobenzene	1.3782 1.3694	1.3746	1.3226	1.3523	1.3650	Ave		1.3603			0.5000	1.5		15.0			
n-Butylbenzene	1.7854 2.0843	1.8813	1.7710	1.9656	2.0342	Ave		1.9203				6.7		15.0			
1,2-Dichlorobenzene	1.2887 1.2790	1.2840	1.2095	1.2647	1.2692	Ave		1.2659			0.4000	2.3		15.0			
1,2-Dibromo-3-Chloropropane	0.1012 0.1201	0.1016	0.1029	0.1160	0.1237	Ave		0.1109			0.0500	9.2		15.0			
1,2,4-Trichlorobenzene	0.7975 0.8215	0.8025	0.7548	0.8660	0.8742	Ave		0.8194			0.2000	5.5		15.0			
Hexachlorobutadiene	0.3065 0.3056	0.3179	0.2840	0.3308	0.3308	Ave		0.3126				5.7		15.0			
Naphthalene	1.8389 1.8848	1.8338	1.7252	1.9783	2.0783	Ave		1.8899				6.5		15.0			
1,2,3-Trichlorobenzene	0.7013 0.6991	0.6930	0.6526	0.7889	0.7862	Ave		0.7202				7.7		15.0			
Dibromofluoromethane (Surr)	0.2112 0.2079	0.2038	0.2068	0.2038	0.2081	Ave		0.2069				1.4		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2471 0.2456	0.2387	0.2474	0.2432	0.2507	Ave		0.2454				1.7		15.0			
Toluene-d8 (Surr)	1.2187 1.1966	1.1473	1.2073	1.1634	1.2068	Ave		1.1900				2.4		15.0			
4-Bromofluorobenzene (Surr)	0.4722 0.4518	0.4510	0.4414	0.4512	0.4460	Ave		0.4523				2.3		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 11:18 Calibration End Date: 03/13/2014 13:09 Calibration ID: 21116

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-122371/13	UXX8845.D
Level 2	STDA9 240-122371/12	UXX8844.D
Level 3	STDA9 240-122371/11	UXX8843.D
Level 4	STDA9 240-122371/10	UXX8842.D
Level 5	STDA9 240-122371/9	UXX8841.D
Level 6	STDA9 240-122371/8	UXX8840.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0227 0.0245	0.0219	0.0223	0.0185	0.0252	Ave		0.0225				11.0		15.0			
Diisopropyl ether	0.2177 0.2201	0.2183	0.2123	0.2133	0.2250	Ave		0.2178				2.1		15.0			
2-Chloro-1,3-butadiene	0.3647 0.3652	0.3481	0.3469	0.3558	0.3624	Ave		0.3572				2.3		15.0			
Ethyl tert-butyl ether	0.7083 0.7249	0.6903	0.6829	0.6918	0.7248	Ave		0.7038				2.6		15.0			
Ethyl acetate	0.1150 0.1043	0.1099	0.1092	0.0938	0.1071	Ave		0.1066				6.7		15.0			
Propionitrile	0.0233 0.0248	0.0241	0.0250	0.0223	0.0257	Ave		0.0242				5.2		15.0			
Methacrylonitrile	0.1098 0.1101	0.1083	0.1113	0.1044	0.1118	Ave		0.1093				2.5		15.0			
Tert-amyl methyl ether	0.6180 0.6591	0.5989	0.6201	0.6160	0.6565	Ave		0.6281				3.9		15.0			
n-Butanol	0.0060 0.0062	0.0057	0.0059	0.0044	0.0064	Ave		0.0057				13.0		15.0			
Ethyl acrylate	0.1489 0.1706	0.1580	0.1770	0.1508	0.1720	Ave		0.1629				7.3		15.0			
Methyl methacrylate	0.1284 0.1333	0.1267	0.1341	0.1186	0.1341	Ave		0.1292				4.7		15.0			
2-Nitropropane	0.0408 0.0420	0.0381	0.0411	0.0364	0.0418	Ave		0.0400				5.6		15.0			
Cyclohexanone	0.0121 0.0120	0.0125	0.0122	0.0094	0.0124	Ave		0.0118				10.0		15.0			
1,2,3-Trimethylbenzene	2.1275 2.4014	2.1642	2.2349	2.2068	2.3640	Ave		2.2498				4.9		15.0			
1,3,5-Trichlorobenzene	0.8974 0.9436	0.9033	0.8899	0.8322	0.9266	Ave		0.8988				4.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 11:18 Calibration End Date: 03/13/2014 13:09 Calibration ID: 21116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Methylnaphthalene	0.9795 0.8616	0.9780	0.9449	0.8458	0.9983	Ave		0.9347				7.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab File ID: BFB5622.D BFB Injection Date: 04/22/2014

Instrument ID: A3UX10 BFB Injection Time: 11:08

Analysis Batch No.: 127413

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.4	
75	30.0 - 60.0 % of mass 95	49.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.1	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	77.2	
175	5.0 - 9.0 % of mass 174	5.6	(7.2)1
176	95.0 - 101.0 % of mass 174	74.1	(95.9)1
177	5.0 - 9.0 % of mass 176	4.8	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-127413/2	UXX9876.D	04/22/2014	11:32
	CCV 240-127413/3	UXX9877.D	04/22/2014	11:55
	LCS 240-127413/4	UXX9878.D	04/22/2014	12:17
	MB 240-127413/6	UXX9880.D	04/22/2014	13:02
MSA-DMW-7D-041614	240-36320-3	UXX9884.D	04/22/2014	14:43
TB-041414	240-36135-1	UXX9885.D	04/22/2014	15:06
MSA-DMW-11S-041414	240-36135-2	UXX9886.D	04/22/2014	15:29
MSA-DMW-11I-041414	240-36135-3	UXX9887.D	04/22/2014	15:51
TB-041414	240-36233-1	UXX9893.D	04/22/2014	18:05
MSA-MW-50S-041414	240-36233-2	UXX9894.D	04/22/2014	18:28
MSA-MW-21I-041414	240-36233-3	UXX9895.D	04/22/2014	18:50
MSA-MW-50I-041414	240-36233-4	UXX9896.D	04/22/2014	19:13
MSA-MW-21D-041414	240-36233-5	UXX9897.D	04/22/2014	19:35
TB-041614	240-36320-1	UXX9898.D	04/22/2014	19:57
MSA-DMW-11I-041414 MS	240-36135-3 MS	UXX9903.D	04/22/2014	21:49
MSA-DMW-11I-041414 MSD	240-36135-3 MSD	UXX9904.D	04/22/2014	22:11

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCVIS 240-127413/2 Calibration Date: 04/22/2014 11:32

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9876.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2420	0.2774	0.1000	0.310	0.0100	14.6	20.0
Chloromethane	Ave	0.2908	0.2932	0.1000	0.300	0.0100	0.8	20.0
Vinyl chloride	Ave	0.2848	0.3102	0.1000	0.220	0.0100	8.9	20.0
Bromomethane	Lin1		0.1478	0.0500	0.410	0.0100	27.8*	20.0
Chloroethane	Ave	0.1577	0.1628	0.0500	0.290	0.0100	3.2	20.0
Dichlorofluoromethane	Ave	0.3248	0.3620		0.420	0.0100	11.4	20.0
Trichlorofluoromethane	Ave	0.2807	0.2452	0.1000	0.210	0.0100	-12.7	20.0
Ethyl ether	Ave	0.1703	0.1758		0.310	0.0100	3.2	20.0
Acrolein	Ave	0.0258	0.0226		2.20	0.0500	-12.7	20.0
1,1-Dichloroethene	Ave	0.2175	0.2133	0.1000	0.190	0.0100	-2.0	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1841	0.1705	0.0500	0.280	0.0100	-7.4	20.0
Acetone	Ave	0.0587	0.0630	0.0500	1.10	0.0200	7.2	20.0
Iodomethane	Ave	0.3583	0.2716		0.180	0.0100	-24.2*	20.0
Carbon disulfide	Ave	0.7045	0.6489	0.1000	0.130	0.0100	-7.9	20.0
3-Chloro-1-propene	Ave	0.1510	0.1388		0.350	0.0100	-8.1	20.0
Methyl acetate	Ave	0.1374	0.1383	0.1000	0.380	0.0500	0.6	20.0
Methylene Chloride	Lin1		0.2331	0.1000	0.330	0.0100	-4.5	20.0
tert-Butyl alcohol	Lin1		0.0145		3.90	0.100	-16.6	20.0
Acrylonitrile	Ave	0.0683	0.0681		2.00	0.100	-0.4	20.0
Methyl tert-butyl ether	Ave	0.6796	0.5960	0.1000	0.170	0.0100	-12.3	20.0
trans-1,2-Dichloroethene	Ave	0.2478	0.2234	0.1000	0.190	0.0100	-9.8	20.0
Hexane	Ave	0.0592	0.0549		0.260	0.0100	-7.3	20.0
1,1-Dichloroethane	Ave	0.4104	0.3983	0.1000	0.150	0.0100	-2.9	20.0
Vinyl acetate	Ave	0.2581	0.2138		0.190	0.00960	-17.2	20.0
2,2-Dichloropropane	Ave	0.3310	0.2440		0.130	0.0100	-26.3*	20.0
cis-1,2-Dichloroethene	Ave	0.2631	0.2392	0.1000	0.170	0.0100	-9.1	20.0
2-Butanone (MEK)	Ave	0.0729	0.0770	0.0500	0.570	0.0200	5.6	20.0
Bromochloromethane	Ave	0.1208	0.1082		0.290	0.0100	-10.5	20.0
Tetrahydrofuran	Ave	0.0549	0.0468		0.420	0.0200	-14.7	20.0
Chloroform	Ave	0.3979	0.3910	0.2000	0.160	0.0100	-1.7	20.0
1,1,1-Trichloroethane	Ave	0.3613	0.3180	0.1000	0.220	0.0100	-12.0	20.0
Cyclohexane	Ave	0.3887	0.3429	0.1000	0.120	0.0100	-11.8	20.0
1,1-Dichloropropene	Ave	0.3001	0.2818		0.130	0.0100	-6.1	20.0
Carbon tetrachloride	Ave	0.3117	0.2552	0.1000	0.130	0.0100	-18.1	20.0
Isobutyl alcohol	Lin1		0.0082		8.20	0.250	2.1	20.0
Benzene	Ave	0.9438	0.9660	0.5000	0.130	0.0100	2.4	20.0
1,2-Dichloroethane	Ave	0.2960	0.3006	0.1000	0.220	0.0100	1.5	20.0
n-Heptane	Ave	0.0517	0.0489		0.180	0.0100	-5.4	20.0
Trichloroethene	Ave	0.2479	0.2159	0.2000	0.170	0.0100	-12.9	20.0
Methylcyclohexane	Ave	0.3823	0.3510	0.1000	0.130	0.0100	-8.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCVIS 240-127413/2 Calibration Date: 04/22/2014 11:32

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9876.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2081	0.2151	0.1000	0.180	0.0100	3.4	20.0
1,4-Dioxane	Qua		0.0015		19.0	0.200	-92.1*	20.0
Dibromomethane	Ave	0.1211	0.1196		0.280	0.0100	-1.2	20.0
Bromodichloromethane	Ave	0.2862	0.2672	0.1000	0.150	0.0100	-6.6	20.0
2-Chloroethyl vinyl ether	Lin1		0.0709		0.990	0.0200	-12.8	20.0
cis-1,3-Dichloropropene	Ave	0.3254	0.3059	0.1500	0.140	0.0100	-6.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1518	0.1412	0.0500	0.320	0.0200	-7.0	20.0
Toluene	Ave	1.411	1.496	0.4000	0.130	0.0100	6.1	20.0
trans-1,3-Dichloropropene	Ave	0.3981	0.3881	0.1000	0.190	0.0100	-2.5	20.0
Ethyl methacrylate	Ave	0.3155	0.3427		0.140	0.0100	8.7	20.0
1,1,2-Trichloroethane	Ave	0.2484	0.2761	0.1000	0.270	0.0100	11.2	20.0
Tetrachloroethene	Ave	0.2881	0.2718	0.2000	0.290	0.0100	-5.7	20.0
1,3-Dichloropropane	Ave	0.4429	0.4832		0.160	0.0100	9.1	20.0
2-Hexanone	Ave	0.1468	0.1507	0.0500	0.410	0.0200	2.7	20.0
Chlorodibromomethane	Ave	0.2842	0.2648		0.180	0.0100	-6.8	20.0
1,2-Dibromoethane	Ave	0.2453	0.2466		0.240	0.0100	0.5	20.0
Chlorobenzene	Ave	0.9008	0.8743	0.3000	0.150	0.0100	-2.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3295	0.3137		0.230	0.0100	-4.8	20.0
Ethylbenzene	Ave	0.4958	0.4744		0.170	0.0100	-4.3	20.0
m-Xylene & p-Xylene	Ave	0.6164	0.5975		0.240	0.0100	-3.1	20.0
o-Xylene	Ave	0.6147	0.5931		0.140	0.0100	-3.5	20.0
Styrene	Ave	0.9728	0.9356	0.3000	0.110	0.0100	-3.8	20.0
Bromoform	Ave	0.1820	0.1466	0.1000	0.640	0.0100	-19.5	20.0
Isopropylbenzene	Ave	1.619	1.563	0.1000	0.130	0.0100	-3.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5398	0.6083	0.3000	0.180	0.0100	12.7	20.0
Bromobenzene	Ave	0.6698	0.6117		0.130	0.0100	-8.7	20.0
1,2,3-Trichloropropane	Ave	0.1809	0.1955		0.430	0.0100	8.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1580	0.1220		0.150	0.0100	-22.7*	20.0
N-Propylbenzene	Ave	0.7406	0.7245		0.140	0.0100	-2.2	20.0
2-Chlorotoluene	Ave	0.6402	0.6302		0.110	0.0100	-1.6	20.0
1,3,5-Trimethylbenzene	Ave	2.209	2.341		0.0960	0.0100	6.0	20.0
4-Chlorotoluene	Ave	0.6668	0.6561		0.180	0.0100	-1.6	20.0
tert-Butylbenzene	Ave	1.933	2.092		0.130	0.0100	8.2	20.0
1,2,4-Trimethylbenzene	Ave	2.321	2.480		0.120	0.0100	6.8	20.0
sec-Butylbenzene	Ave	2.633	2.759		0.130	0.0100	4.8	20.0
1,3-Dichlorobenzene	Ave	1.314	1.276	0.6000	0.140	0.0100	-2.9	20.0
4-Isopropyltoluene	Ave	2.330	2.465		0.0120	0.0100	5.8	20.0
1,4-Dichlorobenzene	Ave	1.360	1.311	0.5000	0.130	0.0100	-3.6	20.0
n-Butylbenzene	Ave	1.920	2.042		0.120	0.0100	6.3	20.0
1,2-Dichlorobenzene	Ave	1.266	1.279	0.4000	0.130	0.0100	1.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1109	0.1116	0.0500	0.670	0.0100	0.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCVIS 240-127413/2 Calibration Date: 04/22/2014 11:32

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9876.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Ave	0.8194	0.8719	0.2000	0.150	0.0100	6.4	20.0
Hexachlorobutadiene	Ave	0.3126	0.3323		0.300	0.0100	6.3	20.0
Naphthalene	Ave	1.890	1.922		0.240	0.0100	1.7	20.0
1,2,3-Trichlorobenzene	Ave	0.7202	0.7772		0.170	0.0100	7.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2069	0.1761		0.0105	0.0123	-14.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2454	0.2514		0.0126	0.0123	2.4	20.0
Toluene-d8 (Surr)	Ave	1.190	1.199		0.0124	0.0123	0.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4523	0.4249		0.0116	0.0123	-6.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-127413/3 Calibration Date: 04/22/2014 11:55

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 11:18

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 13:09

Lab File ID: UXX9877.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0225	0.0255		3.50	0.100	13.1	20.0
Diisopropyl ether	Ave	0.2178	0.1891		1.50	0.0100	-13.2	20.0
2-Chloro-1,3-butadiene	Ave	0.3572	0.3124		0.290	0.0100	-12.5	20.0
Ethyl tert-butyl ether	Ave	0.7038	0.6112		0.110	0.0100	-13.2	20.0
Ethyl acetate	Ave	0.1066	0.1105		0.500	0.0200	3.7	20.0
Propionitrile	Ave	0.0242	0.0260		1.20	0.100	7.5	20.0
Methacrylonitrile	Ave	0.1093	0.1139		0.510	0.100	4.2	20.0
Tert-amyl methyl ether	Ave	0.6281	0.5553		0.0670	0.0100	-11.6	20.0
n-Butanol	Ave	0.0057	0.0053		7.30	0.250	-8.4	20.0
Ethyl acrylate	Ave	0.1629	0.1743		0.250	0.0100	7.0	20.0
Methyl methacrylate	Ave	0.1292	0.1342		0.490	0.0200	3.8	20.0
2-Nitropropane	Ave	0.0400	0.0226		0.700	0.0200	-43.4*	20.0
Cyclohexanone	Ave	0.0118	0.0114		5.80	0.100	-3.4	20.0
1,2,3-Trimethylbenzene	Ave	2.250	2.596		0.0115	0.0100	15.4	20.0
1,3,5-Trichlorobenzene	Ave	0.8988	0.9567		0.110	0.0100	6.4	20.0
2-Methylnaphthalene	Ave	0.9347	0.6513		0.470	0.0200	-30.3*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab File ID: BFB2547.D BFB Injection Date: 03/18/2014

Instrument ID: A3UX12 BFB Injection Time: 17:23

Analysis Batch No.: 123039

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.5	
75	30.0 - 60.0 % of mass 95	51.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	69.3	
175	5.0 - 9.0 % of mass 174	5.6	(8.0)1
176	95.0 - 101.0 % of mass 174	66.4	(95.8)1
177	5.0 - 9.0 % of mass 176	4.5	(6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-123039/3	U1236334.D	03/18/2014	17:53
	STD8260 240-123039/4	U1236335.D	03/18/2014	18:18
	STD8260 240-123039/5	U1236336.D	03/18/2014	18:42
	STD8260 240-123039/6	U1236337.D	03/18/2014	19:07
	STD8260 240-123039/7	U1236338.D	03/18/2014	19:31
	STD8260 240-123039/8	U1236339.D	03/18/2014	19:56
	ICV 240-123039/9	U1236340.D	03/18/2014	20:20
	STD 240-123039/13	U1236344.D	03/18/2014	21:56
	STD 240-123039/14	U1236345.D	03/18/2014	22:21
	STD 240-123039/15	U1236346.D	03/18/2014	22:44
	STD 240-123039/16	U1236347.D	03/18/2014	23:09
	STD 240-123039/17	U1236348.D	03/18/2014	23:33
	STD 240-123039/18	U1236349.D	03/18/2014	23:58
	ICV 240-123039/19	U1236350.D	03/19/2014	00:23

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-123039/8	U1236339.D
Level 2	STD8260 240-123039/7	U1236338.D
Level 3	STD8260 240-123039/6	U1236337.D
Level 4	STD8260 240-123039/5	U1236336.D
Level 5	STD8260 240-123039/4	U1236335.D
Level 6	STD8260 240-123039/3	U1236334.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.5344 0.5037	0.5482	0.4736	0.4481	0.4847	Ave		0.4988			0.1000	7.6		15.0			
Chloromethane	0.5548 0.5203	0.4941	0.4787	0.5026	0.4615	Ave		0.5020			0.1000	6.5		15.0			
Vinyl chloride	0.6018 0.5213	0.4945	0.4958	0.4867	0.4761	Ave		0.5127			0.1000	9.0		15.0			
Bromomethane	0.2193 0.2899	0.2045	0.2459	0.2648	0.2544	Ave		0.2464			0.0500	13.0		15.0			
Chloroethane	0.3033 0.3389	0.2806	0.2921	0.3217	0.3071	Ave		0.3073				6.8		15.0			
Dichlorofluoromethane	0.5609 0.7093	0.5861	0.6018	0.6515	0.6113	Ave		0.6201				8.5		15.0			
Trichlorofluoromethane	+++++ 0.5269	0.2817	0.4322	0.4446	0.4751	Lin1	-0.305	0.5045			0.1000				0.9960		0.9900
Ethyl ether	0.3032 0.2882	0.2907	0.2519	0.2786	0.2610	Ave		0.2789				6.9		15.0			
Acrolein	0.0515 0.0491	0.0375	0.0429	0.0480	0.0456	Ave		0.0458				11.0		15.0			
1,1,2-Trichlorotrifluoroethane	0.3320 0.3359	0.3222	0.3336	0.3136	0.3318	Ave		0.3282			0.0500	2.6		15.0			
1,1-Dichloroethene	0.7910 0.6719	0.6581	0.6096	0.6244	0.6161	Ave		0.6619			0.1000	10.0		15.0			
Acetone	+++++ 0.1001	0.2185	0.1045	0.0981	0.0901	Lin1	0.2349	0.0943			0.0500				0.9970		0.9900
Iodomethane	0.4769 0.4952	0.4880	0.4499	0.4888	0.4663	Ave		0.4775				3.5		15.0			
Carbon disulfide	1.1951 1.3615	1.1225	1.2245	1.2583	1.2782	Ave		1.2400			0.1000	6.5		15.0			
3-Chloro-1-propene	+++++ 0.2030	0.2178	0.1733	0.1834	0.1773	Ave		0.1910				9.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl acetate	0.3031 0.2545	0.2745	0.2318	0.2393	0.2392	Ave		0.2571			0.1000	11.0		15.0			
Methylene Chloride	0.6765 0.5132	0.5933	0.4925	0.5139	0.4835	Ave		0.5455			0.1000	14.0		15.0			
tert-Butyl alcohol	0.0202 0.0257	0.0324	0.0268	0.0282	0.0278	Ave		0.0269				15.0		15.0			
Acrylonitrile	0.1341 0.1327	0.1320	0.1163	0.1261	0.1281	Ave		0.1282				5.1		15.0			
Methyl tert-butyl ether	1.0062 0.9932	0.9235	0.9091	0.9545	0.9132	Ave		0.9500			0.1000	4.4		15.0			
trans-1,2-Dichloroethene	0.5271 0.5012	0.4980	0.4592	0.4640	0.4537	Ave		0.4839			0.1000	6.0		15.0			
Hexane	+++++ 0.2954	0.4135	0.3254	0.2694	0.3140	Lin1	0.1168	0.2958							0.9970		0.9900
1,1-Dichloroethane	0.6779 0.6169	0.4973	0.5423	0.5740	0.5766	Ave		0.5808			0.1000	11.0		15.0			
Vinyl acetate	+++++ 0.4525	0.4327	0.3948	0.4055	0.4261	Ave		0.4223				5.4		15.0			
cis-1,2-Dichloroethene	0.4179 0.4827	0.4437	0.4224	0.4587	0.4536	Ave		0.4465			0.1000	5.4		15.0			
2-Butanone (MEK)	0.2587 0.1551	0.1857	0.1436	0.1418	0.1443	Lin1	0.0864	0.1486			0.0500				0.9980		0.9900
2,2-Dichloropropane	0.2676 0.2152	0.1894	0.2086	0.2096	0.2130	Ave		0.2172				12.0		15.0			
Bromochloromethane	0.2758 0.2868	0.2301	0.2520	0.2560	0.2586	Ave		0.2599				7.6		15.0			
Tetrahydrofuran	+++++ 0.0953	0.1822	0.0998	0.0931	0.0901	Lin1	0.1722	0.0916							0.9990		0.9900
Chloroform	0.6928 0.5875	0.5420	0.5287	0.5342	0.5248	Ave		0.5683				11.0		15.0			
1,1,1-Trichloroethane	0.2746 0.3435	0.3102	0.3127	0.3304	0.3187	Ave		0.3150			0.1000	7.4		15.0			
Cyclohexane	0.4181 0.4385	0.4958	0.4312	0.4020	0.4233	Ave		0.4348			0.1000	7.4		15.0			
1,1-Dichloropropene	0.4031 0.4327	0.3936	0.4016	0.3893	0.4041	Ave		0.4041				3.8		15.0			
Carbon tetrachloride	0.1984 0.2686	0.2307	0.2255	0.2395	0.2486	Ave		0.2352			0.1000	10.0		15.0			
Isobutyl alcohol	0.0045 0.0054	0.0057	0.0046	0.0053	0.0056	Ave		0.0052				10.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzene	1.2944 1.4547	1.2963	1.2921	1.3280	1.3370	Ave		1.3337			0.5000	4.7		15.0			
1,2-Dichloroethane	0.4248 0.4542	0.4749	0.4145	0.4376	0.4186	Ave		0.4374			0.1000	5.3		15.0			
n-Heptane	+++++ 0.0662	0.1969	0.0896	0.0818	0.0795	Lin1	0.1399	0.0696							0.9920		0.9900
Trichloroethene	0.3045 0.3247	0.3258	0.3052	0.3092	0.3076	Ave		0.3128			0.2000	3.1		15.0			
Methylcyclohexane	0.4881 0.3641	0.4436	0.3691	0.3342	0.3743	Ave		0.3956			0.1000	15.0		15.0			
1,2-Dichloropropane	0.3334 0.3447	0.3482	0.3093	0.3256	0.3132	Ave		0.3291			0.1000	4.9		15.0			
Dibromomethane	0.1765 0.1949	0.1618	0.1583	0.1793	0.1739	Ave		0.1741				7.6		15.0			
1,4-Dioxane	+++++ 0.0038	0.0041	0.0041	0.0035	0.0039	Ave		0.0039				6.5		15.0			
Bromodichloromethane	0.3572 0.4374	0.3124	0.3800	0.4088	0.4032	Ave		0.3832			0.1000	11.0		15.0			
2-Chloroethyl vinyl ether	0.2301 0.2460	0.2276	0.2192	0.2322	0.2293	Ave		0.2307				3.8		15.0			
cis-1,3-Dichloropropene	0.4629 0.5280	0.4272	0.4389	0.4776	0.4865	Ave		0.4702			0.1500	7.7		15.0			
4-Methyl-2-pentanone (MIBK)	0.3482 0.3206	0.3018	0.2959	0.2975	0.3034	Ave		0.3112			0.0500	6.5		15.0			
Toluene	1.9139 2.0526	1.8706	1.7880	1.9419	1.8871	Ave		1.9090			0.4000	4.6		15.0			
trans-1,3-Dichloropropene	0.4264 0.5793	0.3714	0.4536	0.5264	0.5367	Lin1	-0.140	0.5564			0.1000				0.9960		0.9900
Ethyl methacrylate	0.5082 0.5962	0.4790	0.4960	0.5638	0.5701	Ave		0.5356				8.8		15.0			
1,1,2-Trichloroethane	0.4068 0.4106	0.4633	0.3730	0.3988	0.3856	Ave		0.4064			0.1000	7.7		15.0			
Tetrachloroethene	0.4136 0.3782	0.3907	0.3287	0.3598	0.3525	Ave		0.3706			0.2000	8.1		15.0			
1,3-Dichloropropane	0.8469 0.7831	0.7392	0.7278	0.7778	0.7406	Ave		0.7692				5.7		15.0			
2-Hexanone	0.3156 0.3048	0.3117	0.2900	0.2927	0.2889	Ave		0.3006			0.0500	3.9		15.0			
Chlorodibromomethane	0.2944 0.3839	0.2962	0.3175	0.3459	0.3528	Ave		0.3318				11.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dibromoethane	0.3244 0.4134	0.3551	0.3575	0.3902	0.3885	Ave		0.3715				8.6		15.0			
Chlorobenzene	1.2565 1.2815	1.1770	1.1292	1.2390	1.1758	Ave		1.2098			0.3000	4.8		15.0			
1,1,1,2-Tetrachloroethane	0.2981 0.3700	0.3435	0.3033	0.3406	0.3344	Ave		0.3316				8.1		15.0			
Ethylbenzene	0.5132 0.6643	0.6084	0.5658	0.6503	0.6141	Ave		0.6027				9.3		15.0			
m-Xylene & p-Xylene	0.7032 0.8380	0.7202	0.7202	0.8049	0.7681	Ave		0.7591				7.1		15.0			
o-Xylene	0.6982 0.8523	0.6109	0.7218	0.8168	0.7765	Ave		0.7461				12.0		15.0			
Styrene	1.3247 1.5928	1.2622	1.2631	1.4995	1.4228	Ave		1.3942			0.3000	9.7		15.0			
Bromoform	+++++ 0.2322	0.1706	0.1834	0.2065	0.2183	Ave		0.2022			0.1000	12.0		15.0			
Isopropylbenzene	1.6638 1.9849	1.7715	1.6596	1.8529	1.7872	Ave		1.7867			0.1000	6.9		15.0			
1,1,2,2-Tetrachloroethane	1.2337 1.1786	1.2869	1.1354	1.1574	1.1978	Ave		1.1983			0.3000	4.6		15.0			
Bromobenzene	1.0408 0.9784	0.9261	0.9050	0.9222	0.9629	Ave		0.9559				5.2		15.0			
1,2,3-Trichloropropane	0.4346 0.3752	0.3379	0.3702	0.3656	0.4000	Ave		0.3806				8.7		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.3290	0.2219	0.3251	0.2995	0.3428	Lin1	-0.118	0.3317							0.9980		0.9900
N-Propylbenzene	0.9948 0.9153	0.9570	0.8646	0.8716	0.9092	Ave		0.9188				5.4		15.0			
2-Chlorotoluene	0.9043 0.8650	0.9134	0.7867	0.8180	0.8665	Ave		0.8590				5.7		15.0			
1,3,5-Trimethylbenzene	2.9225 2.9576	2.9760	2.8291	2.8643	2.9472	Ave		2.9161				2.0		15.0			
4-Chlorotoluene	0.9026 0.9528	0.9436	0.8795	0.9312	0.9220	Ave		0.9220				2.9		15.0			
tert-Butylbenzene	2.2905 2.3478	2.5249	2.1963	2.2569	2.4046	Ave		2.3368				5.0		15.0			
1,2,4-Trimethylbenzene	3.3154 3.2157	3.1289	2.9041	3.0536	3.1626	Ave		3.1300				4.5		15.0			
sec-Butylbenzene	3.6452 3.3155	3.5969	3.1772	3.2733	3.3970	Ave		3.4008				5.4		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	1.7868 1.7316	1.9264	1.6377	1.6501	1.7030	Ave		1.7393			0.6000	6.1		15.0			
4-Isopropyltoluene	3.0928 2.8938	3.2329	2.7355	2.7788	2.9119	Ave		2.9410				6.4		15.0			
1,4-Dichlorobenzene	2.5229 1.8330	1.9959	1.7496	1.7493	1.7858	Ave		1.9394			0.5000	15.0		15.0			
n-Butylbenzene	3.0017 2.5834	2.9769	2.4071	2.5189	2.6067	Ave		2.6825				9.2		15.0			
1,2-Dichlorobenzene	1.9814 1.7212	1.7245	1.6875	1.6633	1.7263	Ave		1.7507			0.4000	6.6		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1943	0.1038	0.1650	0.1665	0.1956	Lin1	-0.114	0.1922			0.0500				0.9970		0.9900
1,2,4-Trichlorobenzene	1.2300 0.8935	1.2187	0.9363	0.9162	0.9077	Lin1	0.2252	0.8974			0.2000				1.0000		0.9900
Hexachlorobutadiene	0.9001 0.3264	0.9868	0.4256	0.3916	0.3694	Lin1	0.4220	0.3425							0.9900		0.9900
Naphthalene	3.0738 3.1787	3.7993	3.0910	3.0797	3.2159	Ave		3.2397				8.7		15.0			
1,2,3-Trichlorobenzene	1.3764 0.8208	1.1441	0.8784	0.8429	0.8752	Lin1	0.2925	0.8342							0.9990		0.9900
Dibromofluoromethane (Surr)	+++++ 0.2732	0.2622	0.2400	0.2643	0.2584	Ave		0.2596				4.7		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3571	0.3041	0.3481	0.3572	0.3335	Ave		0.3400				6.6		15.0			
Toluene-d8 (Surr)	+++++ 1.5610	1.4174	1.3869	1.4974	1.4676	Ave		1.4661				4.7		15.0			
4-Bromofluorobenzene (Surr)	+++++ 0.6491	0.6096	0.5569	0.6072	0.5858	Ave		0.6017				5.6		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 21:56 Calibration End Date: 03/18/2014 23:58 Calibration ID: 21227

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-123039/18	U1236349.D
Level 2	STD 240-123039/17	U1236348.D
Level 3	STD 240-123039/16	U1236347.D
Level 4	STD 240-123039/15	U1236346.D
Level 5	STD 240-123039/14	U1236345.D
Level 6	STD 240-123039/13	U1236344.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0592 0.0472	0.0446	0.0487	0.0407	0.0439	Ave		0.0474				14.0		15.0			
Diisopropyl ether	+++++ 0.2622	0.2492	0.2676	0.3004	0.2624	Ave		0.2684				7.1		15.0			
2-Chloro-1,3-butadiene	0.4604 0.4608	0.5033	0.4658	0.4744	0.4645	Ave		0.4715				3.5		15.0			
Ethyl tert-butyl ether	1.0262 0.9257	0.9913	0.9547	0.9862	0.9131	Ave		0.9662				4.4		15.0			
Ethyl acetate	0.2147 0.1938	0.2302	0.1962	0.1996	0.1918	Ave		0.2044				7.4		15.0			
Propionitrile	0.0585 0.0486	0.0469	0.0464	0.0449	0.0476	Ave		0.0488				10.0		15.0			
Methacrylonitrile	0.2151 0.2129	0.2165	0.2035	0.2053	0.2044	Ave		0.2096				2.8		15.0			
Tert-amyl methyl ether	0.9067 0.9000	0.9204	0.9043	0.9438	0.8652	Ave		0.9067				2.9		15.0			
n-Butanol	+++++ 0.0051	0.0036	0.0039	0.0041	0.0047	Ave		0.0043				15.0		15.0			
Ethyl acrylate	0.3625 0.3819	0.3734	0.3632	0.3770	0.3774	Ave		0.3726				2.1		15.0			
Methyl methacrylate	0.2500 0.2863	0.2273	0.2635	0.2724	0.2703	Ave		0.2616				7.9		15.0			
2-Nitropropane	+++++ 0.0322	0.0246	0.0274	0.0297	0.0312	Ave		0.0291				11.0		15.0			
1-Chlorohexane	0.5509 0.4531	0.5751	0.4340	0.4167	0.4562	Ave		0.4810				14.0		15.0			
Cyclohexanone	0.0144 0.0169	0.0183	0.0144	0.0147	0.0155	Ave		0.0157				10.0		15.0			
1,2,3-Trimethylbenzene	3.5667 3.3327	3.4143	3.0988	3.2900	3.2610	Ave		3.3273				4.7		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 21:56 Calibration End Date: 03/18/2014 23:58 Calibration ID: 21227

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3,5-Trichlorobenzene	1.4560 0.9277	1.2303	0.9863	0.9772	0.9452	Lin1	0.2861	0.9351							1.0000		0.9900
2-Methylnaphthalene	2.1272 1.5052	2.3901	1.5625	1.5493	1.6024	Lin1	0.9808	1.5289							0.9990		0.9900

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab File ID: BFB2586.D BFB Injection Date: 04/26/2014

Instrument ID: A3UX12 BFB Injection Time: 08:58

Analysis Batch No.: 128028

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.0	
75	30.0 - 60.0 % of mass 95	45.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.5	(0.6)1
174	50.0 - 120.00 % of mass 95	83.9	
175	5.0 - 9.0 % of mass 174	6.3	(7.5)1
176	95.0 - 101.0 % of mass 174	79.9	(95.2)1
177	5.0 - 9.0 % of mass 176	5.2	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-128028/2	U1237305.D	04/26/2014	09:26
	CCV 240-128028/3	U1237306.D	04/26/2014	09:50
	LCS 240-128028/4	U1237307.D	04/26/2014	10:14
	MB 240-128028/6	U1237309.D	04/26/2014	11:02
MSA-DMW-7I-041614	240-36320-2	U1237311.D	04/26/2014	11:49
MSA-DMW-8I-041614	240-36320-4	U1237312.D	04/26/2014	12:12
MSA-MW-4-041614	240-36320-5	U1237313.D	04/26/2014	12:36
MSA-MW-50D-041614	240-36320-6	U1237314.D	04/26/2014	13:00
MSA-MW-51S-041614	240-36320-7	U1237315.D	04/26/2014	13:24
MSA-MW-51I-041614	240-36320-8	U1237316.D	04/26/2014	13:48

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: STD8260 240-128028/2 Calibration Date: 04/26/2014 09:26

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1237305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4988	0.5299	0.1000	0.310	0.0200	6.2	20.0
Chloromethane	Ave	0.5020	0.5591	0.1000	0.300	0.0200	11.4	20.0
Vinyl chloride	Ave	0.5127	0.5719	0.1000	0.220	0.0200	11.5	20.0
Bromomethane	Ave	0.2464	0.3004	0.0500	0.410	0.0200	21.9*	20.0
Chloroethane	Ave	0.3073	0.3361	0.0500	0.290	0.0200	9.4	20.0
Dichlorofluoromethane	Ave	0.6201	0.6032		0.420	0.0200	-2.7	20.0
Trichlorofluoromethane	Lin1		0.5658	0.1000	0.210	0.0200	15.2	20.0
Ethyl ether	Ave	0.2789	0.2744		0.310	0.0200	-1.6	20.0
Acrolein	Ave	0.0458	0.0466		2.20	0.100	1.7	20.0
1,1-Dichloroethene	Ave	0.6619	0.6580	0.1000	0.190	0.0200	-0.6	20.0
Acetone	Lin1		0.1107	0.0500	1.10	0.0400	11.1	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3282	0.3637	0.0500	0.280	0.0200	10.8	20.0
Iodomethane	Ave	0.4775	0.5718		0.180	0.0200	19.7	20.0
Carbon disulfide	Ave	1.240	1.361	0.1000	0.130	0.0200	9.8	20.0
3-Chloro-1-propene	Ave	0.1910	0.2400		0.350	0.0200	25.7*	20.0
Methyl acetate	Ave	0.2571	0.2600	0.1000	0.380	0.100	1.1	20.0
Methylene Chloride	Ave	0.5455	0.5234	0.1000	0.330	0.0200	-4.0	20.0
tert-Butyl alcohol	Ave	0.0269	0.0336		3.90	0.200	25.2*	20.0
Acrylonitrile	Ave	0.1282	0.1425		2.00	0.200	11.2	20.0
Methyl tert-butyl ether	Ave	0.9500	0.9208	0.1000	0.170	0.0200	-3.1	20.0
trans-1,2-Dichloroethene	Ave	0.4839	0.4555	0.1000	0.190	0.0200	-5.9	20.0
Hexane	Lin1		0.3141		0.260	0.0200	4.2	20.0
1,1-Dichloroethane	Ave	0.5808	0.5193	0.1000	0.150	0.0200	-10.6	20.0
Vinyl acetate	Ave	0.4223	0.3792		0.190	0.0192	-10.2	20.0
2,2-Dichloropropane	Ave	0.2172	0.2034		0.130	0.0200	-6.4	20.0
2-Butanone (MEK)	Lin1		0.1628	0.0500	0.570	0.0400	8.1	20.0
cis-1,2-Dichloroethene	Ave	0.4465	0.4293	0.1000	0.170	0.0200	-3.9	20.0
Bromochloromethane	Ave	0.2599	0.2970		0.290	0.0200	14.3	20.0
Tetrahydrofuran	Lin1		0.0984		0.420	0.0400	2.7	20.0
Chloroform	Ave	0.5683	0.4780	0.2000	0.160	0.0200	-15.9	20.0
1,1,1-Trichloroethane	Ave	0.3150	0.2868	0.1000	0.220	0.0200	-9.0	20.0
Cyclohexane	Ave	0.4348	0.3260	0.1000	0.120	0.0200	-25.0*	20.0
1,1-Dichloropropene	Ave	0.4041	0.3827		0.130	0.0200	-5.3	20.0
Carbon tetrachloride	Ave	0.2352	0.2487	0.1000	0.130	0.0200	5.8	20.0
Isobutyl alcohol	Ave	0.0052	0.0071		8.20	0.500	36.7*	20.0
1,2-Dichloroethane	Ave	0.4374	0.3775	0.1000	0.220	0.0200	-13.7	20.0
Benzene	Ave	1.334	1.305	0.5000	0.130	0.0200	-2.2	20.0
n-Heptane	Lin1		0.0704		0.180	0.0200	-8.8	20.0
Trichloroethene	Ave	0.3128	0.3274	0.2000	0.170	0.0200	4.6	20.0
Methylcyclohexane	Ave	0.3956	0.3367	0.1000	0.130	0.0200	-14.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: STD8260 240-128028/2 Calibration Date: 04/26/2014 09:26

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1237305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3291	0.3122	0.1000	0.180	0.0200	-5.1	20.0
1,4-Dioxane	Ave	0.0039	0.0040		19.0	0.400	2.6	20.0
Dibromomethane	Ave	0.1741	0.2105		0.280	0.0200	20.9*	20.0
Bromodichloromethane	Ave	0.3832	0.3384	0.1000	0.150	0.0200	-11.7	20.0
2-Chloroethyl vinyl ether	Ave	0.2307	0.2084		0.990	0.0400	-9.7	20.0
cis-1,3-Dichloropropene	Ave	0.4702	0.4157	0.1500	0.140	0.0200	-11.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3112	0.3171	0.0500	0.320	0.0400	1.9	20.0
Toluene	Ave	1.909	1.730	0.4000	0.130	0.0200	-9.4	20.0
trans-1,3-Dichloropropene	Lin1		0.4444	0.1000	0.190	0.0200	-18.9	20.0
Ethyl methacrylate	Ave	0.5356	0.4979		0.140	0.0200	-7.0	20.0
1,1,2-Trichloroethane	Ave	0.4064	0.3673	0.1000	0.270	0.0200	-9.6	20.0
Tetrachloroethene	Ave	0.3706	0.3961	0.2000	0.290	0.0200	6.9	20.0
1,3-Dichloropropane	Ave	0.7692	0.6885		0.160	0.0200	-10.5	20.0
2-Hexanone	Ave	0.3006	0.3009	0.0500	0.410	0.0400	0.1	20.0
Chlorodibromomethane	Ave	0.3318	0.2855		0.180	0.0200	-14.0	20.0
1,2-Dibromoethane	Ave	0.3715	0.3548		0.240	0.0200	-4.5	20.0
Chlorobenzene	Ave	1.210	1.185	0.3000	0.150	0.0200	-2.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3316	0.2944		0.230	0.0200	-11.2	20.0
Ethylbenzene	Ave	0.6027	0.5634		0.170	0.0200	-6.5	20.0
m-Xylene & p-Xylene	Ave	0.7591	0.7113		0.240	0.0200	-6.3	20.0
o-Xylene	Ave	0.7461	0.7208		0.140	0.0200	-3.4	20.0
Styrene	Ave	1.394	1.309	0.3000	0.110	0.0200	-6.1	20.0
Bromoform	Ave	0.2022	0.1608	0.1000	0.640	0.0200	-20.5*	20.0
Isopropylbenzene	Ave	1.787	1.587	0.1000	0.130	0.0200	-11.2	20.0
1,1,2,2-Tetrachloroethane	Ave	1.198	1.012	0.3000	0.180	0.0200	-15.5	20.0
Bromobenzene	Ave	0.9559	0.9319		0.130	0.0200	-2.5	20.0
1,2,3-Trichloropropane	Ave	0.3806	0.3295		0.430	0.0200	-13.4	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.1417		0.150	0.0200	-53.5*	20.0
N-Propylbenzene	Ave	0.9188	0.7775		0.140	0.0200	-15.4	20.0
2-Chlorotoluene	Ave	0.8590	0.7252		0.110	0.0200	-15.6	20.0
1,3,5-Trimethylbenzene	Ave	2.916	2.245		0.0960	0.0200	-23.0*	20.0
4-Chlorotoluene	Ave	0.9220	0.8361		0.180	0.0200	-9.3	20.0
tert-Butylbenzene	Ave	2.337	1.901		0.130	0.0200	-18.6	20.0
1,2,4-Trimethylbenzene	Ave	3.130	2.440		0.120	0.0200	-22.0*	20.0
sec-Butylbenzene	Ave	3.401	2.546		0.130	0.0200	-25.1*	20.0
1,3-Dichlorobenzene	Ave	1.739	1.575	0.6000	0.140	0.0200	-9.5	20.0
4-Isopropyltoluene	Ave	2.941	2.354		0.0160	0.0200	-20.0	20.0
1,4-Dichlorobenzene	Ave	1.939	1.610	0.5000	0.130	0.0200	-17.0	20.0
n-Butylbenzene	Ave	2.682	1.856		0.120	0.0200	-30.8*	20.0
1,2-Dichlorobenzene	Ave	1.751	1.574	0.4000	0.130	0.0200	-10.1	20.0
1,2-Dibromo-3-Chloropropane	Lin1		0.1550	0.0500	0.670	0.0200	-16.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: STD8260 240-128028/2 Calibration Date: 04/26/2014 09:26

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1237305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Lin1		0.8471	0.2000	0.150	0.0200	-6.9	20.0
Hexachlorobutadiene	Lin1		0.2869		0.300	0.0200	-22.4*	20.0
Naphthalene	Ave	3.240	2.767		0.240	0.0200	-14.6	20.0
1,2,3-Trichlorobenzene	Lin1		0.7664		0.170	0.0200	-9.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2596	0.2541		0.0162	0.0165	-2.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3400	0.2956		0.0144	0.0165	-13.1	20.0
Toluene-d8 (Surr)	Ave	1.466	1.444		0.0163	0.0165	-1.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6017	0.5187		0.0142	0.0165	-13.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-128028/3 Calibration Date: 04/26/2014 09:50

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1237306.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2596	0.2490		0.0158	0.0165	-4.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3400	0.2913		0.0142	0.0165	-14.3	20.0
Toluene-d8 (Surr)	Ave	1.466	1.421		0.0160	0.0165	-3.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6017	0.5038		0.0138	0.0165	-16.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-128028/3 Calibration Date: 04/26/2014 09:50

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 21:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 23:58

Lab File ID: U1237306.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0474	0.0541		3.50	0.200	14.1	20.0
Diisopropyl ether	Ave	0.2684	0.2747		1.50	0.0200	2.4	20.0
2-Chloro-1,3-butadiene	Ave	0.4715	0.4481		0.290	0.0200	-5.0	20.0
Ethyl tert-butyl ether	Ave	0.9662	0.9441		0.110	0.0200	-2.3	20.0
Ethyl acetate	Ave	0.2044	0.2148		0.500	0.0400	5.1	20.0
Propionitrile	Ave	0.0488	0.0547		1.20	0.200	12.0	20.0
Methacrylonitrile	Ave	0.2096	0.2143		0.510	0.200	2.3	20.0
Tert-amyl methyl ether	Ave	0.9067	0.8856		0.0670	0.0200	-2.3	20.0
n-Butanol	Ave	0.0043	0.0058		7.30	0.500	35.3*	20.0
Ethyl acrylate	Ave	0.3726	0.3732		0.250	0.0200	0.2	20.0
Methyl methacrylate	Ave	0.2616	0.2763		0.490	0.0400	5.6	20.0
2-Nitropropane	Ave	0.0291	0.0302		0.700	0.0400	4.1	20.0
Cyclohexanone	Ave	0.0157	0.0170		5.80	0.200	8.3	20.0
1,2,3-Trimethylbenzene	Ave	3.327	2.709		0.0163	0.0200	-18.6	20.0
1,3,5-Trichlorobenzene	Lin1		0.9386		0.110	0.0200	-1.2	20.0
2-Methylnaphthalene	Lin1		1.075		0.470	0.0400	-31.3*	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab File ID: UXX9880.D Lab Sample ID: MB 240-127413/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX10 Date Analyzed: 04/22/2014 13:02

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-127413/4	UXX9878.D	04/22/2014 12:17
MSA-DMW-7D-041614	240-36320-3	UXX9884.D	04/22/2014 14:43
TB-041414	240-36135-1	UXX9885.D	04/22/2014 15:06
MSA-DMW-11S-041414	240-36135-2	UXX9886.D	04/22/2014 15:29
MSA-DMW-11I-041414	240-36135-3	UXX9887.D	04/22/2014 15:51
TB-041414	240-36233-1	UXX9893.D	04/22/2014 18:05
MSA-MW-50S-041414	240-36233-2	UXX9894.D	04/22/2014 18:28
MSA-MW-21I-041414	240-36233-3	UXX9895.D	04/22/2014 18:50
MSA-MW-50I-041414	240-36233-4	UXX9896.D	04/22/2014 19:13
MSA-MW-21D-041414	240-36233-5	UXX9897.D	04/22/2014 19:35
TB-041614	240-36320-1	UXX9898.D	04/22/2014 19:57
MSA-DMW-11I-041414 MS	240-36135-3 MS	UXX9903.D	04/22/2014 21:49
MSA-DMW-11I-041414 MSD	240-36135-3 MSD	UXX9904.D	04/22/2014 22:11

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127413/6

Matrix: Water | Lab File ID: UXX9880.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 13:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-127413/6

Matrix: Water Lab File ID: UXX9880.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 13:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-127413/6

Matrix: Water Lab File ID: UXX9880.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 13:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	88		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-127413/6

Matrix: Water Lab File ID: UXX9880.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 13:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9878.D

Lab ID: LCS 240-127413/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	9.42	94	72-120	
1,1,1-Trichloroethane	10.0	9.24	92	74-120	
1,1,2,2-Tetrachloroethane	10.0	12.0	120	68-120	
1,1,2-Trichlorotrifluoroethane	10.0	11.4	114	74-151	
1,1-Dichloroethane	10.0	10.3	103	80-120	
1,1-Dichloroethene	10.0	11.7	117	78-131	
1,1-Dichloropropene	10.0	10.8	108	80-120	
1,2,3-Trichlorobenzene	10.0	11.0	110	54-126	
1,2,3-Trichloropropane	10.0	11.6	116	73-129	
1,2,4-Trichlorobenzene	10.0	10.5	105	48-135	
1,2,4-Trimethylbenzene	10.0	11.3	113	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.46	95	42-136	
1,2-Dichlorobenzene	10.0	10.7	107	80-120	
1,2-Dichloroethane	10.0	10.2	102	71-127	
1,2-Dichloropropane	10.0	10.5	105	80-120	
1,3-Dichlorobenzene	10.0	9.90	99	80-120	
1,3-Dichloropropane	10.0	11.1	111	79-120	
1,4-Dichlorobenzene	10.0	10.1	101	80-120	
2,2-Dichloropropane	10.0	7.67	77	50-129	
2-Butanone (MEK)	20.0	22.7	114	60-126	
2-Chloroethyl vinyl ether	12.0	10.9	91	52-131	
2-Chlorotoluene	10.0	10.7	107	76-120	
2-Hexanone	20.0	20.4	102	55-133	
4-Chlorotoluene	10.0	10.4	104	77-120	
4-Isopropyltoluene	10.0	11.0	110	74-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.4	97	63-128	
Acetone	20.0	23.6	118	43-136	
Benzene	10.0	10.5	105	80-120	
Bromobenzene	10.0	9.81	98	76-120	
Bromoform	10.0	7.66	77	40-131	
Bromomethane	10.0	11.9	119	11-185	
Carbon disulfide	10.0	11.4	114	62-142	
Carbon tetrachloride	10.0	8.70	87	66-128	
Chlorobenzene	10.0	9.97	100	80-120	
Chlorodibromomethane	10.0	9.06	91	64-120	
Chloroethane	10.0	9.96	100	25-153	
Chloroform	10.0	10.4	104	79-120	
Chloromethane	10.0	9.33	93	44-126	
cis-1,2-Dichloroethene	10.0	9.45	94	80-120	
cis-1,3-Dichloropropene	10.0	9.72	97	61-120	
Dibromomethane	10.0	10.2	102	80-120	
Bromochloromethane	10.0	9.28	93	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9878.D

Lab ID: LCS 240-127413/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	10.0	9.62	96	19-129	
Bromodichloromethane	10.0	9.40	94	72-121	
tert-Butyl alcohol	100	86.6	87	70-130	
Ethylbenzene	10.0	9.99	100	80-120	
Hexachlorobutadiene	10.0	10.8	108	36-134	
Isopropylbenzene	10.0	10.4	104	75-120	
Methyl tert-butyl ether	10.0	9.17	92	52-144	
Methylene Chloride	10.0	10.1	101	66-131	
m-Xylene & p-Xylene	10.0	10.0	100	80-120	
Naphthalene	10.0	10.4	104	32-141	
n-Butylbenzene	10.0	11.7	117	66-125	
N-Propylbenzene	10.0	10.5	105	74-121	
o-Xylene	10.0	10.0	100	80-120	
sec-Butylbenzene	10.0	11.3	113	70-120	
Styrene	10.0	9.69	97	79-120	
Tetrachloroethene	10.0	9.80	98	79-120	
Toluene	10.0	11.1	111	80-120	
trans-1,2-Dichloroethene	10.0	9.81	98	80-120	
trans-1,3-Dichloropropene	10.0	10.8	108	58-120	
Trichloroethene	10.0	9.33	93	76-120	
Trichlorofluoromethane	10.0	8.29	83	49-157	
Vinyl acetate	8.00	10.9	137	46-161	
Vinyl chloride	10.0	10.8	108	53-127	
Xylenes, Total	20.0	20.0	100	80-120	
tert-Butylbenzene	10.0	11.2	112	71-120	
1,2-Dibromoethane	10.0	10.2	102	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab File ID: U1237309.D Lab Sample ID: MB 240-128028/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 04/26/2014 11:02

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-128028/4	U1237307.D	04/26/2014 10:14
MSA-DMW-7I-041614	240-36320-2	U1237311.D	04/26/2014 11:49
MSA-DMW-8I-041614	240-36320-4	U1237312.D	04/26/2014 12:12
MSA-MW-4-041614	240-36320-5	U1237313.D	04/26/2014 12:36
MSA-MW-50D-041614	240-36320-6	U1237314.D	04/26/2014 13:00
MSA-MW-51S-041614	240-36320-7	U1237315.D	04/26/2014 13:24
MSA-MW-51I-041614	240-36320-8	U1237316.D	04/26/2014 13:48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-128028/6

Matrix: Water | Lab File ID: U1237309.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 11:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-128028/6

Matrix: Water | Lab File ID: U1237309.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 11:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-128028/6

Matrix: Water Lab File ID: U1237309.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 11:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	93		75-121
460-00-4	4-Bromofluorobenzene (Surr)	82		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-128028/6

Matrix: Water Lab File ID: U1237309.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 11:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1237307.D

Lab ID: LCS 240-128028/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	18.2	91	72-120	
1,1,1-Trichloroethane	20.0	19.6	98	74-120	
1,1,2,2-Tetrachloroethane	20.0	16.3	81	68-120	
1,1,2-Trichlorotrifluoroethane	20.0	20.2	101	74-151	
1,1-Dichloroethane	20.0	19.0	95	80-120	
1,1-Dichloroethene	20.0	20.9	104	78-131	
1,1-Dichloropropene	20.0	20.8	104	80-120	
1,2,3-Trichlorobenzene	20.0	18.1	90	54-126	
1,2,3-Trichloropropane	20.0	16.9	85	73-129	
1,2,4-Trichlorobenzene	20.0	18.3	92	48-135	
1,2,4-Trimethylbenzene	20.0	15.3	76	76-120	
1,2-Dibromo-3-Chloropropane	20.0	16.4	82	42-136	
1,2-Dichlorobenzene	20.0	18.5	92	80-120	
1,2-Dichloroethane	20.0	17.5	88	71-127	
1,2-Dichloropropane	20.0	19.1	95	80-120	
1,3-Dichlorobenzene	20.0	18.3	92	80-120	
1,3-Dichloropropane	20.0	18.4	92	79-120	
1,4-Dichlorobenzene	20.0	17.6	88	80-120	
2,2-Dichloropropane	20.0	18.9	94	50-129	
2-Butanone (MEK)	40.0	41.8	105	60-126	
2-Chloroethyl vinyl ether	24.0	21.5	89	52-131	
2-Chlorotoluene	20.0	17.4	87	76-120	
2-Hexanone	40.0	41.4	104	55-133	
4-Chlorotoluene	20.0	17.7	89	77-120	
4-Isopropyltoluene	20.0	15.4	77	74-120	
4-Methyl-2-pentanone (MIBK)	40.0	40.2	101	63-128	
Acetone	40.0	41.8	104	43-136	
Benzene	20.0	20.0	100	80-120	
Bromobenzene	20.0	18.8	94	76-120	
Bromoform	20.0	16.6	83	40-131	
Bromomethane	20.0	21.9	109	11-185	
Carbon disulfide	20.0	23.7	119	62-142	
Carbon tetrachloride	20.0	21.9	110	66-128	
Chlorobenzene	20.0	20.6	103	80-120	
Chlorodibromomethane	20.0	17.5	88	64-120	
Chloroethane	20.0	21.3	107	25-153	
Chloroform	20.0	17.0	85	79-120	
Chloromethane	20.0	19.2	96	44-126	
cis-1,2-Dichloroethene	20.0	20.2	101	80-120	
cis-1,3-Dichloropropene	20.0	18.9	94	61-120	
Dibromomethane	20.0	24.6	123	80-120	*
Bromochloromethane	20.0	20.2	101	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1237307.D

Lab ID: LCS 240-128028/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	13.3	66	19-129	
Bromodichloromethane	20.0	17.3	87	72-121	
tert-Butyl alcohol	200	235	117	70-130	
Ethylbenzene	20.0	20.3	101	80-120	
Hexachlorobutadiene	20.0	16.2	81	36-134	
Isopropylbenzene	20.0	18.4	92	75-120	
Methyl tert-butyl ether	20.0	19.9	99	52-144	
Methylene Chloride	20.0	19.6	98	66-131	
m-Xylene & p-Xylene	20.0	20.0	100	80-120	
Naphthalene	20.0	16.5	83	32-141	
n-Butylbenzene	20.0	14.1	71	66-125	
N-Propylbenzene	20.0	16.4	82	74-121	
o-Xylene	20.0	20.2	101	80-120	
sec-Butylbenzene	20.0	15.2	76	70-120	
Styrene	20.0	18.7	93	79-120	
Tetrachloroethene	20.0	22.7	113	79-120	
Toluene	20.0	19.0	95	80-120	
trans-1,2-Dichloroethene	20.0	20.4	102	80-120	
trans-1,3-Dichloropropene	20.0	18.4	92	58-120	
Trichloroethene	20.0	22.3	111	76-120	
Trichlorofluoromethane	20.0	22.3	112	49-157	
Vinyl acetate	16.0	23.0	144	46-161	
Vinyl chloride	20.0	19.5	98	53-127	
Xylenes, Total	40.0	40.2	101	80-120	
tert-Butylbenzene	20.0	16.3	82	71-120	
1,2-Dibromoethane	20.0	19.7	98	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9903.D

Lab ID: 240-36135-3 MS Client ID: MSA-DMW-11I-041414 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	57.1	1.3 U	51.4	90	64-120	
1,1,1-Trichloroethane	57.1	1.3 U	49.4	86	68-121	
1,1,2,2-Tetrachloroethane	57.1	1.0 U	73.7	129	63-122	F1
1,1,2-Trichlorotrifluoroethane	57.1	1.6 U	58.2	102	70-152	
1,1-Dichloroethane	57.1	0.86 U	58.0	102	79-120	
1,1-Dichloroethene	57.1	1.8 J	64.8	110	74-135	
1,1-Dichloropropene	57.1	0.74 U	57.3	100	80-120	
1,2,3-Trichlorobenzene	57.1	0.97 U	59.3	104	45-129	
1,2,3-Trichloropropane	57.1	2.5 U	72.4	127	67-132	
1,2,4-Trichlorobenzene	57.1	0.86 U	55.9	98	38-138	
1,2,4-Trimethylbenzene	57.1	0.69 U	61.7	108	67-124	
1,2-Dibromo-3-Chloropropane	57.1	3.8 U	53.3	93	32-139	
1,2-Dichlorobenzene	57.1	0.74 U	56.5	99	75-120	
1,2-Dichloroethane	57.1	1.3 U	57.0	100	68-129	
1,2-Dichloropropane	57.1	1.0 U	57.9	101	78-120	
1,3-Dichlorobenzene	57.1	0.80 U	53.6	94	73-120	
1,3-Dichloropropane	57.1	0.91 U	59.8	105	74-120	
1,4-Dichlorobenzene	57.1	0.74 U	53.0	93	75-120	
2,2-Dichloropropane	57.1	0.74 U	36.5	64	38-127	
2-Butanone (MEK)	114	3.3 U	117	102	54-129	
2-Chloroethyl vinyl ether	68.5	5.7 U	5.7 U	0	10-150	F1
2-Chlorotoluene	57.1	0.63 U	62.5	110	69-120	
2-Hexanone	114	2.3 U	101	89	47-139	
4-Chlorotoluene	57.1	1.0 U	62.0	109	71-120	
4-Isopropyltoluene	57.1	0.69 U	56.0	98	64-122	
4-Methyl-2-pentanone (MIBK)	114	1.8 U	109	96	56-131	
Acetone	114	6.3 U	113	99	33-145	
Benzene	57.1	0.74 U	58.0	101	72-121	
Bromobenzene	57.1	0.74 U	59.7	105	71-120	
Bromoform	57.1	3.7 U	37.0	65	32-128	
Bromomethane	57.1	2.3 U	73.5	129	10-186	
Carbon disulfide	57.1	0.74 U	54.4	95	57-147	
Carbon tetrachloride	57.1	0.74 U	44.3	78	59-129	
Chlorobenzene	57.1	0.86 U	54.9	96	80-120	
Chlorodibromomethane	57.1	1.0 U	46.2	81	56-120	
Chloroethane	57.1	1.7 U	59.0	103	21-165	
Chloroform	57.1	2.7 J	61.1	102	76-120	
Chloromethane	57.1	1.7 U	57.4	101	33-132	
cis-1,2-Dichloroethene	57.1	190	223	65	70-120	F1
cis-1,3-Dichloropropene	57.1	0.80 U	49.2	86	51-120	
Dibromomethane	57.1	1.6 U	56.5	99	77-121	
Bromochloromethane	57.1	1.7 U	53.4	93	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9903.D

Lab ID: 240-36135-3 MS Client ID: MSA-DMW-11I-041414 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	57.1	1.8 U	47.3	83	17-128	
Bromodichloromethane	57.1	0.86 U	50.1	88	67-120	
tert-Butyl alcohol	571	22 U	476	83	70-130	
Ethylbenzene	57.1	0.97 U	52.5	92	75-120	
Hexachlorobutadiene	57.1	1.7 U	56.0	98	27-132	
Isopropylbenzene	57.1	0.74 U	52.8	92	68-120	
Methyl tert-butyl ether	57.1	0.97 U	50.2	88	46-144	
Methylene Chloride	57.1	1.9 U	58.7	103	63-128	
m-Xylene & p-Xylene	57.1	1.4 U	53.3	93	75-120	
Naphthalene	57.1	1.4 U	55.9	98	15-158	
n-Butylbenzene	57.1	0.69 U	57.3	100	56-127	
N-Propylbenzene	57.1	0.80 U	61.2	107	64-124	
o-Xylene	57.1	0.80 U	55.2	97	76-120	
sec-Butylbenzene	57.1	0.74 U	58.7	103	60-120	
Styrene	57.1	0.63 U	52.5	92	71-120	
Tetrachloroethene	57.1	1.7 U	50.9	89	70-120	
Toluene	57.1	0.74 U	55.9	98	78-120	
trans-1,2-Dichloroethene	57.1	1.1 U	55.7	98	80-120	
trans-1,3-Dichloropropene	57.1	1.1 U	51.3	90	46-120	
Trichloroethene	57.1	110	150	64	66-120	F1
Trichlorofluoromethane	57.1	1.2 U	43.4	76	46-157	
Vinyl acetate	45.7	1.1 U	53.9	118	43-157	
Vinyl chloride	57.1	24	87.2	110	49-130	
Xylenes, Total	114	0.80 U	109	95	76-120	
tert-Butylbenzene	57.1	0.74 U	63.3	111	61-120	
1,2-Dibromoethane	57.1	1.4 U	55.1	96	74-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9904.D

Lab ID: 240-36135-3 MSD Client ID: MSA-DMW-11I-041414 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	57.1	49.9	87	3	30	64-120	
1,1,1-Trichloroethane	57.1	48.2	84	2	30	68-121	
1,1,2,2-Tetrachloroethane	57.1	63.3	111	15	30	63-122	
1,1,2-Trichlorotrifluoroethane	57.1	56.3	99	3	30	70-152	
1,1-Dichloroethane	57.1	57.6	101	1	30	79-120	
1,1-Dichloroethene	57.1	62.4	106	4	30	74-135	
1,1-Dichloropropene	57.1	57.0	100	1	30	80-120	
1,2,3-Trichlorobenzene	57.1	51.8	91	13	30	45-129	
1,2,3-Trichloropropane	57.1	61.3	107	17	30	67-132	
1,2,4-Trichlorobenzene	57.1	49.3	86	13	30	38-138	
1,2,4-Trimethylbenzene	57.1	57.5	101	7	30	67-124	
1,2-Dibromo-3-Chloropropane	57.1	45.7	80	16	30	32-139	
1,2-Dichlorobenzene	57.1	54.7	96	3	30	75-120	
1,2-Dichloroethane	57.1	56.7	99	1	30	68-129	
1,2-Dichloropropane	57.1	58.4	102	1	30	78-120	
1,3-Dichlorobenzene	57.1	53.7	94	0	30	73-120	
1,3-Dichloropropane	57.1	62.6	110	5	30	74-120	
1,4-Dichlorobenzene	57.1	52.3	92	1	30	75-120	
2,2-Dichloropropane	57.1	37.0	65	1	30	38-127	
2-Butanone (MEK)	114	117	103	0	30	54-129	
2-Chloroethyl vinyl ether	68.5	5.7 U	0	NC	30	10-150	F1
2-Chlorotoluene	57.1	54.4	95	14	30	69-120	
2-Hexanone	114	105	92	4	30	47-139	
4-Chlorotoluene	57.1	53.4	94	15	30	71-120	
4-Isopropyltoluene	57.1	55.6	97	1	30	64-122	
4-Methyl-2-pentanone (MIBK)	114	105	92	4	30	56-131	
Acetone	114	112	98	1	30	33-145	
Benzene	57.1	57.8	101	0	30	72-121	
Bromobenzene	57.1	52.7	92	12	30	71-120	
Bromoform	57.1	38.3	67	3	30	32-128	
Bromomethane	57.1	71.0	124	3	30	10-186	
Carbon disulfide	57.1	53.8	94	1	30	57-147	
Carbon tetrachloride	57.1	44.1	77	0	30	59-129	
Chlorobenzene	57.1	54.4	95	1	30	80-120	
Chlorodibromomethane	57.1	48.2	84	4	30	56-120	
Chloroethane	57.1	58.7	103	1	30	21-165	
Chloroform	57.1	60.6	101	1	30	76-120	
Chloromethane	57.1	56.6	99	1	30	33-132	
cis-1,2-Dichloroethene	57.1	223	66	0	30	70-120	F1
cis-1,3-Dichloropropene	57.1	48.8	85	1	30	51-120	
Dibromomethane	57.1	57.0	100	1	30	77-121	
Bromochloromethane	57.1	52.8	93	1	30	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9904.D

Lab ID: 240-36135-3 MSD Client ID: MSA-DMW-11I-041414 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	57.1	42.1	74	12	30	17-128	
Bromodichloromethane	57.1	50.7	89	1	30	67-120	
tert-Butyl alcohol	571	491	86	3	30	70-130	
Ethylbenzene	57.1	51.7	91	2	30	75-120	
Hexachlorobutadiene	57.1	48.9	86	14	30	27-132	
Isopropylbenzene	57.1	53.8	94	2	30	68-120	
Methyl tert-butyl ether	57.1	50.9	89	1	30	46-144	
Methylene Chloride	57.1	58.7	103	0	30	63-128	
m-Xylene & p-Xylene	57.1	53.6	94	1	30	75-120	
Naphthalene	57.1	50.0	88	11	30	15-158	
n-Butylbenzene	57.1	54.2	95	5	30	56-127	
N-Propylbenzene	57.1	51.7	91	17	30	64-124	
o-Xylene	57.1	54.8	96	1	30	76-120	
sec-Butylbenzene	57.1	55.3	97	6	30	60-120	
Styrene	57.1	52.2	92	0	30	71-120	
Tetrachloroethene	57.1	49.5	87	3	30	70-120	
Toluene	57.1	53.9	94	4	30	78-120	
trans-1,2-Dichloroethene	57.1	54.3	95	3	30	80-120	
trans-1,3-Dichloropropene	57.1	50.4	88	2	30	46-120	
Trichloroethene	57.1	148	61	1	30	66-120	F1
Trichlorofluoromethane	57.1	41.3	72	5	30	46-157	
Vinyl acetate	45.7	55.6	122	3	30	43-157	
Vinyl chloride	57.1	85.9	108	1	30	49-130	
Xylenes, Total	114	108	95	0	30	76-120	
tert-Butylbenzene	57.1	55.7	97	13	30	61-120	
1,2-Dibromoethane	57.1	56.9	100	3	30	74-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-041414	240-36135-1	88	98	97	87
MSA-DMW-11S-041414	240-36135-2	91	101	96	87
MSA-DMW-11I-041414	240-36135-3	89	97	97	87
TB-041414	240-36233-1	89	99	95	89
MSA-MW-50S-041414	240-36233-2	90	101	96	88
MSA-MW-21I-041414	240-36233-3	88	97	96	91
MSA-MW-50I-041414	240-36233-4	89	98	101	90
MSA-MW-21D-041414	240-36233-5	91	101	96	91
TB-041614	240-36320-1	90	100	95	89
MSA-DMW-7I-041614	240-36320-2	101	89	98	83
MSA-DMW-7D-041614	240-36320-3	90	99	106	86
MSA-DMW-8I-041614	240-36320-4	98	88	95	84
MSA-MW-4-041614	240-36320-5	94	88	100	88
MSA-MW-50D-041614	240-36320-6	95	88	99	82
MSA-MW-51S-041614	240-36320-7	103	93	102	85
MSA-MW-51I-041614	240-36320-8	93	89	96	83
	MB 240-127413/6	88	97	97	88
	MB 240-128028/6	93	86	97	82
	LCS 240-127413/4	85	95	100	96
	LCS 240-128028/4	95	88	100	87
MSA-DMW-11I-041414 MS	240-36135-3 MS	87	94	93	93
MSA-DMW-11I-041414 MSD	240-36135-3 MSD	88	93	92	96

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-120
BFB = 4-Bromofluorobenzene (Surr)	66-120

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: STD8260 240-122371/4 Date Analyzed: 03/13/2014 09:48

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX8836.D Heated Purge: (Y/N) N

Calibration ID: 21114

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1491749	5.55	1027785	8.23	613728	10.47
UPPER LIMIT		2983498	6.05	2055570	8.73	1227456	10.97
LOWER LIMIT		745875	5.05	513893	7.73	306864	9.97
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-122371/14		1457730	5.54	947218	8.23	600605	10.47
ICV 240-122371/15		1408930	5.55	916360	8.23	581640	10.47
CCVIS 240-127413/2		1110137	5.54	679098	8.23	390832	10.46

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: CCVIS 240-127413/2 Date Analyzed: 04/22/2014 11:32

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX9876.D Heated Purge: (Y/N) N

Calibration ID: 21354

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1110137	5.54	679098	8.23	390832	10.46
UPPER LIMIT		2220274	6.04	1358196	8.73	781664	10.96
LOWER LIMIT		555069	5.04	339549	7.73	195416	9.96
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-127413/3		1047298	5.55	652192	8.23	353729	10.47
LCS 240-127413/4		1082222	5.54	669802	8.23	372720	10.47
MB 240-127413/6		1048926	5.54	651347	8.23	343019	10.47
240-36320-3	MSA-DMW-7D-041614	1000467	5.54	619239	8.23	326190	10.47
240-36135-1	TB-041414	1039016	5.55	629579	8.23	333953	10.47
240-36135-2	MSA-DMW-11S-041414	1028324	5.54	636308	8.23	334328	10.47
240-36135-3	MSA-DMW-11I-041414	1019167	5.54	630599	8.23	329652	10.48
240-36233-1	TB-041414	985459	5.54	619604	8.23	346621	10.47
240-36233-2	MSA-MW-50S-041414	969836	5.54	604328	8.23	335897	10.48
240-36233-3	MSA-MW-21I-041414	1005000	5.54	623746	8.23	393554	10.48
240-36233-4	MSA-MW-50I-041414	976821	5.54	609005	8.23	336338	10.47
240-36233-5	MSA-MW-21D-041414	965364	5.54	606861	8.23	343066	10.48
240-36320-1	TB-041614	959480	5.55	605761	8.23	334635	10.47
240-36135-3 MS	MSA-DMW-11I-041414 MS	1038664	5.54	720552	8.23	362346	10.48
240-36135-3 MSD	MSA-DMW-11I-041414 MSD	1019125	5.55	688439	8.23	410425	10.47

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII

GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: STD8260 240-123039/5 Date Analyzed: 03/18/2014 18:42

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1236336.D Heated Purge: (Y/N) N

Calibration ID: 21224

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1086536	5.40	799126	8.22	433029	10.61
UPPER LIMIT		2173072	5.90	1598252	8.72	866058	11.11
LOWER LIMIT		543268	4.90	399563	7.72	216515	10.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-123039/9		1055888	5.40	791274	8.22	396841	10.61
ICV 240-123039/19		1016952	5.40	744314	8.22	380732	10.61
STD8260 240-128028/2 CCVIS		1110535	5.40	838142	8.22	477059	10.61

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: STD8260 240-128028/2 Date Analyzed: 04/26/2014 09:26

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1237305.D Heated Purge: (Y/N) N

Calibration ID: 21227

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1110535	5.40	838142	8.22	477059	10.61
UPPER LIMIT		2221070	5.90	1676284	8.72	954118	11.11
LOWER LIMIT		555268	4.90	419071	7.72	238530	10.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-128028/3		1076628	5.40	838616	8.22	440693	10.61
LCS 240-128028/4		1071061	5.40	790772	8.22	470118	10.61
MB 240-128028/6		1023432	5.42	786902	8.22	445452	10.61
240-36320-2	MSA-DMW-7I-041614	1034706	5.40	795394	8.22	441604	10.61
240-36320-4	MSA-DMW-8I-041614	1057578	5.40	823378	8.22	448219	10.61
240-36320-5	MSA-MW-4-041614	1075743	5.40	799853	8.22	464084	10.61
240-36320-6	MSA-MW-50D-041614	1026034	5.42	788639	8.22	448067	10.61
240-36320-7	MSA-MW-51S-041614	1006633	5.42	775794	8.22	416189	10.61
240-36320-8	MSA-MW-51I-041614	1043373	5.42	793864	8.22	425479	10.61

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

Method 8270C

Semivolatile Organic Compounds (GC/MS) by Method 8270C

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab File ID: 0412001.D DFTPP Injection Date: 04/12/2014

Instrument ID: A4AG2 DFTPP Injection Time: 11:54

Analysis Batch No.: 126265

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	36.3	
68	Less than 2.0% of mass 69	0.5	(1.0)1
69	Mass 69 relative abundance	47.1	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	57.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.3	
275	10.0- 30.0% of mass 198	22.3	
365	Greater than 0.75% of mass 198	2.6	
441	Present, but less than mass 443	9.0	
442	40.0 - 110.0% of mass 198	64.7	
443	15.0 - 24.0% of mass 442	11.8	(18.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-126265/2	0412002.D	04/12/2014	12:17
	STD8 240-126265/3	0412003.D	04/12/2014	12:40
	STD7 240-126265/4	0412004.D	04/12/2014	13:03
	STD6 240-126265/5	0412005.D	04/12/2014	13:27
	STD5 240-126265/6	0412006.D	04/12/2014	13:50
	STD4 240-126265/7	0412007.D	04/12/2014	14:13
	STD3 240-126265/8	0412008.D	04/12/2014	14:36
	STD2 240-126265/9	0412009.D	04/12/2014	14:59
	STD1 240-126265/10	0412010.D	04/12/2014	15:22
	ICV 240-126265/11	0412011.D	04/12/2014	15:45

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 126265

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2014 12:17 Calibration End Date: 04/12/2014 15:22 Calibration ID: 21681

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-126265/10	0412010.D
Level 2	STD2 240-126265/9	0412009.D
Level 3	STD3 240-126265/8	0412008.D
Level 4	STD4 240-126265/7	0412007.D
Level 5	STD5 240-126265/6	0412006.D
Level 6	STD6 240-126265/5	0412005.D
Level 7	STD7 240-126265/4	0412004.D
Level 8	STD8 240-126265/3	0412003.D
Level 9	STD9 240-126265/2	0412002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5835	0.7184 0.5974	0.6260 0.5920	0.5895 0.6237	0.5877	Ave		0.6148				7.3		15.0			
N-Nitrosodimethylamine	0.7476	0.4701 0.8272	0.5795 0.8409	0.5869 0.8883	0.7359	Lin1	-28.80	0.8520							0.9960		0.9900
Pyridine	1.4924	1.2117 1.5636	1.2319 1.5659	1.2146 1.6389	1.4711	Ave		1.4238				12.0		15.0			
Benzaldehyde	0.7541	1.1588 0.5799	1.1407 0.5870	0.9801 0.5841	0.8636	Qua	121.11	0.6691	0						0.9900		0.9900
Phenol	1.6457	1.4197 1.7699	1.3831 1.8010	1.3435 1.8573	1.5016	Ave		1.5902				13.0		15.0			
Aniline	1.8942	1.5746 2.0720	1.6290 2.1635	1.6172 2.2272	1.7499	Ave		1.8660				14.0		15.0			
Bis(2-chloroethyl)ether	1.4092	1.2998 1.4316	1.2692 1.4313	1.3224 1.4750	1.3395	Ave		1.3723				5.4		15.0			
2-Chlorophenol	1.3900	1.2913 1.4548	1.2463 1.4528	1.2111 1.4880	1.3138	Ave		1.3560				7.7		15.0			
n-Decane	1.3065	1.4793 1.3312	1.4298 1.3104	1.4191 1.3298	1.3091	Ave		1.3644				5.0		15.0			
1,3-Dichlorobenzene	1.5046	1.6449 1.5195	1.4845 1.5046	1.5004 1.5359	1.5243	Ave		1.5273				3.3		15.0			
1,4-Dichlorobenzene	1.5206	1.5042 1.5366	1.5630 1.5311	1.5400 1.5687	1.5144	Ave		1.5348				1.5		15.0			
Benzyl alcohol	0.7034	0.5481 0.8856	0.5446 0.8733	0.4976 0.9156	0.6399	Lin	-88.28	0.9267							0.9940		0.9900
1,2-Dichlorobenzene	1.4521	1.6590 1.4669	1.6123 1.4388	1.5208 1.4932	1.4356	Ave		1.5098				5.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab File ID: 0417001.D DFTPP Injection Date: 04/17/2014

Instrument ID: A4AG2 DFTPP Injection Time: 06:54

Analysis Batch No.: 126796

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	38.8	
68	Less than 2.0% of mass 69	0.5	(0.9)1
69	Mass 69 relative abundance	51.1	
70	Less than 2.0% of mass 69	0.4	(0.7)1
127	25.0 - 75.0% of mass 198	61.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	22.9	
365	Greater than 0.75% of mass 198	2.6	
441	Present, but less than mass 443	8.5	
442	40.0 - 110.0% of mass 198	61.7	
443	15.0 - 24.0% of mass 442	11.8	(19.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-126796/2	0417002.D	04/17/2014	07:11
	MB 240-126687/19-A	0417005.D	04/17/2014	08:20
	LCS 240-126687/20-A	0417006.D	04/17/2014	08:43
MSA-DMW-11I-041414	240-36135-3	0417007.D	04/17/2014	09:06
MSA-DMW-11S-041414	240-36135-2	0417008.D	04/17/2014	09:29

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: STD6 240-126796/2 Calibration Date: 04/17/2014 07:11

Instrument ID: A4AG2 Calib Start Date: 04/12/2014 12:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/12/2014 15:22

Lab File ID: 0417002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6148	0.5918		0.963	1.00	-3.7	50.0
N-Nitrosodimethylamine	Lin1		0.8220		0.999	1.00	-0.1	50.0
Pyridine	Ave	1.424	1.492		1.05	1.00	4.8	50.0
Benzaldehyde	Qua		0.6870		2.02	2.00	1.1	50.0
Phenol	Ave	1.590	1.786		1.12	1.00	12.3	20.0
Aniline	Ave	1.866	2.039		1.09	1.00	9.2	50.0
Bis(2-chloroethyl)ether	Ave	1.372	1.428		1.04	1.00	4.1	50.0
2-Chlorophenol	Ave	1.356	1.461		1.08	1.00	7.8	50.0
n-Decane	Ave	1.364	1.273		0.933	1.00	-6.7	50.0
1,3-Dichlorobenzene	Ave	1.527	1.517		0.993	1.00	-0.7	50.0
1,4-Dichlorobenzene	Ave	1.535	1.532		0.998	1.00	-0.2	20.0
Benzyl alcohol	Lin		0.8167		0.976	1.00	-2.4	50.0
1,2-Dichlorobenzene	Ave	1.510	1.455		0.964	1.00	-3.6	50.0
2-Methylphenol	Ave	1.201	1.302		1.08	1.00	8.5	50.0
bis (2-chloroisopropyl) ether	Ave	1.376	1.339		0.973	1.00	-2.7	50.0
Indene	Ave	2.447	2.543		2.08	2.00	3.9	50.0
3 & 4 Methylphenol	Ave	1.199	1.316		1.10	1.00	9.8	50.0
N-Nitrosodi-n-propylamine	Ave	0.9749	1.127	0.0500	1.16	1.00	15.6	50.0
Acetophenone	Ave	1.851	2.013		1.09	1.00	8.8	50.0
Hexachloroethane	Ave	0.6220	0.6423		1.03	1.00	3.3	50.0
Nitrobenzene	Ave	0.3820	0.3653		0.956	1.00	-4.4	50.0
Isophorone	Ave	0.5989	0.6141		1.03	1.00	2.5	50.0
2-Nitrophenol	Ave	0.1504	0.1771		1.18	1.00	17.8	20.0
2,4-Dimethylphenol	Ave	0.3088	0.3246		1.05	1.00	5.1	50.0
Benzoic acid	Ave	0.1566	0.1641		2.10	2.00	4.8	50.0
Bis(2-chloroethoxy)methane	Ave	0.3933	0.4035		1.03	1.00	2.6	50.0
2,4-Dichlorophenol	Ave	0.2323	0.2515		1.08	1.00	8.3	20.0
1,2,4-Trichlorobenzene	Ave	0.2737	0.2741		1.00	1.00	0.1	50.0
Naphthalene	Ave	1.040	1.000		0.962	1.00	-3.8	50.0
4-Chloroaniline	Qua		0.3039		0.925	1.00	-7.5	50.0
Hexachlorobutadiene	Ave	0.1335	0.1305		0.977	1.00	-2.3	20.0
Caprolactam	Lin1		0.1076		1.99	2.00	-0.6	50.0
4-Chloro-3-methylphenol	Ave	0.3080	0.2756		0.895	1.00	-10.5	20.0
2-Methylnaphthalene	Ave	0.7353	0.6696		0.911	1.00	-8.9	50.0
1-Methylnaphthalene	Ave	0.6957	0.6193		0.890	1.00	-11.0	50.0
Hexachlorocyclopentadiene	Lin1		0.2494	0.0500	0.946	1.00	-5.4	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4270	0.4385		1.03	1.00	2.7	50.0
2,4,6-Trichlorophenol	Ave	0.2791	0.3028		1.09	1.00	8.5	20.0
2,4,5-Trichlorophenol	Ave	0.3158	0.3209		1.02	1.00	1.6	50.0
1,1'-Biphenyl	Ave	1.451	1.419		0.979	1.00	-2.1	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab File ID: 0421001.D DFTPP Injection Date: 04/21/2014

Instrument ID: A4AG2 DFTPP Injection Time: 12:04

Analysis Batch No.: 127269

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	40.2	
68	Less than 2.0% of mass 69	1.0	(1.9)1
69	Mass 69 relative abundance	52.2	
70	Less than 2.0% of mass 69	0.2	(0.4)1
127	25.0 - 75.0% of mass 198	63.3	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	23.0	
365	Greater than 0.75% of mass 198	2.7	
441	Present, but less than mass 443	9.2	
442	40.0 - 110.0% of mass 198	61.6	
443	15.0 - 24.0% of mass 442	12.1	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-127269/2	0421002.D	04/21/2014	12:27
	MB 240-127063/11-A	0421003.D	04/21/2014	12:51
	LCS 240-127063/12-A	0421004.D	04/21/2014	13:14
MSA-MW-50S-041414	240-36233-2	0421007.D	04/21/2014	14:23
MSA-MW-21I-041414	240-36233-3	0421008.D	04/21/2014	14:46
MSA-MW-50I-041414	240-36233-4	0421009.D	04/21/2014	15:10
MSA-MW-21D-041414	240-36233-5	0421010.D	04/21/2014	15:33

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: STD6 240-127269/2 Calibration Date: 04/21/2014 12:27

Instrument ID: A4AG2 Calib Start Date: 04/12/2014 12:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/12/2014 15:22

Lab File ID: 0421002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6148	0.6175		1.00	1.00	0.4	50.0
N-Nitrosodimethylamine	Lin1		0.8200		0.996	1.00	-0.4	50.0
Pyridine	Ave	1.424	1.546		1.09	1.00	8.6	50.0
Benzaldehyde	Qua		0.7851		2.37	2.00	18.6	50.0
Phenol	Ave	1.590	1.797		1.13	1.00	13.0	20.0
Aniline	Ave	1.866	2.081		1.12	1.00	11.5	50.0
Bis(2-chloroethyl)ether	Ave	1.372	1.419		1.03	1.00	3.4	50.0
2-Chlorophenol	Ave	1.356	1.451		1.07	1.00	7.0	50.0
n-Decane	Ave	1.364	1.326		0.972	1.00	-2.8	50.0
1,3-Dichlorobenzene	Ave	1.527	1.514		0.991	1.00	-0.9	50.0
1,4-Dichlorobenzene	Ave	1.535	1.522		0.991	1.00	-0.9	20.0
Benzyl alcohol	Lin		0.7920		0.950	1.00	-5.0	50.0
1,2-Dichlorobenzene	Ave	1.510	1.455		0.964	1.00	-3.6	50.0
2-Methylphenol	Ave	1.201	1.262		1.05	1.00	5.1	50.0
bis (2-chloroisopropyl) ether	Ave	1.376	1.366		0.992	1.00	-0.8	50.0
Indene	Ave	2.447	2.531		2.07	2.00	3.4	50.0
3 & 4 Methylphenol	Ave	1.199	1.345		1.12	1.00	12.2	50.0
N-Nitrosodi-n-propylamine	Ave	0.9749	1.123	0.0500	1.15	1.00	15.2	50.0
Acetophenone	Ave	1.851	1.999		1.08	1.00	8.0	50.0
Hexachloroethane	Ave	0.6220	0.6525		1.05	1.00	4.9	50.0
Nitrobenzene	Ave	0.3820	0.3872		1.01	1.00	1.4	50.0
Isophorone	Ave	0.5989	0.6819		1.14	1.00	13.9	50.0
2-Nitrophenol	Ave	0.1504	0.1771		1.18	1.00	17.8	20.0
2,4-Dimethylphenol	Ave	0.3088	0.3347		1.08	1.00	8.4	50.0
Benzoic acid	Ave	0.1566	0.1574		2.01	2.00	0.5	50.0
Bis(2-chloroethoxy)methane	Ave	0.3933	0.4146		1.05	1.00	5.4	50.0
2,4-Dichlorophenol	Ave	0.2323	0.2541		1.09	1.00	9.4	20.0
1,2,4-Trichlorobenzene	Ave	0.2737	0.2821		1.03	1.00	3.1	50.0
Naphthalene	Ave	1.040	1.031		0.991	1.00	-0.9	50.0
4-Chloroaniline	Qua		0.2947		0.891	1.00	-10.9	50.0
Hexachlorobutadiene	Ave	0.1335	0.1331		0.997	1.00	-0.3	20.0
Caprolactam	Lin1		0.1047		1.94	2.00	-3.2	50.0
4-Chloro-3-methylphenol	Ave	0.3080	0.2779		0.902	1.00	-9.8	20.0
2-Methylnaphthalene	Ave	0.7353	0.6768		0.920	1.00	-8.0	50.0
1-Methylnaphthalene	Ave	0.6957	0.6295		0.905	1.00	-9.5	50.0
Hexachlorocyclopentadiene	Lin1		0.2485	0.0500	0.943	1.00	-5.7	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4270	0.4456		1.04	1.00	4.4	50.0
2,4,6-Trichlorophenol	Ave	0.2791	0.2923		1.05	1.00	4.8	20.0
2,4,5-Trichlorophenol	Ave	0.3158	0.3183		1.01	1.00	0.8	50.0
1,1'-Biphenyl	Ave	1.451	1.430		0.986	1.00	-1.4	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab File ID: 0422001.D DFTPP Injection Date: 04/22/2014

Instrument ID: A4AG2 DFTPP Injection Time: 13:08

Analysis Batch No.: 127443

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	40.5	
68	Less than 2.0% of mass 69	0.9	(1.7)1
69	Mass 69 relative abundance	53.2	
70	Less than 2.0% of mass 69	0.3	(0.5)1
127	25.0 - 75.0% of mass 198	62.1	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.3	
275	10.0- 30.0% of mass 198	22.2	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	8.7	
442	40.0 - 110.0% of mass 198	59.3	
443	15.0 - 24.0% of mass 442	11.4	(19.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-127443/2	0422002.D	04/22/2014	13:25
	MB 240-127198/23-A	0422003.D	04/22/2014	13:48
	LCS 240-127198/24-A	0422004.D	04/22/2014	14:11
MSA-MW-48I-041414	240-36233-6	0422005.D	04/22/2014	14:35
MSA-DMW-7I-041614	240-36320-2	0422006.D	04/22/2014	14:58
MSA-DMW-7D-041614	240-36320-3	0422007.D	04/22/2014	15:21
MSA-MW-4-041614	240-36320-5	0422009.D	04/22/2014	16:08
MSA-MW-50D-041614	240-36320-6	0422010.D	04/22/2014	16:31
MSA-MW-51S-041614	240-36320-7	0422011.D	04/22/2014	16:54
MSA-MW-51I-041614	240-36320-8	0422012.D	04/22/2014	17:17

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: STD6 240-127443/2 Calibration Date: 04/22/2014 13:25

Instrument ID: A4AG2 Calib Start Date: 04/12/2014 12:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/12/2014 15:22

Lab File ID: 0422002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6148	0.6236		1.01	1.00	1.4	50.0
N-Nitrosodimethylamine	Lin1		0.8299		1.01	1.00	0.8	50.0
Pyridine	Ave	1.424	1.544		1.08	1.00	8.4	50.0
Benzaldehyde	Qua		0.7924		2.40	2.00	19.9	50.0
Phenol	Ave	1.590	1.792		1.13	1.00	12.7	20.0
Aniline	Ave	1.866	2.038		1.09	1.00	9.2	50.0
Bis(2-chloroethyl)ether	Ave	1.372	1.383		1.01	1.00	0.8	50.0
2-Chlorophenol	Ave	1.356	1.421		1.05	1.00	4.8	50.0
n-Decane	Ave	1.364	1.279		0.937	1.00	-6.3	50.0
1,3-Dichlorobenzene	Ave	1.527	1.490		0.976	1.00	-2.4	50.0
1,4-Dichlorobenzene	Ave	1.535	1.506		0.981	1.00	-1.9	20.0
Benzyl alcohol	Lin		0.7671		0.923	1.00	-7.7	50.0
1,2-Dichlorobenzene	Ave	1.510	1.417		0.938	1.00	-6.2	50.0
2-Methylphenol	Ave	1.201	1.245		1.04	1.00	3.7	50.0
bis (2-chloroisopropyl) ether	Ave	1.376	1.356		0.985	1.00	-1.5	50.0
Indene	Ave	2.447	2.476		2.02	2.00	1.2	50.0
3 & 4 Methylphenol	Ave	1.199	1.291		1.08	1.00	7.7	50.0
N-Nitrosodi-n-propylamine	Ave	0.9749	1.038	0.0500	1.06	1.00	6.5	50.0
Acetophenone	Ave	1.851	1.941		1.05	1.00	4.9	50.0
Hexachloroethane	Ave	0.6220	0.6281		1.01	1.00	1.0	50.0
Nitrobenzene	Ave	0.3820	0.3855		1.01	1.00	0.9	50.0
Isophorone	Ave	0.5989	0.6288		1.05	1.00	5.0	50.0
2-Nitrophenol	Ave	0.1504	0.1807		1.20	1.00	20.2*	20.0
2,4-Dimethylphenol	Ave	0.3088	0.3237		1.05	1.00	4.8	50.0
Benzoic acid	Ave	0.1566	0.1681		2.15	2.00	7.3	50.0
Bis(2-chloroethoxy)methane	Ave	0.3933	0.3961		1.01	1.00	0.7	50.0
2,4-Dichlorophenol	Ave	0.2323	0.2475		1.07	1.00	6.5	20.0
1,2,4-Trichlorobenzene	Ave	0.2737	0.2726		0.996	1.00	-0.4	50.0
Naphthalene	Ave	1.040	1.009		0.970	1.00	-3.0	50.0
4-Chloroaniline	Qua		0.2983		0.904	1.00	-9.6	50.0
Hexachlorobutadiene	Ave	0.1335	0.1280		0.959	1.00	-4.1	20.0
Caprolactam	Lin1		0.1026		1.90	2.00	-5.1	50.0
4-Chloro-3-methylphenol	Ave	0.3080	0.2748		0.892	1.00	-10.8	20.0
2-Methylnaphthalene	Ave	0.7353	0.6594		0.897	1.00	-10.3	50.0
1-Methylnaphthalene	Ave	0.6957	0.6072		0.873	1.00	-12.7	50.0
Hexachlorocyclopentadiene	Lin1		0.2921	0.0500	1.10	1.00	10.2	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4270	0.4552		1.07	1.00	6.6	50.0
2,4,6-Trichlorophenol	Ave	0.2791	0.3127		1.12	1.00	12.1	20.0
2,4,5-Trichlorophenol	Ave	0.3158	0.3274		1.04	1.00	3.7	50.0
1,1'-Biphenyl	Ave	1.451	1.438		0.991	1.00	-0.9	50.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab File ID: 0423001.D DFTPP Injection Date: 04/23/2014

Instrument ID: A4AG2 DFTPP Injection Time: 07:21

Analysis Batch No.: 127513

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.5	
68	Less than 2.0% of mass 69	0.3	(0.6)1
69	Mass 69 relative abundance	53.6	
70	Less than 2.0% of mass 69	0.2	(0.4)1
127	25.0 - 75.0% of mass 198	61.7	
197	Less than 1.0% of mass 198	0.1	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	22.2	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	8.2	
442	40.0 - 110.0% of mass 198	59.2	
443	15.0 - 24.0% of mass 442	10.7	(18.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-127513/2	0423002.D	04/23/2014	07:39
MSA-DMW-8I-041614	240-36320-4	0423004.D	04/23/2014	08:25

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: STD6 240-127513/2 Calibration Date: 04/23/2014 07:39

Instrument ID: A4AG2 Calib Start Date: 04/12/2014 12:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/12/2014 15:22

Lab File ID: 0423002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6148	0.5992		0.975	1.00	-2.5	50.0
N-Nitrosodimethylamine	Lin1		0.8048		0.978	1.00	-2.2	50.0
Pyridine	Ave	1.424	1.474		1.04	1.00	3.6	50.0
Benzaldehyde	Qua		0.7347		2.19	2.00	9.6	50.0
Phenol	Ave	1.590	1.691		1.06	1.00	6.3	20.0
Aniline	Ave	1.866	1.983		1.06	1.00	6.3	50.0
Bis(2-chloroethyl)ether	Ave	1.372	1.402		1.02	1.00	2.1	50.0
2-Chlorophenol	Ave	1.356	1.429		1.05	1.00	5.4	50.0
n-Decane	Ave	1.364	1.240		0.909	1.00	-9.1	50.0
1,3-Dichlorobenzene	Ave	1.527	1.486		0.973	1.00	-2.7	50.0
1,4-Dichlorobenzene	Ave	1.535	1.512		0.985	1.00	-1.5	20.0
Benzyl alcohol	Lin		0.7301		0.883	1.00	-11.7	50.0
1,2-Dichlorobenzene	Ave	1.510	1.420		0.940	1.00	-6.0	50.0
2-Methylphenol	Ave	1.201	1.243		1.03	1.00	3.5	50.0
bis (2-chloroisopropyl) ether	Ave	1.376	1.311		0.952	1.00	-4.8	50.0
Indene	Ave	2.447	2.466		2.02	2.00	0.8	50.0
3 & 4 Methylphenol	Ave	1.199	1.260		1.05	1.00	5.1	50.0
N-Nitrosodi-n-propylamine	Ave	0.9749	0.9592	0.0500	0.984	1.00	-1.6	50.0
Acetophenone	Ave	1.851	1.860		1.00	1.00	0.5	50.0
Hexachloroethane	Ave	0.6220	0.6269		1.01	1.00	0.8	50.0
Nitrobenzene	Ave	0.3820	0.3866		1.01	1.00	1.2	50.0
Isophorone	Ave	0.5989	0.5795		0.968	1.00	-3.2	50.0
2-Nitrophenol	Ave	0.1504	0.1878		1.25	1.00	24.9*	20.0
2,4-Dimethylphenol	Ave	0.3088	0.2953		0.956	1.00	-4.4	50.0
Benzoic acid	Ave	0.1566	0.1749		2.23	2.00	11.7	50.0
Bis(2-chloroethoxy)methane	Ave	0.3933	0.4006		1.02	1.00	1.9	50.0
2,4-Dichlorophenol	Ave	0.2323	0.2357		1.01	1.00	1.5	20.0
1,2,4-Trichlorobenzene	Ave	0.2737	0.2850		1.04	1.00	4.1	50.0
Naphthalene	Ave	1.040	1.018		0.979	1.00	-2.1	50.0
4-Chloroaniline	Qua		0.2888		0.870	1.00	-13.0	50.0
Hexachlorobutadiene	Ave	0.1335	0.1326		0.993	1.00	-0.7	20.0
Caprolactam	Lin1		0.1093		2.02	2.00	1.0	50.0
4-Chloro-3-methylphenol	Ave	0.3080	0.2880		0.935	1.00	-6.5	20.0
2-Methylnaphthalene	Ave	0.7353	0.6902		0.939	1.00	-6.1	50.0
1-Methylnaphthalene	Ave	0.6957	0.6418		0.923	1.00	-7.7	50.0
Hexachlorocyclopentadiene	Lin1		0.2895	0.0500	1.09	1.00	9.2	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4270	0.4344		1.02	1.00	1.7	50.0
2,4,6-Trichlorophenol	Ave	0.2791	0.3048		1.09	1.00	9.2	20.0
2,4,5-Trichlorophenol	Ave	0.3158	0.3183		1.01	1.00	0.8	50.0
1,1'-Biphenyl	Ave	1.451	1.419		0.978	1.00	-2.2	50.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab File ID: 0417005.D Lab Sample ID: MB 240-126687/19-A

Matrix: Water Date Extracted: 04/16/2014 09:27

Instrument ID: A4AG2 Date Analyzed: 04/17/2014 08:20

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-126687/20-A	0417006.D	04/17/2014 08:43
MSA-DMW-11I-041414	240-36135-3	0417007.D	04/17/2014 09:06
MSA-DMW-11S-041414	240-36135-2	0417008.D	04/17/2014 09:29

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126687/19-A

Matrix: Water | Lab File ID: 0417005.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 04/16/2014 09:27

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 08:20

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126796 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	75		29-110
367-12-4	2-Fluorophenol (Surr)	69		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	78		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	79		31-110
4165-62-2	Phenol-d5 (Surr)	54		10-110
1718-51-0	Terphenyl-d14 (Surr)	92		31-115

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0417006.D

Lab ID: LCS 240-126687/20-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	40.0	19.1	48	40-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab File ID: 0421003.D Lab Sample ID: MB 240-127063/11-A

Matrix: Water Date Extracted: 04/18/2014 10:21

Instrument ID: A4AG2 Date Analyzed: 04/21/2014 12:51

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-127063/12-A	0421004.D	04/21/2014 13:14
MSA-MW-50S-041414	240-36233-2	0421007.D	04/21/2014 14:23
MSA-MW-21I-041414	240-36233-3	0421008.D	04/21/2014 14:46
MSA-MW-50I-041414	240-36233-4	0421009.D	04/21/2014 15:10
MSA-MW-21D-041414	240-36233-5	0421010.D	04/21/2014 15:33
MSA-MW-48I-041414	240-36233-6	0422005.D	04/22/2014 14:35

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127063/11-A

Matrix: Water | Lab File ID: 0421003.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 04/18/2014 10:21

Sample wt/vol: 250(mL) | Date Analyzed: 04/21/2014 12:51

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127269 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	77		29-110
367-12-4	2-Fluorophenol (Surr)	64		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	73		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	85		31-110
4165-62-2	Phenol-d5 (Surr)	45		10-110
1718-51-0	Terphenyl-d14 (Surr)	98		31-115

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0421004.D

Lab ID: LCS 240-127063/12-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	40.0	19.3	48	40-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab File ID: 0422003.D Lab Sample ID: MB 240-127198/23-A

Matrix: Water Date Extracted: 04/21/2014 07:41

Instrument ID: A4AG2 Date Analyzed: 04/22/2014 13:48

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-127198/24-A	0422004.D	04/22/2014 14:11
MSA-DMW-7I-041614	240-36320-2	0422006.D	04/22/2014 14:58
MSA-DMW-7D-041614	240-36320-3	0422007.D	04/22/2014 15:21
MSA-MW-4-041614	240-36320-5	0422009.D	04/22/2014 16:08
MSA-MW-50D-041614	240-36320-6	0422010.D	04/22/2014 16:31
MSA-MW-51S-041614	240-36320-7	0422011.D	04/22/2014 16:54
MSA-MW-51I-041614	240-36320-8	0422012.D	04/22/2014 17:17
MSA-DMW-8I-041614	240-36320-4	0423004.D	04/23/2014 08:25

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127198/23-A

Matrix: Water | Lab File ID: 0422003.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 04/21/2014 07:41

Sample wt/vol: 250(mL) | Date Analyzed: 04/22/2014 13:48

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127443 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	67		29-110
367-12-4	2-Fluorophenol (Surr)	68		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	70		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	75		31-110
4165-62-2	Phenol-d5 (Surr)	73		10-110
1718-51-0	Terphenyl-d14 (Surr)	85		31-115

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0422004.D

Lab ID: LCS 240-127198/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	40.0	23.1	58	40-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
MSA-DMW-11S-041414	240-36135-2	65	56	74	65	79	89
MSA-DMW-11I-041414	240-36135-3	67	55	74	66	73	75
MSA-MW-50S-041414	240-36233-2	88	78	94	86	93	110
MSA-MW-21I-041414	240-36233-3	80	71	87	77	86	102
MSA-MW-50I-041414	240-36233-4	72	66	76	70	75	85
MSA-MW-21D-041414	240-36233-5	76	68	80	72	72	89
MSA-MW-48I-041414	240-36233-6	70	61	75	64	71	76
MSA-DMW-7I-041614	240-36320-2	75	83	78	68	73	81
MSA-DMW-7D-041614	240-36320-3	70	77	73	64	69	79
MSA-DMW-8I-041614	240-36320-4	49	51	70	67	76	88
MSA-MW-4-041614	240-36320-5	73	79	74	62	67	77
MSA-MW-50D-041614	240-36320-6	67	72	71	60	67	79
MSA-MW-51S-041614	240-36320-7	71	75	75	64	69	77
MSA-MW-51I-041614	240-36320-8	80	89	81	67	74	82
	MB 240-126687/19-A	69	54	79	75	78	92
	MB 240-127063/11-A	64	45	85	77	73	98
	MB 240-127198/23-A	68	73	75	67	70	85
	LCS 240-126687/20-A	63	51	79	72	81	86
	LCS 240-127063/12-A	71	53	89	81	90	96
	LCS 240-127198/24-A	68	73	73	67	72	77

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	15-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	31-110
FBP = 2-Fluorobiphenyl (Surr)	29-110
TBP = 2,4,6-Tribromophenol (Surr)	21-128
TPH = Terphenyl-d14 (Surr)	31-115

Column to be used to flag recovery values

FORM II 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: STD6 240-126265/5 Date Analyzed: 04/12/2014 13:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0412005.D Heated Purge: (Y/N) N

Calibration ID: 21681

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		193016	6.26	759602	7.32	431499	8.80
UPPER LIMIT		386032	6.76	1519204	7.82	862998	9.30
LOWER LIMIT		96508	5.76	379801	6.82	215750	8.30
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-126265/11		178921	6.26	737697	7.32	417148	8.80
STD6 240-126796/2 CCVIS		160205	6.25	686481	7.31	370999	8.79
STD6 240-127269/2 CCVIS		217612	6.22	893840	7.29	481201	8.77
STD6 240-127443/2 CCVIS		178801	6.21	731783	7.27	376527	8.76
STD6 240-127513/2 CCVIS		208384	6.20	827774	7.27	459221	8.76

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: STD6 240-126265/5 Date Analyzed: 04/12/2014 13:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0412005.D Heated Purge: (Y/N) N

Calibration ID: 21681

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		678754	10.06	621504	12.66	526227	14.77
UPPER LIMIT		1357508	10.56	1243008	13.16	1052454	15.27
LOWER LIMIT		339377	9.56	310752	12.16	263114	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-126265/11		637892	10.06	585188	12.66	478244	14.77
STD6 240-126796/2 CCVIS		586695	10.06	552824	12.65	447738	14.75
STD6 240-127269/2 CCVIS		735251	10.03	670884	12.61	498034	14.70
STD6 240-127443/2 CCVIS		607918	10.02	546993	12.60	449771	14.69
STD6 240-127513/2 CCVIS		717883	10.02	653540	12.59	549309	14.68

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: STD6 240-126796/2 Date Analyzed: 04/17/2014 07:11

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0417002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		160205	6.25	686481	7.31	370999	8.79
UPPER LIMIT		320410	6.75	1372962	7.81	741998	9.29
LOWER LIMIT		80103	5.75	343241	6.81	185500	8.29
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-126687/19-A		155426	6.25	652508	7.31	359165	8.79
LCS 240-126687/20-A		159528	6.25	658090	7.31	366387	8.79
240-36135-3	MSA-DMW-11I-041414	164646	6.25	705663	7.31	388558	8.79
240-36135-2	MSA-DMW-11S-041414	164592	6.25	690408	7.31	393445	8.79

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: STD6 240-126796/2 Date Analyzed: 04/17/2014 07:11

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0417002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		586695	10.06	552824	12.65	447738	14.75
UPPER LIMIT		1173390	10.56	1105648	13.15	895476	15.25
LOWER LIMIT		293348	9.56	276412	12.15	223869	14.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-126687/19-A		613739	10.05	545668	12.64	427286	14.74
LCS 240-126687/20-A		617179	10.05	582275	12.64	470268	14.74
240-36135-3	MSA-DMW-11I-041414	650070	10.05	564677	12.64	466594	14.74
240-36135-2	MSA-DMW-11S-041414	645135	10.05	572676	12.64	475547	14.74

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: STD6 240-127269/2 Date Analyzed: 04/21/2014 12:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0421002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		217612	6.22	893840	7.29	481201	8.77
UPPER LIMIT		435224	6.72	1787680	7.79	962402	9.27
LOWER LIMIT		108806	5.72	446920	6.79	240601	8.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-127063/11-A		143991	6.22	587860	7.29	316818	8.77
LCS 240-127063/12-A		138068	6.22	573699	7.29	309979	8.77
240-36233-2	MSA-MW-50S-041414	150244	6.22	635207	7.29	336874	8.77
240-36233-3	MSA-MW-21I-041414	155555	6.22	624724	7.29	329585	8.77
240-36233-4	MSA-MW-50I-041414	158279	6.22	657206	7.29	344492	8.77
240-36233-5	MSA-MW-21D-041414	156930	6.22	639900	7.29	348333	8.77

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: STD6 240-127269/2 Date Analyzed: 04/21/2014 12:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0421002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		735251	10.03	670884	12.61	498034	14.70
UPPER LIMIT		1470502	10.53	1341768	13.11	996068	15.20
LOWER LIMIT		367626	9.53	335442	12.11	249017	14.20
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-127063/11-A		512886	10.03	433446	12.61	319268	14.70
LCS 240-127063/12-A		515707	10.03	469839	12.61	350541	14.70
240-36233-2	MSA-MW-50S-041414	563886	10.03	475819	12.61	360846	14.71
240-36233-3	MSA-MW-21I-041414	549970	10.03	463299	12.61	347757	14.70
240-36233-4	MSA-MW-50I-041414	586219	10.03	483801	12.61	364672	14.70
240-36233-5	MSA-MW-21D-041414	573329	10.03	485719	12.61	371097	14.70

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: STD6 240-127443/2 Date Analyzed: 04/22/2014 13:25

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0422002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		178801	6.21	731783	7.27	376527	8.76
UPPER LIMIT		357602	6.71	1463566	7.77	753054	9.26
LOWER LIMIT		89401	5.71	365892	6.77	188264	8.26
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-127198/23-A		162151	6.21	665945	7.27	359741	8.76
LCS 240-127198/24-A		175980	6.21	699179	7.27	378862	8.76
240-36233-6	MSA-MW-48I-041414	181050	6.21	741876	7.27	409480	8.76
240-36320-2	MSA-DMW-7I-041614	178709	6.21	718993	7.27	381063	8.76
240-36320-3	MSA-DMW-7D-041614	184835	6.21	742940	7.27	397904	8.76
240-36320-5	MSA-MW-4-041614	178318	6.21	739032	7.27	409659	8.76
240-36320-6	MSA-MW-50D-041614	183089	6.21	740120	7.27	400931	8.76
240-36320-7	MSA-MW-51S-041614	165394	6.21	684207	7.27	366699	8.76
240-36320-8	MSA-MW-51I-041614	168684	6.21	694249	7.27	382974	8.76

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: STD6 240-127443/2 Date Analyzed: 04/22/2014 13:25

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0422002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		607918	10.02	546993	12.60	449771	14.69
UPPER LIMIT		1215836	10.52	1093986	13.10	899542	15.19
LOWER LIMIT		303959	9.52	273497	12.10	224886	14.19
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-127198/23-A		596338	10.02	519035	12.60	431663	14.68
LCS 240-127198/24-A		618710	10.02	567200	12.60	455828	14.68
240-36233-6	MSA-MW-48I-041414	674547	10.02	583539	12.60	471621	14.68
240-36320-2	MSA-DMW-7I-041614	663313	10.02	586979	12.60	489001	14.68
240-36320-3	MSA-DMW-7D-041614	669128	10.02	568380	12.60	466887	14.69
240-36320-5	MSA-MW-4-041614	688365	10.02	586972	12.60	473796	14.69
240-36320-6	MSA-MW-50D-041614	681359	10.02	564188	12.60	469434	14.69
240-36320-7	MSA-MW-51S-041614	626459	10.02	545434	12.60	457578	14.68
240-36320-8	MSA-MW-51I-041614	656926	10.02	572861	12.60	474155	14.68

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: STD6 240-127513/2 Date Analyzed: 04/23/2014 07:39

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0423002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		208384	6.20	827774	7.27	459221	8.76
UPPER LIMIT		416768	6.70	1655548	7.77	918442	9.26
LOWER LIMIT		104192	5.70	413887	6.77	229611	8.26
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-36320-4	MSA-DMW-8I-041614	141926	6.20	504710	7.27	336881	8.75

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: STD6 240-127513/2 Date Analyzed: 04/23/2014 07:39

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0423002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		717883	10.02	653540	12.59	549309	14.68
UPPER LIMIT		1435766	10.52	1307080	13.09	1098618	15.18
LOWER LIMIT		358942	9.52	326770	12.09	274655	14.18
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-36320-4	MSA-DMW-8I-041614	552910	10.01	473613	12.58	380795	14.67

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

Method 8015B - GRO

Gasoline Range Organics (GC) by Method 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: YPID Start Date: 04/01/2014 13:08

Analysis Batch Number: 124780 End Date: 04/01/2014 17:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-124780/4 IC		04/01/2014 13:08	1	YF040104.D	RTX-VRX 0.45(mm)
STD2 240-124780/5 IC		04/01/2014 13:46	1	YF040105.D	RTX-VRX 0.45(mm)
STD3 240-124780/6 IC		04/01/2014 14:25	1	YF040106.D	RTX-VRX 0.45(mm)
STD4 240-124780/7 ICRT		04/01/2014 15:04	1	YF040107.D	RTX-VRX 0.45(mm)
STD5 240-124780/8 IC		04/01/2014 15:43	1	YF040108.D	RTX-VRX 0.45(mm)
STD6 240-124780/9 IC		04/01/2014 16:22	1	YF040109.D	RTX-VRX 0.45(mm)
ICV 240-124780/10		04/01/2014 17:01	1	YF040110.D	RTX-VRX 0.45(mm)

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Gasoline Range Organics [C6 - C10]	204584 184488	200740 176831	187062	178295	Ave		188666.715				6.1		20.0			
C6-C12	235895 200911	223834 193438	204656	194539	Ave		208878.888				8.2		20.0			
Trifluorotoluene (Surr)	256304 194760	219953 178223	216487	201472	Ave		211199.772				13.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI

GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Gasoline Range Organics [C6 - C10]	11.937	11.937	11.937	11.937	11.937	11.937					5.000 - 18.927	11.937
C6-C12	13.475	13.475	13.475	13.475	13.475	13.475					5.000 - 22.005	13.475
Trifluorotoluene (Surr)	9.775	9.786	9.784	9.782	9.784	9.783					9.532 - 10.032	9.782

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Gasoline Range Organics [C6 - C10]	Ave	20458395 282929804	40148085	74824833	142635995	221385250	100 1600	200	400	800	1200
C6-C12	Ave	23589536 309501068	44766859	81862354	155631080	241092921	100 1600	200	400	800	1200
Trifluorotoluene (Surr)	Ave	256304 8911159	439906	1082433	2014719	3895199	1.00 50.0	2.00	5.00	10.0	20.0

Curve Type Legend:
Ave = Average

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: YPID Start Date: 04/19/2014 14:54

Analysis Batch Number: 127165 End Date: 04/20/2014 03:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-127165/4		04/19/2014 14:54	1	YF041904.D	RTX-VRX 0.45(mm)
MB 240-127165/5		04/19/2014 15:33	1	YF041905.D	RTX-VRX 0.45(mm)
LCS 240-127165/6		04/19/2014 16:12	1	YF041906.D	RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 16:50	5		RTX-VRX 0.45(mm)
240-36135-2	MSA-DMW-11S-041414	04/19/2014 17:28	5	YF041908.D	RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 18:07	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 18:45	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 19:23	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 20:02	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 20:40	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 21:18	1		RTX-VRX 0.45(mm)
CCV 240-127165/15		04/19/2014 21:56	1	YF041915.D	RTX-VRX 0.45(mm)
240-36233-2	MSA-MW-50S-041414	04/19/2014 22:34	1	YF041916.D	RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 23:13	1		RTX-VRX 0.45(mm)
ZZZZZ		04/19/2014 23:52	1		RTX-VRX 0.45(mm)
ZZZZZ		04/20/2014 00:30	1		RTX-VRX 0.45(mm)
240-36320-5	MSA-MW-4-041614	04/20/2014 01:09	1	YF041920.D	RTX-VRX 0.45(mm)
240-36320-7	MSA-MW-51S-041614	04/20/2014 01:47	1	YF041921.D	RTX-VRX 0.45(mm)
ZZZZZ		04/20/2014 02:25	1		RTX-VRX 0.45(mm)
CCV 240-127165/23		04/20/2014 03:03	1	YF041923.D	RTX-VRX 0.45(mm)

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCVRT 240-127165/4 Calibration Date: 04/19/2014 14:54

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041904.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	190894		809	800	1.2	15.0
C6-C12	Ave	208879	216046		827	800	3.4	15.0
Trifluorotoluene (Surr)	Ave	211200	172485		8.17	10.0	-18.3*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCVRT 240-127165/4 Calibration Date: 04/19/2014 14:54

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041904.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	5.02	18.94
C6-C12	13.50	5.02	21.98
Trifluorotoluene (Surr)	9.80	9.55	10.05

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-127165/15 Calibration Date: 04/19/2014 21:56

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041915.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	184832		784	800	-2.0	15.0
C6-C12	Ave	208879	224714		861	800	7.6	15.0
Trifluorotoluene (Surr)	Ave	211200	166632		7.89	10.0	-21.1*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-127165/15 Calibration Date: 04/19/2014 21:56

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041915.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	5.02	18.94
C6-C12	13.50	5.02	21.98
Trifluorotoluene (Surr)	9.79	9.55	10.05

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-127165/23 Calibration Date: 04/20/2014 03:03

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041923.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	177204		751	800	-6.1	15.0
C6-C12	Ave	208879	197903		758	800	-5.3	15.0
Trifluorotoluene (Surr)	Ave	211200	163655		7.75	10.0	-22.5*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-127165/23 Calibration Date: 04/20/2014 03:03

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF041923.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	5.02	18.94
C6-C12	13.50	5.02	21.98
Trifluorotoluene (Surr)	9.80	9.55	10.05

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: MB 240-127165/5

Matrix: Water Date Extracted: 04/19/2014 15:33

Lab File ID:(1) YF041905.D Lab File ID:(2)

Date Analyzed:(1) 04/19/2014 15:33 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-127165/6	04/19/2014 16:12	
MSA-DMW-11S-041414	240-36135-2	04/19/2014 17:28	
MSA-MW-50S-041414	240-36233-2	04/19/2014 22:34	
MSA-MW-4-041614	240-36320-5	04/20/2014 01:09	
MSA-MW-51S-041614	240-36320-7	04/20/2014 01:47	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-127165/5

Matrix: Water Lab File ID: YF041905.D

Analysis Method: 8015B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/19/2014 15:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127165 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	38.7	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	78		40-133

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF041906.D

Lab ID: LCS 240-127165/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	828	104	67-132	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1	#
MSA-DMW-11S-041414	240-36135-2	76	
MSA-MW-50S-041414	240-36233-2	33	X
MSA-MW-4-041614	240-36320-5	71	
MSA-MW-51S-041614	240-36320-7	80	
	MB 240-127165/5	78	
	LCS 240-127165/6	90	

	QC LIMITS
TFT = Trifluorotoluene (Surr)	40-133

Column to be used to flag recovery values

FORM II 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: STD4 240-124780/7 Date Analyzed: 04/01/2014 15:04

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF040107.D Heated Purge: (Y/N) N

Calibration ID: 21446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
INITIAL CALIBRATION SURROGATE				9.78		
UPPER LIMIT				9.88		
LOWER LIMIT				9.68		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD4 240-124780/7 ICRT		04/01/2014 15:04	YF040107.D	9.78		
ICV 240-124780/10		04/01/2014 17:01	YF040110.D	9.79		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: CCVRT 240-127165/4 Date Analyzed: 04/19/2014 14:54

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF041904.D Heated Purge: (Y/N) N

Calibration ID: 21446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
CONTINUING CALIBRATION SURROGATE				9.80		
UPPER LIMIT				9.90		
LOWER LIMIT				9.70		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-127165/4		04/19/2014 14:54	YF041904.D	9.80		
MB 240-127165/5		04/19/2014 15:33	YF041905.D	9.79		
LCS 240-127165/6		04/19/2014 16:12	YF041906.D	9.80		
240-36135-2	MSA-DMW-11S-041414	04/19/2014 17:28	YF041908.D	9.79		
CCV 240-127165/15		04/19/2014 21:56	YF041915.D	9.79		
240-36233-2	MSA-MW-50S-041414	04/19/2014 22:34	YF041916.D	9.79		
240-36320-5	MSA-MW-4-041614	04/20/2014 01:09	YF041920.D	9.79		
240-36320-7	MSA-MW-51S-041614	04/20/2014 01:47	YF041921.D	9.79		
CCV 240-127165/23		04/20/2014 03:03	YF041923.D	9.80		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

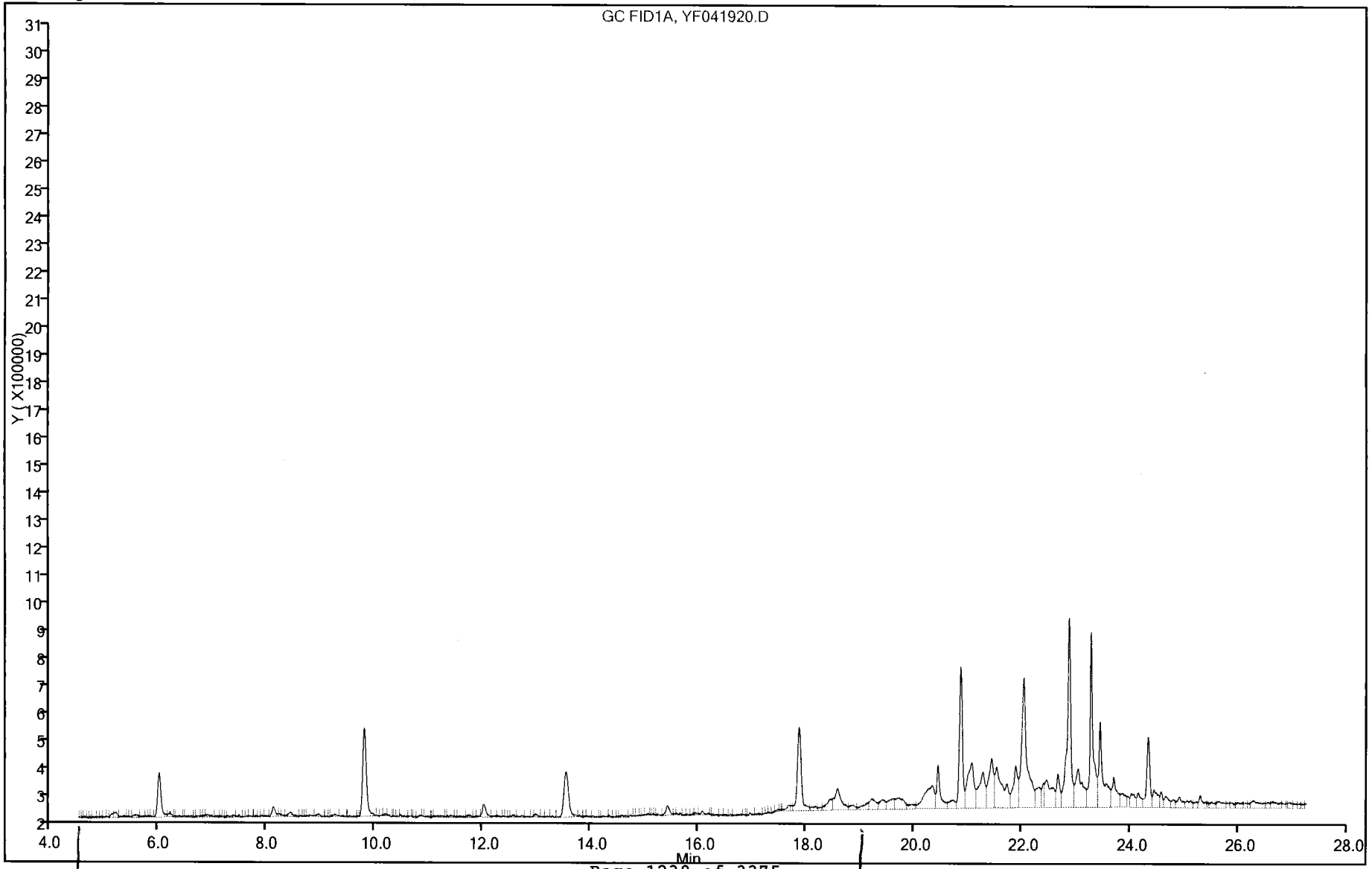
Report Date: 20-Apr-2014 20:07:43 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File: \\Ncchrom\ChromData\YPID\20140419-30164.b\YF041920.D

Injection Date:	20-Apr-2014 01:09:09	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	240-36320-D-5	Lab Sample ID:	240-36320-5	Worklist Smp#:	20
Client ID:	MSA-MW-4-041614				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value



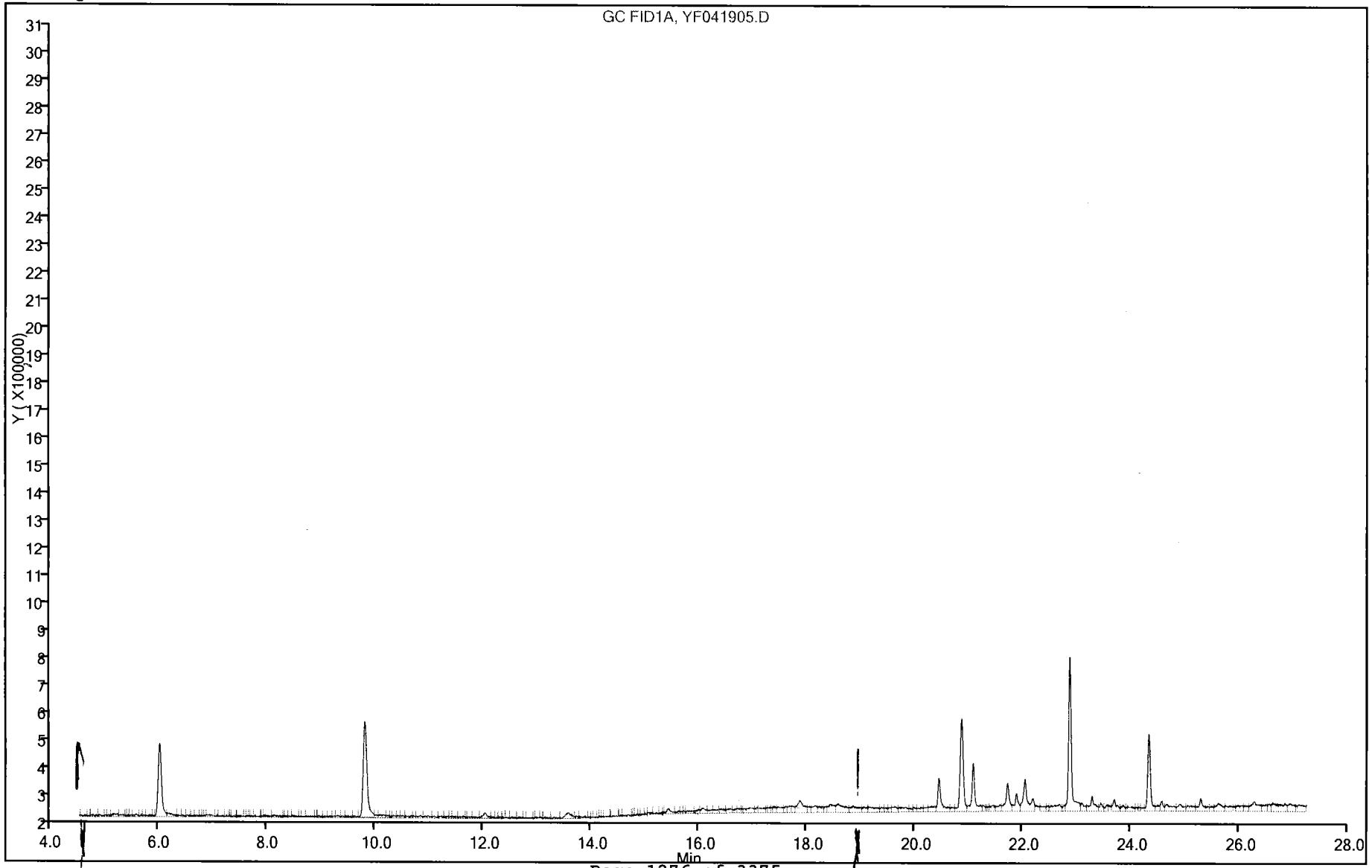
Report Date: 20-Apr-2014 20:07:33 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File: \\Ncchrom\ChromData\YPID\20140419-30164.b\YF041905.D

Injection Date:	19-Apr-2014 15:33:28	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	mb			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value



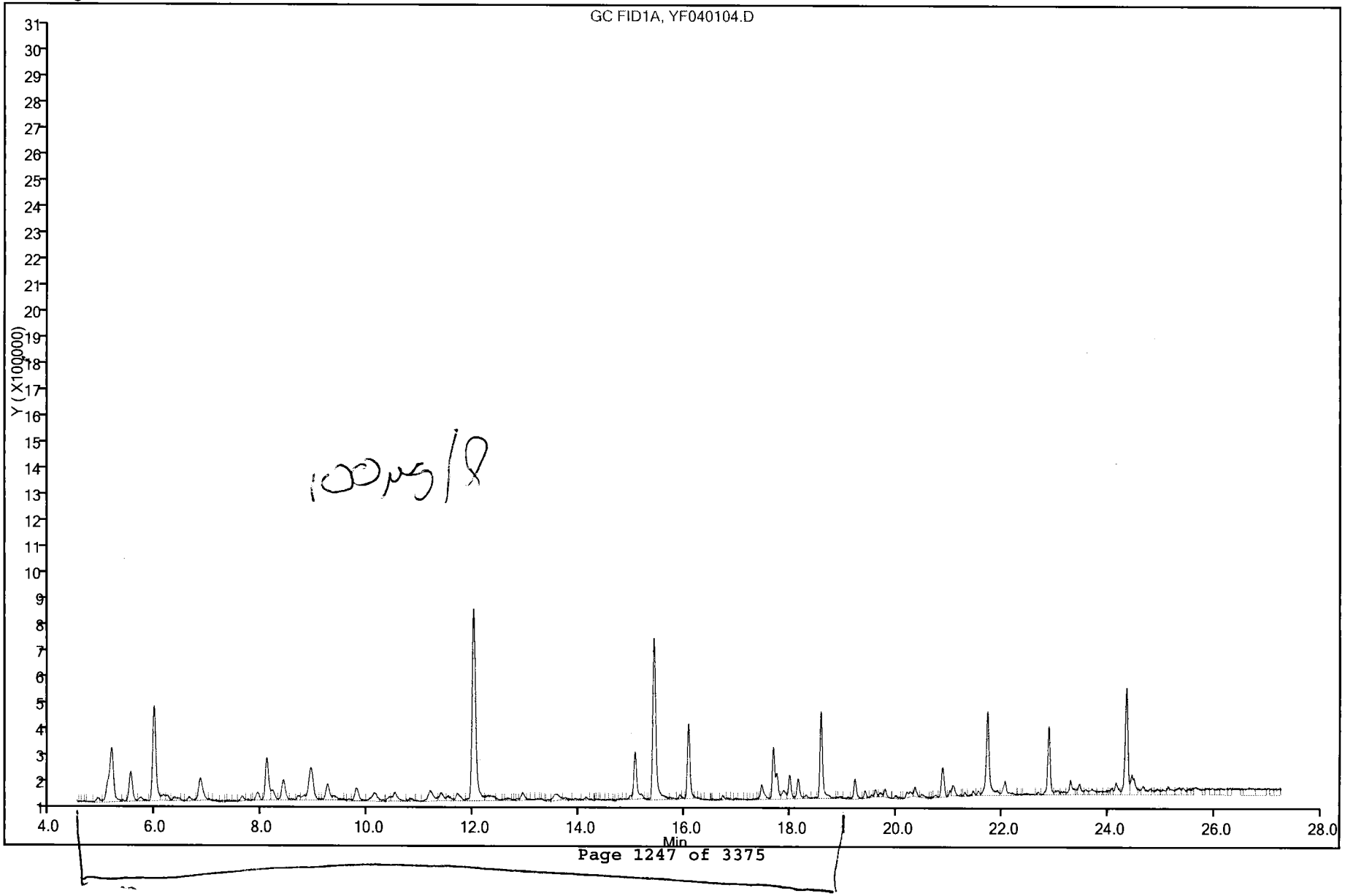
Report Date: 02-Apr-2014 06:46:09 Chrom Revision: 2.2 12-Mar-2014 11:19:24

TestAmerica Canton

Data File: \\Ncchrom\ChromData\YPID\20140401-29543.b\YF040104.D

Injection Date:	01-Apr-2014 13:08:08	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	STD1 GAS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value



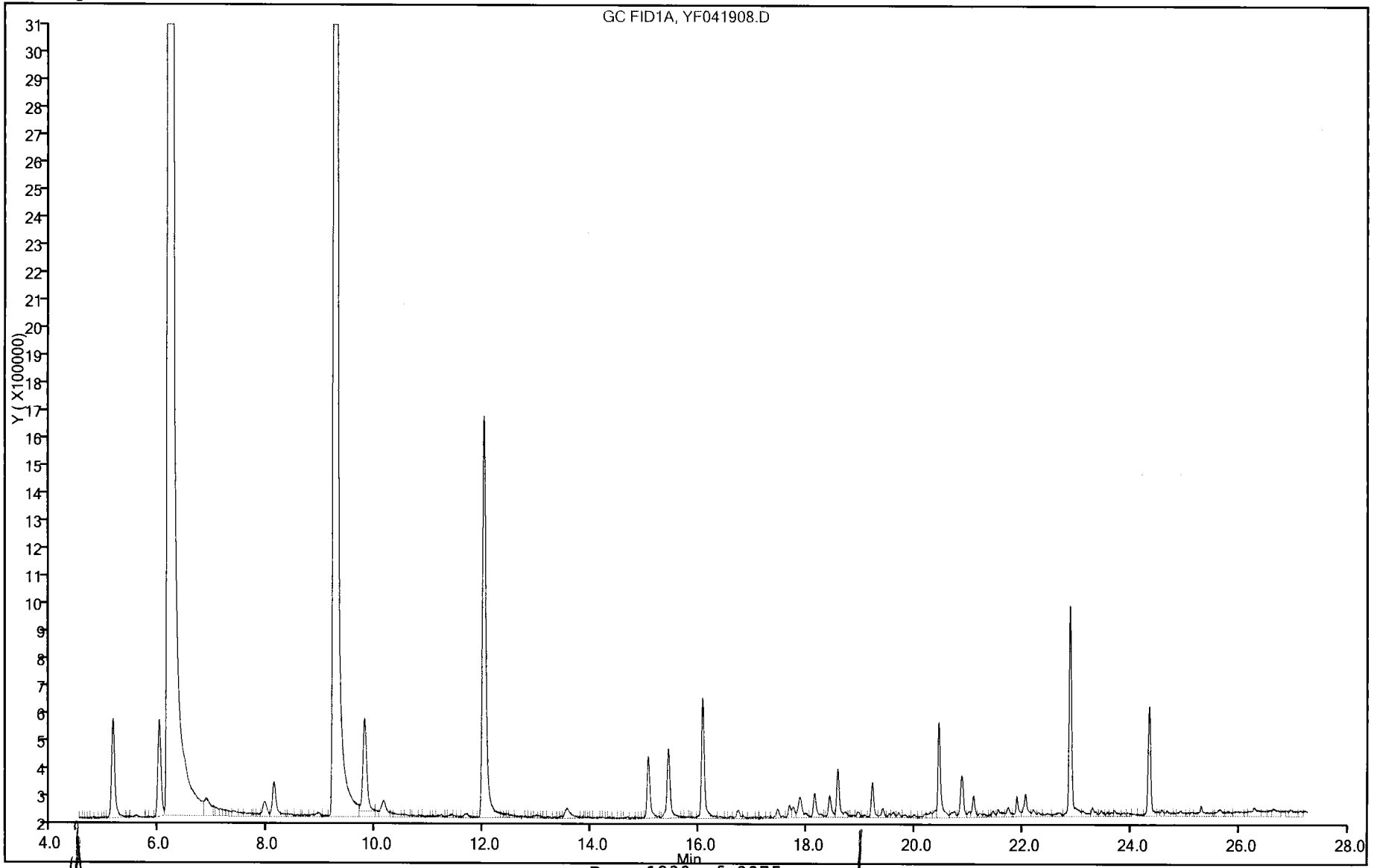
100ng/l

Report Date: 20-Apr-2014 20:07:36 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\YPID\20140419-30164.b\YF041908.D				
Injection Date:	19-Apr-2014 17:28:52	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	240-36135-G-2	Lab Sample ID:	240-36135-2	Worklist Smp#:	8
Client ID:	MSA-DMW-11S-041414				
Purge Vol:	5.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value



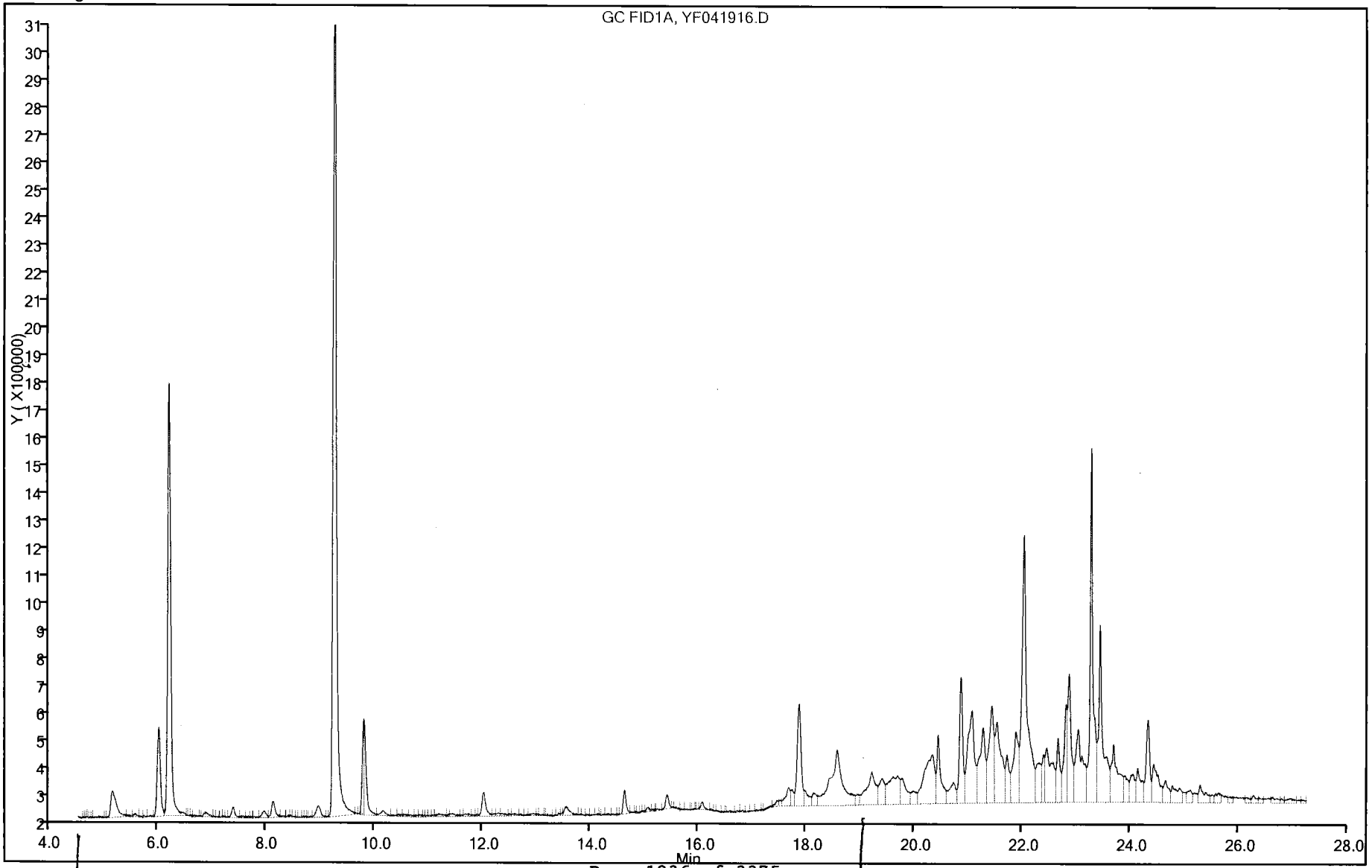
Report Date: 20-Apr-2014 20:07:41 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File: \\Ncchrom\ChromData\YPID\20140419-30164.b\YF041916.D

Injection Date:	19-Apr-2014 22:34:43	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	240-36233-D-2	Lab Sample ID:	240-36233-2	Worklist Smp#:	16
Client ID:	MSA-MW-50S-041414				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value



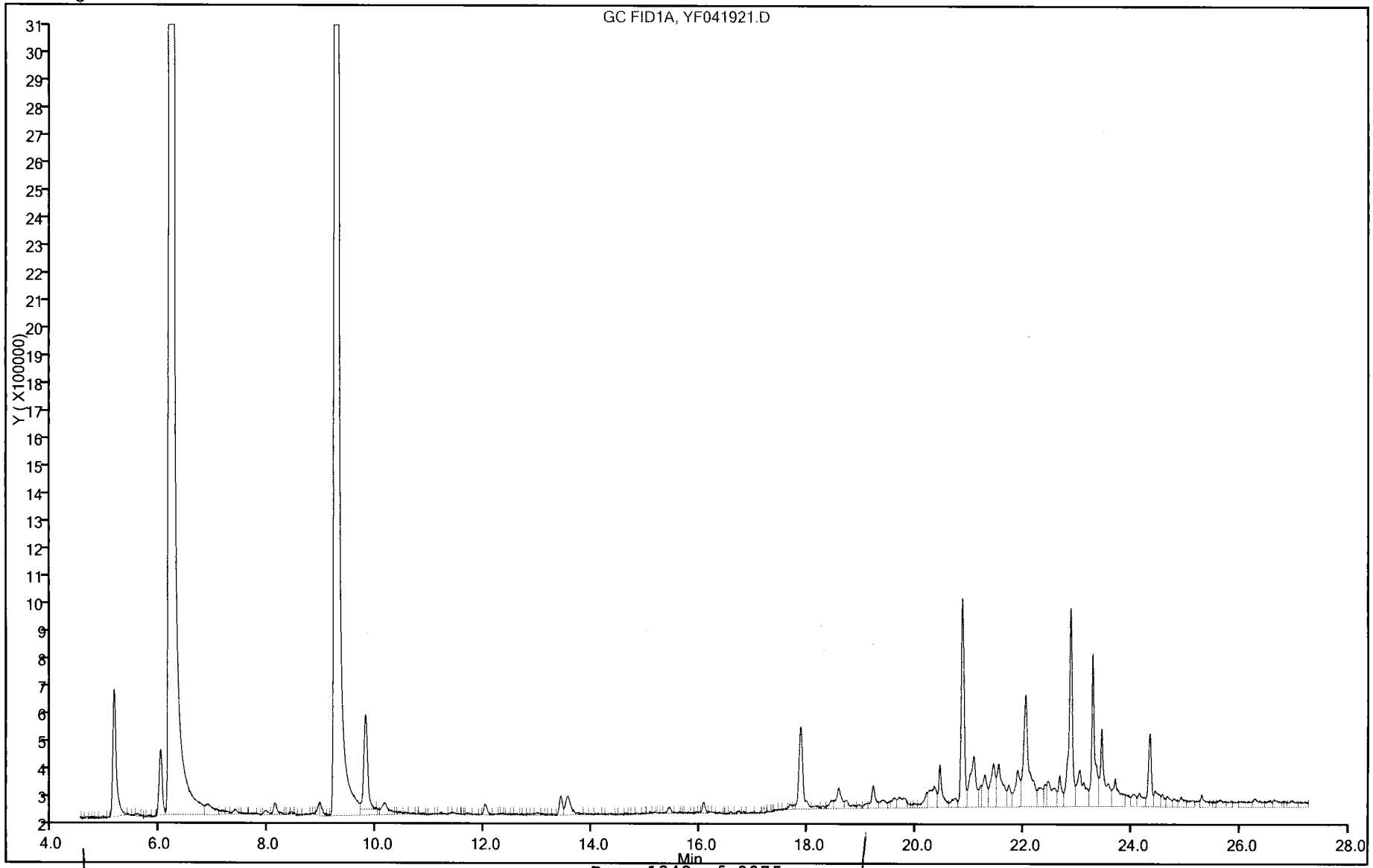
Report Date: 20-Apr-2014 20:07:44 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File: \\Ncchrom\ChromData\YPID\20140419-30164.b\YF041921.D

Injection Date:	20-Apr-2014 01:47:19	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	240-36320-D-7	Lab Sample ID:	240-36320-7	Worklist Smp#:	21
Client ID:	MSA-MW-51S-041614				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value



Method 8015B - DRO

Diesel Range Organics (DRO) (GC) by Method 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: A2HP14F Start Date: 11/25/2013 18:58

Analysis Batch Number: 111340 End Date: 11/25/2013 22:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-111340/8 IC		11/25/2013 18:58	1	P14F112508.D	RTX-5 0.53(mm)
STD2 240-111340/9 IC		11/25/2013 19:19	1	P14F112509.D	RTX-5 0.53(mm)
STD3 240-111340/10 ICRT		11/25/2013 19:40	1	P14F112510.D	RTX-5 0.53(mm)
STD4 240-111340/11 IC		11/25/2013 20:01	1	P14F112511.D	RTX-5 0.53(mm)
STD5 240-111340/12 IC		11/25/2013 20:22	1	P14F112512.D	RTX-5 0.53(mm)
ICV 240-111340/13		11/25/2013 20:42	1	P14F112513.D	RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:03	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:23	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:44	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 22:05	1		RTX-5 0.53(mm)
CCV 240-111340/18		11/25/2013 22:25	1		RTX-5 0.53(mm)

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	501990 429809	458731	454837	433618	Ave		455796.921				6.3		20.0			
o-Terphenyl (Surr)	553837 517394	508292	537146	516618	Ave		526657.319				3.5		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel Range Organics [C10 - C28]	5.856	5.856	5.856	5.856	5.856						2.980 - 8.732	5.856
o-Terphenyl (Surr)	6.202	6.199	6.197	6.200	6.209						6.102 - 6.302	6.201

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel Range Organics [C10 - C28]	Ave	10040851	18351136	45488439	86732601	171941310	20.0	40.0	100	200	400
o-Terphenyl (Surr)	Ave	886139	1626533	4297171	8265892	16556593	1.60	3.20	8.00	16.0	32.0

Curve Type Legend:
Ave = Average

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: A2HP14F Start Date: 04/17/2014 15:29

Analysis Batch Number: 126912 End Date: 04/17/2014 23:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-126912/7 CCVRT		04/17/2014 15:29	1	P14F041707.D	RTX-5 0.53(mm)
ZZZZZ		04/17/2014 15:50	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 16:11	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 16:31	1		RTX-5 0.53(mm)
CCV 240-126912/11		04/17/2014 16:52	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 17:13	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 17:34	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 17:54	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 18:15	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 18:36	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 18:57	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 19:18	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 19:38	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 19:59	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 20:20	1		RTX-5 0.53(mm)
CCV 240-126912/22		04/17/2014 20:40	1	P14F041722.D	RTX-5 0.53(mm)
ZZZZZ		04/17/2014 21:01	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 21:22	1		RTX-5 0.53(mm)
MB 240-126690/4-A		04/17/2014 21:42	1	P14F041725.D	RTX-5 0.53(mm)
LCS 240-126690/5-A		04/17/2014 22:03	1	P14F041726.D	RTX-5 0.53(mm)
240-36135-2	MSA-DMW-11S-041414	04/17/2014 22:24	1	P14F041727.D	RTX-5 0.53(mm)
ZZZZZ		04/17/2014 22:44	1		RTX-5 0.53(mm)
ZZZZZ		04/17/2014 23:05	1		RTX-5 0.53(mm)
CCV 240-126912/30		04/17/2014 23:26	1	P14F041730.D	RTX-5 0.53(mm)

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-126912/22 Calibration Date: 04/17/2014 20:40

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F041722.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	453819		99.6	100	-0.4	
o-Terphenyl (Surr)	Ave	526657	502.9		7640	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-126912/22 Calibration Date: 04/17/2014 20:40

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F041722.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.85	2.97	8.72
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-126912/30 Calibration Date: 04/17/2014 23:26

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F041730.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	494081		108	100	8.4	
o-Terphenyl (Surr)	Ave	526657	520.7		7910	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-126912/30 Calibration Date: 04/17/2014 23:26

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F041730.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.85	2.97	8.72
o-Terphenyl (Surr)	6.19	6.09	6.29

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: A2HP14F Start Date: 04/23/2014 14:07

Analysis Batch Number: 127592 End Date: 04/23/2014 16:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-127592/7 CCVRT		04/23/2014 14:07	1	P14F042307.D	RTX-5 0.53(mm)
MB 240-127200/5-A		04/23/2014 14:28	1	P14F042308.D	RTX-5 0.53(mm)
LCS 240-127200/6-A		04/23/2014 14:49	1	P14F042309.D	RTX-5 0.53(mm)
ZZZZZ		04/23/2014 15:10	1		RTX-5 0.53(mm)
240-36320-5	MSA-MW-4-041614	04/23/2014 15:30	1	P14F042311.D	RTX-5 0.53(mm)
240-36320-7	MSA-MW-51S-041614	04/23/2014 15:51	1	P14F042312.D	RTX-5 0.53(mm)
240-36233-2	MSA-MW-50S-041414	04/23/2014 16:12	1	P14F042313.D	RTX-5 0.53(mm)
CCV 240-127592/14		04/23/2014 16:33	1	P14F042314.D	RTX-5 0.53(mm)

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-127592/7 Calibration Date: 04/23/2014 14:07

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042307.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	472528		104	100	3.7	
o-Terphenyl (Surr)	Ave	526657	506.4		7690	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-127592/7 Calibration Date: 04/23/2014 14:07

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042307.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.84	2.96	8.72
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-127592/14 Calibration Date: 04/23/2014 16:33

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042314.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	450183		98.8	100	-1.2	
o-Terphenyl (Surr)	Ave	526657	491.8		7470	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-127592/14 Calibration Date: 04/23/2014 16:33

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042314.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.84	2.96	8.72
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: MB 240-126690/4-A

Matrix: Water Date Extracted: 04/16/2014 09:39

Lab File ID:(1) P14F041725.D Lab File ID:(2)

Date Analyzed:(1) 04/17/2014 21:42 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-126690/5-A	04/17/2014 22:03	
MSA-DMW-11S-041414	240-36135-2	04/17/2014 22:24	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-126690/4-A

Matrix: Water | Lab File ID: P14F041725.D

Analysis Method: 8015B | Date Collected:

Extraction Method: 3510C | Date Extracted: 04/16/2014 09:39

Sample wt/vol: 250(mL) | Date Analyzed: 04/17/2014 21:42

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 126912 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	85		40-160

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P14F041726.D

Lab ID: LCS 240-126690/5-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1710	86	40-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: MB 240-127200/5-A

Matrix: Water Date Extracted: 04/21/2014 07:48

Lab File ID:(1) P14F042308.D Lab File ID:(2)

Date Analyzed:(1) 04/23/2014 14:28 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-127200/6-A	04/23/2014 14:49	
MSA-MW-4-041614	240-36320-5	04/23/2014 15:30	
MSA-MW-51S-041614	240-36320-7	04/23/2014 15:51	
MSA-MW-50S-041414	240-36233-2	04/23/2014 16:12	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127200/5-A

Matrix: Water | Lab File ID: P14F042308.D

Analysis Method: 8015B | Date Collected:

Extraction Method: 3510C | Date Extracted: 04/21/2014 07:48

Sample wt/vol: 250(mL) | Date Analyzed: 04/23/2014 14:28

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127592 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	75		40-160

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P14F042309.D

Lab ID: LCS 240-127200/6-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1500	75	40-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM II

DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	OTPH1 #
MSA-DMW-11S-041414	240-36135-2	74
MSA-MW-50S-041414	240-36233-2	76
MSA-MW-4-041614	240-36320-5	73
MSA-MW-51S-041614	240-36320-7	75
	MB 240-126690/4-A	85
	MB 240-127200/5-A	75
	LCS 240-126690/5-A	82
	LCS 240-127200/6-A	83

	QC LIMITS
OTPH = o-Terphenyl (Surr)	40-160

Column to be used to flag recovery values

FORM II 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: CCV 240-126912/7 Date Analyzed: 04/17/2014 15:29

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P14F041707.D Heated Purge: (Y/N) N

Calibration ID: 19058

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				6.19		
UPPER LIMIT						
LOWER LIMIT						
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-126912/7 CCVRT		04/17/2014 15:29	P14F041707.D	6.19		
CCV 240-126912/22		04/17/2014 20:40	P14F041722.D	6.19		
MB 240-126690/4-A		04/17/2014 21:42	P14F041725.D	6.19		
LCS 240-126690/5-A		04/17/2014 22:03	P14F041726.D	6.19		
240-36135-2	MSA-DMW-11S-041414	04/17/2014 22:24	P14F041727.D	6.19		
CCV 240-126912/30		04/17/2014 23:26	P14F041730.D	6.19		

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: CCV 240-127592/7 Date Analyzed: 04/23/2014 14:07

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P14F042307.D Heated Purge: (Y/N) N

Calibration ID: 19058

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				6.19		
UPPER LIMIT						
LOWER LIMIT						
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-127592/7 CCVRT		04/23/2014 14:07	P14F042307.D	6.19		
MB 240-127200/5-A		04/23/2014 14:28	P14F042308.D	6.20		
LCS 240-127200/6-A		04/23/2014 14:49	P14F042309.D	6.19		
240-36320-5	MSA-MW-4-041614	04/23/2014 15:30	P14F042311.D	6.19		
240-36320-7	MSA-MW-51S-041614	04/23/2014 15:51	P14F042312.D	6.19		
240-36233-2	MSA-MW-50S-041414	04/23/2014 16:12	P14F042313.D	6.19		
CCV 240-127592/14		04/23/2014 16:33	P14F042314.D	6.19		

Column used to flag values outside QC limits

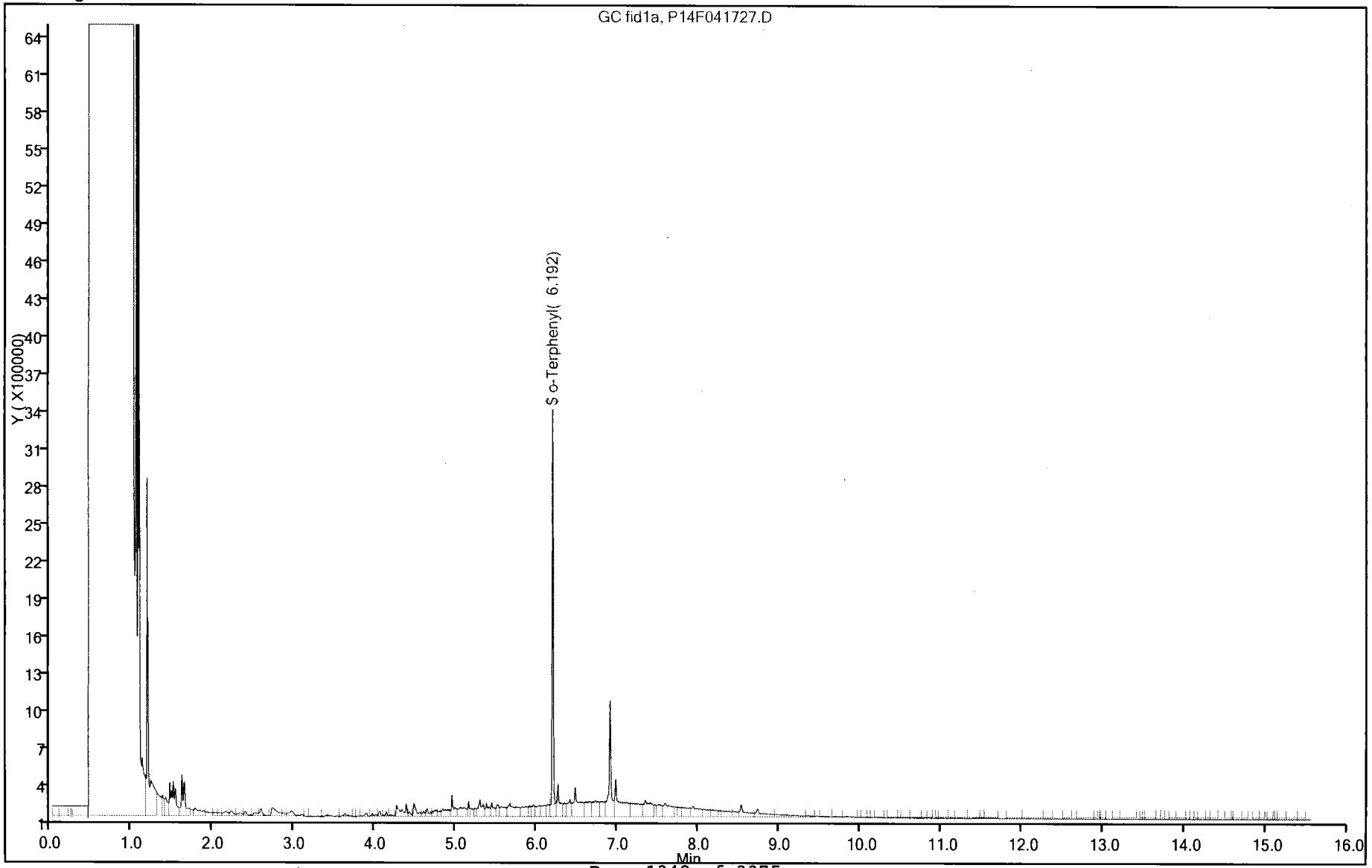
FORM VIII 8015B

Report Date: 18-Apr-2014 10:52:31 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\A2HP14F\20140417-30104.b\P14F041727.D				
Injection Date:	17-Apr-2014 22:24:21	Instrument ID:	A2HP14F	Operator ID:	402582
Lims ID:	240-36135-O-2-A	Lab Sample ID:	240-36135-2	Worklist Smp#:	27
Client ID:	MSA-DMW-11S-041414				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	TPH14F	Limit Group:	GC TPH DIESEL ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value

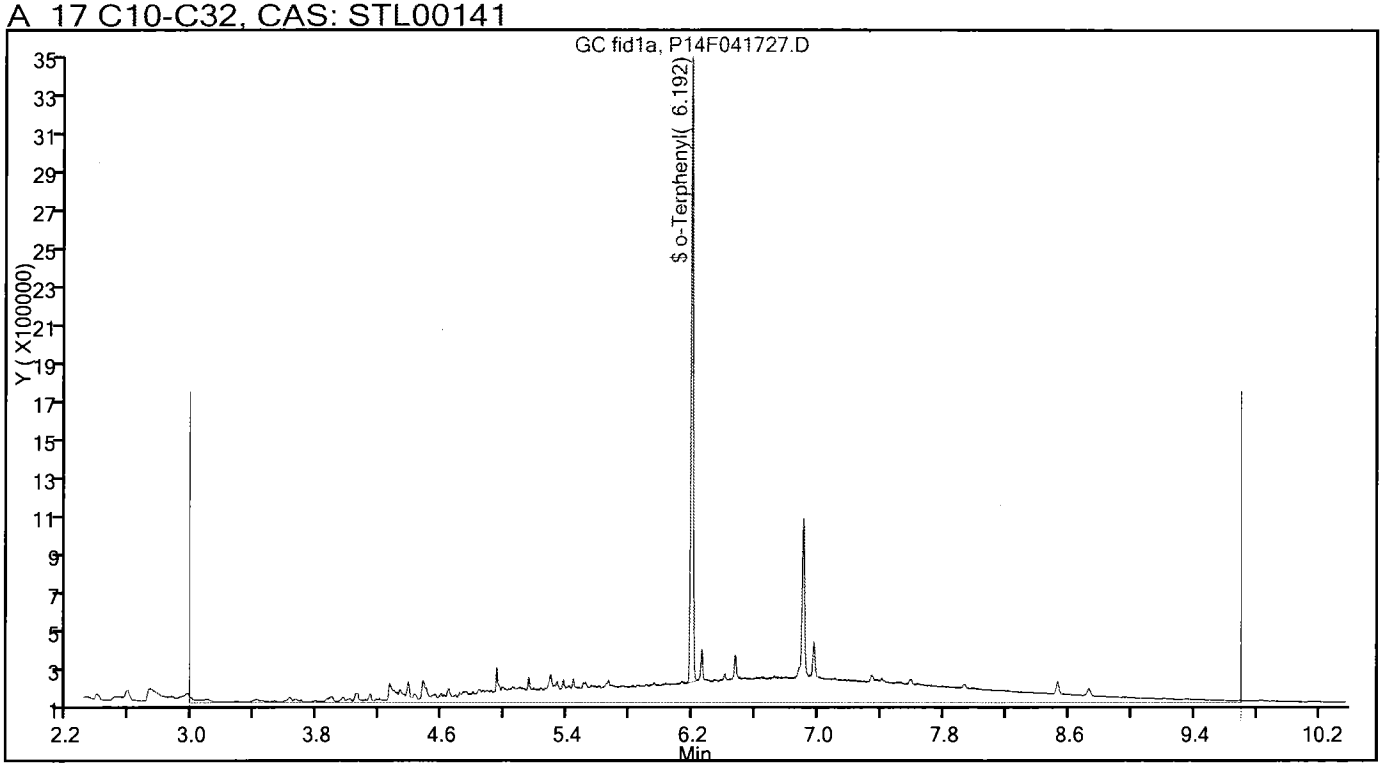


Report Date: 18-Apr-2014 10:52:31 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\A2HP14F\20140417-30104.b\P14F041727.D				
Injection Date:	17-Apr-2014 22:24:21	Instrument ID:	A2HP14F		
Lims ID:	240-36135-O-2-A	Lab Sample ID:	240-36135-2		
Client ID:	MSA-DMW-11S-041414				
Operator ID:	402582	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TPH14F	Limit Group:	GC TPH DIESEL ICAL		
Column:		Detector	GC FID1A		

A_17 C10-C32, CAS: STL00141

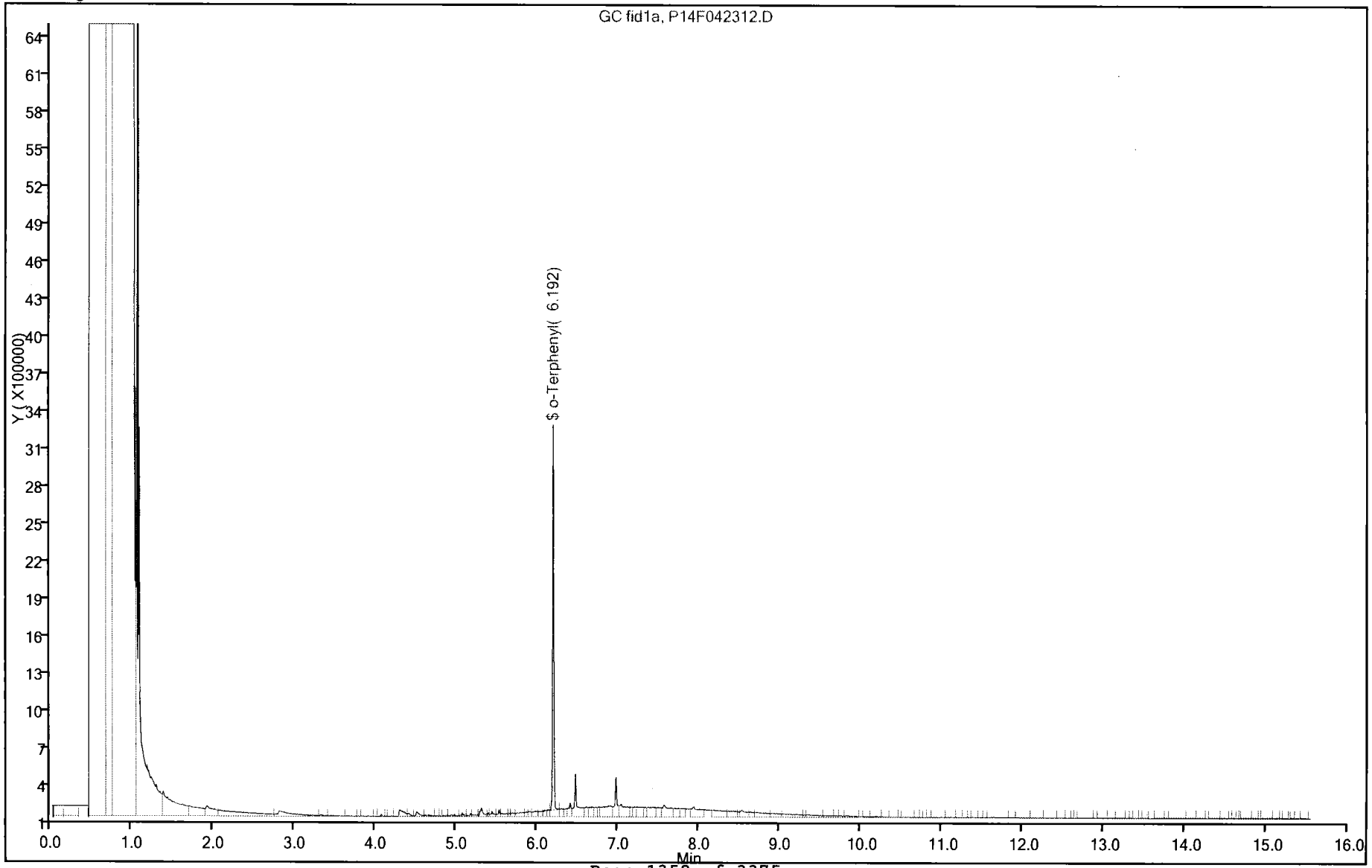


Report Date: 24-Apr-2014 11:08:08 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\A2HP14F\20140423-30273.b\P14F042312.D				
Injection Date:	23-Apr-2014 15:51:34	Instrument ID:	A2HP14F	Operator ID:	402582
Lims ID:	240-36320-K-7-A	Lab Sample ID:	240-36320-7	Worklist Smp#:	12
Client ID:	MSA-MW-51S-041614				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	TPH14F	Limit Group:	GC TPH DIESEL ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value

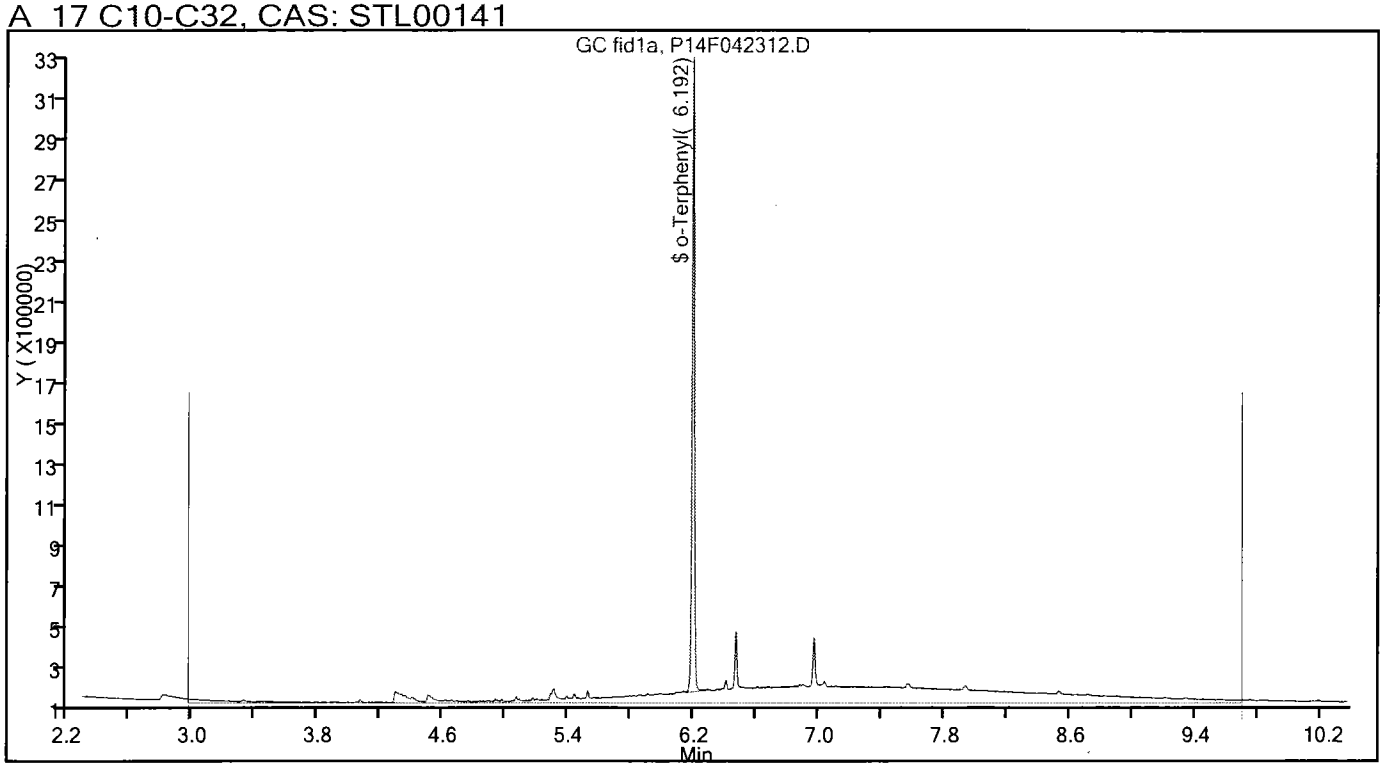


Report Date: 24-Apr-2014 11:08:08 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\A2HP14F\20140423-30273.b\P14F042312.D				
Injection Date:	23-Apr-2014 15:51:34	Instrument ID:	A2HP14F		
Lims ID:	240-36320-K-7-A	Lab Sample ID:	240-36320-7		
Client ID:	MSA-MW-51S-041614				
Operator ID:	402582	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TPH14F	Limit Group:	GC TPH DIESEL ICAL		
Column:		Detector	GC FID1A		

A_17 C10-C32, CAS: STL00141

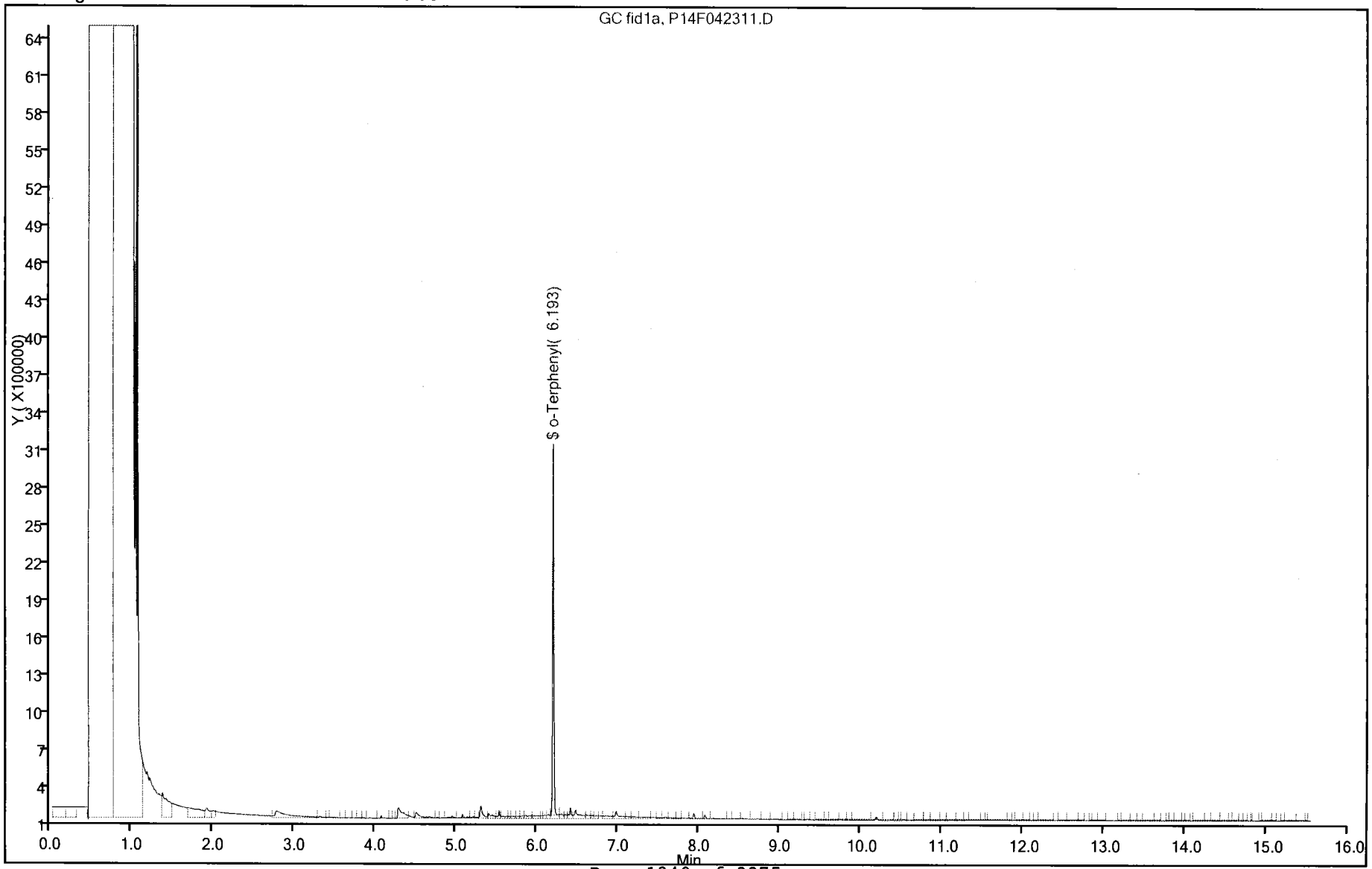


Report Date: 24-Apr-2014 11:08:07 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\A2HP14F\20140423-30273.b\P14F042311.D				
Injection Date:	23-Apr-2014 15:30:53	Instrument ID:	A2HP14F	Operator ID:	402582
Lims ID:	240-36320-F-5-A	Lab Sample ID:	240-36320-5	Worklist Smp#:	11
Client ID:	MSA-MW-4-041614				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	TPH14F	Limit Group:	GC TPH DIESEL ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value

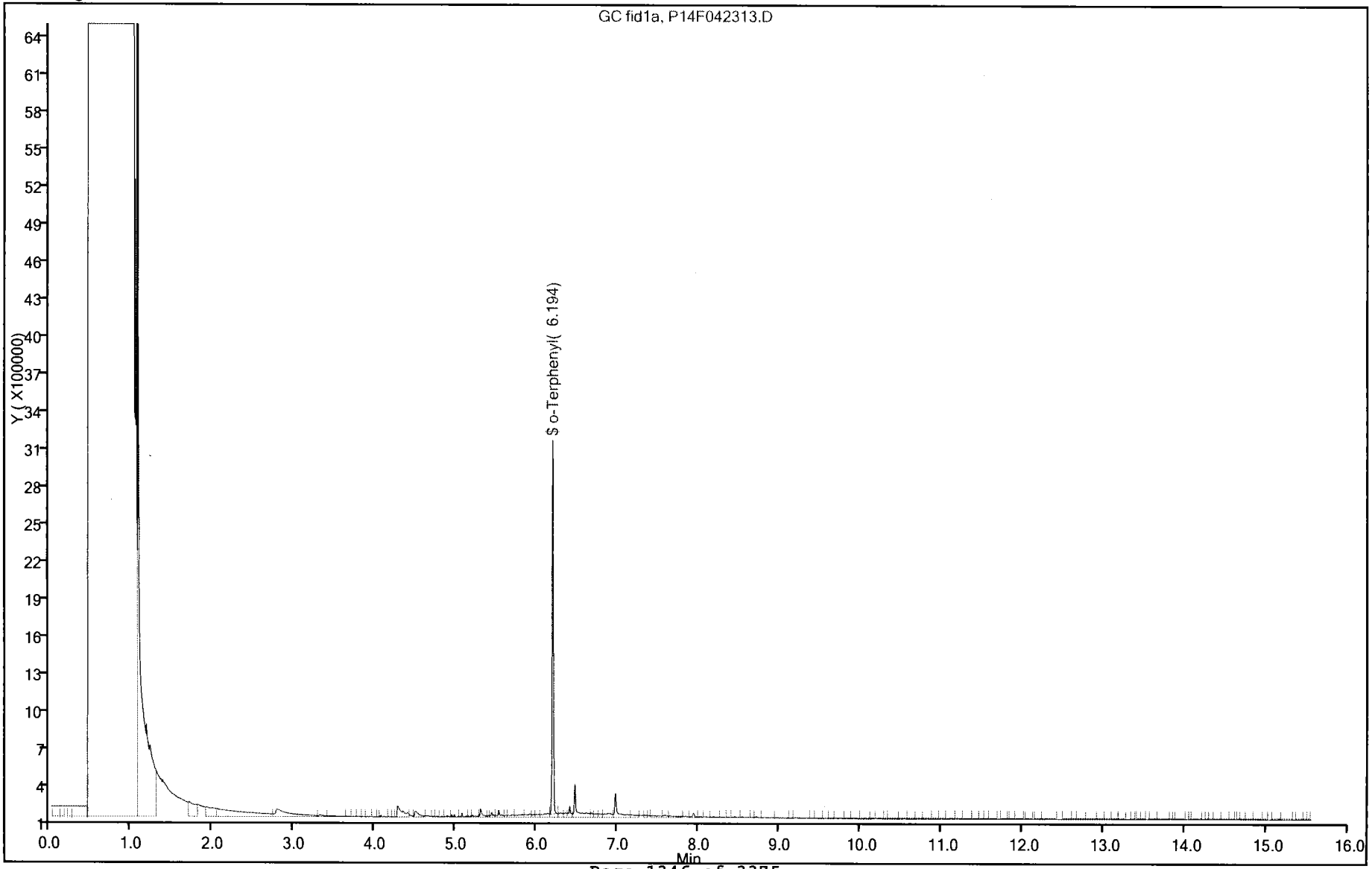


Report Date: 24-Apr-2014 11:08:09 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\A2HP14F\20140423-30273.b\P14F042313.D				
Injection Date:	23-Apr-2014 16:12:32	Instrument ID:	A2HP14F	Operator ID:	402582
Lims ID:	240-36233-I-2-A	Lab Sample ID:	240-36233-2	Worklist Smp#:	13
Client ID:	MSA-MW-50S-041414				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	TPH14F	Limit Group:	GC TPH DIESEL ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value



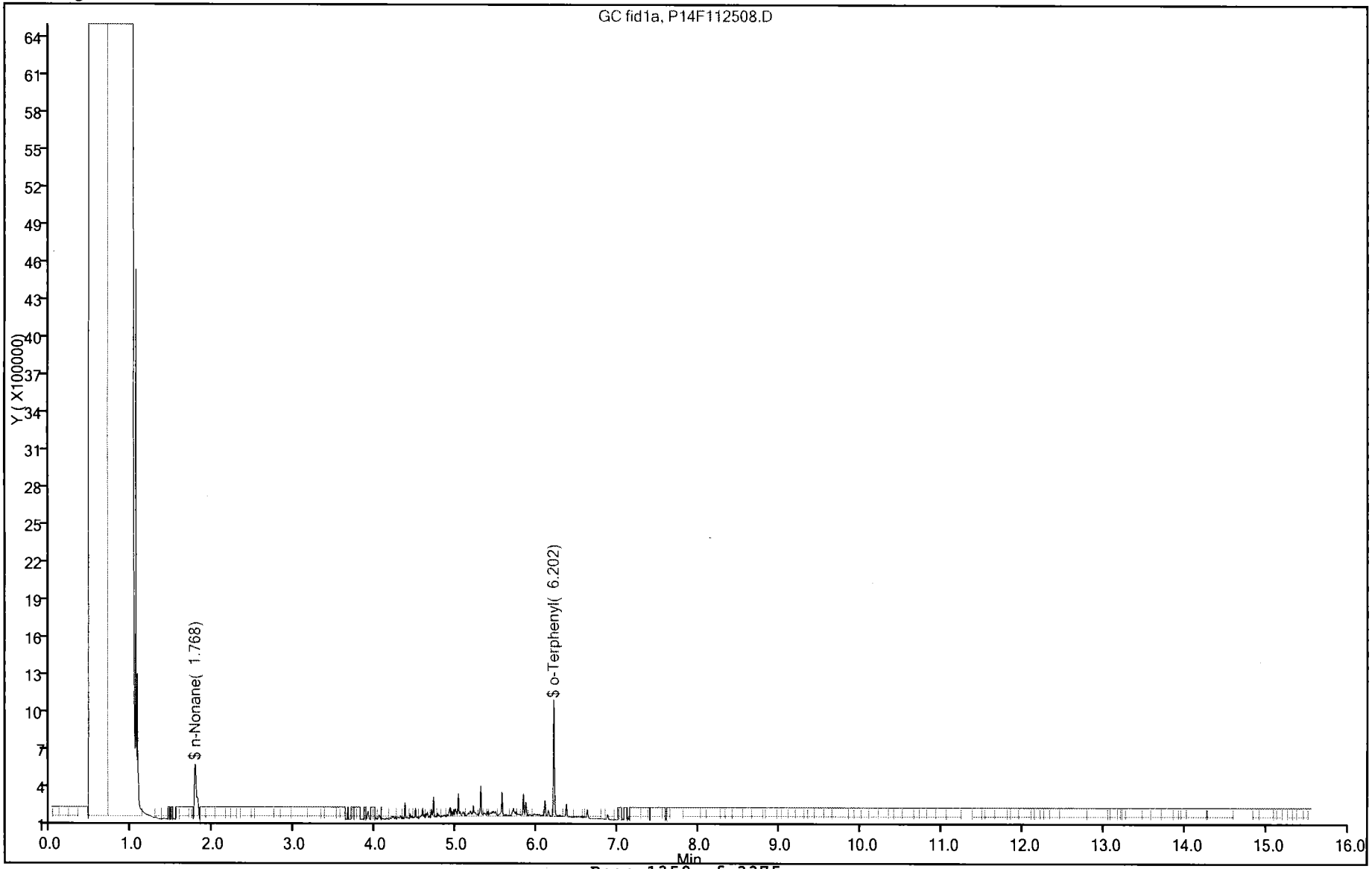
Report Date: 26-Nov-2013 17:19:02 Chrom Revision: 2.1 30-Oct-2013 08:26:58

TestAmerica Canton

Data File: \\Ncchrom\ChromData\A2HP14F\20131125-26063.b\P14F112508.D

Injection Date:	25-Nov-2013 18:58:55	Instrument ID:	A2HP14F	Operator ID:	402582
Lims ID:	STD1 TPH	Lab Sample ID:		Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	TPH14F	Limit Group:	GC TPH DIESEL ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value

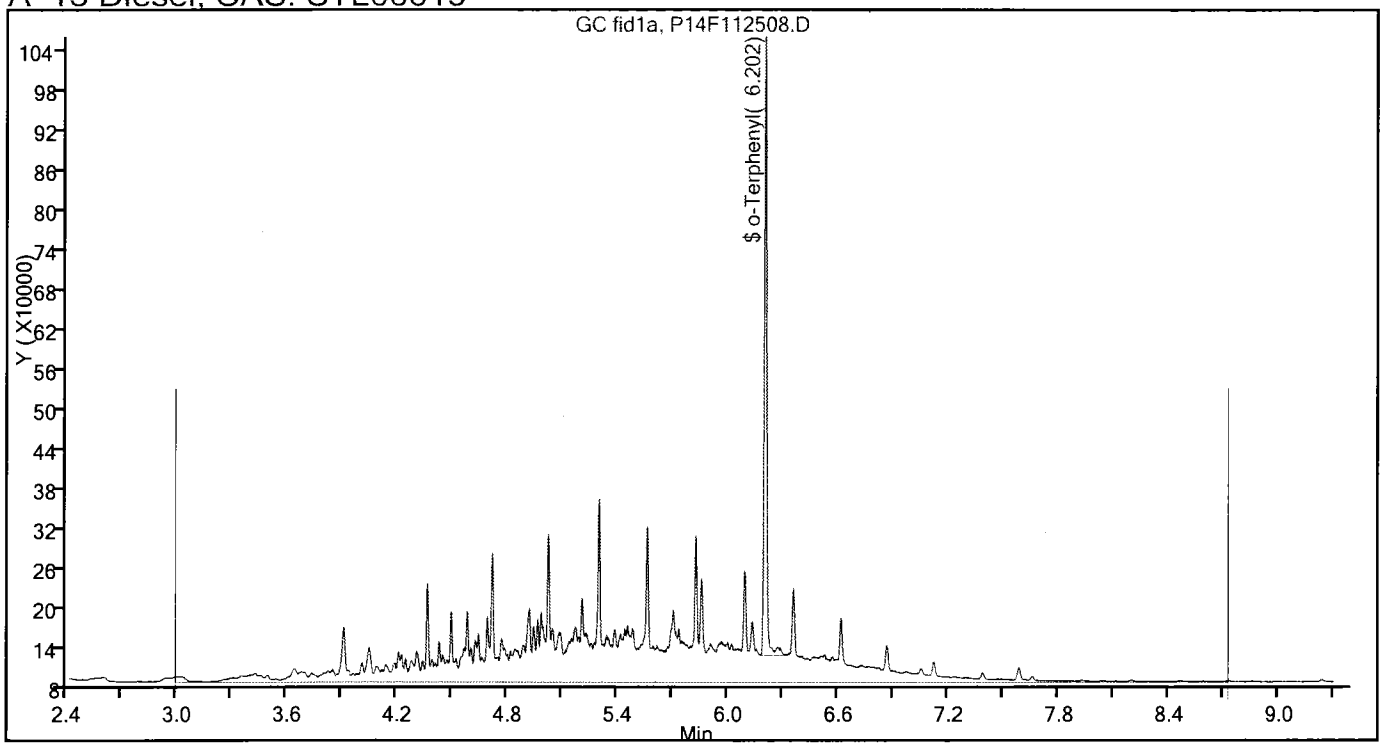


Report Date: 26-Nov-2013 17:19:02 Chrom Revision: 2.1 30-Oct-2013 08:26:58

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\A2HP14F\20131125-26063.b\P14F112508.D				
Injection Date:	25-Nov-2013 18:58:55	Instrument ID:	A2HP14F		
Lims ID:	STD1 TPH	Lab Sample ID:			
Client ID:					
Operator ID:	402582	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TPH14F	Limit Group:	GC TPH DIESEL ICAL		
Column:		Detector	GC FID1A		

A_15 Diesel, CAS: STL00019



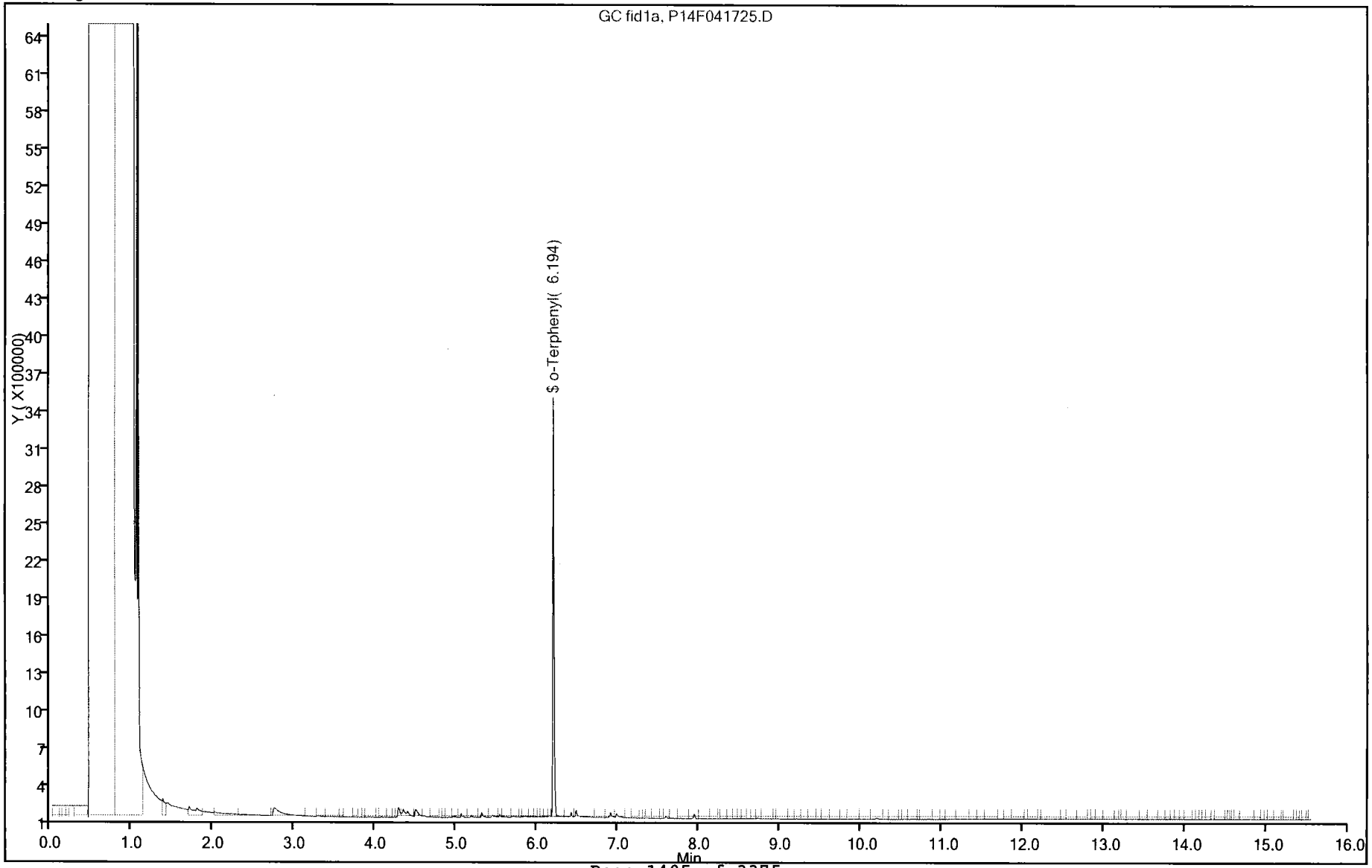
Report Date: 18-Apr-2014 10:52:29 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File: \\Ncchrom\ChromData\A2HP14F\20140417-30104.b\P14F041725.D

Injection Date:	17-Apr-2014 21:42:52	Instrument ID:	A2HP14F	Operator ID:	402582
Lims ID:	MB 240-126690/4-A			Worklist Smp#:	25
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	TPH14F	Limit Group:	GC TPH DIESEL ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value



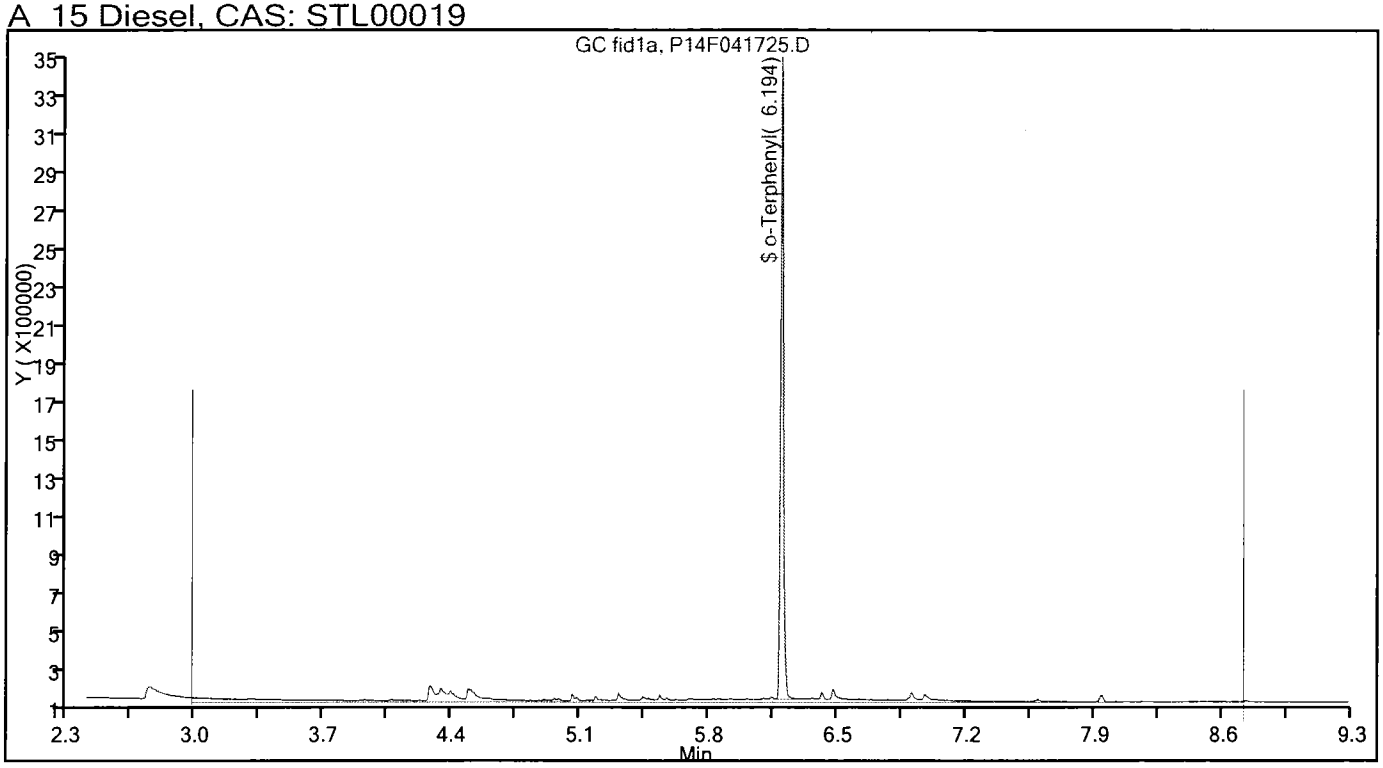
Report Date: 18-Apr-2014 10:52:29 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File: \\Ncchrom\ChromData\A2HP14F\20140417-30104.b\P14F041725.D

Injection Date:	17-Apr-2014 21:42:52	Instrument ID:	A2HP14F		
Lims ID:	MB 240-126690/4-A				
Client ID:					
Operator ID:	402582	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TPH14F	Limit Group:	GC TPH DIESEL ICAL		
Column:		Detector	GC FID1A		

A_15 Diesel, CAS: STL00019



Method RSK-175

Dissolved Gases (GC) by Method RSK_175

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: ZPID Start Date: 03/17/2014 16:56

Analysis Batch Number: 122842 End Date: 03/17/2014 18:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-122842/3 IC		03/17/2014 16:56	1	Z0031703.D	
STD2 240-122842/4 IC		03/17/2014 17:08	1	Z0031704.D	
STD3 240-122842/5 IC		03/17/2014 17:21	1	Z0031705.D	
STD4 240-122842/6 IC		03/17/2014 17:33	1	Z0031706.D	
STD5 240-122842/7 IC		03/17/2014 17:45	1	Z0031707.D	
STD6 240-122842/8 ICRT		03/17/2014 17:57	1	Z0031708.D	
STD7 240-122842/9 IC		03/17/2014 18:09	1	Z0031709.D	
STD8 240-122842/10 IC		03/17/2014 18:22	1	Z0031710.D	
STD9 240-122842/11 IC		03/17/2014 18:34	1	Z0031711.D	
ICV 240-122842/12		03/17/2014 18:46	1	Z0031712.D	

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 122842

SDG No.:

Instrument ID: ZPID GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/17/2014 16:56 Calibration End Date: 03/17/2014 18:34 Calibration ID: 21168

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-122842/3	Z0031703.D
Level 2	STD2 240-122842/4	Z0031704.D
Level 3	STD3 240-122842/5	Z0031705.D
Level 4	STD4 240-122842/6	Z0031706.D
Level 5	STD5 240-122842/7	Z0031707.D
Level 6	STD6 240-122842/8	Z0031708.D
Level 7	STD8 240-122842/10	Z0031710.D
Level 8	STD7 240-122842/9	Z0031709.D
Level 9	STD9 240-122842/11	Z0031711.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Methane	140266 94273 95615	119991 96410	97680 76535	94339 90154	Ave		100584.625				18.0		30.0			
Ethene	74343 86774 85235	93331 89047	86325 76130	85914 82605	Ave		84411.4212				7.1		30.0			
Acetylene	14277 25400 27066	18994 25975	17915 25275	18719 24776	Ave		22044.2149				21.0		30.0			
Ethane	80140 95545 96236	101495 99453	95171 86844	95069 92052	Ave		93556.1842				7.0		30.0			
Propene	71790 84470 83091	92092 87426	83287 77980	83697 80870	Ave		82744.8531				6.9		30.0			
Propane	82094 98646 100490	103594 104028	97118 94621	97735 96241	Ave		97173.9876				6.7		30.0			
Propane, 2-methyl	92340 101656 103910	102100 107783	100758 99843	102648 99492	Ave		101169.978				4.1		30.0			
1,1,1-Trifluoroethane	45999 37705	41372 37435	38181	36615 34143	Ave		38778.5929				9.9		30.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 122842

SDG No.:

Instrument ID: ZPID GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/17/2014 16:56 Calibration End Date: 03/17/2014 18:34 Calibration ID: 21168

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-122842/3	Z0031703.D
Level 2	STD2 240-122842/4	Z0031704.D
Level 3	STD3 240-122842/5	Z0031705.D
Level 4	STD4 240-122842/6	Z0031706.D
Level 5	STD5 240-122842/7	Z0031707.D
Level 6	STD6 240-122842/8	Z0031708.D
Level 7	STD8 240-122842/10	Z0031710.D
Level 8	STD7 240-122842/9	Z0031709.D
Level 9	STD9 240-122842/11	Z0031711.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
Methane	0.910	0.910	0.910	0.910	0.910	0.910	0.909	0.907	0.907		0.860 - 0.960	0.909
Ethene	1.413	1.410	1.410	1.410	1.410	1.410	1.405	1.407	1.397		1.360 - 1.460	1.408
Acetylene	1.503	1.503	1.500	1.500	1.500	1.500	1.499	1.497	1.494		1.450 - 1.550	1.500
Ethane	1.687	1.687	1.687	1.687	1.683	1.684	1.675	1.680	1.660		1.484 - 1.884	1.681
Propene	3.590	3.590	3.590	3.590	3.587	3.580	3.549	3.567	3.517		3.530 - 3.630	3.573
Propane	3.783	3.783	3.783	3.780	3.777	3.774	3.739	3.757	3.707		3.724 - 3.824	3.765
Propane, 2-methyl	5.420	5.420	5.420	5.417	5.413	5.407	5.362	5.390	5.324		5.307 - 5.507	5.397
1,1,1-Trifluoroethane	2.730	2.727	2.723	2.710	2.693	2.680		2.674			2.580 - 2.780	2.705

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-36135-1 Analy Batch No.: 122842

SDG No.:

Instrument ID: ZPID GC Column: ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/17/2014 16:56 Calibration End Date: 03/17/2014 18:34 Calibration ID: 21168

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-122842/3	Z0031703.D
Level 2	STD2 240-122842/4	Z0031704.D
Level 3	STD3 240-122842/5	Z0031705.D
Level 4	STD4 240-122842/6	Z0031706.D
Level 5	STD5 240-122842/7	Z0031707.D
Level 6	STD6 240-122842/8	Z0031708.D
Level 7	STD8 240-122842/10	Z0031710.D
Level 8	STD7 240-122842/9	Z0031709.D
Level 9	STD9 240-122842/11	Z0031711.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Methane	Ave	35182 11157475	115756 59048956	376929 31300270	1092114 147538837	3636709	0.251 116	0.965 772	3.86 347	11.6 1543	38.6
Ethene	Ave	32746 18099589	158113 103159980	584980 50370565	1746571 230996369	5879194	0.440 203	1.69 1355	6.78 610	20.3 2710	67.8
Acetylene	Ave	5819 4884920	29776 31689393	112340 13978522	352133 67869804	1592312	0.408 188	1.57 1254	6.27 564	18.8 2508	62.7
Ethane	Ave	37812 21653831	184184 126056907	690830 60127398	2070274 279378029	6934308	0.472 218	1.81 1452	7.26 653	21.8 2903	72.6
Propene	Ave	47377 26624305	233751 158318654	845611 73883074	2549327 337388038	8574715	0.660 305	2.54 2030	10.2 914	30.5 4060	102
Propane	Ave	56751 33185573	275437 201230778	1032874 92104169	3118306 427426552	10489583	0.691 319	2.66 2127	10.6 957	31.9 4253	106
Propane, 2-methyl	Ave	84100 45297400	357652 279735599	1411792 125438402	4314848 582261536	14240874	0.911 420	3.50 2802	14.0 1261	42.0 5604	140
1,1,1-Trifluoroethane	Ave	3027880 341196118	10474259	38665655 414917057	111238103	229104248	65.8 9114	253	1013 12152	3038	6076

Curve Type Legend:
Ave = Average

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Instrument ID: ZPID Start Date: 04/25/2014 10:02

Analysis Batch Number: 127844 End Date: 04/25/2014 12:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-127844/3		04/25/2014 10:02	1	Z0042503.D	
MB 240-127844/4		04/25/2014 10:15	1	Z0042504.D	
LCS 240-127844/5		04/25/2014 10:27	1	Z0042505.D	
ZZZZZ		04/25/2014 10:39	1		
ZZZZZ		04/25/2014 10:51	3		
ZZZZZ		04/25/2014 11:03	3		
ZZZZZ		04/25/2014 11:16	3		
240-36135-2	MSA-DMW-11S-041414	04/25/2014 11:28	1	Z0042510.D	
ZZZZZ		04/25/2014 11:40	1		
ZZZZZ		04/25/2014 11:52	1		
ZZZZZ		04/25/2014 12:05	1		
CCV 240-127844/14		04/25/2014 12:17	1	Z0042514.D	
ZZZZZ		04/25/2014 12:29	1		
CCV 240-127844/16		04/25/2014 12:41	1		

RSK-175

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCVRT 240-127844/3 Calibration Date: 04/25/2014 10:02

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0042503.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	100585	108247		125	116	7.6	30.0
Ethene	Ave	84411	101687		245	203	20.5	30.0
Acetylene	Ave	22044	30744		262	188	39.5*	30.0
Ethane	Ave	93556	109296		254	218	16.8	30.0
Propene	Ave	82745	98940		364	305	19.6	30.0
Propane	Ave	97174	112797		370	319	16.1	30.0
Propane, 2-methyl	Ave	101170	115233		479	420	13.9	30.0
1,1,1-Trifluoroethane	Ave	38779	44852		2820	2440	15.7	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCVRT 240-127844/3 Calibration Date: 04/25/2014 10:02

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0042503.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	0.91	0.86	0.96
Ethene	1.41	1.36	1.46
Acetylene	1.50	1.45	1.55
Ethane	1.69	1.49	1.89
Propene	3.59	3.54	3.64
Propane	3.78	3.73	3.83
Propane, 2-methyl	5.41	5.31	5.51
1,1,1-Trifluoroethane	2.71	2.61	2.81

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-127844/14 Calibration Date: 04/25/2014 12:17

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0042514.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	100585	105078		121	116	4.5	30.0
Ethene	Ave	84411	93664		226	203	11.0	30.0
Acetylene	Ave	22044	27365		233	188	24.1	30.0
Ethane	Ave	93556	105498		246	218	12.8	30.0
Propene	Ave	82745	90292		332	305	9.1	30.0
Propane	Ave	97174	109784		360	319	13.0	30.0
Propane, 2-methyl	Ave	101170	113317		471	420	12.0	30.0
1,1,1-Trifluoroethane	Ave	38779	39732		2500	2440	2.5	30.0

FORM VII

GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCV 240-127844/14 Calibration Date: 04/25/2014 12:17

Instrument ID: ZPID Calib Start Date: 03/17/2014 16:56

GC Column: ID: Calib End Date: 03/17/2014 18:34

Lab File ID: Z0042514.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	0.91	0.86	0.96
Ethene	1.41	1.36	1.46
Acetylene	1.50	1.45	1.55
Ethane	1.69	1.49	1.89
Propene	3.59	3.54	3.64
Propane	3.78	3.73	3.83
Propane, 2-methyl	5.41	5.31	5.51
1,1,1-Trifluoroethane	2.72	2.62	2.82

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: MB 240-127844/4

Matrix: Water Date Extracted:

Lab File ID:(1) Z0042504.D Lab File ID:(2)

Date Analyzed:(1) 04/25/2014 10:15 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) ID: GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-127844/5	04/25/2014 10:27	
MSA-DMW-11S-041414	240-36135-2	04/25/2014 11:28	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127844/4

Matrix: Water | Lab File ID: Z0042504.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 17(mL) | Date Analyzed: 04/25/2014 10:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ID:

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127844 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.0822	J	0.10	0.070
74-84-0	Ethane	0.19	U	0.26	0.19
74-85-1	Ethene	0.18	U	0.31	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	115		66-132

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z0042505.D

Lab ID: LCS 240-127844/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methane	116	128	110	76-120	
Ethane	218	249	114	80-120	
Ethene	203	240	118	81-120	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): ID:

Client Sample ID	Lab Sample ID	TFE1 #
MSA-DMW-11S-041414	240-36135-2	100
	MB 240-127844/4	115
	LCS 240-127844/5	112

	QC LIMITS
TFE = 1,1,1-Trifluoroethane	66-132

Column to be used to flag recovery values

FORM II RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: STD6 240-122842/8 Date Analyzed: 03/17/2014 17:57

Instrument ID: ZPID GC Column: ID: ()

Lab File ID (Standard): Z0031708.D Heated Purge: (Y/N) N

Calibration ID: 21168

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE RT #		
INITIAL CALIBRATION SURROGATE				2.68		
UPPER LIMIT				2.73		
LOWER LIMIT				2.63		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD6 240-122842/8 ICRT		03/17/2014 17:57	Z0031708.D	2.68		
ICV 240-122842/12		03/17/2014 18:46	Z0031712.D	2.71		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Sample No.: CCVRT 240-127844/3 Date Analyzed: 04/25/2014 10:02

Instrument ID: ZPID GC Column: ID: ()

Lab File ID (Standard): Z0042503.D Heated Purge: (Y/N) N

Calibration ID: 21168

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE RT #		
CONTINUING CALIBRATION SURROGATE				2.71		
UPPER LIMIT				2.76		
LOWER LIMIT				2.66		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-127844/3		04/25/2014 10:02	Z0042503.D	2.71		
MB 240-127844/4		04/25/2014 10:15	Z0042504.D	2.71		
LCS 240-127844/5		04/25/2014 10:27	Z0042505.D	2.71		
240-36135-2	MSA-DMW-11S-041414	04/25/2014 11:28	Z0042510.D	2.71		
CCV 240-127844/14		04/25/2014 12:17	Z0042514.D	2.72		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

VOC CALCULATION

	SAMPLE MSA-DMW-11S-041414		
TARGET ANALYTE	**trichloroethene**		
ANALYTE RESPONSE	187713		
INTERNAL STANDARD	fluorobenzene		
I.S. RESPONSE	1028324		
I.S. CONCENTRATION	10	µg/l	
ANALYTE CAL. RF	0.2479		
DILUTION FACTOR (DF)	416.67		
INITIAL SAMPLE VOLUME - V1	5	ml	
FINAL SAMPLE VOLUME - V2	5	ml	

$$\frac{\text{(ANALYTE RESPONSE) x (I.S. CONCENTRATION) X DF x V2}}{\text{(I.S. RESPONSE) x (CAL. R.F.) x V1}} = \textbf{3068.17}\ \textbf{µg/l}$$

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-DMW-11S-041414 | Lab Sample ID: 240-36135-2

Matrix: Water | Lab File ID: UXX9886.D

Analysis Method: 8260C | Date Collected: 04/14/2014 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 15:29

Soil Aliquot Vol: | Dilution Factor: 416.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	120	U	420	120
67-66-3	Chloroform	67	U	420	67
74-87-3	Chloromethane	130	U	420	130
156-59-2	cis-1,2-Dichloroethene	11000		420	71
10061-01-5	cis-1,3-Dichloropropene	58	U	420	58
74-95-3	Dibromomethane	120	U	420	120
74-97-5	Bromochloromethane	120	U	420	120
75-71-8	Dichlorodifluoromethane	130	U	420	130
75-27-4	Bromodichloromethane	63	U	420	63
75-65-0	tert-Butyl alcohol	1600	U	21000	1600
100-41-4	Ethylbenzene	71	U	420	71
87-68-3	Hexachlorobutadiene	130	U	420	130
108-20-3	Diisopropyl ether	630	U	4200	630
98-82-8	Isopropylbenzene	54	U	420	54
1634-04-4	Methyl tert-butyl ether	71	U	420	71
75-09-2	Methylene Chloride	140	U	420	140
179601-23-1	m-Xylene & p-Xylene	100	U	830	100
91-20-3	Naphthalene	100	U	420	100
104-51-8	n-Butylbenzene	50	U	420	50
103-65-1	N-Propylbenzene	58	U	420	58
95-47-6	o-Xylene	58	U	420	58
135-98-8	sec-Butylbenzene	54	U	420	54
100-42-5	Styrene	46	U	420	46
994-05-8	Tert-amyl methyl ether	28	U	2100	28
637-92-3	Ethyl tert-butyl ether	46	U	2100	46
127-18-4	Tetrachloroethene	120	U	420	120
108-88-3	Toluene	100	J	420	54
156-60-5	trans-1,2-Dichloroethene	79	U	420	79
10061-02-6	trans-1,3-Dichloropropene	79	U	420	79
79-01-6	Trichloroethene	3100		420	71
75-69-4	Trichlorofluoromethane	88	U	420	88
108-05-4	Vinyl acetate	79	U	830	79
75-01-4	Vinyl chloride	4900		420	92
1330-20-7	Xylenes, Total	58	U	830	58
98-06-6	tert-Butylbenzene	54	U	420	54
106-93-4	1,2-Dibromoethane	100	U	420	100

Report Date: 23-Apr-2014 07:59:48 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\NCChrom\ChromData\A3UX10\20140422-30228.b\UXX9886.D
Lims ID: 240-36135-D-2 Lab Sample ID: 240-36135-2
Client ID: MSA-DMW-11S-041414
Sample Type: Client
Inject. Date: 22-Apr-2014 15:29:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 416.6700
Sample Info: 240-0030228-012
Operator ID: 1904 Instrument ID: A3UX10

Method: \\NCChrom\ChromData\A3UX10\20140422-30228.b\8260_10.m
Limit Group: MSV 8260DOD ICAL
Last Update: 23-Apr-2014 07:54:45 Calib Date: 21-Mar-2014 01:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\NCChrom\ChromData\A3UX10\20140320-29202.b\UXX9007.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: quayler Date: 23-Apr-2014 07:41:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.544	5.545	-0.001	99	1028324	10.0	
* 2 Chlorobenzene-d5	117	8.230	8.231	-0.001	86	636308	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.466	10.468	-0.002	97	334328	10.0	
$ 4 Dibromofluoromethane (Surr	113	4.976	4.974	0.002	54	237190	11.1	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.271	5.270	0.001	0	312526	12.4	
$ 6 Toluene-d8 (Surr)	98	6.916	6.914	0.002	83	892710	11.8	
$ 7 4-Bromofluorobenzene (Surr	95	9.342	9.340	0.002	85	306430	10.6	
9 Dichlorodifluoromethane	85		1.590					
10 Chloromethane	50		1.744					
11 Vinyl chloride	62	1.864	1.862	0.002	99	344718	11.8	
13 Bromomethane	94		2.181					
14 Chloroethane	64		2.276					
16 Trichlorofluoromethane	101		2.536					
19 1,1-Dichloroethene	96	3.011	3.010	0.001	52	6493	0.2903	
20 1,1,2-Trichloro-1,2,2-trif	151		3.021					
21 Acetone	43		3.069					
24 Carbon disulfide	76		3.211					
28 Methylene Chloride	84		3.459					
29 2-Methyl-2-propanol	59		3.566					
32 Methyl tert-butyl ether	73		3.684					
30 trans-1,2-Dichloroethene	96	3.698	3.696	0.002	54	4228	0.1660	
34 1,1-Dichloroethane	63		4.063					
35 Vinyl acetate	43		4.098					
36 Isopropyl ether	87		4.113					
38 Tert-butyl ethyl ether	59		4.421					
39 2,2-Dichloropropane	77		4.560					
40 cis-1,2-Dichloroethene	96	4.573	4.572	0.001	67	726513	26.9	
41 2-Butanone (MEK)	43		4.583					
45 Chlorobromomethane	128		4.773					
47 Chloroform	83		4.832					
48 1,1,1-Trichloroethane	97		4.998					
50 1,1-Dichloropropene	75		5.128					

Report Date: 23-Apr-2014 07:59:48 Chrom Revision: 2.2 14-Apr-2014 13:40:08
Data File: \\NCChrom\ChromData\A3UX10\20140422-30228.b\UXX9886.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
51 Carbon tetrachloride	117		5.128					
53 Benzene	78		5.317					
54 1,2-Dichloroethane	62		5.329					
55 Tert-amyl methyl ether	73		5.391					
58 Trichloroethene	130	5.851	5.850	0.001	91	187713	7.36	
61 1,2-Dichloropropane	63		6.062					
63 Dibromomethane	93		6.169					
65 Dichlorobromomethane	83		6.287					
67 2-Chloroethyl vinyl ether	63		6.536					
68 cis-1,3-Dichloropropene	75		6.678					
69 4-Methyl-2-pentanone (MIBK	43		6.808					
70 Toluene	91	6.975	6.974	0.001	64	21940	0.2444	
71 trans-1,3-Dichloropropene	75		7.163					
74 Tetrachloroethene	164		7.459					
75 1,3-Dichloropropane	76		7.494					
76 2-Hexanone	43		7.553					
78 Chlorodibromomethane	129		7.707					
80 Ethylene Dibromide	107		7.814					
82 Chlorobenzene	112		8.263					
83 1,1,1,2-Tetrachloroethane	131		8.334					
84 Ethylbenzene	106		8.346					
85 m-Xylene & p-Xylene	106		8.453					
86 o-Xylene	106		8.843					
87 Styrene	104		8.855					
88 Bromoform	173		9.044					
89 Isopropylbenzene	105		9.186					
92 1,1,2,2-Tetrachloroethane	83		9.482					
93 Bromobenzene	156		9.494					
94 1,2,3-Trichloropropane	110		9.530					
96 N-Propylbenzene	120		9.589					
97 2-Chlorotoluene	126		9.672					
99 4-Chlorotoluene	126		9.778					
100 tert-Butylbenzene	119		10.074					
102 1,2,4-Trimethylbenzene	105		10.121					
103 sec-Butylbenzene	105		10.287					
104 1,3-Dichlorobenzene	146		10.405					
105 4-Isopropyltoluene	119		10.429					
106 1,4-Dichlorobenzene	146		10.488					
107 1,2,3-Trimethylbenzene	105		10.538					
109 n-Butylbenzene	91		10.831					
110 1,2-Dichlorobenzene	146		10.867					
111 1,2-Dibromo-3-Chloropropan	157		11.648					
113 1,2,4-Trichlorobenzene	180		12.464					
114 Hexachlorobutadiene	225		12.630					
115 Naphthalene	128		12.724					
116 1,2,3-Trichlorobenzene	180		12.973					
S 130 Xylenes, Total	106		16.530					
T 127 Chlorodifluoromethane TIC	51		1.592					

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: CCVIS 240-127413/2 Calibration Date: 04/22/2014 11:32

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9876.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2420	0.2774	0.1000	0.310	0.0100	14.6	20.0
Chloromethane	Ave	0.2908	0.2932	0.1000	0.300	0.0100	0.8	20.0
Vinyl chloride	Ave	0.2848	0.3102	0.1000	0.220	0.0100	8.9	20.0
Bromomethane	Lin1		0.1478	0.0500	0.410	0.0100	27.8*	20.0
Chloroethane	Ave	0.1577	0.1628	0.0500	0.290	0.0100	3.2	20.0
Dichlorofluoromethane	Ave	0.3248	0.3620		0.420	0.0100	11.4	20.0
Trichlorofluoromethane	Ave	0.2807	0.2452	0.1000	0.210	0.0100	-12.7	20.0
Ethyl ether	Ave	0.1703	0.1758		0.310	0.0100	3.2	20.0
Acrolein	Ave	0.0258	0.0226		2.20	0.0500	-12.7	20.0
1,1-Dichloroethene	Ave	0.2175	0.2133	0.1000	0.190	0.0100	-2.0	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1841	0.1705	0.0500	0.280	0.0100	-7.4	20.0
Acetone	Ave	0.0587	0.0630	0.0500	1.10	0.0200	7.2	20.0
Iodomethane	Ave	0.3583	0.2716		0.180	0.0100	-24.2*	20.0
Carbon disulfide	Ave	0.7045	0.6489	0.1000	0.130	0.0100	-7.9	20.0
3-Chloro-1-propene	Ave	0.1510	0.1388		0.350	0.0100	-8.1	20.0
Methyl acetate	Ave	0.1374	0.1383	0.1000	0.380	0.0500	0.6	20.0
Methylene Chloride	Lin1		0.2331	0.1000	0.330	0.0100	-4.5	20.0
tert-Butyl alcohol	Lin1		0.0145		3.90	0.100	-16.6	20.0
Acrylonitrile	Ave	0.0683	0.0681		2.00	0.100	-0.4	20.0
Methyl tert-butyl ether	Ave	0.6796	0.5960	0.1000	0.170	0.0100	-12.3	20.0
trans-1,2-Dichloroethene	Ave	0.2478	0.2234	0.1000	0.190	0.0100	-9.8	20.0
Hexane	Ave	0.0592	0.0549		0.260	0.0100	-7.3	20.0
1,1-Dichloroethane	Ave	0.4104	0.3983	0.1000	0.150	0.0100	-2.9	20.0
Vinyl acetate	Ave	0.2581	0.2138		0.190	0.00960	-17.2	20.0
2,2-Dichloropropane	Ave	0.3310	0.2440		0.130	0.0100	-26.3*	20.0
cis-1,2-Dichloroethene	Ave	0.2631	0.2392	0.1000	0.170	0.0100	-9.1	20.0
2-Butanone (MEK)	Ave	0.0729	0.0770	0.0500	0.570	0.0200	5.6	20.0
Bromochloromethane	Ave	0.1208	0.1082		0.290	0.0100	-10.5	20.0
Tetrahydrofuran	Ave	0.0549	0.0468		0.420	0.0200	-14.7	20.0
Chloroform	Ave	0.3979	0.3910	0.2000	0.160	0.0100	-1.7	20.0
1,1,1-Trichloroethane	Ave	0.3613	0.3180	0.1000	0.220	0.0100	-12.0	20.0
Cyclohexane	Ave	0.3887	0.3429	0.1000	0.120	0.0100	-11.8	20.0
1,1-Dichloropropene	Ave	0.3001	0.2818		0.130	0.0100	-6.1	20.0
Carbon tetrachloride	Ave	0.3117	0.2552	0.1000	0.130	0.0100	-18.1	20.0
Isobutyl alcohol	Lin1		0.0082		8.20	0.250	2.1	20.0
Benzene	Ave	0.9438	0.9660	0.5000	0.130	0.0100	2.4	20.0
1,2-Dichloroethane	Ave	0.2960	0.3006	0.1000	0.220	0.0100	1.5	20.0
n-Heptane	Ave	0.0517	0.0489		0.180	0.0100	-5.4	20.0
Trichloroethene	Ave	0.2479	0.2159	0.2000	0.170	0.0100	-12.9	20.0
Methylcyclohexane	Ave	0.3823	0.3510	0.1000	0.130	0.0100	-8.2	20.0

SVOC CALCULATION LIQUIDS

	SAMPLE MSA-MW-48I-041414		
TARGET ANALYTE	1,4-dioxane		
ANALYTE RESPONSE	394008		
INTERNAL STANDARD	1,4-dichlorobenzene-d4		
I.S. RESPONSE	181050		
I.S. CONCENTRATION	400	ng/ml	
ANALYTE CAL. RELATIVE RESPONSE FACTOR (RRF)	0.6148		
VOLUME OF FINAL EXTRACT - V2	5	ml	
VOLUME OF INITIAL EXTRACT - V1	250	ml	
DILUTION FACTOR (DF)	5		
CONVERSION FACTOR - CF	1		

$$\frac{\text{(ANALYTE RESPONSE) X (I.S. CONCENTRATION) X DF X V2}}{\text{(I.S. RESPONSE) X (CAL. RRF) X (V1) X CF}} = 141.5900 \text{ ng/ml or ug/l}$$

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36135-1

SDG No.:

Client Sample ID: MSA-MW-48I-041414 | Lab Sample ID: 240-36233-6

Matrix: Water | Lab File ID: 0422005.D

Analysis Method: 8270C | Date Collected: 04/14/2014 08:55

Extract. Method: 3510C | Date Extracted: 04/18/2014 10:21

Sample wt/vol: 250(mL) | Date Analyzed: 04/22/2014 14:35

Con. Extract Vol.: 5(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup: (Y/N) N

Analysis Batch No.: 127443 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	140		5.0	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	64		29-110
367-12-4	2-Fluorophenol (Surr)	70		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	71		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	75		31-110
4165-62-2	Phenol-d5 (Surr)	61		10-110
1718-51-0	Terphenyl-d14 (Surr)	76		31-115

Report Date: 23-Apr-2014 06:28:46 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\A4AG2\20140422-30239.b\0422005.D
Lims ID: 240-36233-A-6-A Lab Sample ID: 240-36233-6
Client ID: MSA-MW-48I-041414
Sample Type: Client
Inject. Date: 22-Apr-2014 14:35:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 5.0000
Sample Info: 240-0030239-005
Misc. Info.: 240-36233-A-6-A =240-36233-A-6-A
Operator ID: Instrument ID: A4AG2

Method: \\Ncchrom\ChromData\A4AG2\20140422-30239.b\LVI AG2 8270.m
Limit Group: MSS 8270C ICAL
Last Update: 23-Apr-2014 06:28:40 Calib Date: 12-Apr-2014 15:22:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A4AG2\20140412-29946.b\0412010.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK003

First Level Reviewer: hulat Date: 23-Apr-2014 06:23:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.209	6.209	0.000	94	181050	400.0	
* 2 Naphthalene-d8	136	7.273	7.273	0.000	99	741876	400.0	
* 3 Acenaphthene-d10	164	8.755	8.755	0.000	92	409480	400.0	
* 4 Phenanthrene-d10	188	10.017	10.023	-0.006	97	674547	400.0	
* 5 Chrysene-d12	240	12.595	12.601	-0.006	97	583539	400.0	
* 6 Perylene-d12	264	14.681	14.687	-0.006	96	471621	400.0	
$ 7 2-Fluorophenol	112	5.096	5.097	-0.001	88	166264	278.6	
$ 8 Phenol-d5	99	5.867	5.867	0.000	98	171812	245.8	
$ 9 Nitrobenzene-d5	82	6.658	6.664	-0.006	87	211203	298.9	
$ 10 2-Fluorobiphenyl (Surr)	172	8.167	8.172	-0.005	99	332172	257.0	
$ 11 2,4,6-Tribromophenol	330	9.424	9.424	0.000	89	35043	284.8	
$ 12 Terphenyl-d14	244	11.386	11.392	-0.006	97	316081	304.3	
26 1,4-Dioxane	88	3.422	3.428	-0.006	89	394008	1416.0	

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36135-1

SDG No.:

Lab Sample ID: STD6 240-127443/2 Calibration Date: 04/22/2014 13:25

Instrument ID: A4AG2 Calib Start Date: 04/12/2014 12:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/12/2014 15:22

Lab File ID: 0422002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6148	0.6236		1.01	1.00	1.4	50.0
N-Nitrosodimethylamine	Lin1		0.8299		1.01	1.00	0.8	50.0
Pyridine	Ave	1.424	1.544		1.08	1.00	8.4	50.0
Benzaldehyde	Qua		0.7924		2.40	2.00	19.9	50.0
Phenol	Ave	1.590	1.792		1.13	1.00	12.7	20.0
Aniline	Ave	1.866	2.038		1.09	1.00	9.2	50.0
Bis(2-chloroethyl)ether	Ave	1.372	1.383		1.01	1.00	0.8	50.0
2-Chlorophenol	Ave	1.356	1.421		1.05	1.00	4.8	50.0
n-Decane	Ave	1.364	1.279		0.937	1.00	-6.3	50.0
1,3-Dichlorobenzene	Ave	1.527	1.490		0.976	1.00	-2.4	50.0
1,4-Dichlorobenzene	Ave	1.535	1.506		0.981	1.00	-1.9	20.0
Benzyl alcohol	Lin		0.7671		0.923	1.00	-7.7	50.0
1,2-Dichlorobenzene	Ave	1.510	1.417		0.938	1.00	-6.2	50.0
2-Methylphenol	Ave	1.201	1.245		1.04	1.00	3.7	50.0
bis (2-chloroisopropyl) ether	Ave	1.376	1.356		0.985	1.00	-1.5	50.0
Indene	Ave	2.447	2.476		2.02	2.00	1.2	50.0
3 & 4 Methylphenol	Ave	1.199	1.291		1.08	1.00	7.7	50.0
N-Nitrosodi-n-propylamine	Ave	0.9749	1.038	0.0500	1.06	1.00	6.5	50.0
Acetophenone	Ave	1.851	1.941		1.05	1.00	4.9	50.0
Hexachloroethane	Ave	0.6220	0.6281		1.01	1.00	1.0	50.0
Nitrobenzene	Ave	0.3820	0.3855		1.01	1.00	0.9	50.0
Isophorone	Ave	0.5989	0.6288		1.05	1.00	5.0	50.0
2-Nitrophenol	Ave	0.1504	0.1807		1.20	1.00	20.2*	20.0
2,4-Dimethylphenol	Ave	0.3088	0.3237		1.05	1.00	4.8	50.0
Benzoic acid	Ave	0.1566	0.1681		2.15	2.00	7.3	50.0
Bis(2-chloroethoxy)methane	Ave	0.3933	0.3961		1.01	1.00	0.7	50.0
2,4-Dichlorophenol	Ave	0.2323	0.2475		1.07	1.00	6.5	20.0
1,2,4-Trichlorobenzene	Ave	0.2737	0.2726		0.996	1.00	-0.4	50.0
Naphthalene	Ave	1.040	1.009		0.970	1.00	-3.0	50.0
4-Chloroaniline	Qua		0.2983		0.904	1.00	-9.6	50.0
Hexachlorobutadiene	Ave	0.1335	0.1280		0.959	1.00	-4.1	20.0
Caprolactam	Lin1		0.1026		1.90	2.00	-5.1	50.0
4-Chloro-3-methylphenol	Ave	0.3080	0.2748		0.892	1.00	-10.8	20.0
2-Methylnaphthalene	Ave	0.7353	0.6594		0.897	1.00	-10.3	50.0
1-Methylnaphthalene	Ave	0.6957	0.6072		0.873	1.00	-12.7	50.0
Hexachlorocyclopentadiene	Lin1		0.2921	0.0500	1.10	1.00	10.2	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4270	0.4552		1.07	1.00	6.6	50.0
2,4,6-Trichlorophenol	Ave	0.2791	0.3127		1.12	1.00	12.1	20.0
2,4,5-Trichlorophenol	Ave	0.3158	0.3274		1.04	1.00	3.7	50.0
1,1'-Biphenyl	Ave	1.451	1.438		0.991	1.00	-0.9	50.0

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **T. APANAVAGE** **DATE: JUNE 2, 2014**

FROM: **J. KALINYAK** **COPIES: DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / 1,4-DIOXANE / TPH C06-C10 / TPH C10-C32**
ORGANIC DATA VALIDATION – PERCHLORATE / HALOACETIC ACIDS
LOCKHEED MIDDLE STATE AIRPORT (MSA) SURFACE WATER
SAMPLE DELIVERY GROUP (SDG) 240-36343-1

SAMPLES: 15 / Aqueous - VOC

MSA-DMW-2B-042214	MSA-DMW-3D-042214	MSA-DMW-3I-042214
MSA-DMW-3S-042214	MSA-DMW-5I-041814	MSA-DMW-5S-041814
MSA-MW-19D-042114	MSA-MW-22D-042114	MSA-MW-3-042114
MSA-MW-38S-042114	MSA-MW-49D-041714	MSA-MW-51D-041714
TB-041714	TB-042114	TB-042214

12 / Aqueous – 1.4-Dioxane

MSA-DMW-2B-042214	MSA-DMW-3D-042214	MSA-DMW-3I-042214
MSA-DMW-3S-042214	MSA-DMW-5I-041814	MSA-DMW-5S-041814
MSA-MW-19D-042114	MSA-MW-22D-042114	MSA-MW-3-042114
MSA-MW-38S-042114	MSA-MW-49D-041714	MSA-MW-51D-041714

4 / Aqueous - TPH C06-C10 / TPH C10-C32

MSA-DMW-3S-042214	MSA-DMW-5S-041814	MSA-MW-3-042114
MSA-MW-38S-042114		

3 / Aqueous - Perchlorate

MSA-DMW-5I-041814	MSA-MW-49D-041714	MSA-MW-51D-041714

2 / Aqueous – Haloacetic Acids

MSA-DMW-3S-042214	MSA-DMW-5S-041814

Overview

The sample set for Lockheed MSA Surface Water, SDG 240-36343-1, consisted of fifteen (15) aqueous samples including three (3) aqueous trip blank samples. All samples were analyzed for volatile organic compounds (VOCs) as listed above. Twelve (12) aqueous samples were analyzed for the semi-volatile organic compound (SVOC) 1,4-dioxane as listed above. Four (4) aqueous samples were analyzed for the total petroleum hydrocarbons (TPH) TPH C06-C10 & TPH C10-C32 as listed above. Three (3) aqueous samples were analyzed for perchlorate as listed above. Two (2) aqueous samples were analyzed for haloacetic acids (HAAs) as listed above. No field duplicate sample pairs were included in the sample delivery group (SDG).

The samples were collected by Tetra Tech on April 17, 18, 21, and 22, 2014 and analyzed by TestAmerica Laboratories, Inc., North Canton, Savannah, and Sacramento for all analyses. All analyses were conducted in accordance with EPA SW-846 Methods 8260C for VOCs, 8270C for 1,4-dioxane, 8015B for TPH C06-C10 & TPH C10-C32, 6850 for perchlorate, 552.2 for HAAs, and RSK-175 for OVG, analytical and

reporting protocols.
The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, blank results, blank spike/blank spike duplicate results, matrix spike/matrix spike duplicate results, surrogate spike recoveries, internal standard recoveries, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major Problems

- The matrix spike (MS) and MS duplicate (MSD) percent recoveries (%Rs) were less than the quality control limit at 0% for 2-chloroethyl vinyl ether for sample MSA-MW-51D-041714.
  Affected Sample: MSA-MW-51D-041714
  Actions: The sample non-detected 2-chloroethyl vinyl ether result was qualified rejected, (UR).

Minor Problems

- Detected results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

- The following laboratory VOC contaminants were detected in the method blank and trip blank samples at the following maximum concentration.

Analytes	Maximum Conc.	Action Level
Acetone [1]	1.2 µg/l	12.0 µg/l
1,2,4-Trimethylbenzene [2]	0.152 µg/l	0.760 µg/l
Acetone [2]	0.152 µg/l	1.52 µg/l
Carbon disulfide [2]	0.224 µg/l	1.12 µg/l
n-Butylbenzene [2]	0.212 µg/l	1.060 µg/l

  [1] Trip blank sample TB-041714 result – Maximum result from all trip blank samples used to qualify all samples.
  [2] Method blank sample MB 240-128396/6 affecting samples MSA-DMW-3I-042214 and MSA-DMW-5S-041814.

  An action level of ten times the maximum level for the common laboratory contaminant acetone and five times the maximum level for the other contaminants was used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive sample results less than the action level were qualified non-detected, (U), for blank contamination. The trip blank samples were not qualified for blank contamination.

- The VOC continuing calibration verification (CCV) percent differences (%Ds) were greater than the 20% quality control limit for bromomethane and 2,2'-dichloropropane for instrument A3UX10 on 04/22/14 @ 11:32.
  Affected Sample: TB-041714
  Action: The aforementioned sample non-detected analyte results were qualified estimated, (UJ).

- The VOC CCV %Ds were greater than the 20% quality control limit for bromomethane, tert-butyl alcohol, dibromomethane, bromoform, 1,2,4-trimethylbenzene, sec-butyl benzene, n-butylbenzene, and hexachlorobutadiene for instrument A3UX12 on 04/26/14 @ 09:26.
  Affected Samples:

MSA-DMW-2B-042214	MSA-DMW-3D-042214	MSA-DMW-3S-042214
MSA-DMW-5I-041814	MSA-MW-19D-042114	MSA-MW-22D-042114
MSA-MW-3-042114	MSA-MW-38S-042114	MSA-MW-49D-041714
MSA-MW-51D-041714	TB-042114	TB-042214

Action: The sample non-detected aforementioned analyte results were qualified estimated, (UJ).

- The VOC CCV %D was greater than the 20% quality control limit naphthalene for instrument A3UX16 on 04/29/14 @ 12:51.
  Affected Samples: MSA-DMW-3I-042214 and MSA-DMW-5S-041814
  Action: The sample detected and non-detected aforementioned analyte results were qualified estimated, (J) and (UJ), respectively.

- The SVOC 1,4-dioxane was detected in the method blank MB 240-128083 at the following maximum concentration.

Analytes	Maximum Concentration	Action Level
1,4-Dioxane [1]	1.43 µg/l	7.15 µg/l

[1] MB 240-128083 result affecting samples MSA-DMW-2B-042214, MSA-DMW-3D-042214, MSA-DMW-3I-042214, MSA-DMW-3S-042214 and MSA-MW-38S-042114.

An action level of five times the maximum level for the laboratory contaminant was used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The sample MSA-DMW-2B-042214 was re-analyzed due to the method blank contamination. However, the sample was re-extracted out of the sample collection to extraction hold time. The original sample analysis was validated/reported. The positive sample result for MSA-DMW-2B-042214 was less than the action level and was qualified non-detected, (U), for blank contamination.

- Samples MSA-DMW-3S-042214, and MSA-DMW-5S-041814 contain high concentrations of chlorinated organic compounds as reported in the volatile organic fraction analysis. The compounds vinyl chloride, cis-1,2-dichloroethene, and trichloroethene were detected and reported at high concentrations in the aforementioned samples. Because of the presence of the chlorinated compounds in the samples, the reported concentrations of TPH (C06-C10) in samples MSA-DMW-3S-042214, and MSA-DMW-5S-041814 likely contain contribution from chlorinated organic compounds thus elevating the concentrations of TPH (C06-C10). The results for TPH (C06-C10) in both samples are qualified as estimated, J.

Notes

The VOC laboratory control sample (LCS) %R was greater than the quality control limit for dibromomethane for LCS 240-128028.
Action: No validation action was taken as all the affected samples had non-detected dibromomethane results.

Samples were diluted as listed below for the VOC analysis resulting in elevated levels reported for non-detected VOC analytes.

Sample	Dilution
MSA-DMW-3I-042214	200X
MSA-DMW-3S-042214	40X

MSA-DMW-5I-041814	3.33X
MSA-DMW-5S-041814	100X
MSA-MW-3-042114	1.43X
MSA-MW-49D-041714	83.33X
MSA-MW-51D-041714	2.5X

Samples were diluted as listed below for the 1,4-dioxane analysis.

Sample	Dilution
MSA-DMW-3I-042214	10X
MSA-DMW-3S-042214	10X

Sample MSA-DMW-5S-041814 was diluted 5X for the TPH C06-C10 analysis.

Sample analyte results were reported to the Method Detection Limit (MDL).

EXECUTIVE SUMMARY

Laboratory Performance Issues: VOC sample results were qualified for blank contamination and CCV %D non-compliances. A sample was qualified for 1,4-dioxane method blank contamination.

Other Factors Affecting Data Quality: Detected results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J). A sample VOC non-detected result for 2-chloroethyl vinyl ether was rejected due to 0% MS/MSD recoveries.

The data for these analyses were reviewed with reference to EPA SW-846 Methods 8260C, 8270C, 8015B, 6850, 552.2, RSK-175, and the USEPA National Functional Guidelines for Organic Data Validation (June 2008).

Tetra Tech
Joseph Kalinyak
Data Validator/Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	ICP PDS Recovery Noncompliance; MSA's r < 0.995
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (i.e., base-time drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	RPD between columns/detectors >40% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient r < 0.995
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is less than sample activity
Z1	=	Tentatively Identified Compound considered presumptively present
Z2	=	Tentatively Identified Compound column bleed

PROJ_NO: 06183	NSAMPLE	MSA-DMW-2B-042214			MSA-DMW-3D-042214			MSA-DMW-3I-042214			MSA-DMW-3S-042214		
SDG: 240-36343-1	LAB_ID	240-36398-5			240-36398-2			240-36398-3			240-36398-4		
FRACTION: OV	SAMP_DATE	4/22/2014			4/22/2014			4/22/2014			4/22/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	0.23	U		0.23	U		46	U		9.2	U	
1,1,1-TRICHLOROETHANE	0.22	U		0.22	U		44	U		8.8	U	
1,1,2,2-TETRACHLOROETHANE	0.18	U		0.18	U		36	U		7.2	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28	U		0.28	U		56	U		11	U	
1,1-DICHLOROETHANE	0.15	U		0.15	U		30	U		6	U	
1,1-DICHLOROETHENE	0.19	U		0.19	U		38	J	P	7.6	U	
1,1-DICHLOROPROPENE	0.13	U		0.13	U		26	U		5.2	U	
1,2,3-TRICHLOROBENZENE	0.17	U		0.17	U		34	U		6.8	U	
1,2,3-TRICHLOROPROPANE	0.43	U		0.43	U		86	U		17	U	
1,2,3-TRIMETHYLBENZENE	0.0059	U		0.0059	U		1.2	U		0.24	U	
1,2,4-TRICHLOROBENZENE	0.15	U		0.15	U		370			6	U	
1,2,4-TRIMETHYLBENZENE	0.12	UJ	C	0.12	UJ	C	26	U	A	4.8	UJ	C
1,2-DIBROMO-3-CHLOROPROPANE	0.67	U		0.67	U		130	U		27	U	
1,2-DIBROMOETHANE	0.24	U		0.24	U		48	U		9.6	U	
1,2-DICHLOROBENZENE	0.13	U		0.13	U		26	U		5.2	U	
1,2-DICHLOROETHANE	0.22	U		0.22	U		60	J	P	8.8	U	
1,2-DICHLOROPROPANE	0.18	U		0.18	U		36	U		7.2	U	
1,3-DICHLOROBENZENE	0.14	U		0.14	U		28	U		5.6	U	
1,3-DICHLOROPROPANE	0.16	U		0.16	U		32	U		6.4	U	
1,4-DICHLOROBENZENE	0.13	U		0.13	U		26	U		5.2	U	
2,2-DICHLOROPROPANE	0.13	U		0.13	U		26	U		5.2	U	
2-BUTANONE	0.57	U		0.57	U		110	U		23	U	
2-CHLOROETHYL VINYL ETHER	0.99	U		0.99	U		200	U		40	U	
2-CHLOROTOLUENE	0.11	U		0.11	U		22	U		4.4	U	
2-HEXANONE	0.41	U		0.41	U		82	U		16	U	
4-CHLOROTOLUENE	0.18	U		0.18	U		36	U		7.2	U	
4-ISOPROPYLTOLUENE	0.12	U		0.12	U		24	U		4.8	U	
4-METHYL-2-PENTANONE	0.32	U		0.32	U		64	U		13	U	
ACETONE	1.1	U		1.1	U		220	U		44	U	
BENZENE	0.13	U		0.13	U		26	U		5.2	U	
BROMOACETIC ACID										0.75	U	
BROMOBENZENE	0.13	U		0.13	U		26	U		5.2	U	
BROMOCHLOROMETHANE	0.29	U		0.29	U		58	U		12	U	
BROMODICHLOROMETHANE	0.15	U		0.15	U		30	U		6	U	
BROMOFORM	0.64	UJ	C	0.64	UJ	C	130	U		26	UJ	C
BROMOMETHANE	0.41	UJ	C	0.41	UJ	C	82	U		16	UJ	C

PROJ_NO: 06183	NSAMPLE	MSA-DMW-5I-041814			MSA-DMW-5S-041814			MSA-MW-19D-042114			MSA-MW-22D-042114		
SDG: 240-36343-1	LAB_ID	240-36343-4			240-36343-5			240-36355-4			240-36355-2		
FRACTION: OV	SAMP_DATE	4/18/2014			4/18/2014			4/21/2014			4/21/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.77	U		23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.73	U		22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.6	U		18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.93	U		28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.5	U		15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.63	U		19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.43	U		13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.57	U		17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		1.4	U		43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.02	U		0.59	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.5	U		15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.4	UJ	C	12	U		0.12	UJ	C	0.12	UJ	C
1,2-DIBROMO-3-CHLOROPROPANE		2.2	U		67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.8	U		24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.43	U		13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.73	U		22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.6	U		18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.47	U		14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.53	U		16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.43	U		13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.43	U		13	U		0.13	U		0.13	U	
2-BUTANONE		1.9	U		57	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		3.3	U		99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.37	U		11	U		0.11	U		0.11	U	
2-HEXANONE		1.4	U		41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.6	U		18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.4	U		12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		1.1	U		32	U		0.32	U		0.32	U	
ACETONE		3.7	U		110	U		1.1	U		1.1	U	
BENZENE		0.43	U		13	U		0.13	U		0.13	U	
BROMOACETIC ACID					0.75	U							
BROMOBENZENE		0.43	U		13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.97	U		29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.5	U		15	U		0.15	U		0.15	U	
BROMOFORM		2.1	UJ	C	64	U		0.64	UJ	C	0.64	UJ	C
BROMOMETHANE		1.4	UJ	C	41	U		0.41	UJ	C	0.41	UJ	C

PROJ_NO: 06183	NSAMPLE	MSA-MW-3-042114			MSA-MW-38S-042114			MSA-MW-49D-041714			MSA-MW-51D-041714		
SDG: 240-36343-1	LAB_ID	240-36355-3			240-36355-5			240-36343-3			240-36343-2		
FRACTION: OV	SAMP_DATE	4/21/2014			4/21/2014			4/17/2014			4/17/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	0.33	U		0.23	U		19	U		0.58	U	
1,1,1-TRICHLOROETHANE	0.31	U		0.22	U		56	J	P	0.55	U	
1,1,2,2-TETRACHLOROETHANE	0.26	U		0.18	U		15	U		0.45	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.4	U		0.28	U		23	U		0.7	U	
1,1-DICHLOROETHANE	0.21	U		0.15	U		23	J	P	0.38	U	
1,1-DICHLOROETHENE	0.27	U		0.19	U		150			0.48	U	
1,1-DICHLOROPROPENE	0.19	U		0.13	U		11	U		0.33	U	
1,2,3-TRICHLOROBENZENE	0.24	U		0.17	U		14	U		0.43	U	
1,2,3-TRICHLOROPROPANE	0.61	U		0.43	U		36	U		1.1	U	
1,2,3-TRIMETHYLBENZENE	0.0084	U		0.0059	U		0.49	U		0.015	U	
1,2,4-TRICHLOROBENZENE	0.21	U		0.15	U		12	U		0.38	U	
1,2,4-TRIMETHYLBENZENE	0.17	UJ	C	0.12	UJ	C	10	UJ	C	0.3	UJ	C
1,2-DIBROMO-3-CHLOROPROPANE	0.96	U		0.67	U		56	U		1.7	U	
1,2-DIBROMOETHANE	0.34	U		0.24	U		20	U		0.6	U	
1,2-DICHLOROBENZENE	0.19	U		0.13	U		11	U		0.33	U	
1,2-DICHLOROETHANE	0.31	U		0.22	U		18	U		0.65	J	P
1,2-DICHLOROPROPANE	0.26	U		0.18	U		15	U		0.45	U	
1,3-DICHLOROBENZENE	0.2	U		0.14	U		12	U		0.35	U	
1,3-DICHLOROPROPANE	0.23	U		0.16	U		13	U		0.4	U	
1,4-DICHLOROBENZENE	0.19	U		0.13	U		11	U		0.33	U	
2,2-DICHLOROPROPANE	0.19	U		0.13	U		11	U		0.33	U	
2-BUTANONE	0.82	U		0.57	U		47	U		1.4	U	
2-CHLOROETHYL VINYL ETHER	1.4	U		0.99	U		82	U		2.5	UR	D
2-CHLOROTOLUENE	0.16	U		0.11	U		9.2	U		0.28	U	
2-HEXANONE	0.59	U		0.41	U		34	U		1	U	
4-CHLOROTOLUENE	0.26	U		0.18	U		15	U		0.45	U	
4-ISOPROPYLTOLUENE	0.17	U		0.12	U		10	U		0.3	U	
4-METHYL-2-PENTANONE	0.46	U		0.32	U		27	U		0.8	U	
ACETONE	1.6	U		1.1	U		92	U		2.8	U	
BENZENE	0.19	U		0.13	U		11	U		0.33	U	
BROMOACETIC ACID												
BROMOBENZENE	0.19	U		0.13	U		11	U		0.33	U	
BROMOCHLOROMETHANE	0.41	U		0.29	U		24	U		0.73	U	
BROMODICHLOROMETHANE	0.21	U		0.15	U		12	U		0.38	U	
BROMOFORM	0.92	UJ	C	0.64	UJ	C	53	UJ	C	1.6	UJ	C
BROMOMETHANE	0.59	UJ	C	0.41	UJ	C	34	UJ	C	1	UJ	C

PROJ_NO: 06183	NSAMPLE	TB-041714			TB-042114			TB-042214		
SDG: 240-36343-1	LAB_ID	240-36343-1			240-36355-1			240-36398-1		
FRACTION: OV	SAMP_DATE	4/17/2014			4/21/2014			4/22/2014		
MEDIA: WATER	QC_TYPE	TB			TB			TB		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	UJ	C	0.12	UJ	C
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	UJ	C	0.13	U		0.13	U	
2-BUTANONE		0.57	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U	
ACETONE		1.2	J	P	1.1	U		1.1	U	
BENZENE		0.13	U		0.13	U		0.13	U	
BROMOACETIC ACID										
BROMOBENZENE		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	UJ	C	0.64	UJ	C
BROMOMETHANE		0.41	UJ	C	0.41	UJ	C	0.41	UJ	C

PROJ_NO: 06183	NSAMPLE	MSA-DMW-2B-042214			MSA-DMW-3D-042214			MSA-DMW-3I-042214			MSA-DMW-3S-042214		
SDG: 240-36343-1	LAB_ID	240-36398-5			240-36398-2			240-36398-3			240-36398-4		
FRACTION: OV	SAMP_DATE	4/22/2014			4/22/2014			4/22/2014			4/22/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U		26	U		5.2	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U		26	U		5.2	U	
CHLOROACETIC ACID											0.4	U	
CHLOROBENZENE		0.15	U		0.15	U		30	U		6	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		36	U		7.2	U	
CHLOROETHANE		0.29	U		0.29	U		58	U		12	U	
CHLOROFORM		0.16	U		0.16	U		32	U		6.4	U	
CHLOROMETHANE		0.3	U		0.3	U		60	U		12	U	
CIS-1,2-DICHLOROETHENE		5.2			0.46	J	P	8200			920		
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		28	U		5.6	U	
DIBROMOACETIC ACID											0.38	U	
DIBROMOMETHANE		0.28	UJ	C	0.28	UJ	C	56	U		11	UJ	C
DICHLOROACETIC ACID											0.98	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		62	U		12	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		300	U		60	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		22	U		4.4	U	
ETHYLBENZENE		0.17	U		0.17	U		34	U		6.8	U	
HEXACHLOROBUTADIENE		0.3	UJ	C	0.3	UJ	C	60	U		12	UJ	C
ISOPROPYLBENZENE		0.13	U		0.13	U		26	U		5.2	U	
M+P-XYLENES		0.24	U		0.24	U		48	U		9.6	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		34	U		6.8	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		66	U		13	U	
NAPHTHALENE		0.24	U		0.24	U		48	UJ	C	9.6	U	
N-BUTYLBENZENE		0.12	UJ	C	0.12	UJ	C	24	U		4.8	UJ	C
N-PROPYLBENZENE		0.14	U		0.14	U		28	U		5.6	U	
O-XYLENE		0.14	U		0.14	U		28	U		5.6	U	
SEC-BUTYLBENZENE		0.13	UJ	C	0.13	UJ	C	26	U		5.2	UJ	C
STYRENE		0.11	U		0.11	U		22	U		4.4	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		13	U		2.7	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		26	U		5.2	U	
TERTIARY-BUTYL ALCOHOL		3.9	UJ	C	3.9	UJ	C	780	U		160	UJ	C
TETRACHLOROETHENE		0.29	U		0.29	U		58	U		12	U	
TOLUENE		0.13	U		0.13	U		72	J	P	14	J	P
TOTAL XYLENES		0.14	U		0.14	U		28	U		5.6	U	
TRANS-1,2-DICHLOROETHENE		0.39	J	P	0.19	U		38	U		260		
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		38	U		7.6	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW-5I-041814			MSA-DMW-5S-041814			MSA-MW-19D-042114			MSA-MW-22D-042114		
SDG: 240-36343-1	LAB_ID	240-36343-4			240-36343-5			240-36355-4			240-36355-2		
FRACTION: OV	SAMP_DATE	4/18/2014			4/18/2014			4/21/2014			4/21/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE	0.43	U		13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE	0.43	U		13	U		0.13	U		0.13	U	
CHLOROACETIC ACID				0.4	U							
CHLOROBENZENE	0.72	J	P	15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE	0.6	U		18	U		0.18	U		0.18	U	
CHLOROETHANE	0.97	U		29	U		0.29	U		0.29	U	
CHLOROFORM	0.53	U		16	U		0.16	U		0.16	U	
CHLOROMETHANE	1	U		30	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE	54			1200			0.23	J	P	0.17	U	
CIS-1,3-DICHLOROPROPENE	0.47	U		14	U		0.14	U		0.14	U	
DIBROMOACETIC ACID				0.38	U							
DIBROMOMETHANE	0.93	UJ	C	28	U		0.28	UJ	C	0.28	UJ	C
DICHLOROACETIC ACID				0.98	U							
DICHLORODIFLUOROMETHANE	1	U		31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER	5	U		150	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER	0.37	U		11	U		0.11	U		0.11	U	
ETHYLBENZENE	0.57	U		17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE	1	UJ	C	30	U		0.3	UJ	C	0.3	UJ	C
ISOPROPYLBENZENE	0.43	U		13	U		0.13	U		0.13	U	
M+P-XYLENES	0.8	U		24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER	0.57	U		17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE	2.2	J	P	33	U		0.33	U		0.33	U	
NAPHTHALENE	0.8	U		24	UJ	C	0.24	U		0.24	U	
N-BUTYLBENZENE	0.4	UJ	C	12	U		0.12	UJ	C	0.12	UJ	C
N-PROPYLBENZENE	0.47	U		14	U		0.14	U		0.14	U	
O-XYLENE	0.47	U		14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE	0.43	UJ	C	13	U		0.13	UJ	C	0.13	UJ	C
STYRENE	0.37	U		11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER	0.22	U		6.7	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE	0.43	U		13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL	13	UJ	C	390	U		3.9	UJ	C	3.9	UJ	C
TETRACHLOROETHENE	0.97	U		29	U		0.29	U		0.29	U	
TOLUENE	0.43	U		13	U		0.13	U		0.13	U	
TOTAL XYLENES	0.47	U		14	U		0.14	U		0.14	U	
TRANS-1,2-DICHLOROETHENE	2.2	J	P	19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE	0.63	U		19	U		0.19	U		0.19	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-3-042114			MSA-MW-38S-042114			MSA-MW-49D-041714			MSA-MW-51D-041714		
SDG: 240-36343-1	LAB_ID	240-36355-3			240-36355-5			240-36343-3			240-36343-2		
FRACTION: OV	SAMP_DATE	4/21/2014			4/21/2014			4/17/2014			4/17/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.19	U		0.13	U		11	U		0.33	U	
CARBON TETRACHLORIDE		0.19	U		0.13	U		11	U		0.33	U	
CHLOROACETIC ACID													
CHLOROBENZENE		0.21	U		0.15	U		12	U		0.7	J	P
CHLORODIBROMOMETHANE		0.26	U		0.18	U		15	U		0.45	U	
CHLOROETHANE		0.41	U		0.29	U		24	U		0.73	U	
CHLOROFORM		0.23	U		0.16	U		13	U		0.4	U	
CHLOROMETHANE		0.43	U		0.3	U		25	U		0.75	U	
CIS-1,2-DICHLOROETHENE		95			0.17	U		1600			35		
CIS-1,3-DICHLOROPROPENE		0.2	U		0.14	U		12	U		0.35	U	
DIBROMOACETIC ACID													
DIBROMOMETHANE		0.4	UJ	C	0.28	UJ	C	23	UJ	C	0.7	UJ	C
DICHLOROACETIC ACID													
DICHLORODIFLUOROMETHANE		0.44	U		0.31	U		26	U		0.78	U	
DIISOPROPYL ETHER		2.1	U		1.5	U		120	U		3.8	U	
ETHYL TERT-BUTYL ETHER		0.16	U		0.11	U		9.2	U		0.28	U	
ETHYLBENZENE		0.24	U		0.17	U		14	U		0.43	U	
HEXACHLOROBUTADIENE		0.43	UJ	C	0.3	UJ	C	25	UJ	C	0.75	UJ	C
ISOPROPYLBENZENE		0.19	U		0.13	U		11	U		0.33	U	
M+P-XYLENES		0.34	U		0.24	U		20	U		0.6	U	
METHYL TERT-BUTYL ETHER		0.24	U		0.17	U		14	U		0.43	U	
METHYLENE CHLORIDE		1.1	J	P	0.33	U		27	U		1.3	J	P
NAPHTHALENE		0.34	U		0.24	U		20	U		0.6	U	
N-BUTYLBENZENE		0.17	UJ	C	0.12	UJ	C	10	UJ	C	0.3	UJ	C
N-PROPYLBENZENE		0.2	U		0.14	U		12	U		0.35	U	
O-XYLENE		0.2	U		0.14	U		12	U		0.35	U	
SEC-BUTYLBENZENE		0.19	UJ	C	0.13	UJ	C	11	UJ	C	0.33	UJ	C
STYRENE		0.16	U		0.11	U		9.2	U		0.28	U	
TERT-AMYL METHYL ETHER		0.096	U		0.067	U		5.6	U		0.17	U	
TERT-BUTYLBENZENE		0.19	U		0.13	U		11	U		0.33	U	
TERTIARY-BUTYL ALCOHOL		5.6	UJ	C	3.9	UJ	C	320	UJ	C	9.8	UJ	C
TETRACHLOROETHENE		0.41	U		0.29	U		24	U		0.73	U	
TOLUENE		0.19	U		0.13	U		11	U		0.33	U	
TOTAL XYLENES		0.2	U		0.14	U		12	U		0.35	U	
TRANS-1,2-DICHLOROETHENE		0.27	U		0.19	U		16	U		1.2	J	P
TRANS-1,3-DICHLOROPROPENE		0.27	U		0.19	U		16	U		0.48	U	

PROJ_NO: 06183	NSAMPLE	TB-041714			TB-042114			TB-042214		
SDG: 240-36343-1	LAB_ID	240-36343-1			240-36355-1			240-36398-1		
FRACTION: OV	SAMP_DATE	4/17/2014			4/21/2014			4/22/2014		
MEDIA: WATER	QC_TYPE	TB			TB			TB		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U	
CHLOROACETIC ACID										
CHLOROBENZENE		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U	
DIBROMOACETIC ACID										
DIBROMOMETHANE		0.28	U		0.28	UJ	C	0.28	UJ	C
DICHLOROACETIC ACID										
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	UJ	C	0.3	UJ	C
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	UJ	C	0.12	UJ	C
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	UJ	C	0.13	UJ	C
STYRENE		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	U		3.9	UJ	C	3.9	UJ	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.13	U	
TOTAL XYLENES		0.14	U		0.14	U		0.14	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW-2B-042214			MSA-DMW-3D-042214			MSA-DMW-3I-042214			MSA-DMW-3S-042214		
SDG: 240-36343-1	LAB_ID	240-36398-5			240-36398-2			240-36398-3			240-36398-4		
FRACTION: OV	SAMP_DATE	4/22/2014			4/22/2014			4/22/2014			4/22/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROACETIC ACID											0.38	U	
TRICHLOROETHENE		1.9			4.5			13000			15	J	P
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		42	U		8.4	U	
VINYL ACETATE		0.19	U		0.19	U		38	U		7.6	U	
VINYL CHLORIDE		0.22	U		0.22	U		2800			2500		

PROJ_NO: 06183	NSAMPLE	MSA-DMW-5I-041814			MSA-DMW-5S-041814			MSA-MW-19D-042114			MSA-MW-22D-042114		
SDG: 240-36343-1	LAB_ID	240-36343-4			240-36343-5			240-36355-4			240-36355-2		
FRACTION: OV	SAMP_DATE	4/18/2014			4/18/2014			4/21/2014			4/21/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROACETIC ACID					0.38	U							
TRICHLOROETHENE		93			7000			13			0.17	U	
TRICHLOROFLUOROMETHANE		0.7	U		21	U		0.21	U		0.21	U	
VINYL ACETATE		0.63	U		19	U		0.19	U		0.19	U	
VINYL CHLORIDE		8.4			35	J	P	0.22	U		0.22	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-3-042114			MSA-MW-38S-042114			MSA-MW-49D-041714			MSA-MW-51D-041714		
SDG: 240-36343-1	LAB_ID	240-36355-3			240-36355-5			240-36343-3			240-36343-2		
FRACTION: OV	SAMP_DATE	4/21/2014			4/21/2014			4/17/2014			4/17/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROACETIC ACID													
TRICHLOROETHENE		9.9			0.17	U		5800			94		
TRICHLOROFLUOROMETHANE		0.3	U		0.21	U		17	U		0.53	U	
VINYL ACETATE		0.27	U		0.19	U		16	U		0.48	U	
VINYL CHLORIDE		3.8			0.22	U		490			6.8		

PROJ_NO: 06183	NSAMPLE	TB-041714			TB-042114			TB-042214		
SDG: 240-36343-1	LAB_ID	240-36343-1			240-36355-1			240-36398-1		
FRACTION: OV	SAMP_DATE	4/17/2014			4/21/2014			4/22/2014		
MEDIA: WATER	QC_TYPE	TB			TB			TB		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROACETIC ACID										
TRICHLOROETHENE		0.17	U		0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW-2B-042214			MSA-DMW-3D-042214			MSA-DMW-3I-042214			MSA-DMW-3S-042214		
SDG: 240-36343-1	LAB_ID	240-36398-5			240-36398-2			240-36398-3			240-36398-4		
FRACTION: OS	SAMP_DATE	4/22/2014			4/22/2014			4/22/2014			4/22/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.77	U	A	0.26	U		420			440		

PROJ_NO: 06183	NSAMPLE	MSA-DMW-5I-041814			MSA-DMW-5S-041814			MSA-MW-19D-042114			MSA-MW-22D-042114		
SDG: 240-36343-1	LAB_ID	240-36343-4			240-36343-5			240-36355-4			240-36355-2		
FRACTION: OS	SAMP_DATE	4/18/2014			4/18/2014			4/21/2014			4/21/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		3.8			20			1.6			0.26	U	

PROJ_NO: 06183	NSAMPLE	MSA-MW-3-042114			MSA-MW-38S-042114			MSA-MW-49D-041714			MSA-MW-51D-041714		
SDG: 240-36343-1	LAB_ID	240-36355-3			240-36355-5			240-36343-3			240-36343-2		
FRACTION: OS	SAMP_DATE	4/21/2014			4/21/2014			4/17/2014			4/17/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		9.2			0.25	U		39			2.8		

PROJ_NO: 06183	NSAMPLE	MSA-DMW-3S-042214			MSA-DMW-5S-041814			MSA-MW-3-042114			MSA-MW-38S-042114		
SDG: 240-36343-1	LAB_ID	240-36398-4			240-36343-5			240-36355-3			240-36355-5		
FRACTION: PET	SAMP_DATE	4/22/2014			4/18/2014			4/21/2014			4/21/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		680	J	Q	3500	J	Q	92	J	P	32	J	P
TPH (C10-C32)		890			270	U		250	U		240	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW-5I-041814			MSA-MW-49D-041714			MSA-MW-51D-041714		
SDG: 240-36343-1	LAB_ID	240-36343-4			240-36343-3			240-36343-2		
FRACTION: MISC	SAMP_DATE	4/18/2014			4/17/2014			4/17/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.082	U		0.92			0.094	J	P

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-2B-042214 | Lab Sample ID: 240-36398-5

Matrix: Water | Lab File ID: U1237329.D

Analysis Method: 8260C | Date Collected: 04/22/2014 15:13

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 18:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-2B-042214 | Lab Sample ID: 240-36398-5

Matrix: Water | Lab File ID: U1237329.D

Analysis Method: 8260C | Date Collected: 04/22/2014 15:13

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 18:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	5.2		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.39	J	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	1.9		1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-2B-042214 Lab Sample ID: 240-36398-5

Matrix: Water Lab File ID: U1237329.D

Analysis Method: 8260C Date Collected: 04/22/2014 15:13

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 18:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		74-120
1868-53-7	Dibromofluoromethane (Surr)	97		75-121
460-00-4	4-Bromofluorobenzene (Surr)	84		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-2B-042214 Lab Sample ID: 240-36398-5

Matrix: Water Lab File ID: U1237329.D

Analysis Method: 8260C Date Collected: 04/22/2014 15:13

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 18:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3D-042214 | Lab Sample ID: 240-36398-2

Matrix: Water | Lab File ID: U1237326.D

Analysis Method: 8260C | Date Collected: 04/22/2014 08:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 17:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3D-042214 Lab Sample ID: 240-36398-2

Matrix: Water Lab File ID: U1237326.D

Analysis Method: 8260C Date Collected: 04/22/2014 08:50

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 17:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.46	J	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	4.5		1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3D-042214 Lab Sample ID: 240-36398-2

Matrix: Water Lab File ID: U1237326.D

Analysis Method: 8260C Date Collected: 04/22/2014 08:50

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 17:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	97		75-121
460-00-4	4-Bromofluorobenzene (Surr)	85		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-129

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3D-042214 Lab Sample ID: 240-36398-2

Matrix: Water Lab File ID: U1237326.D

Analysis Method: 8260C Date Collected: 04/22/2014 08:50

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 17:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3I-042214 | Lab Sample ID: 240-36398-3

Matrix: Water | Lab File ID: UXM5176.D

Analysis Method: 8260C | Date Collected: 04/22/2014 10:30

Sample wt/vol: 10(mL) | Date Analyzed: 04/29/2014 15:16

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	46	U	200	46
71-55-6	1,1,1-Trichloroethane	44	U	200	44
79-34-5	1,1,2,2-Tetrachloroethane	36	U	200	36
76-13-1	1,1,2-Trichlorotrifluoroethane	56	U	200	56
75-34-3	1,1-Dichloroethane	30	U	200	30
75-35-4	1,1-Dichloroethene	38	J	200	38
563-58-6	1,1-Dichloropropene	26	U	200	26
87-61-6	1,2,3-Trichlorobenzene	34	U	200	34
96-18-4	1,2,3-Trichloropropane	86	U	200	86
526-73-8	1,2,3-Trimethylbenzene	1.2	U	1000	1.2
120-82-1	1,2,4-Trichlorobenzene	370		200	30
95-63-6	1,2,4-Trimethylbenzene	26	J B	200	24
96-12-8	1,2-Dibromo-3-Chloropropane	130	U	400	130
95-50-1	1,2-Dichlorobenzene	26	U	200	26
107-06-2	1,2-Dichloroethane	60	J	200	44
78-87-5	1,2-Dichloropropane	36	U	200	36
541-73-1	1,3-Dichlorobenzene	28	U	200	28
142-28-9	1,3-Dichloropropane	32	U	200	32
106-46-7	1,4-Dichlorobenzene	26	U	200	26
594-20-7	2,2-Dichloropropane	26	U	200	26
78-93-3	2-Butanone (MEK)	110	U	2000	110
110-75-8	2-Chloroethyl vinyl ether	200	U	2000	200
95-49-8	2-Chlorotoluene	22	U	200	22
591-78-6	2-Hexanone	82	U	2000	82
106-43-4	4-Chlorotoluene	36	U	200	36
99-87-6	4-Isopropyltoluene	24	U	200	24
108-10-1	4-Methyl-2-pentanone (MIBK)	64	U	2000	64
67-64-1	Acetone	220	U	2000	220
71-43-2	Benzene	26	U	200	26
108-86-1	Bromobenzene	26	U	200	26
75-25-2	Bromoform	130	U	200	130
74-83-9	Bromomethane	82	U	200	82
75-15-0	Carbon disulfide	26	U	200	26
56-23-5	Carbon tetrachloride	26	U	200	26
108-90-7	Chlorobenzene	30	U	200	30
124-48-1	Chlorodibromomethane	36	U	200	36

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3I-042214 | Lab Sample ID: 240-36398-3

Matrix: Water | Lab File ID: UXM5176.D

Analysis Method: 8260C | Date Collected: 04/22/2014 10:30

Sample wt/vol: 10(mL) | Date Analyzed: 04/29/2014 15:16

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	58	U	200	58
67-66-3	Chloroform	32	U	200	32
74-87-3	Chloromethane	60	U	200	60
156-59-2	cis-1,2-Dichloroethene	8200		200	34
10061-01-5	cis-1,3-Dichloropropene	28	U	200	28
74-95-3	Dibromomethane	56	U	200	56
74-97-5	Bromochloromethane	58	U	200	58
75-71-8	Dichlorodifluoromethane	62	U	200	62
75-27-4	Bromodichloromethane	30	U	200	30
75-65-0	tert-Butyl alcohol	780	U	10000	780
100-41-4	Ethylbenzene	34	U	200	34
87-68-3	Hexachlorobutadiene	60	U	200	60
108-20-3	Diisopropyl ether	300	U	2000	300
98-82-8	Isopropylbenzene	26	U	200	26
1634-04-4	Methyl tert-butyl ether	34	U	200	34
75-09-2	Methylene Chloride	66	U	200	66
179601-23-1	m-Xylene & p-Xylene	48	U	400	48
91-20-3	Naphthalene	48	U	200	48
104-51-8	n-Butylbenzene	24	U	200	24
103-65-1	N-Propylbenzene	28	U	200	28
95-47-6	o-Xylene	28	U	200	28
135-98-8	sec-Butylbenzene	26	U	200	26
100-42-5	Styrene	22	U	200	22
994-05-8	Tert-amyl methyl ether	13	U	1000	13
637-92-3	Ethyl tert-butyl ether	22	U	1000	22
127-18-4	Tetrachloroethene	58	U	200	58
108-88-3	Toluene	72	J	200	26
156-60-5	trans-1,2-Dichloroethene	38	U	200	38
10061-02-6	trans-1,3-Dichloropropene	38	U	200	38
79-01-6	Trichloroethene	13000		200	34
75-69-4	Trichlorofluoromethane	42	U	200	42
108-05-4	Vinyl acetate	38	U	400	38
75-01-4	Vinyl chloride	2800		200	44
1330-20-7	Xylenes, Total	28	U	400	28
98-06-6	tert-Butylbenzene	26	U	200	26
106-93-4	1,2-Dibromoethane	48	U	200	48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3I-042214 Lab Sample ID: 240-36398-3

Matrix: Water Lab File ID: UXM5176.D

Analysis Method: 8260C Date Collected: 04/22/2014 10:30

Sample wt/vol: 10(mL) Date Analyzed: 04/29/2014 15:16

Soil Aliquot Vol: Dilution Factor: 200

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128396 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		74-120
1868-53-7	Dibromofluoromethane (Surr)	95		75-121
460-00-4	4-Bromofluorobenzene (Surr)	82		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3I-042214 | Lab Sample ID: 240-36398-3

Matrix: Water | Lab File ID: UXM5176.D

Analysis Method: 8260C | Date Collected: 04/22/2014 10:30

Sample wt/vol: 10(mL) | Date Analyzed: 04/29/2014 15:16

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128396 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3S-042214 | Lab Sample ID: 240-36398-4

Matrix: Water | Lab File ID: U1237328.D

Analysis Method: 8260C | Date Collected: 04/22/2014 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 18:31

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	9.2	U	40	9.2
71-55-6	1,1,1-Trichloroethane	8.8	U	40	8.8
79-34-5	1,1,2,2-Tetrachloroethane	7.2	U	40	7.2
76-13-1	1,1,2-Trichlorotrifluoroethane	11	U	40	11
75-34-3	1,1-Dichloroethane	6.0	U	40	6.0
75-35-4	1,1-Dichloroethene	7.6	U	40	7.6
563-58-6	1,1-Dichloropropene	5.2	U	40	5.2
87-61-6	1,2,3-Trichlorobenzene	6.8	U	40	6.8
96-18-4	1,2,3-Trichloropropane	17	U	40	17
526-73-8	1,2,3-Trimethylbenzene	0.24	U	200	0.24
120-82-1	1,2,4-Trichlorobenzene	6.0	U	40	6.0
95-63-6	1,2,4-Trimethylbenzene	4.8	U	40	4.8
96-12-8	1,2-Dibromo-3-Chloropropane	27	U	80	27
95-50-1	1,2-Dichlorobenzene	5.2	U	40	5.2
107-06-2	1,2-Dichloroethane	8.8	U	40	8.8
78-87-5	1,2-Dichloropropane	7.2	U	40	7.2
541-73-1	1,3-Dichlorobenzene	5.6	U	40	5.6
142-28-9	1,3-Dichloropropane	6.4	U	40	6.4
106-46-7	1,4-Dichlorobenzene	5.2	U	40	5.2
594-20-7	2,2-Dichloropropane	5.2	U	40	5.2
78-93-3	2-Butanone (MEK)	23	U	400	23
110-75-8	2-Chloroethyl vinyl ether	40	U	400	40
95-49-8	2-Chlorotoluene	4.4	U	40	4.4
591-78-6	2-Hexanone	16	U	400	16
106-43-4	4-Chlorotoluene	7.2	U	40	7.2
99-87-6	4-Isopropyltoluene	4.8	U	40	4.8
108-10-1	4-Methyl-2-pentanone (MIBK)	13	U	400	13
67-64-1	Acetone	44	U	400	44
71-43-2	Benzene	5.2	U	40	5.2
108-86-1	Bromobenzene	5.2	U	40	5.2
75-25-2	Bromoform	26	U	40	26
74-83-9	Bromomethane	16	U	40	16
75-15-0	Carbon disulfide	5.2	U	40	5.2
56-23-5	Carbon tetrachloride	5.2	U	40	5.2
108-90-7	Chlorobenzene	6.0	U	40	6.0
124-48-1	Chlorodibromomethane	7.2	U	40	7.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3S-042214 | Lab Sample ID: 240-36398-4

Matrix: Water | Lab File ID: U1237328.D

Analysis Method: 8260C | Date Collected: 04/22/2014 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 18:31

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	12	U	40	12
67-66-3	Chloroform	6.4	U	40	6.4
74-87-3	Chloromethane	12	U	40	12
156-59-2	cis-1,2-Dichloroethene	920		40	6.8
10061-01-5	cis-1,3-Dichloropropene	5.6	U	40	5.6
74-95-3	Dibromomethane	11	U *	40	11
74-97-5	Bromochloromethane	12	U	40	12
75-71-8	Dichlorodifluoromethane	12	U	40	12
75-27-4	Bromodichloromethane	6.0	U	40	6.0
75-65-0	tert-Butyl alcohol	160	U	2000	160
100-41-4	Ethylbenzene	6.8	U	40	6.8
87-68-3	Hexachlorobutadiene	12	U	40	12
108-20-3	Diisopropyl ether	60	U	400	60
98-82-8	Isopropylbenzene	5.2	U	40	5.2
1634-04-4	Methyl tert-butyl ether	6.8	U	40	6.8
75-09-2	Methylene Chloride	13	U	40	13
179601-23-1	m-Xylene & p-Xylene	9.6	U	80	9.6
91-20-3	Naphthalene	9.6	U	40	9.6
104-51-8	n-Butylbenzene	4.8	U	40	4.8
103-65-1	N-Propylbenzene	5.6	U	40	5.6
95-47-6	o-Xylene	5.6	U	40	5.6
135-98-8	sec-Butylbenzene	5.2	U	40	5.2
100-42-5	Styrene	4.4	U	40	4.4
994-05-8	Tert-amyl methyl ether	2.7	U	200	2.7
637-92-3	Ethyl tert-butyl ether	4.4	U	200	4.4
127-18-4	Tetrachloroethene	12	U	40	12
108-88-3	Toluene	14	J	40	5.2
156-60-5	trans-1,2-Dichloroethene	260		40	7.6
10061-02-6	trans-1,3-Dichloropropene	7.6	U	40	7.6
79-01-6	Trichloroethene	15	J	40	6.8
75-69-4	Trichlorofluoromethane	8.4	U	40	8.4
108-05-4	Vinyl acetate	7.6	U	80	7.6
75-01-4	Vinyl chloride	2500		40	8.8
1330-20-7	Xylenes, Total	5.6	U	80	5.6
98-06-6	tert-Butylbenzene	5.2	U	40	5.2
106-93-4	1,2-Dibromoethane	9.6	U	40	9.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3S-042214 Lab Sample ID: 240-36398-4

Matrix: Water Lab File ID: U1237328.D

Analysis Method: 8260C Date Collected: 04/22/2014 12:00

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 18:31

Soil Aliquot Vol: Dilution Factor: 40

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	91		75-121
460-00-4	4-Bromofluorobenzene (Surr)	81		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		63-129

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3S-042214 Lab Sample ID: 240-36398-4

Matrix: Water Lab File ID: U1237328.D

Analysis Method: 8260C Date Collected: 04/22/2014 12:00

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 18:31

Soil Aliquot Vol: Dilution Factor: 40

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5I-041814 | Lab Sample ID: 240-36343-4

Matrix: Water | Lab File ID: U1237318.D

Analysis Method: 8260C | Date Collected: 04/18/2014 11:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 14:35

Soil Aliquot Vol: | Dilution Factor: 3.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.77	U	3.3	0.77
71-55-6	1,1,1-Trichloroethane	0.73	U	3.3	0.73
79-34-5	1,1,2,2-Tetrachloroethane	0.60	U	3.3	0.60
76-13-1	1,1,2-Trichlorotrifluoroethane	0.93	U	3.3	0.93
75-34-3	1,1-Dichloroethane	0.50	U	3.3	0.50
75-35-4	1,1-Dichloroethene	0.63	U	3.3	0.63
563-58-6	1,1-Dichloropropene	0.43	U	3.3	0.43
87-61-6	1,2,3-Trichlorobenzene	0.57	U	3.3	0.57
96-18-4	1,2,3-Trichloropropane	1.4	U	3.3	1.4
526-73-8	1,2,3-Trimethylbenzene	0.020	U	17	0.020
120-82-1	1,2,4-Trichlorobenzene	0.50	U	3.3	0.50
95-63-6	1,2,4-Trimethylbenzene	0.40	U	3.3	0.40
96-12-8	1,2-Dibromo-3-Chloropropane	2.2	U	6.7	2.2
95-50-1	1,2-Dichlorobenzene	0.43	U	3.3	0.43
107-06-2	1,2-Dichloroethane	0.73	U	3.3	0.73
78-87-5	1,2-Dichloropropane	0.60	U	3.3	0.60
541-73-1	1,3-Dichlorobenzene	0.47	U	3.3	0.47
142-28-9	1,3-Dichloropropane	0.53	U	3.3	0.53
106-46-7	1,4-Dichlorobenzene	0.43	U	3.3	0.43
594-20-7	2,2-Dichloropropane	0.43	U	3.3	0.43
78-93-3	2-Butanone (MEK)	1.9	U	33	1.9
110-75-8	2-Chloroethyl vinyl ether	3.3	U	33	3.3
95-49-8	2-Chlorotoluene	0.37	U	3.3	0.37
591-78-6	2-Hexanone	1.4	U	33	1.4
106-43-4	4-Chlorotoluene	0.60	U	3.3	0.60
99-87-6	4-Isopropyltoluene	0.40	U	3.3	0.40
108-10-1	4-Methyl-2-pentanone (MIBK)	1.1	U	33	1.1
67-64-1	Acetone	3.7	U	33	3.7
71-43-2	Benzene	0.43	U	3.3	0.43
108-86-1	Bromobenzene	0.43	U	3.3	0.43
75-25-2	Bromoform	2.1	U	3.3	2.1
74-83-9	Bromomethane	1.4	U	3.3	1.4
75-15-0	Carbon disulfide	0.43	U	3.3	0.43
56-23-5	Carbon tetrachloride	0.43	U	3.3	0.43
108-90-7	Chlorobenzene	0.72	J	3.3	0.50
124-48-1	Chlorodibromomethane	0.60	U	3.3	0.60

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5I-041814 | Lab Sample ID: 240-36343-4

Matrix: Water | Lab File ID: U1237318.D

Analysis Method: 8260C | Date Collected: 04/18/2014 11:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 14:35

Soil Aliquot Vol: | Dilution Factor: 3.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.97	U	3.3	0.97
67-66-3	Chloroform	0.53	U	3.3	0.53
74-87-3	Chloromethane	1.0	U	3.3	1.0
156-59-2	cis-1,2-Dichloroethene	54		3.3	0.57
10061-01-5	cis-1,3-Dichloropropene	0.47	U	3.3	0.47
74-95-3	Dibromomethane	0.93	U *	3.3	0.93
74-97-5	Bromochloromethane	0.97	U	3.3	0.97
75-71-8	Dichlorodifluoromethane	1.0	U	3.3	1.0
75-27-4	Bromodichloromethane	0.50	U	3.3	0.50
75-65-0	tert-Butyl alcohol	13	U	170	13
100-41-4	Ethylbenzene	0.57	U	3.3	0.57
87-68-3	Hexachlorobutadiene	1.0	U	3.3	1.0
108-20-3	Diisopropyl ether	5.0	U	33	5.0
98-82-8	Isopropylbenzene	0.43	U	3.3	0.43
1634-04-4	Methyl tert-butyl ether	0.57	U	3.3	0.57
75-09-2	Methylene Chloride	2.2	J	3.3	1.1
179601-23-1	m-Xylene & p-Xylene	0.80	U	6.7	0.80
91-20-3	Naphthalene	0.80	U	3.3	0.80
104-51-8	n-Butylbenzene	0.40	U	3.3	0.40
103-65-1	N-Propylbenzene	0.47	U	3.3	0.47
95-47-6	o-Xylene	0.47	U	3.3	0.47
135-98-8	sec-Butylbenzene	0.43	U	3.3	0.43
100-42-5	Styrene	0.37	U	3.3	0.37
994-05-8	Tert-amyl methyl ether	0.22	U	17	0.22
637-92-3	Ethyl tert-butyl ether	0.37	U	17	0.37
127-18-4	Tetrachloroethene	0.97	U	3.3	0.97
108-88-3	Toluene	0.43	U	3.3	0.43
156-60-5	trans-1,2-Dichloroethene	2.2	J	3.3	0.63
10061-02-6	trans-1,3-Dichloropropene	0.63	U	3.3	0.63
79-01-6	Trichloroethene	93		3.3	0.57
75-69-4	Trichlorofluoromethane	0.70	U	3.3	0.70
108-05-4	Vinyl acetate	0.63	U	6.7	0.63
75-01-4	Vinyl chloride	8.4		3.3	0.73
1330-20-7	Xylenes, Total	0.47	U	6.7	0.47
98-06-6	tert-Butylbenzene	0.43	U	3.3	0.43
106-93-4	1,2-Dibromoethane	0.80	U	3.3	0.80

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5I-041814 | Lab Sample ID: 240-36343-4

Matrix: Water | Lab File ID: U1237318.D

Analysis Method: 8260C | Date Collected: 04/18/2014 11:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 14:35

Soil Aliquot Vol: | Dilution Factor: 3.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		74-120
1868-53-7	Dibromofluoromethane (Surr)	98		75-121
460-00-4	4-Bromofluorobenzene (Surr)	84		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-129

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5I-041814 Lab Sample ID: 240-36343-4

Matrix: Water Lab File ID: U1237318.D

Analysis Method: 8260C Date Collected: 04/18/2014 11:35

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 14:35

Soil Aliquot Vol: Dilution Factor: 3.33

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5S-041814 | Lab Sample ID: 240-36343-5

Matrix: Water | Lab File ID: UXM5175.D

Analysis Method: 8260C | Date Collected: 04/18/2014 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 04/29/2014 14:54

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	23	U	100	23
71-55-6	1,1,1-Trichloroethane	22	U	100	22
79-34-5	1,1,2,2-Tetrachloroethane	18	U	100	18
76-13-1	1,1,2-Trichlorotrifluoroethane	28	U	100	28
75-34-3	1,1-Dichloroethane	15	U	100	15
75-35-4	1,1-Dichloroethene	19	U	100	19
563-58-6	1,1-Dichloropropene	13	U	100	13
87-61-6	1,2,3-Trichlorobenzene	17	U	100	17
96-18-4	1,2,3-Trichloropropane	43	U	100	43
526-73-8	1,2,3-Trimethylbenzene	0.59	U	500	0.59
120-82-1	1,2,4-Trichlorobenzene	15	U	100	15
95-63-6	1,2,4-Trimethylbenzene	12	U	100	12
96-12-8	1,2-Dibromo-3-Chloropropane	67	U	200	67
95-50-1	1,2-Dichlorobenzene	13	U	100	13
107-06-2	1,2-Dichloroethane	22	U	100	22
78-87-5	1,2-Dichloropropane	18	U	100	18
541-73-1	1,3-Dichlorobenzene	14	U	100	14
142-28-9	1,3-Dichloropropane	16	U	100	16
106-46-7	1,4-Dichlorobenzene	13	U	100	13
594-20-7	2,2-Dichloropropane	13	U	100	13
78-93-3	2-Butanone (MEK)	57	U	1000	57
110-75-8	2-Chloroethyl vinyl ether	99	U	1000	99
95-49-8	2-Chlorotoluene	11	U	100	11
591-78-6	2-Hexanone	41	U	1000	41
106-43-4	4-Chlorotoluene	18	U	100	18
99-87-6	4-Isopropyltoluene	12	U	100	12
108-10-1	4-Methyl-2-pentanone (MIBK)	32	U	1000	32
67-64-1	Acetone	110	U	1000	110
71-43-2	Benzene	13	U	100	13
108-86-1	Bromobenzene	13	U	100	13
75-25-2	Bromoform	64	U	100	64
74-83-9	Bromomethane	41	U	100	41
75-15-0	Carbon disulfide	13	U	100	13
56-23-5	Carbon tetrachloride	13	U	100	13
108-90-7	Chlorobenzene	15	U	100	15
124-48-1	Chlorodibromomethane	18	U	100	18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5S-041814 | Lab Sample ID: 240-36343-5

Matrix: Water | Lab File ID: UXM5175.D

Analysis Method: 8260C | Date Collected: 04/18/2014 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 04/29/2014 14:54

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	29	U	100	29
67-66-3	Chloroform	16	U	100	16
74-87-3	Chloromethane	30	U	100	30
156-59-2	cis-1,2-Dichloroethene	1200		100	17
10061-01-5	cis-1,3-Dichloropropene	14	U	100	14
74-95-3	Dibromomethane	28	U	100	28
74-97-5	Bromochloromethane	29	U	100	29
75-71-8	Dichlorodifluoromethane	31	U	100	31
75-27-4	Bromodichloromethane	15	U	100	15
75-65-0	tert-Butyl alcohol	390	U	5000	390
100-41-4	Ethylbenzene	17	U	100	17
87-68-3	Hexachlorobutadiene	30	U	100	30
108-20-3	Diisopropyl ether	150	U	1000	150
98-82-8	Isopropylbenzene	13	U	100	13
1634-04-4	Methyl tert-butyl ether	17	U	100	17
75-09-2	Methylene Chloride	33	U	100	33
179601-23-1	m-Xylene & p-Xylene	24	U	200	24
91-20-3	Naphthalene	24	U	100	24
104-51-8	n-Butylbenzene	12	U	100	12
103-65-1	N-Propylbenzene	14	U	100	14
95-47-6	o-Xylene	14	U	100	14
135-98-8	sec-Butylbenzene	13	U	100	13
100-42-5	Styrene	11	U	100	11
994-05-8	Tert-amyl methyl ether	6.7	U	500	6.7
637-92-3	Ethyl tert-butyl ether	11	U	500	11
127-18-4	Tetrachloroethene	29	U	100	29
108-88-3	Toluene	13	U	100	13
156-60-5	trans-1,2-Dichloroethene	19	U	100	19
10061-02-6	trans-1,3-Dichloropropene	19	U	100	19
79-01-6	Trichloroethene	7000		100	17
75-69-4	Trichlorofluoromethane	21	U	100	21
108-05-4	Vinyl acetate	19	U	200	19
75-01-4	Vinyl chloride	35	J	100	22
1330-20-7	Xylenes, Total	14	U	200	14
98-06-6	tert-Butylbenzene	13	U	100	13
106-93-4	1,2-Dibromoethane	24	U	100	24

FORM I_
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5S-041814 | Lab Sample ID: 240-36343-5

Matrix: Water | Lab File ID: UXM5175.D

Analysis Method: 8260C | Date Collected: 04/18/2014 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 04/29/2014 14:54

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128396 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		74-120
1868-53-7	Dibromofluoromethane (Surr)	92		75-121
460-00-4	4-Bromofluorobenzene (Surr)	82		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-129

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5S-041814 Lab Sample ID: 240-36343-5

Matrix: Water Lab File ID: UXM5175.D

Analysis Method: 8260C Date Collected: 04/18/2014 15:30

Sample wt/vol: 10(mL) Date Analyzed: 04/29/2014 14:54

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128396 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-19D-042114 Lab Sample ID: 240-36355-4

Matrix: Water Lab File ID: U1237323.D

Analysis Method: 8260C Date Collected: 04/21/2014 12:23

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 16:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-19D-042114 | Lab Sample ID: 240-36355-4

Matrix: Water | Lab File ID: U1237323.D

Analysis Method: 8260C | Date Collected: 04/21/2014 12:23

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 16:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.23	J	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	13		1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-19D-042114 | Lab Sample ID: 240-36355-4

Matrix: Water | Lab File ID: U1237323.D

Analysis Method: 8260C | Date Collected: 04/21/2014 12:23

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 16:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		74-120
1868-53-7	Dibromofluoromethane (Surr)	99		75-121
460-00-4	4-Bromofluorobenzene (Surr)	84		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-129

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-19D-042114 Lab Sample ID: 240-36355-4

Matrix: Water Lab File ID: U1237323.D

Analysis Method: 8260C Date Collected: 04/21/2014 12:23

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 16:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-22D-042114 | Lab Sample ID: 240-36355-2

Matrix: Water | Lab File ID: U1237321.D

Analysis Method: 8260C | Date Collected: 04/21/2014 09:22

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 15:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-22D-042114 | Lab Sample ID: 240-36355-2

Matrix: Water | Lab File ID: U1237321.D

Analysis Method: 8260C | Date Collected: 04/21/2014 09:22

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 15:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-22D-042114 | Lab Sample ID: 240-36355-2

Matrix: Water | Lab File ID: U1237321.D

Analysis Method: 8260C | Date Collected: 04/21/2014 09:22

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 15:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	100		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-22D-042114 | Lab Sample ID: 240-36355-2

Matrix: Water | Lab File ID: U1237321.D

Analysis Method: 8260C | Date Collected: 04/21/2014 09:22

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 15:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-3-042114 | Lab Sample ID: 240-36355-3

Matrix: Water | Lab File ID: U1237322.D

Analysis Method: 8260C | Date Collected: 04/21/2014 10:34

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 16:09

Soil Aliquot Vol: | Dilution Factor: 1.43

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.33	U	1.4	0.33
71-55-6	1,1,1-Trichloroethane	0.31	U	1.4	0.31
79-34-5	1,1,2,2-Tetrachloroethane	0.26	U	1.4	0.26
76-13-1	1,1,2-Trichlorotrifluoroethane	0.40	U	1.4	0.40
75-34-3	1,1-Dichloroethane	0.21	U	1.4	0.21
75-35-4	1,1-Dichloroethene	0.27	U	1.4	0.27
563-58-6	1,1-Dichloropropene	0.19	U	1.4	0.19
87-61-6	1,2,3-Trichlorobenzene	0.24	U	1.4	0.24
96-18-4	1,2,3-Trichloropropane	0.61	U	1.4	0.61
526-73-8	1,2,3-Trimethylbenzene	0.0084	U	7.2	0.0084
120-82-1	1,2,4-Trichlorobenzene	0.21	U	1.4	0.21
95-63-6	1,2,4-Trimethylbenzene	0.17	U	1.4	0.17
96-12-8	1,2-Dibromo-3-Chloropropane	0.96	U	2.9	0.96
95-50-1	1,2-Dichlorobenzene	0.19	U	1.4	0.19
107-06-2	1,2-Dichloroethane	0.31	U	1.4	0.31
78-87-5	1,2-Dichloropropane	0.26	U	1.4	0.26
541-73-1	1,3-Dichlorobenzene	0.20	U	1.4	0.20
142-28-9	1,3-Dichloropropane	0.23	U	1.4	0.23
106-46-7	1,4-Dichlorobenzene	0.19	U	1.4	0.19
594-20-7	2,2-Dichloropropane	0.19	U	1.4	0.19
78-93-3	2-Butanone (MEK)	0.82	U	14	0.82
110-75-8	2-Chloroethyl vinyl ether	1.4	U	14	1.4
95-49-8	2-Chlorotoluene	0.16	U	1.4	0.16
591-78-6	2-Hexanone	0.59	U	14	0.59
106-43-4	4-Chlorotoluene	0.26	U	1.4	0.26
99-87-6	4-Isopropyltoluene	0.17	U	1.4	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	0.46	U	14	0.46
67-64-1	Acetone	1.6	U	14	1.6
71-43-2	Benzene	0.19	U	1.4	0.19
108-86-1	Bromobenzene	0.19	U	1.4	0.19
75-25-2	Bromoform	0.92	U	1.4	0.92
74-83-9	Bromomethane	0.59	U	1.4	0.59
75-15-0	Carbon disulfide	0.19	U	1.4	0.19
56-23-5	Carbon tetrachloride	0.19	U	1.4	0.19
108-90-7	Chlorobenzene	0.21	U	1.4	0.21
124-48-1	Chlorodibromomethane	0.26	U	1.4	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-3-042114 | Lab Sample ID: 240-36355-3

Matrix: Water | Lab File ID: U1237322.D

Analysis Method: 8260C | Date Collected: 04/21/2014 10:34

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 16:09

Soil Aliquot Vol: | Dilution Factor: 1.43

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.4	0.41
67-66-3	Chloroform	0.23	U	1.4	0.23
74-87-3	Chloromethane	0.43	U	1.4	0.43
156-59-2	cis-1,2-Dichloroethene	95		1.4	0.24
10061-01-5	cis-1,3-Dichloropropene	0.20	U	1.4	0.20
74-95-3	Dibromomethane	0.40	U *	1.4	0.40
74-97-5	Bromochloromethane	0.41	U	1.4	0.41
75-71-8	Dichlorodifluoromethane	0.44	U	1.4	0.44
75-27-4	Bromodichloromethane	0.21	U	1.4	0.21
75-65-0	tert-Butyl alcohol	5.6	U	72	5.6
100-41-4	Ethylbenzene	0.24	U	1.4	0.24
87-68-3	Hexachlorobutadiene	0.43	U	1.4	0.43
108-20-3	Diisopropyl ether	2.1	U	14	2.1
98-82-8	Isopropylbenzene	0.19	U	1.4	0.19
1634-04-4	Methyl tert-butyl ether	0.24	U	1.4	0.24
75-09-2	Methylene Chloride	1.1	J	1.4	0.47
179601-23-1	m-Xylene & p-Xylene	0.34	U	2.9	0.34
91-20-3	Naphthalene	0.34	U	1.4	0.34
104-51-8	n-Butylbenzene	0.17	U	1.4	0.17
103-65-1	N-Propylbenzene	0.20	U	1.4	0.20
95-47-6	o-Xylene	0.20	U	1.4	0.20
135-98-8	sec-Butylbenzene	0.19	U	1.4	0.19
100-42-5	Styrene	0.16	U	1.4	0.16
994-05-8	Tert-amyl methyl ether	0.096	U	7.2	0.096
637-92-3	Ethyl tert-butyl ether	0.16	U	7.2	0.16
127-18-4	Tetrachloroethene	0.41	U	1.4	0.41
108-88-3	Toluene	0.19	U	1.4	0.19
156-60-5	trans-1,2-Dichloroethene	0.27	U	1.4	0.27
10061-02-6	trans-1,3-Dichloropropene	0.27	U	1.4	0.27
79-01-6	Trichloroethene	9.9		1.4	0.24
75-69-4	Trichlorofluoromethane	0.30	U	1.4	0.30
108-05-4	Vinyl acetate	0.27	U	2.9	0.27
75-01-4	Vinyl chloride	3.8		1.4	0.31
1330-20-7	Xylenes, Total	0.20	U	2.9	0.20
98-06-6	tert-Butylbenzene	0.19	U	1.4	0.19
106-93-4	1,2-Dibromoethane	0.34	U	1.4	0.34

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-3-042114 | Lab Sample ID: 240-36355-3

Matrix: Water | Lab File ID: U1237322.D

Analysis Method: 8260C | Date Collected: 04/21/2014 10:34

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 16:09

Soil Aliquot Vol: | Dilution Factor: 1.43

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	96		75-121
460-00-4	4-Bromofluorobenzene (Surr)	83		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-3-042114 Lab Sample ID: 240-36355-3

Matrix: Water Lab File ID: U1237322.D

Analysis Method: 8260C Date Collected: 04/21/2014 10:34

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 16:09

Soil Aliquot Vol: Dilution Factor: 1.43

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-38S-042114 | Lab Sample ID: 240-36355-5

Matrix: Water | Lab File ID: U1237324.D

Analysis Method: 8260C | Date Collected: 04/21/2014 16:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 16:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-38S-042114 | Lab Sample ID: 240-36355-5

Matrix: Water | Lab File ID: U1237324.D

Analysis Method: 8260C | Date Collected: 04/21/2014 16:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 16:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-38S-042114 Lab Sample ID: 240-36355-5

Matrix: Water Lab File ID: U1237324.D

Analysis Method: 8260C Date Collected: 04/21/2014 16:00

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 16:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		74-120
1868-53-7	Dibromofluoromethane (Surr)	96		75-121
460-00-4	4-Bromofluorobenzene (Surr)	84		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		63-129

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-38S-042114 Lab Sample ID: 240-36355-5

Matrix: Water Lab File ID: U1237324.D

Analysis Method: 8260C Date Collected: 04/21/2014 16:00

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 16:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-49D-041714 | Lab Sample ID: 240-36343-3

Matrix: Water | Lab File ID: U1237317.D

Analysis Method: 8260C | Date Collected: 04/17/2014 15:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 14:12

Soil Aliquot Vol: | Dilution Factor: 83.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	19	U	83	19
71-55-6	1,1,1-Trichloroethane	56	J	83	18
79-34-5	1,1,2,2-Tetrachloroethane	15	U	83	15
76-13-1	1,1,2-Trichlorotrifluoroethane	23	U	83	23
75-34-3	1,1-Dichloroethane	23	J	83	12
75-35-4	1,1-Dichloroethene	150		83	16
563-58-6	1,1-Dichloropropene	11	U	83	11
87-61-6	1,2,3-Trichlorobenzene	14	U	83	14
96-18-4	1,2,3-Trichloropropane	36	U	83	36
526-73-8	1,2,3-Trimethylbenzene	0.49	U	420	0.49
120-82-1	1,2,4-Trichlorobenzene	12	U	83	12
95-63-6	1,2,4-Trimethylbenzene	10	U	83	10
96-12-8	1,2-Dibromo-3-Chloropropane	56	U	170	56
95-50-1	1,2-Dichlorobenzene	11	U	83	11
107-06-2	1,2-Dichloroethane	18	U	83	18
78-87-5	1,2-Dichloropropane	15	U	83	15
541-73-1	1,3-Dichlorobenzene	12	U	83	12
142-28-9	1,3-Dichloropropane	13	U	83	13
106-46-7	1,4-Dichlorobenzene	11	U	83	11
594-20-7	2,2-Dichloropropane	11	U	83	11
78-93-3	2-Butanone (MEK)	47	U	830	47
110-75-8	2-Chloroethyl vinyl ether	82	U	830	82
95-49-8	2-Chlorotoluene	9.2	U	83	9.2
591-78-6	2-Hexanone	34	U	830	34
106-43-4	4-Chlorotoluene	15	U	83	15
99-87-6	4-Isopropyltoluene	10	U	83	10
108-10-1	4-Methyl-2-pentanone (MIBK)	27	U	830	27
67-64-1	Acetone	92	U	830	92
71-43-2	Benzene	11	U	83	11
108-86-1	Bromobenzene	11	U	83	11
75-25-2	Bromoform	53	U	83	53
74-83-9	Bromomethane	34	U	83	34
75-15-0	Carbon disulfide	11	U	83	11
56-23-5	Carbon tetrachloride	11	U	83	11
108-90-7	Chlorobenzene	12	U	83	12
124-48-1	Chlorodibromomethane	15	U	83	15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-49D-041714 | Lab Sample ID: 240-36343-3

Matrix: Water | Lab File ID: U1237317.D

Analysis Method: 8260C | Date Collected: 04/17/2014 15:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 14:12

Soil Aliquot Vol: | Dilution Factor: 83.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	24	U	83	24
67-66-3	Chloroform	13	U	83	13
74-87-3	Chloromethane	25	U	83	25
156-59-2	cis-1,2-Dichloroethene	1600		83	14
10061-01-5	cis-1,3-Dichloropropene	12	U	83	12
74-95-3	Dibromomethane	23	U *	83	23
74-97-5	Bromochloromethane	24	U	83	24
75-71-8	Dichlorodifluoromethane	26	U	83	26
75-27-4	Bromodichloromethane	12	U	83	12
75-65-0	tert-Butyl alcohol	320	U	4200	320
100-41-4	Ethylbenzene	14	U	83	14
87-68-3	Hexachlorobutadiene	25	U	83	25
108-20-3	Diisopropyl ether	120	U	830	120
98-82-8	Isopropylbenzene	11	U	83	11
1634-04-4	Methyl tert-butyl ether	14	U	83	14
75-09-2	Methylene Chloride	27	U	83	27
179601-23-1	m-Xylene & p-Xylene	20	U	170	20
91-20-3	Naphthalene	20	U	83	20
104-51-8	n-Butylbenzene	10	U	83	10
103-65-1	N-Propylbenzene	12	U	83	12
95-47-6	o-Xylene	12	U	83	12
135-98-8	sec-Butylbenzene	11	U	83	11
100-42-5	Styrene	9.2	U	83	9.2
994-05-8	Tert-amyl methyl ether	5.6	U	420	5.6
637-92-3	Ethyl tert-butyl ether	9.2	U	420	9.2
127-18-4	Tetrachloroethene	24	U	83	24
108-88-3	Toluene	11	U	83	11
156-60-5	trans-1,2-Dichloroethene	16	U	83	16
10061-02-6	trans-1,3-Dichloropropene	16	U	83	16
79-01-6	Trichloroethene	5800		83	14
75-69-4	Trichlorofluoromethane	17	U	83	17
108-05-4	Vinyl acetate	16	U	170	16
75-01-4	Vinyl chloride	490		83	18
1330-20-7	Xylenes, Total	12	U	170	12
98-06-6	tert-Butylbenzene	11	U	83	11
106-93-4	1,2-Dibromoethane	20	U	83	20

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-49D-041714 | Lab Sample ID: 240-36343-3

Matrix: Water | Lab File ID: U1237317.D

Analysis Method: 8260C | Date Collected: 04/17/2014 15:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 14:12

Soil Aliquot Vol: | Dilution Factor: 83.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		74-120
1868-53-7	Dibromofluoromethane (Surr)	102		75-121
460-00-4	4-Bromofluorobenzene (Surr)	84		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-129

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-49D-041714 Lab Sample ID: 240-36343-3

Matrix: Water Lab File ID: U1237317.D

Analysis Method: 8260C Date Collected: 04/17/2014 15:40

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 14:12

Soil Aliquot Vol: Dilution Factor: 83.33

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-51D-041714 | Lab Sample ID: 240-36343-2

Matrix: Water | Lab File ID: U1237310.D

Analysis Method: 8260C | Date Collected: 04/17/2014 11:42

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 11:25

Soil Aliquot Vol: | Dilution Factor: 2.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.58	U	2.5	0.58
71-55-6	1,1,1-Trichloroethane	0.55	U	2.5	0.55
79-34-5	1,1,2,2-Tetrachloroethane	0.45	U	2.5	0.45
76-13-1	1,1,2-Trichlorotrifluoroethane	0.70	U	2.5	0.70
75-34-3	1,1-Dichloroethane	0.38	U	2.5	0.38
75-35-4	1,1-Dichloroethene	0.48	U	2.5	0.48
563-58-6	1,1-Dichloropropene	0.33	U	2.5	0.33
87-61-6	1,2,3-Trichlorobenzene	0.43	U	2.5	0.43
96-18-4	1,2,3-Trichloropropane	1.1	U	2.5	1.1
526-73-8	1,2,3-Trimethylbenzene	0.015	U	13	0.015
120-82-1	1,2,4-Trichlorobenzene	0.38	U	2.5	0.38
95-63-6	1,2,4-Trimethylbenzene	0.30	U	2.5	0.30
96-12-8	1,2-Dibromo-3-Chloropropane	1.7	U	5.0	1.7
95-50-1	1,2-Dichlorobenzene	0.33	U	2.5	0.33
107-06-2	1,2-Dichloroethane	0.65	J	2.5	0.55
78-87-5	1,2-Dichloropropane	0.45	U	2.5	0.45
541-73-1	1,3-Dichlorobenzene	0.35	U	2.5	0.35
142-28-9	1,3-Dichloropropane	0.40	U	2.5	0.40
106-46-7	1,4-Dichlorobenzene	0.33	U	2.5	0.33
594-20-7	2,2-Dichloropropane	0.33	U	2.5	0.33
78-93-3	2-Butanone (MEK)	1.4	U	25	1.4
110-75-8	2-Chloroethyl vinyl ether	2.5	U	25	2.5
95-49-8	2-Chlorotoluene	0.28	U	2.5	0.28
591-78-6	2-Hexanone	1.0	U	25	1.0
106-43-4	4-Chlorotoluene	0.45	U	2.5	0.45
99-87-6	4-Isopropyltoluene	0.30	U	2.5	0.30
108-10-1	4-Methyl-2-pentanone (MIBK)	0.80	U	25	0.80
67-64-1	Acetone	2.8	U	25	2.8
71-43-2	Benzene	0.33	U	2.5	0.33
108-86-1	Bromobenzene	0.33	U	2.5	0.33
75-25-2	Bromoform	1.6	U	2.5	1.6
74-83-9	Bromomethane	1.0	U	2.5	1.0
75-15-0	Carbon disulfide	0.33	U	2.5	0.33
56-23-5	Carbon tetrachloride	0.33	U	2.5	0.33
108-90-7	Chlorobenzene	0.70	J	2.5	0.38
124-48-1	Chlorodibromomethane	0.45	U	2.5	0.45

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-51D-041714 Lab Sample ID: 240-36343-2

Matrix: Water Lab File ID: U1237310.D

Analysis Method: 8260C Date Collected: 04/17/2014 11:42

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 11:25

Soil Aliquot Vol: Dilution Factor: 2.5

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.73	U	2.5	0.73
67-66-3	Chloroform	0.40	U	2.5	0.40
74-87-3	Chloromethane	0.75	U	2.5	0.75
156-59-2	cis-1,2-Dichloroethene	35		2.5	0.43
10061-01-5	cis-1,3-Dichloropropene	0.35	U	2.5	0.35
74-95-3	Dibromomethane	0.70	U *	2.5	0.70
74-97-5	Bromochloromethane	0.73	U	2.5	0.73
75-71-8	Dichlorodifluoromethane	0.78	U	2.5	0.78
75-27-4	Bromodichloromethane	0.38	U	2.5	0.38
75-65-0	tert-Butyl alcohol	9.8	U	130	9.8
100-41-4	Ethylbenzene	0.43	U	2.5	0.43
87-68-3	Hexachlorobutadiene	0.75	U	2.5	0.75
108-20-3	Diisopropyl ether	3.8	U	25	3.8
98-82-8	Isopropylbenzene	0.33	U	2.5	0.33
1634-04-4	Methyl tert-butyl ether	0.43	U	2.5	0.43
75-09-2	Methylene Chloride	1.3	J	2.5	0.83
179601-23-1	m-Xylene & p-Xylene	0.60	U	5.0	0.60
91-20-3	Naphthalene	0.60	U	2.5	0.60
104-51-8	n-Butylbenzene	0.30	U	2.5	0.30
103-65-1	N-Propylbenzene	0.35	U	2.5	0.35
95-47-6	o-Xylene	0.35	U	2.5	0.35
135-98-8	sec-Butylbenzene	0.33	U	2.5	0.33
100-42-5	Styrene	0.28	U	2.5	0.28
994-05-8	Tert-amyl methyl ether	0.17	U	13	0.17
637-92-3	Ethyl tert-butyl ether	0.28	U	13	0.28
127-18-4	Tetrachloroethene	0.73	U	2.5	0.73
108-88-3	Toluene	0.33	U	2.5	0.33
156-60-5	trans-1,2-Dichloroethene	1.2	J	2.5	0.48
10061-02-6	trans-1,3-Dichloropropene	0.48	U	2.5	0.48
79-01-6	Trichloroethene	94		2.5	0.43
75-69-4	Trichlorofluoromethane	0.53	U	2.5	0.53
108-05-4	Vinyl acetate	0.48	U	5.0	0.48
75-01-4	Vinyl chloride	6.8		2.5	0.55
1330-20-7	Xylenes, Total	0.35	U	5.0	0.35
98-06-6	tert-Butylbenzene	0.33	U	2.5	0.33
106-93-4	1,2-Dibromoethane	0.60	U	2.5	0.60

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-51D-041714 Lab Sample ID: 240-36343-2

Matrix: Water Lab File ID: U1237310.D

Analysis Method: 8260C Date Collected: 04/17/2014 11:42

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 11:25

Soil Aliquot Vol: Dilution Factor: 2.5

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		74-120
1868-53-7	Dibromofluoromethane (Surr)	102		75-121
460-00-4	4-Bromofluorobenzene (Surr)	84		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-129

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-51D-041714 Lab Sample ID: 240-36343-2

Matrix: Water Lab File ID: U1237310.D

Analysis Method: 8260C Date Collected: 04/17/2014 11:42

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 11:25

Soil Aliquot Vol: Dilution Factor: 2.5

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: TB-041714 | Lab Sample ID: 240-36343-1

Matrix: Water | Lab File ID: UXX9899.D

Analysis Method: 8260C | Date Collected: 04/17/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 20:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.2	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: TB-041714 Lab Sample ID: 240-36343-1

Matrix: Water Lab File ID: UXX9899.D

Analysis Method: 8260C Date Collected: 04/17/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 20:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: TB-041714 | Lab Sample ID: 240-36343-1

Matrix: Water | Lab File ID: UXX9899.D

Analysis Method: 8260C | Date Collected: 04/17/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 20:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		74-120
1868-53-7	Dibromofluoromethane (Surr)	92		75-121
460-00-4	4-Bromofluorobenzene (Surr)	89		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: TB-041714 Lab Sample ID: 240-36343-1

Matrix: Water Lab File ID: UXX9899.D

Analysis Method: 8260C Date Collected: 04/17/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 20:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: TB-042114 | Lab Sample ID: 240-36355-1

Matrix: Water | Lab File ID: U1237320.D

Analysis Method: 8260C | Date Collected: 04/21/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 15:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: TB-042114 Lab Sample ID: 240-36355-1

Matrix: Water Lab File ID: U1237320.D

Analysis Method: 8260C Date Collected: 04/21/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 15:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: TB-042114 Lab Sample ID: 240-36355-1

Matrix: Water Lab File ID: U1237320.D

Analysis Method: 8260C Date Collected: 04/21/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 15:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		74-120
1868-53-7	Dibromofluoromethane (Surr)	96		75-121
460-00-4	4-Bromofluorobenzene (Surr)	83		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: TB-042114 | Lab Sample ID: 240-36355-1

Matrix: Water | Lab File ID: U1237320.D

Analysis Method: 8260C | Date Collected: 04/21/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 15:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: TB-042214 | Lab Sample ID: 240-36398-1

Matrix: Water | Lab File ID: U1237325.D

Analysis Method: 8260C | Date Collected: 04/22/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 17:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: TB-042214 | Lab Sample ID: 240-36398-1

Matrix: Water | Lab File ID: U1237325.D

Analysis Method: 8260C | Date Collected: 04/22/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 17:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: TB-042214 Lab Sample ID: 240-36398-1

Matrix: Water Lab File ID: U1237325.D

Analysis Method: 8260C Date Collected: 04/22/2014 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 17:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		74-120
1868-53-7	Dibromofluoromethane (Surr)	93		75-121
460-00-4	4-Bromofluorobenzene (Surr)	80		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: TB-042214 | Lab Sample ID: 240-36398-1

Matrix: Water | Lab File ID: U1237325.D

Analysis Method: 8260C | Date Collected: 04/22/2014 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 17:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I-TIC 8260C

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-2B-042214 | Lab Sample ID: 240-36398-5

Matrix: Water | Lab File ID: 0429014.D

Analysis Method: 8270C | Date Collected: 04/22/2014 15:13

Extract. Method: 3510C | Date Extracted: 04/27/2014 11:00

Sample wt/vol: 260(mL) | Date Analyzed: 04/29/2014 12:05

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 128289 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.77	J B	0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	72		29-110
367-12-4	2-Fluorophenol (Surr)	81		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	68		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	84		31-110
4165-62-2	Phenol-d5 (Surr)	87		10-110
1718-51-0	Terphenyl-d14 (Surr)	85		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-2B-042214 RE | Lab Sample ID: 240-36398-5 RE

Matrix: Water | Lab File ID: 0509009.D

Analysis Method: 8270C | Date Collected: 04/22/2014 15:13

Extract. Method: 3510C | Date Extracted: 05/01/2014 08:18

Sample wt/vol: 260(mL) | Date Analyzed: 05/09/2014 11:19

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 129945 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	*1,4-Dioxane*	*0.25*	*U H*	*0.96*	*0.25*

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	66		29-110
367-12-4	2-Fluorophenol (Surr)	71		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	64		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	76		31-110
4165-62-2	Phenol-d5 (Surr)	62		10-110
1718-51-0	Terphenyl-d14 (Surr)	95		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3D-042214 | Lab Sample ID: 240-36398-2

Matrix: Water | Lab File ID: 0429011.D

Analysis Method: 8270C | Date Collected: 04/22/2014 08:50

Extract. Method: 3510C | Date Extracted: 04/27/2014 11:00

Sample wt/vol: 250(mL) | Date Analyzed: 04/29/2014 10:55

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 128289 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	69		29-110
367-12-4	2-Fluorophenol (Surr)	76		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	68		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	82		31-110
4165-62-2	Phenol-d5 (Surr)	81		10-110
1718-51-0	Terphenyl-d14 (Surr)	89		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3I-042214 | Lab Sample ID: 240-36398-3

Matrix: Water | Lab File ID: 0430008.D

Analysis Method: 8270C | Date Collected: 04/22/2014 10:30

Extract. Method: 3510C | Date Extracted: 04/27/2014 11:00

Sample wt/vol: 250(mL) | Date Analyzed: 04/30/2014 10:07

Con. Extract Vol.: 5(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 128487 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	420	B	10	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	73		29-110
367-12-4	2-Fluorophenol (Surr)	77		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	47		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	88		31-110
4165-62-2	Phenol-d5 (Surr)	83		10-110
1718-51-0	Terphenyl-d14 (Surr)	98		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3S-042214 | Lab Sample ID: 240-36398-4

Matrix: Water | Lab File ID: 0430009.D

Analysis Method: 8270C | Date Collected: 04/22/2014 12:00

Extract. Method: 3510C | Date Extracted: 04/27/2014 11:00

Sample wt/vol: 250(mL) | Date Analyzed: 04/30/2014 10:31

Con. Extract Vol.: 5(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 128487 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	440	B	10	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	72		29-110
367-12-4	2-Fluorophenol (Surr)	78		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	80		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	84		31-110
4165-62-2	Phenol-d5 (Surr)	83		10-110
1718-51-0	Terphenyl-d14 (Surr)	90		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5I-041814 | Lab Sample ID: 240-36343-4

Matrix: Water | Lab File ID: 0424009.D

Analysis Method: 8270C | Date Collected: 04/18/2014 11:35

Extract. Method: 3510C | Date Extracted: 04/22/2014 07:42

Sample wt/vol: 250(mL) | Date Analyzed: 04/24/2014 15:16

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127757 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	3.8		1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	63		29-110
367-12-4	2-Fluorophenol (Surr)	73		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	76		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	76		31-110
4165-62-2	Phenol-d5 (Surr)	79		10-110
1718-51-0	Terphenyl-d14 (Surr)	93		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5S-041814 | Lab Sample ID: 240-36343-5

Matrix: Water | Lab File ID: 0424010.D

Analysis Method: 8270C | Date Collected: 04/18/2014 15:30

Extract. Method: 3510C | Date Extracted: 04/22/2014 07:42

Sample wt/vol: 260(mL) | Date Analyzed: 04/24/2014 15:40

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127757 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	20		0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	63		29-110
367-12-4	2-Fluorophenol (Surr)	75		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	74		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	77		31-110
4165-62-2	Phenol-d5 (Surr)	84		10-110
1718-51-0	Terphenyl-d14 (Surr)	92		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-19D-042114 | Lab Sample ID: 240-36355-4

Matrix: Water | Lab File ID: 0429023.D

Analysis Method: 8270C | Date Collected: 04/21/2014 12:23

Extract. Method: 3510C | Date Extracted: 04/25/2014 11:53

Sample wt/vol: 250(mL) | Date Analyzed: 04/29/2014 15:36

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 128289 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.6		1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	70		29-110
367-12-4	2-Fluorophenol (Surr)	80		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	72		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	82		31-110
4165-62-2	Phenol-d5 (Surr)	85		10-110
1718-51-0	Terphenyl-d14 (Surr)	88		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-22D-042114 | Lab Sample ID: 240-36355-2

Matrix: Water | Lab File ID: 0429021.D

Analysis Method: 8270C | Date Collected: 04/21/2014 09:22

Extract. Method: 3510C | Date Extracted: 04/25/2014 11:53

Sample wt/vol: 250(mL) | Date Analyzed: 04/29/2014 14:49

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 128289 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	69		29-110
367-12-4	2-Fluorophenol (Surr)	82		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	68		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	83		31-110
4165-62-2	Phenol-d5 (Surr)	87		10-110
1718-51-0	Terphenyl-d14 (Surr)	87		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-3-042114 | Lab Sample ID: 240-36355-3

Matrix: Water | Lab File ID: 0429022.D

Analysis Method: 8270C | Date Collected: 04/21/2014 10:34

Extract. Method: 3510C | Date Extracted: 04/25/2014 11:53

Sample wt/vol: 260(mL) | Date Analyzed: 04/29/2014 15:13

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 128289 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	9.2		0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	60		29-110
367-12-4	2-Fluorophenol (Surr)	67		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	60		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	69		31-110
4165-62-2	Phenol-d5 (Surr)	71		10-110
1718-51-0	Terphenyl-d14 (Surr)	80		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-38S-042114 | Lab Sample ID: 240-36355-5

Matrix: Water | Lab File ID: 0429020.D

Analysis Method: 8270C | Date Collected: 04/21/2014 16:00

Extract. Method: 3510C | Date Extracted: 04/27/2014 11:00

Sample wt/vol: 260(mL) | Date Analyzed: 04/29/2014 14:26

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 128289 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.25	U	0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	68		29-110
367-12-4	2-Fluorophenol (Surr)	79		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	66		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	80		31-110
4165-62-2	Phenol-d5 (Surr)	83		10-110
1718-51-0	Terphenyl-d14 (Surr)	84		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-49D-041714 | Lab Sample ID: 240-36343-3

Matrix: Water | Lab File ID: 0424008.D

Analysis Method: 8270C | Date Collected: 04/17/2014 15:40

Extract. Method: 3510C | Date Extracted: 04/22/2014 07:42

Sample wt/vol: 250(mL) | Date Analyzed: 04/24/2014 14:53

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127757 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	39		1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	64		29-110
367-12-4	2-Fluorophenol (Surr)	75		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	81		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	76		31-110
4165-62-2	Phenol-d5 (Surr)	86		10-110
1718-51-0	Terphenyl-d14 (Surr)	95		31-115

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-51D-041714 | Lab Sample ID: 240-36343-2

Matrix: Water | Lab File ID: 0424005.D

Analysis Method: 8270C | Date Collected: 04/17/2014 11:42

Extract. Method: 3510C | Date Extracted: 04/22/2014 07:42

Sample wt/vol: 250(mL) | Date Analyzed: 04/24/2014 13:44

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127757 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	2.8		1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	67		29-110
367-12-4	2-Fluorophenol (Surr)	77		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	79		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	80		31-110
4165-62-2	Phenol-d5 (Surr)	86		10-110
1718-51-0	Terphenyl-d14 (Surr)	100		31-115

FORM I

GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3S-042214 | Lab Sample ID: 240-36398-4

Matrix: Water | Lab File ID: YF042357.D

Analysis Method: 8015B | Date Collected: 04/22/2014 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/24/2014 21:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127755 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	680		100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	85		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5S-041814 | Lab Sample ID: 240-36343-5

Matrix: Water | Lab File ID: YF042356.D

Analysis Method: 8015B | Date Collected: 04/18/2014 15:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/24/2014 20:34

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127755 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	3500		500	130

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	88		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-3-042114 | Lab Sample ID: 240-36355-3

Matrix: Water | Lab File ID: YF042313.D

Analysis Method: 8015B | Date Collected: 04/21/2014 10:34

Sample wt/vol: 5(mL) | Date Analyzed: 04/23/2014 16:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127543 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	92	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	81		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-38S-042114 | Lab Sample ID: 240-36355-5

Matrix: Water | Lab File ID: YF042314.D

Analysis Method: 8015B | Date Collected: 04/21/2014 16:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/23/2014 17:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127543 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	32	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	84		40-133

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3S-042214 | Lab Sample ID: 240-36398-4

Matrix: Water | Lab File ID: P14F042517.D

Analysis Method: 8015B | Date Collected: 04/22/2014 12:00

Extraction Method: 3510C | Date Extracted: 04/24/2014 08:27

Sample wt/vol: 240(mL) | Date Analyzed: 04/25/2014 19:49

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127973 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	890		520	250

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	82		40-160

FORM I

DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5S-041814 Lab Sample ID: 240-36343-5

Matrix: Water Lab File ID: P14F042427.D

Analysis Method: 8015B Date Collected: 04/18/2014 15:30

Extraction Method: 3510C Date Extracted: 04/23/2014 08:25

Sample wt/vol: 220(mL) Date Analyzed: 04/24/2014 23:20

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 127779 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	270	U	570	270

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	80		40-160

FORM I

DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-3-042114 | Lab Sample ID: 240-36355-3

Matrix: Water | Lab File ID: P14F042425.D

Analysis Method: 8015B | Date Collected: 04/21/2014 10:34

Extraction Method: 3510C | Date Extracted: 04/23/2014 08:25

Sample wt/vol: 240(mL) | Date Analyzed: 04/24/2014 22:38

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	250	U	520	250

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	80		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-38S-042114 Lab Sample ID: 240-36355-5

Matrix: Water Lab File ID: P14F042426.D

Analysis Method: 8015B Date Collected: 04/21/2014 16:00

Extraction Method: 3510C Date Extracted: 04/23/2014 08:25

Sample wt/vol: 250(mL) Date Analyzed: 04/24/2014 22:59

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 127779 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	79		40-160

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5I-041814 Lab Sample ID: 240-36343-4

Matrix: Water Lab File ID: 23APR14-Per-056.d

Analysis Method: 6850 Date Collected: 04/18/2014 11:35

Extraction Method: Filtration Date Extracted: 04/23/2014 09:10

Sample wt/vol: 4.00(mL) Date Analyzed: 04/24/2014 02:01

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41075 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-49D-041714 Lab Sample ID: 240-36343-3

Matrix: Water Lab File ID: 23APR14-Per-055.d

Analysis Method: 6850 Date Collected: 04/17/2014 15:40

Extraction Method: Filtration Date Extracted: 04/23/2014 09:10

Sample wt/vol: 4.00(mL) Date Analyzed: 04/24/2014 01:46

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41075 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.92		0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-51D-041714 Lab Sample ID: 240-36343-2

Matrix: Water Lab File ID: 23APR14-Per-052.d

Analysis Method: 6850 Date Collected: 04/17/2014 11:42

Extraction Method: Filtration Date Extracted: 04/23/2014 09:10

Sample wt/vol: 4.00(mL) Date Analyzed: 04/24/2014 01:03

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41075 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.094	J	0.50	0.082

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3S-042214 Lab Sample ID: 240-36398-4

Matrix: Water Lab File ID: YD28047.D

Analysis Method: 552.2 Date Collected: 04/22/2014 12:00

Extraction Method: 552.2 Date Extracted: 04/25/2014 13:27

Sample wt/vol: 40(mL) Date Analyzed: 04/29/2014 03:13

Con. Extract Vol.: 4(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP I ID: 0.32(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 326529 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3S-042214 | Lab Sample ID: 240-36398-4

Matrix: Water | Lab File ID: YD28047.D

Analysis Method: 552.2 | Date Collected: 04/22/2014 12:00

Extraction Method: 552.2 | Date Extracted: 04/25/2014 13:27

Sample wt/vol: 40(mL) | Date Analyzed: 04/29/2014 03:13

Con. Extract Vol.: 4(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP II ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326529 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid	109		70-130

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5S-041814 | Lab Sample ID: 240-36343-5

Matrix: Water | Lab File ID: YD25021.D

Analysis Method: 552.2 | Date Collected: 04/18/2014 15:30

Extraction Method: 552.2 | Date Extracted: 04/24/2014 12:54

Sample wt/vol: 40(mL) | Date Analyzed: 04/25/2014 21:03

Con. Extract Vol.: 4(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP I ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326226 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5S-041814 | Lab Sample ID: 240-36343-5

Matrix: Water | Lab File ID: YD25021.D

Analysis Method: 552.2 | Date Collected: 04/18/2014 15:30

Extraction Method: 552.2 | Date Extracted: 04/24/2014 12:54

Sample wt/vol: 40(mL) | Date Analyzed: 04/25/2014 21:03

Con. Extract Vol.: 4(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP II ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326226 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid	112		70-130

APPENDIX C

SUPPORT DOCUMENTATION

TestAmerica Canton
4101 Shuffel Street, N. W.
North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

3.0.2.2

Chain of Custody Record

042301

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact			
Company Name:	Tetra Tech Inc	Project Manager:	Tony Apanavage
Address:	20251 Century Blvd.	Tel/Fax:	301 528-3021
City/State/Zip:	Germantown, MD 20874	Site Contact:	Walt Payne
Phone:	301 528-3021	Lab Contact:	Pat Omeara
Fax:	3000	Date:	4-17-14
Project Name:	MSA GW 2014	Carrier:	Fed EX
Site:	MSA	COC No:	1 of 1 COCs
PO#	Project 112IC06183	Sampler:	

Analysis Turnaround Time: ☐ CALENDAR DAYS ☐ WORKING DAYS
TAT if different from Below ____
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day
21 day

For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	Total metals	Diss metals	1,4 Dioxane	Perchlorate	DRO 8015B	GRO 8015B	Haloacetic Acid 552.1-552.4	Sample Specific Notes:
~~[illegible]~~ TB-041714	4-17-14	—	G	GW	2											
MSA-MW-51D-041714	4/17/14	1142	G	GW	27			X	X	X	X	X				* MS/MSD *
MSA-MW-49D-041714	4/17/14	1540	G	GW	8			X	X	X	X	X				
MSA-DMW-5I-041814	4/18/14	1135	G	GW	8			X	X	X	X	X				
MSA-DMW-5S-041814	4/18/14	1530	G	GW	13			X	X	X	X		X	X	X	

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ Therm ID No.: ____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tt Inc	4-18-14 / 1830	Ryan Rota	Test America	4/19/14 0945
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton
4101 Shuffel Street, N. W.
North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

Chain of Custody Record

042300

1.2, 1.8

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Tony Adamavage	Site Contact: Walt Payne	Date: 4-21-14	COC No:
Company Name: Tetra Tech INC.	Tel/Fax: 301 528-3021	Lab Contact: Pat O'Meara	Carrier: Fed Ex	1 of ____ COCs
Address: 20251 Century Blvd	Analysis Turnaround Time			Sampler: Walt Payne
City/State/Zip: Germantown, MD 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301 528-3021	TAT if different from Below ____			Walk-in Client:
Fax: 3000	☐ 2 weeks 21 day			Lab Sampling:
Project Name: MSA GW 2014	☐ 1 week			Job / SDG No.:
Site: MSA	☐ 2 days			
PO # Project # 112IC06183	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	Total metals	Diss metals	1,4 Dioxane	Radium 224, 226, 228	TPH - GRO	TPH - DRO	Sample Specific Notes:
TB-042114	4-21-14	~	G	GW	2			X							
MSA-MW-22D-042114		0922			7			X	X	X	X				
MSA-MW-3-042114		1034			14			X	X	X	X	X	X	X	
MSA-MW-19D-042114		1223			7			X	X	X	X				
MSA-MW-38S-042114		1600						X	X	X	X		X	X	

Page 250 of 3261

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ | Therm ID No.: ____

	Company	Date/Time		Company	Date/Time
Relinquished by: Walt Payne	TT INC	4-21-14 1620	Received by:	TestAmerica	4/21/14 1620
Relinquished by:	TestAmerica	4/21/14 1720	Received by:	TA	4-22-14 950
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

1.8, 2.2

Chain of Custody Record

042299

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Tony Apanavage	Site Contact: Walt Payne	Date: 4-22-14	COC No:
Company Name:	TEtra Tech Inc.	Tel/Fax: 301 528-3021	Lab Contact: Pat O'meara	Carrier: Fed Ex	1 of ____ COCs
Address:	20251 Century Blvd	Analysis Turnaround Time			Sampler:
City/State/Zip:	Germantown, MD 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	301 528-3021	TAT if different from Below ____			Walk-in Client:
Fax:	3000	☐ 2 weeks 21 day			Lab Sampling:
Project Name:	MSA GW 2014	☐ 1 week			
Site:	MSA	☐ 2 days			Job / SDG No.:
PO#	Project 112IC06183	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	Total metals	Diss metals	1,4 Dioxane	TPH-GRO	TPH-DRO	Radium 224, 226, 228	Haloacetic Acids	Sample Specific Notes:
TB-042214	4-22-14	—	G	GW	2			X								
MSA-DMW-3D-042214	↓	0850	↓	↓	10			X	X	X	X			X		
MSA-DMW-3I-042214	↓	1030	↓	↓	10			X	X	X	X			X		
MSA-DMW-3S-042214	↓	1200	↓	↓	13			X	X	X	X	X	X		X	
MSA-DMW-2B-042214	↓	1513	↓	↓	7			X	X	X	X					

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ Therm ID No.: ____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt Payne	Tt Inc	4-22-14 / 1605	Paul Danford	TestAmerica	4/22/14 / 1605
Paul Danford	TestAmerica	4/22/14 / 1730	Dwyer Moore	Test America	4/23/14 920

HOLDTIME

SDG 240-36343-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	MSA-MW-22D-042114	240-36355-2	NM	04/21/2014	04/23/2014	04/24/2014	2	1	3
HG	UG/L	MSA-MW-49D-041714	240-36343-3	NM	04/17/2014	04/22/2014	04/23/2014	5	1	6
HG	UG/L	MSA-MW-3-042114	240-36355-3	NM	04/21/2014	04/23/2014	04/24/2014	2	1	3
HG	UG/L	MSA-MW-51D-041714	240-36343-2	NM	04/17/2014	04/22/2014	04/23/2014	5	1	6
HG	UG/L	MSA-MW-19D-042114	240-36355-4	NM	04/21/2014	04/23/2014	04/24/2014	2	1	3
HG	UG/L	MSA-DMW-5S-041814	240-36343-5	NM	04/18/2014	04/23/2014	04/24/2014	5	1	6
HG	UG/L	MSA-DMW-5I-041814	240-36343-4	NM	04/18/2014	04/22/2014	04/23/2014	4	1	5
HG	UG/L	MSA-DMW-3S-042214	240-36398-4	NM	04/22/2014	04/24/2014	04/25/2014	2	1	3
HG	UG/L	MSA-DMW-3I-042214	240-36398-3	NM	04/22/2014	04/24/2014	04/25/2014	2	1	3
HG	UG/L	MSA-DMW-3D-042214	240-36398-2	NM	04/22/2014	04/24/2014	04/25/2014	2	1	3
HG	UG/L	MSA-DMW-2B-042214	240-36398-5	NM	04/22/2014	04/24/2014	04/25/2014	2	1	3
HG	UG/L	MSA-MW-38S-042114	240-36355-5	NM	04/21/2014	04/23/2014	04/24/2014	2	1	3
M	UG/L	MSA-DMW-5S-041814	240-36343-5	NM	04/18/2014	04/23/2014	04/25/2014	5	2	7
M	UG/L	MSA-MW-49D-041714	240-36343-3	NM	04/17/2014	04/22/2014	04/24/2014	5	2	7
M	UG/L	MSA-MW-38S-042114	240-36355-5	NM	04/21/2014	04/23/2014	04/24/2014	2	1	3

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	UG/L	MSA-MW-3-042114	240-36355-3	NM	04/21/2014	04/23/2014	04/24/2014	2	1	3
M	UG/L	MSA-MW-22D-042114	240-36355-2	NM	04/21/2014	04/23/2014	04/24/2014	2	1	3
M	UG/L	MSA-MW-19D-042114	240-36355-4	NM	04/21/2014	04/23/2014	04/24/2014	2	1	3
M	UG/L	MSA-DMW-5S-041814	240-36343-5	NM	04/18/2014	04/23/2014	04/24/2014	5	1	6
M	UG/L	MSA-DMW-5I-041814	240-36343-4	NM	04/18/2014	04/22/2014	04/24/2014	4	2	6
M	UG/L	MSA-DMW-3S-042214	240-36398-4	NM	04/22/2014	04/24/2014	04/25/2014	2	1	3
M	UG/L	MSA-DMW-3I-042214	240-36398-3	NM	04/22/2014	04/24/2014	04/25/2014	2	1	3
M	UG/L	MSA-MW-51D-041714	240-36343-2	NM	04/17/2014	04/22/2014	04/23/2014	5	1	6
M	UG/L	MSA-DMW-2B-042214	240-36398-5	NM	04/22/2014	04/24/2014	04/25/2014	2	1	3
M	UG/L	MSA-MW-51D-041714	240-36343-2	NM	04/17/2014	04/22/2014	04/24/2014	5	2	7
M	UG/L	MSA-DMW-3D-042214	240-36398-2	NM	04/22/2014	04/24/2014	04/25/2014	2	1	3
PCL	UG/L	MSA-DMW-5I-041814	240-36343-4	NM	04/18/2014	04/23/2014	04/24/2014	5	1	6
PCL	UG/L	MSA-MW-51D-041714	240-36343-2	NM	04/17/2014	04/23/2014	04/24/2014	6	1	7
PCL	UG/L	MSA-MW-49D-041714	240-36343-3	NM	04/17/2014	04/23/2014	04/24/2014	6	1	7
OS	UG/L	MSA-MW-38S-042114	240-36355-5	NM	04/21/2014	04/27/2014	04/29/2014	6	2	8
OS	UG/L	MSA-DMW-2B-042214	240-36398-5	NM	04/22/2014	04/27/2014	04/29/2014	5	2	7
OS	UG/L	MSA-DMW-5S-041814	240-36343-5	NM	04/18/2014	04/22/2014	04/24/2014	4	2	6
OS	UG/L	MSA-MW-49D-041714	240-36343-3	NM	04/17/2014	04/22/2014	04/24/2014	5	2	7

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	UG/L	MSA-MW-3-042114	240-36355-3	NM	04/21/2014	04/25/2014	04/29/2014	4	4	8
OS	UG/L	MSA-MW-22D-042114	240-36355-2	NM	04/21/2014	04/25/2014	04/29/2014	4	4	8
OS	UG/L	MSA-MW-19D-042114	240-36355-4	NM	04/21/2014	04/25/2014	04/29/2014	4	4	8
OS	UG/L	MSA-DMW-2B-042214	240-36398-5	NM	04/22/2014	05/01/2014	05/09/2014	9	8	17
OS	UG/L	MSA-DMW-3D-042214	240-36398-2	NM	04/22/2014	04/27/2014	04/29/2014	5	2	7
OS	UG/L	MSA-DMW-3I-042214	240-36398-3	NM	04/22/2014	04/27/2014	04/30/2014	5	3	8
OS	UG/L	MSA-DMW-3S-042214	240-36398-4	NM	04/22/2014	04/27/2014	04/30/2014	5	3	8
OS	UG/L	MSA-DMW-5I-041814	240-36343-4	NM	04/18/2014	04/22/2014	04/24/2014	4	2	6
OS	UG/L	MSA-MW-51D-041714	240-36343-2	NM	04/17/2014	04/22/2014	04/24/2014	5	2	7
OV	UG/L	MSA-DMW-5I-041814	240-36343-4	NM	04/18/2014	04/26/2014	04/26/2014	8	0	8
OV	UG/L	MSA-MW-3-042114	240-36355-3	NM	04/21/2014	04/26/2014	04/26/2014	5	0	5
OV	UG/L	TB-042214	240-36398-1	TB	04/22/2014	04/26/2014	04/26/2014	4	0	4
OV	UG/L	TB-042114	240-36355-1	TB	04/21/2014	04/26/2014	04/26/2014	5	0	5
OV	UG/L	TB-041714	240-36343-1	TB	04/17/2014	04/22/2014	04/22/2014	5	0	5
OV	UG/L	MSA-MW-51D-041714	240-36343-2	NM	04/17/2014	04/26/2014	04/26/2014	9	0	9
OV	UG/L	MSA-MW-49D-041714	240-36343-3	NM	04/17/2014	04/26/2014	04/26/2014	9	0	9
OV	UG/L	MSA-MW-38S-042114	240-36355-5	NM	04/21/2014	04/26/2014	04/26/2014	5	0	5
OV	UG/L	MSA-DMW-2B-042214	240-36398-5	NM	04/22/2014	04/26/2014	04/26/2014	4	0	4

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2014

Report Number: 240-36343-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 552.2 Haloacetic Acids analysis was performed at the TestAmerica Savannah Laboratory. The 6850 Perchlorate analysis was performed at the TestAmerica Sacramento Laboratory. The Radiological analysis was performed at the TestAmerica Richland Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 4/19/2014 9:45 AM, 4/22/2014 9:50 AM and 4/23/2014 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.2° C, 1.8° C, 1.8° C, 2.2° C, 2.2° C and 3.0° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-041714 (240-36343-1), TB-042114 (240-36355-1), TB-042214 (240-36398-1), MSA-MW-51D-041714 (240-36343-2), MSA-MW-22D-042114 (240-36355-2), MSA-DMW-3D-042214 (240-36398-2), MSA-MW-49D-041714 (240-36343-3), MSA-MW-3-042114 (240-36355-3), MSA-DMW-3I-042214 (240-36398-3), MSA-DMW-5I-041814 (240-36343-4), MSA-MW-19D-042114 (240-36355-4), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5), MSA-MW-38S-042114 (240-36355-5) and MSA-DMW-2B-042214 (240-36398-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 04/22/2014, 04/26/2014 and 04/29/2014.

1,2,4-Trimethylbenzene, Acetone, Carbon disulfide and n-Butylbenzene were detected in method blank MB 240-128396/6 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples MSA-MW-51D-041714 (240-36343-2)[2.5X], MSA-MW-3-042114 (240-36343-3)[1.43X], MSA-DMW-3I-042214 (240-36343-3)[200X], MSA-MW-49D-041714 (240-36343-3)[83.33X], MSA-DMW-5I-041814 (240-36343-4)[3.33X], MSA-DMW-3S-042214 (240-36343-4)[40X] and MSA-DMW-5S-041814 (240-36343-5)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) for analytical batch 127413 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The laboratory control sample (LCS) for batch 128028 recovered outside control limits for the following analytes: Dibromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) for analytical batch 128028 exceeded control criteria for multiple compounds. The samples

associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The continuing calibration verification (CCV) for analytical batch 128396 exceeded control criteria for Napthalene. The samples associated with this CCV were non-detects for the affected analyte. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compound was detected; therefore the data has been reported. No further corrective action was required.

No other difficulties were encountered during the VOCs analysis. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-MW-51D-041714 (240-36343-2), MSA-MW-22D-042114 (240-36355-2), MSA-DMW-3D-042214 (240-36398-2), MSA-MW-49D-041714 (240-36343-3), MSA-MW-3-042114 (240-36355-3), MSA-DMW-3I-042214 (240-36398-3), MSA-DMW-5I-041814 (240-36343-4), MSA-MW-19D-042114 (240-36355-4), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5), MSA-MW-38S-042114 (240-36355-5) and MSA-DMW-2B-042214 (240-36398-5) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 04/22/2014, 04/25/2014, 04/27/2014 and 05/01/2014 and analyzed on 04/24/2014, 04/29/2014, 04/30/2014 and 05/09/2014.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

1,4-Dioxane was detected in method blank MB 240-128083/15-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples MSA-DMW-3I-042214 (240-36343-3)[10X] and MSA-DMW-3S-042214 (240-36343-4)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

1,4-Dioxane was detected above the reporting limit (RL) in the method blank associated with batch 128083 as well as in the following sample(s): MSA-DMW-2B-042214 (240-36398-5). This sample was re-extracted and re-analyzed with acceptable results, however the holding time was exceeded. Both sets of data have been reported.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 128083, 8270.

No other difficulties were encountered during the SVOCs analysis. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)

Samples MSA-MW-3-042114 (240-36355-3), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5) and MSA-MW-38S-042114 (240-36355-5) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/23/2014 and 04/24/2014.

Sample MSA-DMW-5S-041814 (240-36343-5)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the GRO analysis. All quality control parameters were within the acceptance limits.

HALOACETIC ACIDS (HAAS)

Samples MSA-DMW-3S-042214 (240-36398-4) and MSA-DMW-5S-041814 (240-36343-5) were analyzed for Haloacetic Acids (HAAs) in accordance with EPA Method 552.2. The samples were prepared on 04/24/2014 and 04/25/2014 and analyzed on 04/25/2014 and 04/29/2014.

No difficulties were encountered during the haloacetic acids analysis. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples MSA-MW-3-042114 (240-36355-3), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5) and MSA-MW-38S-042114 (240-36355-5) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 04/23/2014 and 04/24/2014 and analyzed on 04/24/2014 and 04/25/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 127536, 8015.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 127706, 8015.

No other difficulties were encountered during the DRO analysis. All quality control parameters were within the acceptance limits.

PERCHLORATE
Samples MSA-MW-51D-041714 (240-36343-2), MSA-MW-49D-041714 (240-36343-3) and MSA-DMW-5I-041814 (240-36343-4) were analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 04/23/2014 and analyzed on 04/24/2014.

No difficulties were encountered during the perchlorate analysis. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)
Samples MSA-MW-51D-041714 (240-36343-2), MSA-MW-22D-042114 (240-36355-2), MSA-DMW-3D-042214 (240-36398-2), MSA-MW-49D-041714 (240-36343-3), MSA-MW-3-042114 (240-36355-3), MSA-DMW-3I-042214 (240-36398-3), MSA-DMW-5I-041814 (240-36343-4), MSA-MW-19D-042114 (240-36355-4), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5), MSA-MW-38S-042114 (240-36355-5) and MSA-DMW-2B-042214 (240-36398-5) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/22/2014, 04/23/2014 and 04/24/2014 and analyzed on 04/23/2014, 04/24/2014 and 04/25/2014.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-MW-49D-041714 (240-36343-3). Elevated reporting limits (RLs) are provided.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-DMW-5S-041814 (240-36343-5). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the metals analysis. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)
Samples MSA-MW-51D-041714 (240-36343-2), MSA-MW-22D-042114 (240-36355-2), MSA-DMW-3D-042214 (240-36398-2), MSA-MW-49D-041714 (240-36343-3), MSA-MW-3-042114 (240-36355-3), MSA-DMW-3I-042214 (240-36398-3), MSA-DMW-5I-041814 (240-36343-4), MSA-MW-19D-042114 (240-36355-4), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5), MSA-MW-38S-042114 (240-36355-5) and MSA-DMW-2B-042214 (240-36398-5) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/22/2014, 04/23/2014 and 04/24/2014 and analyzed on 04/23/2014, 04/24/2014 and 04/25/2014.

Several analytes were detected in method blank MB 240-127397/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 240-127554/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 240-127722/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples MSA-MW-49D-041714 (240-36343-3)[5X] and MSA-DMW-5S-041814 (240-36343-5)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-MW-49D-041714 (240-36343-3). Elevated reporting limits (RLs) are provided.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-DMW-5S-041814 (240-36343-5). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)
Samples MSA-MW-51D-041714 (240-36343-2), MSA-MW-22D-042114 (240-36355-2), MSA-DMW-3D-042214 (240-36398-2), MSA-MW-49D-041714 (240-36343-3), MSA-MW-3-042114 (240-36355-3), MSA-DMW-3I-042214 (240-36398-3), MSA-DMW-5I-041814 (240-36343-4), MSA-MW-19D-042114 (240-36355-4), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5), MSA-MW-38S-042114 (240-36355-5) and MSA-DMW-2B-042214 (240-36398-5) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/22/2014, 04/23/2014 and 04/24/2014 and analyzed on 04/23/2014, 04/24/2014 and 04/25/2014.

No difficulties were encountered during the mercury analysis. All quality control parameters were within the acceptance limits.

TOTAL MERCURY
Samples MSA-MW-51D-041714 (240-36343-2), MSA-MW-22D-042114 (240-36355-2), MSA-DMW-3D-042214 (240-36398-2), MSA-MW-49D-041714 (240-36343-3), MSA-MW-3-042114 (240-36355-3), MSA-DMW-3I-042214 (240-36398-3), MSA-DMW-5I-041814 (240-36343-4), MSA-MW-19D-042114 (240-36355-4), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5),

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2014

TestAmerica Job ID: 240-36343-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015B	Gasoline Range Organics - (GC)	SW846	TAL CAN
552.2	Haloacetic Acids (HAAs) (GC)	EPA	TAL SAV
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CAN
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
Alpha Rad 224, 226 + Radium 228	Total Radium	NONE	TAL RCH

Protocol References:

EPA = US Environmental Protection Agency

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2014

TestAmerica Job ID: 240-36343-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-36343-1	TB-041714	Water	04/17/14 00:00	04/19/14 09:45
240-36343-2	MSA-MW-51D-041714	Water	04/17/14 11:42	04/19/14 09:45
240-36343-3	MSA-MW-49D-041714	Water	04/17/14 15:40	04/19/14 09:45
240-36343-4	MSA-DMW-5I-041814	Water	04/18/14 11:35	04/19/14 09:45
240-36343-5	MSA-DMW-5S-041814	Water	04/18/14 15:30	04/19/14 09:45
240-36355-1	TB-042114	Water	04/21/14 00:00	04/22/14 09:50
240-36355-2	MSA-MW-22D-042114	Water	04/21/14 09:22	04/22/14 09:50
240-36355-3	MSA-MW-3-042114	Water	04/21/14 10:34	04/22/14 09:50
240-36355-4	MSA-MW-19D-042114	Water	04/21/14 12:23	04/22/14 09:50
240-36355-5	MSA-MW-38S-042114	Water	04/21/14 16:00	04/22/14 09:50
240-36398-1	TB-042214	Water	04/22/14 00:00	04/23/14 09:20
240-36398-2	MSA-DMW-3D-042214	Water	04/22/14 08:50	04/23/14 09:20
240-36398-3	MSA-DMW-3I-042214	Water	04/22/14 10:30	04/23/14 09:20
240-36398-4	MSA-DMW-3S-042214	Water	04/22/14 12:00	04/23/14 09:20
240-36398-5	MSA-DMW-2B-042214	Water	04/22/14 15:13	04/23/14 09:20

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits
F1	MS and/or MSD Recovery exceeds the control limits
B	Compound was found in the blank and sample.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
H	Sample was prepped or analyzed beyond the specified holding time

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

TestAmerica Canton Sample Receipt Form/Narrative Login # : 3V355
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 4-22-14 Opened on 4-22-14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box (Other) _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	
IR GUN# 4	(CF -1 °C)	Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	☑ See Multiple Cooler Form
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2	(Yes)	No
-Were custody seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were custody seals on the bottle(s)?	Yes	(No)
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
7. Could all bottle labels be reconciled with the COC?	(Yes)	No
8. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
9. Sufficient quantity received to perform indicated analyses?	(Yes)	No
10. Were sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC391902
11. Were VOAs on the COC?	(Yes)	No
12. Were air bubbles >6 mm in any VOA vials?	Yes	(No) NA
13. Was a trip blank present in the cooler(s)?	(Yes)	No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: Ryan Rock

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative
Canton Facility

Login # : 31355

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
client	A	1.2	1.2	ice
1005	1	1.8	1.8	1

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW-22D-042114	240-36355-F-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-22D-042114	240-36355-G-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-3-042114	240-36355-J-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-3-042114	240-36355-K-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-3-042114	240-36355-L-3	Plastic 1 liter - Nitric Acid	<2		
MSA-MW-3-042114	240-36355-M-3	Plastic 1 liter - Nitric Acid	<2		
MSA-MW-3-042114	240-36355-N-3	Plastic 1 liter - Nitric Acid	<2		
MSA-MW-19D-042114	240-36355-F-4	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-19D-042114	240-36355-G-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-38S-042114	240-36355-J-5	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-38S-042114	240-36355-K-5	Plastic 500ml - w/ Nitric - Dis.	<2		

TestAmerica Canton Sample Receipt Form/Narrative Login # : 31398
Canton Facility

Client TetraTech Inc Site Name _____ Cooler unpacked by: Ryan Rott

Cooler Received on _____ Opened on _____

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box (Client Cooler) Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C) Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	☒ See Multiple Cooler Form
IR GUN# 4	(CF -1 °C) Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	
IR GUN# 5	(CF +1 °C) Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	
IR GUN# 8	(CF +1 °C) Observed Cooler Temp._____°C	Corrected Cooler Temp._____°C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: Ryan Rott

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

TestAmerica Multiple Cooler Receipt Form/Narrative
Canton Facility

Login # : 360398

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client	A	1.8	1.8	Ice
Client	A	2.2	2.2	Ice

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-DMW-3D-042214	240-36398-F-2	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-3D-042214	240-36398-G-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-3D-042214	240-36398-H-2	Plastic 1 liter - Nitric Acid			
MSA-DMW-3D-042214	240-36398-I-2	Plastic 1 liter - Nitric Acid			
MSA-DMW-3D-042214	240-36398-J-2	Plastic 1 liter - Nitric Acid			
MSA-DMW-3I-042214	240-36398-F-3	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-3I-042214	240-36398-G-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-3I-042214	240-36398-H-3	Plastic 1 liter - Nitric Acid			
MSA-DMW-3I-042214	240-36398-I-3	Plastic 1 liter - Nitric Acid			
MSA-DMW-3I-042214	240-36398-J-3	Plastic 1 liter - Nitric Acid			
MSA-DMW-3S-042214	240-36398-L-4	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-3S-042214	240-36398-M-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-2B-042214	240-36398-F-5	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-2B-042214	240-36398-G-5	Plastic 500ml - w/ Nitric - Dis.	<2		

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-36343-1

Login Number: 36343
List Number: 321
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 04/22/14 11:39 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-36343-1

Login Number: 36343
List Number: 1
Creator: Conner, Keaton

List Source: TestAmerica Savannah
List Creation: 04/22/14 03:09 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-36343-1

Login Number: 36398
List Number: 1
Creator: Conner, Keaton

List Source: TestAmerica Savannah
List Creation: 04/24/14 05:06 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 36343

Client Tetra Tech Inc Site Name

Cooler unpacked by: Ryan Rost

Cooler Received on 4/19/14 Opened on 4/21/14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

TestAmerica Cooler # Foam Box (Client Cooler) Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	
IR GUN# 4	(CF -1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	[X] See Multiple Cooler Form
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity ____ Yes (No)
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No (NA)
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: Ryan Rost

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.

Sample(s) ____ were received in a broken container.

Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.

Time preserved: ____ Preservative(s) added/Lot number(s): ____

TestAmerica Multiple Cooler Receipt Form/Narrative - Login #: 36343
Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client	A	3.0	3.0	Ice
Client	A	2.2	2.2	Ice

Login Container Summary Report

240-36343

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW-51D-041714	240-36343-S-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-51D-041714	240-36343-T-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-51D-041714	240-36343-U-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-51D-041714	240-36343-V-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-51D-041714	240-36343-W-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-51D-041714	240-36343-X-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-49D-041714	240-36343-G-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-49D-041714	240-36343-H-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-5I-041814	240-36343-G-4	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-5I-041814	240-36343-H-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-5S-041814	240-36343-L-5	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-5S-041814	240-36343-M-5	Plastic 500ml - w/ Nitric - Dis.	<2		

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: BFB5580.D BFB Injection Date: 03/13/2014

Instrument ID: A3UX10 BFB Injection Time: 08:39

Analysis Batch No.: 122371

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.3	
75	30.0 - 60.0 % of mass 95	49.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.1	(0.1)1
174	50.0 - 120.00 % of mass 95	86.9	
175	5.0 - 9.0 % of mass 174	6.5	(7.5)1
176	95.0 - 101.0 % of mass 174	83.3	(95.8)1
177	5.0 - 9.0 % of mass 176	5.7	(6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-122371/2	UXX8834.D	03/13/2014	09:02
	STD8260 240-122371/3	UXX8835.D	03/13/2014	09:24
	STD8260 240-122371/4	UXX8836.D	03/13/2014	09:48
	STD8260 240-122371/5	UXX8837.D	03/13/2014	10:10
	STD8260 240-122371/6	UXX8838.D	03/13/2014	10:33
	STD8260 240-122371/7	UXX8839.D	03/13/2014	10:55
	STDA9 240-122371/8	UXX8840.D	03/13/2014	11:18
	STDA9 240-122371/9	UXX8841.D	03/13/2014	11:40
	STDA9 240-122371/10	UXX8842.D	03/13/2014	12:02
	STDA9 240-122371/11	UXX8843.D	03/13/2014	12:25
	STDA9 240-122371/12	UXX8844.D	03/13/2014	12:47
	STDA9 240-122371/13	UXX8845.D	03/13/2014	13:09
	ICV 240-122371/14	UXX8846.D	03/13/2014	13:50
	ICV 240-122371/15	UXX8847.D	03/13/2014	14:12

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-122371/7	UXX8839.D
Level 2	STD8260 240-122371/6	UXX8838.D
Level 3	STD8260 240-122371/5	UXX8837.D
Level 4	STD8260 240-122371/4	UXX8836.D
Level 5	STD8260 240-122371/3	UXX8835.D
Level 6	STD8260 240-122371/2	UXX8834.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2351 0.2522	0.2412	0.2233	0.2482	0.2522	Ave		0.2420			0.1000	4.7		15.0			
Chloromethane	0.3337 0.2770	0.3055	0.2809	0.2718	0.2761	Ave		0.2908			0.1000	8.3		15.0			
Vinyl chloride	0.2986 0.2843	0.2917	0.2749	0.2772	0.2823	Ave		0.2848			0.1000	3.1		15.0			
Bromomethane	0.1623 0.1036	0.1528	0.1378	0.1183	0.1263	Lin1	0.0764	0.1096			0.0500				0.9900		0.9900
Chloroethane	0.1738 0.1443	0.1643	0.1606	0.1470	0.1562	Ave		0.1577				7.0		15.0			
Dichlorofluoromethane	0.3860 0.2893	0.3416	0.3193	0.3006	0.3122	Ave		0.3248				11.0		15.0			
Trichlorofluoromethane	0.2911 0.2690	0.2877	0.2724	0.2839	0.2803	Ave		0.2807			0.1000	3.1		15.0			
Ethyl ether	0.1766 0.1775	0.1636	0.1606	0.1726	0.1710	Ave		0.1703				4.0		15.0			
Acrolein	0.0265 0.0260	0.0260	0.0244	0.0255	0.0267	Ave		0.0258				3.2		15.0			
1,1-Dichloroethene	0.2302 0.2164	0.2257	0.2045	0.2099	0.2186	Ave		0.2175			0.1000	4.4		15.0			
1,1,2-Trichlorotrifluoroethane	0.1862 0.1940	0.1959	0.1601	0.1824	0.1859	Ave		0.1841			0.0500	7.0		15.0			
Acetone	0.0617 0.0612	0.0527	0.0531	0.0617	0.0619	Ave		0.0587			0.0500	7.7		15.0			
Iodomethane	0.3782 0.3597	0.3626	0.3430	0.3520	0.3540	Ave		0.3583				3.3		15.0			
Carbon disulfide	0.7303 0.7175	0.7152	0.6643	0.6891	0.7109	Ave		0.7045			0.1000	3.4		15.0			
3-Chloro-1-propene	0.1611 0.1518	0.1494	0.1430	0.1476	0.1531	Ave		0.1510				4.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl acetate	0.1415 0.1427	0.1313	0.1280	0.1366	0.1443	Ave		0.1374			0.1000	4.8		15.0			
Methylene Chloride	0.3443 0.2359	0.2861	0.2451	0.2408	0.2412	Lin1	0.1037	0.2332			0.1000				1.0000		0.9900
tert-Butyl alcohol	0.0124 0.0185	0.0112	0.0115	0.0177	0.0193	Lin1	-0.118	0.0188							0.9910		0.9900
Acrylonitrile	0.0686 0.0713	0.0647	0.0637	0.0691	0.0727	Ave		0.0683				5.2		15.0			
Methyl tert-butyl ether	0.7053 0.7033	0.6530	0.6488	0.6670	0.7001	Ave		0.6796			0.1000	3.9		15.0			
trans-1,2-Dichloroethene	0.2715 0.2373	0.2550	0.2346	0.2414	0.2467	Ave		0.2478			0.1000	5.5		15.0			
Hexane	0.0622 0.0621	0.0576	0.0519	0.0604	0.0608	Ave		0.0592				6.6		15.0			
1,1-Dichloroethane	0.4200 0.4123	0.4127	0.3962	0.4073	0.4136	Ave		0.4104			0.1000	2.0		15.0			
Vinyl acetate	0.2499 0.2755	0.2458	0.2461	0.2668	0.2648	Ave		0.2581				4.9		15.0			
2,2-Dichloropropane	0.3404 0.3338	0.3346	0.3152	0.3274	0.3346	Ave		0.3310				2.6		15.0			
cis-1,2-Dichloroethene	0.2844 0.2570	0.2691	0.2526	0.2566	0.2589	Ave		0.2631			0.1000	4.5		15.0			
2-Butanone (MEK)	0.0717 0.0776	0.0661	0.0658	0.0765	0.0798	Ave		0.0729			0.0500	8.2		15.0			
Bromochloromethane	0.1277 0.1212	0.1199	0.1166	0.1182	0.1214	Ave		0.1208				3.2		15.0			
Tetrahydrofuran	0.0628 0.0532	0.0561	0.0513	0.0525	0.0532	Ave		0.0549				7.7		15.0			
Chloroform	0.4091 0.3998	0.3965	0.3883	0.3936	0.4001	Ave		0.3979				1.8		15.0			
1,1,1-Trichloroethane	0.3758 0.3613	0.3620	0.3441	0.3590	0.3657	Ave		0.3613			0.1000	2.9		15.0			
Cyclohexane	0.3882 0.4002	0.4071	0.3482	0.3903	0.3980	Ave		0.3887			0.1000	5.4		15.0			
1,1-Dichloropropene	0.3153 0.3039	0.2969	0.2821	0.2999	0.3027	Ave		0.3001				3.6		15.0			
Carbon tetrachloride	0.3030 0.3273	0.3113	0.2889	0.3134	0.3260	Ave		0.3117			0.1000	4.6		15.0			
Isobutyl alcohol	0.0120 0.0080	0.0058	0.0066	0.0078	0.0084	Lin1	0.0127	0.0080							0.9900		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzene	0.9808 0.9463	0.9526	0.9016	0.9385	0.9429	Ave		0.9438			0.5000	2.7		15.0			
1,2-Dichloroethane	0.3005 0.2997	0.2897	0.2882	0.2961	0.3020	Ave		0.2960			0.1000	2.0		15.0			
n-Heptane	0.0505 0.0556	0.0518	0.0461	0.0536	0.0524	Ave		0.0517				6.3		15.0			
Trichloroethene	0.2524 0.2505	0.2456	0.2399	0.2491	0.2498	Ave		0.2479			0.2000	1.8		15.0			
Methylcyclohexane	0.3681 0.4035	0.3938	0.3403	0.3883	0.3998	Ave		0.3823			0.1000	6.3		15.0			
1,2-Dichloropropane	0.2019 0.2137	0.2038	0.2037	0.2136	0.2120	Ave		0.2081			0.1000	2.7		15.0			
Dibromomethane	0.1206 0.1236	0.1157	0.1190	0.1229	0.1246	Ave		0.1211				2.8		15.0			
1,4-Dioxane	0.0008 0.0018	0.0009	0.0009	0.0021	0.0020	Qua	-0.068	0.0024	0						0.9950		0.9900
Bromodichloromethane	0.2704 0.3046	0.2793	0.2780	0.2879	0.2969	Ave		0.2862			0.1000	4.5		15.0			
2-Chloroethyl vinyl ether	0.0585 0.0866	0.0595	0.0675	0.0807	0.0839	Lin1	-0.086	0.0862							0.9980		0.9900
cis-1,3-Dichloropropene	0.2912 0.3568	0.3047	0.3100	0.3419	0.3479	Ave		0.3254			0.1500	8.2		15.0			
4-Methyl-2-pentanone (MIBK)	0.1394 0.1665	0.1418	0.1396	0.1571	0.1664	Ave		0.1518			0.0500	8.6		15.0			
Toluene	1.4615 1.4216	1.4050	1.3791	1.3802	1.4160	Ave		1.4106			0.4000	2.2		15.0			
trans-1,3-Dichloropropene	0.3681 0.4292	0.3691	0.3915	0.4066	0.4240	Ave		0.3981			0.1000	6.6		15.0			
Ethyl methacrylate	0.2764 0.3465	0.2842	0.3048	0.3292	0.3516	Ave		0.3155				10.0		15.0			
1,1,2-Trichloroethane	0.2496 0.2460	0.2437	0.2522	0.2472	0.2515	Ave		0.2484			0.1000	1.3		15.0			
Tetrachloroethene	0.3038 0.2845	0.2924	0.2800	0.2816	0.2863	Ave		0.2881			0.2000	3.1		15.0			
1,3-Dichloropropane	0.4404 0.4501	0.4282	0.4405	0.4460	0.4519	Ave		0.4429				1.9		15.0			
2-Hexanone	0.1455 0.1559	0.1340	0.1386	0.1487	0.1580	Ave		0.1468			0.0500	6.4		15.0			
Chlorodibromomethane	0.2685 0.3074	0.2662	0.2766	0.2873	0.2992	Ave		0.2842				5.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dibromoethane	0.2466 0.2471	0.2388	0.2432	0.2450	0.2511	Ave		0.2453				1.7		15.0			
Chlorobenzene	0.9392 0.8969	0.8870	0.8903	0.8959	0.8955	Ave		0.9008			0.3000	2.1		15.0			
1,1,1,2-Tetrachloroethane	0.3260 0.3371	0.3274	0.3251	0.3256	0.3359	Ave		0.3295				1.7		15.0			
Ethylbenzene	0.5064 0.4957	0.5011	0.4823	0.4955	0.4939	Ave		0.4958				1.6		15.0			
m-Xylene & p-Xylene	0.6292 0.6215	0.6094	0.6004	0.6209	0.6169	Ave		0.6164				1.6		15.0			
o-Xylene	0.6243 0.6252	0.6043	0.6016	0.6140	0.6187	Ave		0.6147				1.6		15.0			
Styrene	0.9381 1.0159	0.9504	0.9419	0.9932	0.9975	Ave		0.9728			0.3000	3.4		15.0			
Bromoform	0.1632 0.2063	0.1645	0.1721	0.1874	0.1986	Ave		0.1820			0.1000	10.0		15.0			
Isopropylbenzene	1.6147 1.6860	1.5898	1.5513	1.6099	1.6605	Ave		1.6187			0.1000	3.0		15.0			
1,1,2,2-Tetrachloroethane	0.5333 0.5596	0.5116	0.5282	0.5479	0.5583	Ave		0.5398			0.3000	3.5		15.0			
Bromobenzene	0.6529 0.6798	0.6842	0.6558	0.6754	0.6708	Ave		0.6698				1.9		15.0			
1,2,3-Trichloropropane	0.1807 0.1854	0.1717	0.1772	0.1867	0.1839	Ave		0.1809				3.1		15.0			
trans-1,4-Dichloro-2-butene	0.1370 0.1791	0.1386	0.1524	0.1630	0.1776	Ave		0.1580				12.0		15.0			
N-Propylbenzene	0.7026 0.7789	0.7350	0.7186	0.7608	0.7476	Ave		0.7406				3.8		15.0			
2-Chlorotoluene	0.6347 0.6511	0.6436	0.6256	0.6430	0.6435	Ave		0.6402				1.4		15.0			
1,3,5-Trimethylbenzene	2.0564 2.3932	2.1199	2.1145	2.2765	2.2962	Ave		2.2095				5.9		15.0			
4-Chlorotoluene	0.6512 0.6798	0.6715	0.6531	0.6824	0.6626	Ave		0.6668				2.0		15.0			
tert-Butylbenzene	1.8314 2.0767	1.8513	1.8431	1.9884	2.0086	Ave		1.9332				5.4		15.0			
1,2,4-Trimethylbenzene	2.1662 2.5065	2.2638	2.2108	2.3707	2.4062	Ave		2.3207				5.6		15.0			
sec-Butylbenzene	2.4320 2.8708	2.5721	2.4472	2.7018	2.7748	Ave		2.6331				6.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 09:02 Calibration End Date: 03/13/2014 10:55 Calibration ID: 21114

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	1.3366 1.3205	1.3324	1.2710	1.3072	1.3175	Ave		1.3142			0.6000	1.8		15.0			
4-Isopropyltoluene	2.1208 2.5218	2.2477	2.1782	2.4228	2.4882	Ave		2.3299				7.3		15.0			
1,4-Dichlorobenzene	1.3782 1.3694	1.3746	1.3226	1.3523	1.3650	Ave		1.3603			0.5000	1.5		15.0			
n-Butylbenzene	1.7854 2.0843	1.8813	1.7710	1.9656	2.0342	Ave		1.9203				6.7		15.0			
1,2-Dichlorobenzene	1.2887 1.2790	1.2840	1.2095	1.2647	1.2692	Ave		1.2659			0.4000	2.3		15.0			
1,2-Dibromo-3-Chloropropane	0.1012 0.1201	0.1016	0.1029	0.1160	0.1237	Ave		0.1109			0.0500	9.2		15.0			
1,2,4-Trichlorobenzene	0.7975 0.8215	0.8025	0.7548	0.8660	0.8742	Ave		0.8194			0.2000	5.5		15.0			
Hexachlorobutadiene	0.3065 0.3056	0.3179	0.2840	0.3308	0.3308	Ave		0.3126				5.7		15.0			
Naphthalene	1.8389 1.8848	1.8338	1.7252	1.9783	2.0783	Ave		1.8899				6.5		15.0			
1,2,3-Trichlorobenzene	0.7013 0.6991	0.6930	0.6526	0.7889	0.7862	Ave		0.7202				7.7		15.0			
Dibromofluoromethane (Surr)	0.2112 0.2079	0.2038	0.2068	0.2038	0.2081	Ave		0.2069				1.4		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2471 0.2456	0.2387	0.2474	0.2432	0.2507	Ave		0.2454				1.7		15.0			
Toluene-d8 (Surr)	1.2187 1.1966	1.1473	1.2073	1.1634	1.2068	Ave		1.1900				2.4		15.0			
4-Bromofluorobenzene (Surr)	0.4722 0.4518	0.4510	0.4414	0.4512	0.4460	Ave		0.4523				2.3		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 11:18 Calibration End Date: 03/13/2014 13:09 Calibration ID: 21116

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-122371/13	UXX8845.D
Level 2	STDA9 240-122371/12	UXX8844.D
Level 3	STDA9 240-122371/11	UXX8843.D
Level 4	STDA9 240-122371/10	UXX8842.D
Level 5	STDA9 240-122371/9	UXX8841.D
Level 6	STDA9 240-122371/8	UXX8840.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0227 0.0245	0.0219	0.0223	0.0185	0.0252	Ave		0.0225				11.0		15.0			
Diisopropyl ether	0.2177 0.2201	0.2183	0.2123	0.2133	0.2250	Ave		0.2178				2.1		15.0			
2-Chloro-1,3-butadiene	0.3647 0.3652	0.3481	0.3469	0.3558	0.3624	Ave		0.3572				2.3		15.0			
Ethyl tert-butyl ether	0.7083 0.7249	0.6903	0.6829	0.6918	0.7248	Ave		0.7038				2.6		15.0			
Ethyl acetate	0.1150 0.1043	0.1099	0.1092	0.0938	0.1071	Ave		0.1066				6.7		15.0			
Propionitrile	0.0233 0.0248	0.0241	0.0250	0.0223	0.0257	Ave		0.0242				5.2		15.0			
Methacrylonitrile	0.1098 0.1101	0.1083	0.1113	0.1044	0.1118	Ave		0.1093				2.5		15.0			
Tert-amyl methyl ether	0.6180 0.6591	0.5989	0.6201	0.6160	0.6565	Ave		0.6281				3.9		15.0			
n-Butanol	0.0060 0.0062	0.0057	0.0059	0.0044	0.0064	Ave		0.0057				13.0		15.0			
Ethyl acrylate	0.1489 0.1706	0.1580	0.1770	0.1508	0.1720	Ave		0.1629				7.3		15.0			
Methyl methacrylate	0.1284 0.1333	0.1267	0.1341	0.1186	0.1341	Ave		0.1292				4.7		15.0			
2-Nitropropane	0.0408 0.0420	0.0381	0.0411	0.0364	0.0418	Ave		0.0400				5.6		15.0			
Cyclohexanone	0.0121 0.0120	0.0125	0.0122	0.0094	0.0124	Ave		0.0118				10.0		15.0			
1,2,3-Trimethylbenzene	2.1275 2.4014	2.1642	2.2349	2.2068	2.3640	Ave		2.2498				4.9		15.0			
1,3,5-Trichlorobenzene	0.8974 0.9436	0.9033	0.8899	0.8322	0.9266	Ave		0.8988				4.3		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 122371

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/13/2014 11:18 Calibration End Date: 03/13/2014 13:09 Calibration ID: 21116

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Methylnaphthalene	0.9795 0.8616	0.9780	0.9449	0.8458	0.9983	Ave		0.9347				7.0		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: BFB5622.D BFB Injection Date: 04/22/2014

Instrument ID: A3UX10 BFB Injection Time: 11:08

Analysis Batch No.: 127413

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.4	
75	30.0 - 60.0 % of mass 95	49.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.1	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	77.2	
175	5.0 - 9.0 % of mass 174	5.6	(7.2)1
176	95.0 - 101.0 % of mass 174	74.1	(95.9)1
177	5.0 - 9.0 % of mass 176	4.8	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-127413/2	UXX9876.D	04/22/2014	11:32
	CCV 240-127413/3	UXX9877.D	04/22/2014	11:55
	LCS 240-127413/4	UXX9878.D	04/22/2014	12:17
	MB 240-127413/6	UXX9880.D	04/22/2014	13:02
TB-041714	240-36343-1	UXX9899.D	04/22/2014	20:20

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVIS 240-127413/2 Calibration Date: 04/22/2014 11:32

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9876.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2420	0.2774	0.1000	0.310	0.0100	14.6	20.0
Chloromethane	Ave	0.2908	0.2932	0.1000	0.300	0.0100	0.8	20.0
Vinyl chloride	Ave	0.2848	0.3102	0.1000	0.220	0.0100	8.9	20.0
Bromomethane	Lin1		0.1478	0.0500	0.410	0.0100	27.8*	20.0
Chloroethane	Ave	0.1577	0.1628	0.0500	0.290	0.0100	3.2	20.0
Dichlorofluoromethane	Ave	0.3248	0.3620		0.420	0.0100	11.4	20.0
Trichlorofluoromethane	Ave	0.2807	0.2452	0.1000	0.210	0.0100	-12.7	20.0
Ethyl ether	Ave	0.1703	0.1758		0.310	0.0100	3.2	20.0
Acrolein	Ave	0.0258	0.0226		2.20	0.0500	-12.7	20.0
1,1-Dichloroethene	Ave	0.2175	0.2133	0.1000	0.190	0.0100	-2.0	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1841	0.1705	0.0500	0.280	0.0100	-7.4	20.0
Acetone	Ave	0.0587	0.0630	0.0500	1.10	0.0200	7.2	20.0
Iodomethane	Ave	0.3583	0.2716		0.180	0.0100	-24.2*	20.0
Carbon disulfide	Ave	0.7045	0.6489	0.1000	0.130	0.0100	-7.9	20.0
3-Chloro-1-propene	Ave	0.1510	0.1388		0.350	0.0100	-8.1	20.0
Methyl acetate	Ave	0.1374	0.1383	0.1000	0.380	0.0500	0.6	20.0
Methylene Chloride	Lin1		0.2331	0.1000	0.330	0.0100	-4.5	20.0
tert-Butyl alcohol	Lin1		0.0145		3.90	0.100	-16.6	20.0
Acrylonitrile	Ave	0.0683	0.0681		2.00	0.100	-0.4	20.0
Methyl tert-butyl ether	Ave	0.6796	0.5960	0.1000	0.170	0.0100	-12.3	20.0
trans-1,2-Dichloroethene	Ave	0.2478	0.2234	0.1000	0.190	0.0100	-9.8	20.0
Hexane	Ave	0.0592	0.0549		0.260	0.0100	-7.3	20.0
1,1-Dichloroethane	Ave	0.4104	0.3983	0.1000	0.150	0.0100	-2.9	20.0
Vinyl acetate	Ave	0.2581	0.2138		0.190	0.00960	-17.2	20.0
2,2-Dichloropropane	Ave	0.3310	0.2440		0.130	0.0100	-26.3*	20.0
cis-1,2-Dichloroethene	Ave	0.2631	0.2392	0.1000	0.170	0.0100	-9.1	20.0
2-Butanone (MEK)	Ave	0.0729	0.0770	0.0500	0.570	0.0200	5.6	20.0
Bromochloromethane	Ave	0.1208	0.1082		0.290	0.0100	-10.5	20.0
Tetrahydrofuran	Ave	0.0549	0.0468		0.420	0.0200	-14.7	20.0
Chloroform	Ave	0.3979	0.3910	0.2000	0.160	0.0100	-1.7	20.0
1,1,1-Trichloroethane	Ave	0.3613	0.3180	0.1000	0.220	0.0100	-12.0	20.0
Cyclohexane	Ave	0.3887	0.3429	0.1000	0.120	0.0100	-11.8	20.0
1,1-Dichloropropene	Ave	0.3001	0.2818		0.130	0.0100	-6.1	20.0
Carbon tetrachloride	Ave	0.3117	0.2552	0.1000	0.130	0.0100	-18.1	20.0
Isobutyl alcohol	Lin1		0.0082		8.20	0.250	2.1	20.0
Benzene	Ave	0.9438	0.9660	0.5000	0.130	0.0100	2.4	20.0
1,2-Dichloroethane	Ave	0.2960	0.3006	0.1000	0.220	0.0100	1.5	20.0
n-Heptane	Ave	0.0517	0.0489		0.180	0.0100	-5.4	20.0
Trichloroethene	Ave	0.2479	0.2159	0.2000	0.170	0.0100	-12.9	20.0
Methylcyclohexane	Ave	0.3823	0.3510	0.1000	0.130	0.0100	-8.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVIS 240-127413/2 Calibration Date: 04/22/2014 11:32

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9876.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2081	0.2151	0.1000	0.180	0.0100	3.4	20.0
1,4-Dioxane	Qua		0.0015		19.0	0.200	-22.1*	20.0
Dibromomethane	Ave	0.1211	0.1196		0.280	0.0100	-1.2	20.0
Bromodichloromethane	Ave	0.2862	0.2672	0.1000	0.150	0.0100	-6.6	20.0
2-Chloroethyl vinyl ether	Lin1		0.0709		0.990	0.0200	-12.8	20.0
cis-1,3-Dichloropropene	Ave	0.3254	0.3059	0.1500	0.140	0.0100	-6.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1518	0.1412	0.0500	0.320	0.0200	-7.0	20.0
Toluene	Ave	1.411	1.496	0.4000	0.130	0.0100	6.1	20.0
trans-1,3-Dichloropropene	Ave	0.3981	0.3881	0.1000	0.190	0.0100	-2.5	20.0
Ethyl methacrylate	Ave	0.3155	0.3427		0.140	0.0100	8.7	20.0
1,1,2-Trichloroethane	Ave	0.2484	0.2761	0.1000	0.270	0.0100	11.2	20.0
Tetrachloroethene	Ave	0.2881	0.2718	0.2000	0.290	0.0100	-5.7	20.0
1,3-Dichloropropane	Ave	0.4429	0.4832		0.160	0.0100	9.1	20.0
2-Hexanone	Ave	0.1468	0.1507	0.0500	0.410	0.0200	2.7	20.0
Chlorodibromomethane	Ave	0.2842	0.2648		0.180	0.0100	-6.8	20.0
1,2-Dibromoethane	Ave	0.2453	0.2466		0.240	0.0100	0.5	20.0
Chlorobenzene	Ave	0.9008	0.8743	0.3000	0.150	0.0100	-2.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3295	0.3137		0.230	0.0100	-4.8	20.0
Ethylbenzene	Ave	0.4958	0.4744		0.170	0.0100	-4.3	20.0
m-Xylene & p-Xylene	Ave	0.6164	0.5975		0.240	0.0100	-3.1	20.0
o-Xylene	Ave	0.6147	0.5931		0.140	0.0100	-3.5	20.0
Styrene	Ave	0.9728	0.9356	0.3000	0.110	0.0100	-3.8	20.0
Bromoform	Ave	0.1820	0.1466	0.1000	0.640	0.0100	-19.5	20.0
Isopropylbenzene	Ave	1.619	1.563	0.1000	0.130	0.0100	-3.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5398	0.6083	0.3000	0.180	0.0100	12.7	20.0
Bromobenzene	Ave	0.6698	0.6117		0.130	0.0100	-8.7	20.0
1,2,3-Trichloropropane	Ave	0.1809	0.1955		0.430	0.0100	8.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1580	0.1220		0.150	0.0100	-22.7*	20.0
N-Propylbenzene	Ave	0.7406	0.7245		0.140	0.0100	-2.2	20.0
2-Chlorotoluene	Ave	0.6402	0.6302		0.110	0.0100	-1.6	20.0
1,3,5-Trimethylbenzene	Ave	2.209	2.341		0.0960	0.0100	6.0	20.0
4-Chlorotoluene	Ave	0.6668	0.6561		0.180	0.0100	-1.6	20.0
tert-Butylbenzene	Ave	1.933	2.092		0.130	0.0100	8.2	20.0
1,2,4-Trimethylbenzene	Ave	2.321	2.480		0.120	0.0100	6.8	20.0
sec-Butylbenzene	Ave	2.633	2.759		0.130	0.0100	4.8	20.0
1,3-Dichlorobenzene	Ave	1.314	1.276	0.6000	0.140	0.0100	-2.9	20.0
4-Isopropyltoluene	Ave	2.330	2.465		0.0120	0.0100	5.8	20.0
1,4-Dichlorobenzene	Ave	1.360	1.311	0.5000	0.130	0.0100	-3.6	20.0
n-Butylbenzene	Ave	1.920	2.042		0.120	0.0100	6.3	20.0
1,2-Dichlorobenzene	Ave	1.266	1.279	0.4000	0.130	0.0100	1.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1109	0.1116	0.0500	0.670	0.0100	0.6	20.0

FORM VII

GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVIS 240-127413/2 Calibration Date: 04/22/2014 11:32

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 09:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 10:55

Lab File ID: UXX9876.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Ave	0.8194	0.8719	0.2000	0.150	0.0100	6.4	20.0
Hexachlorobutadiene	Ave	0.3126	0.3323		0.300	0.0100	6.3	20.0
Naphthalene	Ave	1.890	1.922		0.240	0.0100	1.7	20.0
1,2,3-Trichlorobenzene	Ave	0.7202	0.7772		0.170	0.0100	7.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2069	0.1761		0.0105	0.0123	-14.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2454	0.2514		0.0126	0.0123	2.4	20.0
Toluene-d8 (Surr)	Ave	1.190	1.199		0.0124	0.0123	0.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4523	0.4249		0.0116	0.0123	-6.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127413/3 Calibration Date: 04/22/2014 11:55

Instrument ID: A3UX10 Calib Start Date: 03/13/2014 11:18

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/13/2014 13:09

Lab File ID: UXX9877.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0225	0.0255		3.50	0.100	13.1	20.0
Diisopropyl ether	Ave	0.2178	0.1891		1.50	0.0100	-13.2	20.0
2-Chloro-1,3-butadiene	Ave	0.3572	0.3124		0.290	0.0100	-12.5	20.0
Ethyl tert-butyl ether	Ave	0.7038	0.6112		0.110	0.0100	-13.2	20.0
Ethyl acetate	Ave	0.1066	0.1105		0.500	0.0200	3.7	20.0
Propionitrile	Ave	0.0242	0.0260		1.20	0.100	7.5	20.0
Methacrylonitrile	Ave	0.1093	0.1139		0.510	0.100	4.2	20.0
Tert-amyl methyl ether	Ave	0.6281	0.5553		0.0670	0.0100	-11.6	20.0
n-Butanol	Ave	0.0057	0.0053		7.30	0.250	-8.4	20.0
Ethyl acrylate	Ave	0.1629	0.1743		0.250	0.0100	7.0	20.0
Methyl methacrylate	Ave	0.1292	0.1342		0.490	0.0200	3.8	20.0
2-Nitropropane	Ave	0.0400	0.0226		0.700	0.0200	-43.4*	20.0
Cyclohexanone	Ave	0.0118	0.0114		5.80	0.100	-3.4	20.0
1,2,3-Trimethylbenzene	Ave	2.250	2.596		0.0115	0.0100	15.4	20.0
1,3,5-Trichlorobenzene	Ave	0.8988	0.9567		0.110	0.0100	6.4	20.0
2-Methylnaphthalene	Ave	0.9347	0.6513		0.470	0.0200	-30.3*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: BFB2547.D BFB Injection Date: 03/18/2014

Instrument ID: A3UX12 BFB Injection Time: 17:23

Analysis Batch No.: 123039

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.5	
75	30.0 - 60.0 % of mass 95	51.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	69.3	
175	5.0 - 9.0 % of mass 174	5.6	(8.0)1
176	95.0 - 101.0 % of mass 174	66.4	(95.8)1
177	5.0 - 9.0 % of mass 176	4.5	(6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-123039/3	U1236334.D	03/18/2014	17:53
	STD8260 240-123039/4	U1236335.D	03/18/2014	18:18
	STD8260 240-123039/5	U1236336.D	03/18/2014	18:42
	STD8260 240-123039/6	U1236337.D	03/18/2014	19:07
	STD8260 240-123039/7	U1236338.D	03/18/2014	19:31
	STD8260 240-123039/8	U1236339.D	03/18/2014	19:56
	ICV 240-123039/9	U1236340.D	03/18/2014	20:20
	STD 240-123039/13	U1236344.D	03/18/2014	21:56
	STD 240-123039/14	U1236345.D	03/18/2014	22:21
	STD 240-123039/15	U1236346.D	03/18/2014	22:44
	STD 240-123039/16	U1236347.D	03/18/2014	23:09
	STD 240-123039/17	U1236348.D	03/18/2014	23:33
	STD 240-123039/18	U1236349.D	03/18/2014	23:58
	ICV 240-123039/19	U1236350.D	03/19/2014	00:23

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-123039/8	U1236339.D
Level 2	STD8260 240-123039/7	U1236338.D
Level 3	STD8260 240-123039/6	U1236337.D
Level 4	STD8260 240-123039/5	U1236336.D
Level 5	STD8260 240-123039/4	U1236335.D
Level 6	STD8260 240-123039/3	U1236334.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.5344 0.5037	0.5482	0.4736	0.4481	0.4847	Ave		0.4988			0.1000	7.6		15.0			
Chloromethane	0.5548 0.5203	0.4941	0.4787	0.5026	0.4615	Ave		0.5020			0.1000	6.5		15.0			
Vinyl chloride	0.6018 0.5213	0.4945	0.4958	0.4867	0.4761	Ave		0.5127			0.1000	9.0		15.0			
Bromomethane	0.2193 0.2899	0.2045	0.2459	0.2648	0.2544	Ave		0.2464			0.0500	13.0		15.0			
Chloroethane	0.3033 0.3389	0.2806	0.2921	0.3217	0.3071	Ave		0.3073				6.8		15.0			
Dichlorofluoromethane	0.5609 0.7093	0.5861	0.6018	0.6515	0.6113	Ave		0.6201				8.5		15.0			
Trichlorofluoromethane	+++++ 0.5269	0.2817	0.4322	0.4446	0.4751	Lin1	-0.305	0.5045			0.1000				0.9960		0.9900
Ethyl ether	0.3032 0.2882	0.2907	0.2519	0.2786	0.2610	Ave		0.2789				6.9		15.0			
Acrolein	0.0515 0.0491	0.0375	0.0429	0.0480	0.0456	Ave		0.0458				11.0		15.0			
1,1,2-Trichlorotrifluoroethane	0.3320 0.3359	0.3222	0.3336	0.3136	0.3318	Ave		0.3282			0.0500	2.6		15.0			
1,1-Dichloroethene	0.7910 0.6719	0.6581	0.6096	0.6244	0.6161	Ave		0.6619			0.1000	10.0		15.0			
Acetone	+++++ 0.1001	0.2185	0.1045	0.0981	0.0901	Lin1	0.2349	0.0943			0.0500				0.9970		0.9900
Iodomethane	0.4769 0.4952	0.4880	0.4499	0.4888	0.4663	Ave		0.4775				3.5		15.0			
Carbon disulfide	1.1951 1.3615	1.1225	1.2245	1.2583	1.2782	Ave		1.2400			0.1000	6.5		15.0			
3-Chloro-1-propene	+++++ 0.2030	0.2178	0.1733	0.1834	0.1773	Ave		0.1910				9.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl acetate	0.3031 0.2545	0.2745	0.2318	0.2393	0.2392	Ave		0.2571			0.1000	11.0		15.0			
Methylene Chloride	0.6765 0.5132	0.5933	0.4925	0.5139	0.4835	Ave		0.5455			0.1000	14.0		15.0			
tert-Butyl alcohol	0.0202 0.0257	0.0324	0.0268	0.0282	0.0278	Ave		0.0269				15.0		15.0			
Acrylonitrile	0.1341 0.1327	0.1320	0.1163	0.1261	0.1281	Ave		0.1282				5.1		15.0			
Methyl tert-butyl ether	1.0062 0.9932	0.9235	0.9091	0.9545	0.9132	Ave		0.9500			0.1000	4.4		15.0			
trans-1,2-Dichloroethene	0.5271 0.5012	0.4980	0.4592	0.4640	0.4537	Ave		0.4839			0.1000	6.0		15.0			
Hexane	+++++ 0.2954	0.4135	0.3254	0.2694	0.3140	Lin1	0.1168	0.2958							0.9970		0.9900
1,1-Dichloroethane	0.6779 0.6169	0.4973	0.5423	0.5740	0.5766	Ave		0.5808			0.1000	11.0		15.0			
Vinyl acetate	+++++ 0.4525	0.4327	0.3948	0.4055	0.4261	Ave		0.4223				5.4		15.0			
cis-1,2-Dichloroethene	0.4179 0.4827	0.4437	0.4224	0.4587	0.4536	Ave		0.4465			0.1000	5.4		15.0			
2-Butanone (MEK)	0.2587 0.1551	0.1857	0.1436	0.1418	0.1443	Lin1	0.0864	0.1486			0.0500				0.9980		0.9900
2,2-Dichloropropane	0.2676 0.2152	0.1894	0.2086	0.2096	0.2130	Ave		0.2172				12.0		15.0			
Bromochloromethane	0.2758 0.2868	0.2301	0.2520	0.2560	0.2586	Ave		0.2599				7.6		15.0			
Tetrahydrofuran	+++++ 0.0953	0.1822	0.0998	0.0931	0.0901	Lin1	0.1722	0.0916							0.9990		0.9900
Chloroform	0.6928 0.5875	0.5420	0.5287	0.5342	0.5248	Ave		0.5683				11.0		15.0			
1,1,1-Trichloroethane	0.2746 0.3435	0.3102	0.3127	0.3304	0.3187	Ave		0.3150			0.1000	7.4		15.0			
Cyclohexane	0.4181 0.4385	0.4958	0.4312	0.4020	0.4233	Ave		0.4348			0.1000	7.4		15.0			
1,1-Dichloropropene	0.4031 0.4327	0.3936	0.4016	0.3893	0.4041	Ave		0.4041				3.8		15.0			
Carbon tetrachloride	0.1984 0.2686	0.2307	0.2255	0.2395	0.2486	Ave		0.2352			0.1000	10.0		15.0			
Isobutyl alcohol	0.0045 0.0054	0.0057	0.0046	0.0053	0.0056	Ave		0.0052				10.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzene	1.2944 1.4547	1.2963	1.2921	1.3280	1.3370	Ave		1.3337			0.5000	4.7		15.0			
1,2-Dichloroethane	0.4248 0.4542	0.4749	0.4145	0.4376	0.4186	Ave		0.4374			0.1000	5.3		15.0			
n-Heptane	+++++ 0.0662	0.1969	0.0896	0.0818	0.0795	Lin1	0.1399	0.0696							0.9920		0.9900
Trichloroethene	0.3045 0.3247	0.3258	0.3052	0.3092	0.3076	Ave		0.3128			0.2000	3.1		15.0			
Methylcyclohexane	0.4881 0.3641	0.4436	0.3691	0.3342	0.3743	Ave		0.3956			0.1000	15.0		15.0			
1,2-Dichloropropane	0.3334 0.3447	0.3482	0.3093	0.3256	0.3132	Ave		0.3291			0.1000	4.9		15.0			
Dibromomethane	0.1765 0.1949	0.1618	0.1583	0.1793	0.1739	Ave		0.1741				7.6		15.0			
1,4-Dioxane	+++++ 0.0038	0.0041	0.0041	0.0035	0.0039	Ave		0.0039				6.5		15.0			
Bromodichloromethane	0.3572 0.4374	0.3124	0.3800	0.4088	0.4032	Ave		0.3832			0.1000	11.0		15.0			
2-Chloroethyl vinyl ether	0.2301 0.2460	0.2276	0.2192	0.2322	0.2293	Ave		0.2307				3.8		15.0			
cis-1,3-Dichloropropene	0.4629 0.5280	0.4272	0.4389	0.4776	0.4865	Ave		0.4702			0.1500	7.7		15.0			
4-Methyl-2-pentanone (MIBK)	0.3482 0.3206	0.3018	0.2959	0.2975	0.3034	Ave		0.3112			0.0500	6.5		15.0			
Toluene	1.9139 2.0526	1.8706	1.7880	1.9419	1.8871	Ave		1.9090			0.4000	4.6		15.0			
trans-1,3-Dichloropropene	0.4264 0.5793	0.3714	0.4536	0.5264	0.5367	Lin1	-0.140	0.5564			0.1000				0.9960		0.9900
Ethyl methacrylate	0.5082 0.5962	0.4790	0.4960	0.5638	0.5701	Ave		0.5356				8.8		15.0			
1,1,2-Trichloroethane	0.4068 0.4106	0.4633	0.3730	0.3988	0.3856	Ave		0.4064			0.1000	7.7		15.0			
Tetrachloroethene	0.4136 0.3782	0.3907	0.3287	0.3598	0.3525	Ave		0.3706			0.2000	8.1		15.0			
1,3-Dichloropropane	0.8469 0.7831	0.7392	0.7278	0.7778	0.7406	Ave		0.7692				5.7		15.0			
2-Hexanone	0.3156 0.3048	0.3117	0.2900	0.2927	0.2889	Ave		0.3006			0.0500	3.9		15.0			
Chlorodibromomethane	0.2944 0.3839	0.2962	0.3175	0.3459	0.3528	Ave		0.3318				11.0		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dibromoethane	0.3244 0.4134	0.3551	0.3575	0.3902	0.3885	Ave		0.3715				8.6		15.0			
Chlorobenzene	1.2565 1.2815	1.1770	1.1292	1.2390	1.1758	Ave		1.2098			0.3000	4.8		15.0			
1,1,1,2-Tetrachloroethane	0.2981 0.3700	0.3435	0.3033	0.3406	0.3344	Ave		0.3316				8.1		15.0			
Ethylbenzene	0.5132 0.6643	0.6084	0.5658	0.6503	0.6141	Ave		0.6027				9.3		15.0			
m-Xylene & p-Xylene	0.7032 0.8380	0.7202	0.7202	0.8049	0.7681	Ave		0.7591				7.1		15.0			
o-Xylene	0.6982 0.8523	0.6109	0.7218	0.8168	0.7765	Ave		0.7461				12.0		15.0			
Styrene	1.3247 1.5928	1.2622	1.2631	1.4995	1.4228	Ave		1.3942			0.3000	9.7		15.0			
Bromoform	+++++ 0.2322	0.1706	0.1834	0.2065	0.2183	Ave		0.2022			0.1000	12.0		15.0			
Isopropylbenzene	1.6638 1.9849	1.7715	1.6596	1.8529	1.7872	Ave		1.7867			0.1000	6.9		15.0			
1,1,2,2-Tetrachloroethane	1.2337 1.1786	1.2869	1.1354	1.1574	1.1978	Ave		1.1983			0.3000	4.6		15.0			
Bromobenzene	1.0408 0.9784	0.9261	0.9050	0.9222	0.9629	Ave		0.9559				5.2		15.0			
1,2,3-Trichloropropane	0.4346 0.3752	0.3379	0.3702	0.3656	0.4000	Ave		0.3806				8.7		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.3290	0.2219	0.3251	0.2995	0.3428	Lin1	-0.118	0.3317							0.9980		0.9900
N-Propylbenzene	0.9948 0.9153	0.9570	0.8646	0.8716	0.9092	Ave		0.9188				5.4		15.0			
2-Chlorotoluene	0.9043 0.8650	0.9134	0.7867	0.8180	0.8665	Ave		0.8590				5.7		15.0			
1,3,5-Trimethylbenzene	2.9225 2.9576	2.9760	2.8291	2.8643	2.9472	Ave		2.9161				2.0		15.0			
4-Chlorotoluene	0.9026 0.9528	0.9436	0.8795	0.9312	0.9220	Ave		0.9220				2.9		15.0			
tert-Butylbenzene	2.2905 2.3478	2.5249	2.1963	2.2569	2.4046	Ave		2.3368				5.0		15.0			
1,2,4-Trimethylbenzene	3.3154 3.2157	3.1289	2.9041	3.0536	3.1626	Ave		3.1300				4.5		15.0			
sec-Butylbenzene	3.6452 3.3155	3.5969	3.1772	3.2733	3.3970	Ave		3.4008				5.4		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	1.7868 1.7316	1.9264	1.6377	1.6501	1.7030	Ave		1.7393			0.6000	6.1		15.0			
4-Isopropyltoluene	3.0928 2.8938	3.2329	2.7355	2.7788	2.9119	Ave		2.9410				6.4		15.0			
1,4-Dichlorobenzene	2.5229 1.8330	1.9959	1.7496	1.7493	1.7858	Ave		1.9394			0.5000	15.0		15.0			
n-Butylbenzene	3.0017 2.5834	2.9769	2.4071	2.5189	2.6067	Ave		2.6825				9.2		15.0			
1,2-Dichlorobenzene	1.9814 1.7212	1.7245	1.6875	1.6633	1.7263	Ave		1.7507			0.4000	6.6		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1943	0.1038	0.1650	0.1665	0.1956	Lin1	-0.114	0.1922			0.0500				0.9970		0.9900
1,2,4-Trichlorobenzene	1.2300 0.8935	1.2187	0.9363	0.9162	0.9077	Lin1	0.2252	0.8974			0.2000				1.0000		0.9900
Hexachlorobutadiene	0.9001 0.3264	0.9868	0.4256	0.3916	0.3694	Lin1	0.4220	0.3425							0.9900		0.9900
Naphthalene	3.0738 3.1787	3.7993	3.0910	3.0797	3.2159	Ave		3.2397				8.7		15.0			
1,2,3-Trichlorobenzene	1.3764 0.8208	1.1441	0.8784	0.8429	0.8752	Lin1	0.2925	0.8342							0.9990		0.9900
Dibromofluoromethane (Surr)	+++++ 0.2732	0.2622	0.2400	0.2643	0.2584	Ave		0.2596				4.7		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3571	0.3041	0.3481	0.3572	0.3335	Ave		0.3400				6.6		15.0			
Toluene-d8 (Surr)	+++++ 1.5610	1.4174	1.3869	1.4974	1.4676	Ave		1.4661				4.7		15.0			
4-Bromofluorobenzene (Surr)	+++++ 0.6491	0.6096	0.5569	0.6072	0.5858	Ave		0.6017				5.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 21:56 Calibration End Date: 03/18/2014 23:58 Calibration ID: 21227

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-123039/18	U1236349.D
Level 2	STD 240-123039/17	U1236348.D
Level 3	STD 240-123039/16	U1236347.D
Level 4	STD 240-123039/15	U1236346.D
Level 5	STD 240-123039/14	U1236345.D
Level 6	STD 240-123039/13	U1236344.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0592 0.0472	0.0446	0.0487	0.0407	0.0439	Ave		0.0474				14.0		15.0			
Diisopropyl ether	+++++ 0.2622	0.2492	0.2676	0.3004	0.2624	Ave		0.2684				7.1		15.0			
2-Chloro-1,3-butadiene	0.4604 0.4608	0.5033	0.4658	0.4744	0.4645	Ave		0.4715				3.5		15.0			
Ethyl tert-butyl ether	1.0262 0.9257	0.9913	0.9547	0.9862	0.9131	Ave		0.9662				4.4		15.0			
Ethyl acetate	0.2147 0.1938	0.2302	0.1962	0.1996	0.1918	Ave		0.2044				7.4		15.0			
Propionitrile	0.0585 0.0486	0.0469	0.0464	0.0449	0.0476	Ave		0.0488				10.0		15.0			
Methacrylonitrile	0.2151 0.2129	0.2165	0.2035	0.2053	0.2044	Ave		0.2096				2.8		15.0			
Tert-amyl methyl ether	0.9067 0.9000	0.9204	0.9043	0.9438	0.8652	Ave		0.9067				2.9		15.0			
n-Butanol	+++++ 0.0051	0.0036	0.0039	0.0041	0.0047	Ave		0.0043				15.0		15.0			
Ethyl acrylate	0.3625 0.3819	0.3734	0.3632	0.3770	0.3774	Ave		0.3726				2.1		15.0			
Methyl methacrylate	0.2500 0.2863	0.2273	0.2635	0.2724	0.2703	Ave		0.2616				7.9		15.0			
2-Nitropropane	+++++ 0.0322	0.0246	0.0274	0.0297	0.0312	Ave		0.0291				11.0		15.0			
1-Chlorohexane	0.5509 0.4531	0.5751	0.4340	0.4167	0.4562	Ave		0.4810				14.0		15.0			
Cyclohexanone	0.0144 0.0169	0.0183	0.0144	0.0147	0.0155	Ave		0.0157				10.0		15.0			
1,2,3-Trimethylbenzene	3.5667 3.3327	3.4143	3.0988	3.2900	3.2610	Ave		3.3273				4.7		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 21:56 Calibration End Date: 03/18/2014 23:58 Calibration ID: 21227

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3,5-Trichlorobenzene	1.4560 0.9277	1.2303	0.9863	0.9772	0.9452	Lin1	0.2861	0.9351							1.0000		0.9900
2-Methylnaphthalene	2.1272 1.5052	2.3901	1.5625	1.5493	1.6024	Lin1	0.9808	1.5289							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V_
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: BFB2586.D BFB Injection Date: 04/26/2014

Instrument ID: A3UX12 BFB Injection Time: 08:58

Analysis Batch No.: 128028

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.0	
75	30.0 - 60.0 % of mass 95	45.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.5	(0.6)1
174	50.0 - 120.00 % of mass 95	83.9	
175	5.0 - 9.0 % of mass 174	6.3	(7.5)1
176	95.0 - 101.0 % of mass 174	79.9	(95.2)1
177	5.0 - 9.0 % of mass 176	5.2	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-128028/2	U1237305.D	04/26/2014	09:26
	CCV 240-128028/3	U1237306.D	04/26/2014	09:50
	LCS 240-128028/4	U1237307.D	04/26/2014	10:14
	MB 240-128028/6	U1237309.D	04/26/2014	11:02
MSA-MW-51D-041714	240-36343-2	U1237310.D	04/26/2014	11:25
MSA-MW-49D-041714	240-36343-3	U1237317.D	04/26/2014	14:12
MSA-DMW-5I-041814	240-36343-4	U1237318.D	04/26/2014	14:35
TB-042114	240-36355-1	U1237320.D	04/26/2014	15:23
MSA-MW-22D-042114	240-36355-2	U1237321.D	04/26/2014	15:46
MSA-MW-3-042114	240-36355-3	U1237322.D	04/26/2014	16:09
MSA-MW-19D-042114	240-36355-4	U1237323.D	04/26/2014	16:33
MSA-MW-38S-042114	240-36355-5	U1237324.D	04/26/2014	16:57
TB-042214	240-36398-1	U1237325.D	04/26/2014	17:20
MSA-DMW-3D-042214	240-36398-2	U1237326.D	04/26/2014	17:44
MSA-DMW-3S-042214	240-36398-4	U1237328.D	04/26/2014	18:31
MSA-DMW-2B-042214	240-36398-5	U1237329.D	04/26/2014	18:55
MSA-MW-51D-041714 MS	240-36343-2 MS	U1237330.D	04/26/2014	19:18
MSA-MW-51D-041714 MSD	240-36343-2 MSD	U1237331.D	04/26/2014	19:42

12

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: STD8260 240-128028/2 Calibration Date: 04/26/2014 09:26

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1237305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4988	0.5299	0.1000	0.310	0.0200	6.2	20.0
Chloromethane	Ave	0.5020	0.5591	0.1000	0.300	0.0200	11.4	20.0
Vinyl chloride	Ave	0.5127	0.5719	0.1000	0.220	0.0200	11.5	20.0
Bromomethane	Ave	0.2464	0.3004	0.0500	0.410	0.0200	21.9*	20.0
Chloroethane	Ave	0.3073	0.3361	0.0500	0.290	0.0200	9.4	20.0
Dichlorofluoromethane	Ave	0.6201	0.6032		0.420	0.0200	-2.7	20.0
Trichlorofluoromethane	Lin1		0.5658	0.1000	0.210	0.0200	15.2	20.0
Ethyl ether	Ave	0.2789	0.2744		0.310	0.0200	-1.6	20.0
Acrolein	Ave	0.0458	0.0466		2.20	0.100	1.7	20.0
1,1-Dichloroethene	Ave	0.6619	0.6580	0.1000	0.190	0.0200	-0.6	20.0
Acetone	Lin1		0.1107	0.0500	1.10	0.0400	11.1	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3282	0.3637	0.0500	0.280	0.0200	10.8	20.0
Iodomethane	Ave	0.4775	0.5718		0.180	0.0200	19.7	20.0
Carbon disulfide	Ave	1.240	1.361	0.1000	0.130	0.0200	9.8	20.0
3-Chloro-1-propene	Ave	0.1910	0.2400		0.350	0.0200	25.7*	20.0
Methyl acetate	Ave	0.2571	0.2600	0.1000	0.380	0.100	1.1	20.0
Methylene Chloride	Ave	0.5455	0.5234	0.1000	0.330	0.0200	-4.0	20.0
tert-Butyl alcohol	Ave	0.0269	0.0336		3.90	0.200	25.2*	20.0
Acrylonitrile	Ave	0.1282	0.1425		2.00	0.200	11.2	20.0
Methyl tert-butyl ether	Ave	0.9500	0.9208	0.1000	0.170	0.0200	-3.1	20.0
trans-1,2-Dichloroethene	Ave	0.4839	0.4555	0.1000	0.190	0.0200	-5.9	20.0
Hexane	Lin1		0.3141		0.260	0.0200	4.2	20.0
1,1-Dichloroethane	Ave	0.5808	0.5193	0.1000	0.150	0.0200	-10.6	20.0
Vinyl acetate	Ave	0.4223	0.3792		0.190	0.0192	-10.2	20.0
2,2-Dichloropropane	Ave	0.2172	0.2034		0.130	0.0200	-6.4	20.0
2-Butanone (MEK)	Lin1		0.1628	0.0500	0.570	0.0400	8.1	20.0
cis-1,2-Dichloroethene	Ave	0.4465	0.4293	0.1000	0.170	0.0200	-3.9	20.0
Bromochloromethane	Ave	0.2599	0.2970		0.290	0.0200	14.3	20.0
Tetrahydrofuran	Lin1		0.0984		0.420	0.0400	2.7	20.0
Chloroform	Ave	0.5683	0.4780	0.2000	0.160	0.0200	-15.9	20.0
1,1,1-Trichloroethane	Ave	0.3150	0.2868	0.1000	0.220	0.0200	-9.0	20.0
Cyclohexane	Ave	0.4348	0.3260	0.1000	0.120	0.0200	-25.0*	20.0
1,1-Dichloropropene	Ave	0.4041	0.3827		0.130	0.0200	-5.3	20.0
Carbon tetrachloride	Ave	0.2352	0.2487	0.1000	0.130	0.0200	5.8	20.0
Isobutyl alcohol	Ave	0.0052	0.0071		8.20	0.500	36.7*	20.0
1,2-Dichloroethane	Ave	0.4374	0.3775	0.1000	0.220	0.0200	-13.7	20.0
Benzene	Ave	1.334	1.305	0.5000	0.130	0.0200	-2.2	20.0
n-Heptane	Lin1		0.0704		0.180	0.0200	-8.8	20.0
Trichloroethene	Ave	0.3128	0.3274	0.2000	0.170	0.0200	4.6	20.0
Methylcyclohexane	Ave	0.3956	0.3367	0.1000	0.130	0.0200	-14.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: STD8260 240-128028/2 Calibration Date: 04/26/2014 09:26

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1237305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3291	0.3122	0.1000	0.180	0.0200	-5.1	20.0
1,4-Dioxane	Ave	0.0039	0.0040		19.0	0.400	2.6	20.0
Dibromomethane	Ave	0.1741	0.2105		0.280	0.0200	20.9*	20.0
Bromodichloromethane	Ave	0.3832	0.3384	0.1000	0.150	0.0200	-11.7	20.0
2-Chloroethyl vinyl ether	Ave	0.2307	0.2084		0.990	0.0400	-9.7	20.0
cis-1,3-Dichloropropene	Ave	0.4702	0.4157	0.1500	0.140	0.0200	-11.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3112	0.3171	0.0500	0.320	0.0400	1.9	20.0
Toluene	Ave	1.909	1.730	0.4000	0.130	0.0200	-9.4	20.0
trans-1,3-Dichloropropene	Lin1		0.4444	0.1000	0.190	0.0200	-18.9	20.0
Ethyl methacrylate	Ave	0.5356	0.4979		0.140	0.0200	-7.0	20.0
1,1,2-Trichloroethane	Ave	0.4064	0.3673	0.1000	0.270	0.0200	-9.6	20.0
Tetrachloroethene	Ave	0.3706	0.3961	0.2000	0.290	0.0200	6.9	20.0
1,3-Dichloropropane	Ave	0.7692	0.6885		0.160	0.0200	-10.5	20.0
2-Hexanone	Ave	0.3006	0.3009	0.0500	0.410	0.0400	0.1	20.0
Chlorodibromomethane	Ave	0.3318	0.2855		0.180	0.0200	-14.0	20.0
1,2-Dibromoethane	Ave	0.3715	0.3548		0.240	0.0200	-4.5	20.0
Chlorobenzene	Ave	1.210	1.185	0.3000	0.150	0.0200	-2.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3316	0.2944		0.230	0.0200	-11.2	20.0
Ethylbenzene	Ave	0.6027	0.5634		0.170	0.0200	-6.5	20.0
m-Xylene & p-Xylene	Ave	0.7591	0.7113		0.240	0.0200	-6.3	20.0
o-Xylene	Ave	0.7461	0.7208		0.140	0.0200	-3.4	20.0
Styrene	Ave	1.394	1.309	0.3000	0.110	0.0200	-6.1	20.0
Bromoform	Ave	0.2022	0.1608	0.1000	0.640	0.0200	-20.5*	20.0
Isopropylbenzene	Ave	1.787	1.587	0.1000	0.130	0.0200	-11.2	20.0
1,1,2,2-Tetrachloroethane	Ave	1.198	1.012	0.3000	0.180	0.0200	-15.5	20.0
Bromobenzene	Ave	0.9559	0.9319		0.130	0.0200	-2.5	20.0
1,2,3-Trichloropropane	Ave	0.3806	0.3295		0.430	0.0200	-13.4	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.1417		0.150	0.0200	-55.5*	20.0
N-Propylbenzene	Ave	0.9188	0.7775		0.140	0.0200	-15.4	20.0
2-Chlorotoluene	Ave	0.8590	0.7252		0.110	0.0200	-15.6	20.0
1,3,5-Trimethylbenzene	Ave	2.916	2.245		0.0960	0.0200	-23.0*	20.0
4-Chlorotoluene	Ave	0.9220	0.8361		0.180	0.0200	-9.3	20.0
tert-Butylbenzene	Ave	2.337	1.901		0.130	0.0200	-18.6	20.0
1,2,4-Trimethylbenzene	Ave	3.130	2.440		0.120	0.0200	-22.0*	20.0
sec-Butylbenzene	Ave	3.401	2.546		0.130	0.0200	-25.1*	20.0
1,3-Dichlorobenzene	Ave	1.739	1.575	0.6000	0.140	0.0200	-9.5	20.0
4-Isopropyltoluene	Ave	2.941	2.354		0.0160	0.0200	-20.0	20.0
1,4-Dichlorobenzene	Ave	1.939	1.610	0.5000	0.130	0.0200	-17.0	20.0
n-Butylbenzene	Ave	2.682	1.856		0.120	0.0200	-30.8*	20.0
1,2-Dichlorobenzene	Ave	1.751	1.574	0.4000	0.130	0.0200	-10.1	20.0
1,2-Dibromo-3-Chloropropane	Lin1		0.1550	0.0500	0.670	0.0200	-16.4	20.0

FORM VII

GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: STD8260 240-128028/2 Calibration Date: 04/26/2014 09:26

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1237305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Lin1		0.8471	0.2000	0.150	0.0200	-6.9	20.0
Hexachlorobutadiene	Lin1		0.2869		0.300	0.0200	-22.4*	20.0
Naphthalene	Ave	3.240	2.767		0.240	0.0200	-14.6	20.0
1,2,3-Trichlorobenzene	Lin1		0.7664		0.170	0.0200	-9.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2596	0.2541		0.0162	0.0165	-2.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3400	0.2956		0.0144	0.0165	-13.1	20.0
Toluene-d8 (Surr)	Ave	1.466	1.444		0.0163	0.0165	-1.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6017	0.5187		0.0142	0.0165	-13.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-128028/3 Calibration Date: 04/26/2014 09:50

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1237306.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2596	0.2490		0.0158	0.0165	-4.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3400	0.2913		0.0142	0.0165	-14.3	20.0
Toluene-d8 (Surr)	Ave	1.466	1.421		0.0160	0.0165	-3.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6017	0.5038		0.0138	0.0165	-16.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-128028/3 Calibration Date: 04/26/2014 09:50

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 21:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 23:58

Lab File ID: U1237306.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0474	0.0541		3.50	0.200	14.1	20.0
Diisopropyl ether	Ave	0.2684	0.2747		1.50	0.0200	2.4	20.0
2-Chloro-1,3-butadiene	Ave	0.4715	0.4481		0.290	0.0200	-5.0	20.0
Ethyl tert-butyl ether	Ave	0.9662	0.9441		0.110	0.0200	-2.3	20.0
Ethyl acetate	Ave	0.2044	0.2148		0.500	0.0400	5.1	20.0
Propionitrile	Ave	0.0488	0.0547		1.20	0.200	12.0	20.0
Methacrylonitrile	Ave	0.2096	0.2143		0.510	0.200	2.3	20.0
Tert-amyl methyl ether	Ave	0.9067	0.8856		0.0670	0.0200	-2.3	20.0
n-Butanol	Ave	0.0043	0.0058		7.30	0.500	35.3*	20.0
Ethyl acrylate	Ave	0.3726	0.3732		0.250	0.0200	0.2	20.0
Methyl methacrylate	Ave	0.2616	0.2763		0.490	0.0400	5.6	20.0
2-Nitropropane	Ave	0.0291	0.0302		0.700	0.0400	4.1	20.0
Cyclohexanone	Ave	0.0157	0.0170		5.80	0.200	8.3	20.0
1,2,3-Trimethylbenzene	Ave	3.327	2.709		0.0163	0.0200	-18.6	20.0
1,3,5-Trichlorobenzene	Lin1		0.9386		0.110	0.0200	-1.2	20.0
2-Methylnaphthalene	Lin1		1.075		0.470	0.0400	-31.3*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: BFB3716.D BFB Injection Date: 02/19/2014

Instrument ID: A3UX16 BFB Injection Time: 12:53

Analysis Batch No.: 120094

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.2	
75	30.0 - 60.0 % of mass 95	52.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.3	(0.3)1
174	50.0 - 120.00 % of mass 95	80.4	
175	5.0 - 9.0 % of mass 174	5.8	(7.2)1
176	95.0 - 101.0 % of mass 174	77.8	(96.7)1
177	5.0 - 9.0 % of mass 176	5.0	(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STDA9 240-120094/9	UXM3688.D	02/19/2014	15:57
	STDA9 240-120094/10	UXM3689.D	02/19/2014	16:20
	STDA9 240-120094/11	UXM3690.D	02/19/2014	16:42
	STDA9 240-120094/12	UXM3691.D	02/19/2014	17:05
	STDA9 240-120094/13	UXM3692.D	02/19/2014	17:27
	STDA9 240-120094/14	UXM3693.D	02/19/2014	17:49
	ICV 240-120094/16	UXM3695.D	02/19/2014	18:34

FORM V

GC/MS VOA INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: BFB3779.D BFB Injection Date: 04/28/2014

Instrument ID: A3UX16 BFB Injection Time: 09:28

Analysis Batch No.: 128158

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.6	
75	30.0 - 60.0 % of mass 95	48.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.3	(0.4)1
174	50.0 - 120.00 % of mass 95	79.0	
175	5.0 - 9.0 % of mass 174	5.8	(7.3)1
176	95.0 - 101.0 % of mass 174	77.0	(97.4)1
177	5.0 - 9.0 % of mass 176	5.0	(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-128158/2	UXM5139.D	04/28/2014	09:58
	STD8260 240-128158/3	UXM5140.D	04/28/2014	10:21
	STD8260 240-128158/4	UXM5141.D	04/28/2014	10:43
	STD8260 240-128158/5	UXM5142.D	04/28/2014	11:05
	STD8260 240-128158/6	UXM5143.D	04/28/2014	11:27
	STD8260 240-128158/7	UXM5144.D	04/28/2014	11:49
	STD8260 240-128158/8	UXM5145.D	04/28/2014	12:11
	ICV 240-128158/9	UXM5146.D	04/28/2014	12:33

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 120094

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/19/2014 15:57 Calibration End Date: 02/19/2014 17:49 Calibration ID: 20840

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-120094/14	UXM3693.D
Level 2	STDA9 240-120094/13	UXM3692.D
Level 3	STDA9 240-120094/12	UXM3691.D
Level 4	STDA9 240-120094/11	UXM3690.D
Level 5	STDA9 240-120094/10	UXM3689.D
Level 6	STDA9 240-120094/9	UXM3688.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0191 0.0202	0.0195	0.0174	0.0198	0.0194	Ave		0.0192				5.0		15.0			
Diisopropyl ether	0.1949 0.2492	0.2069	0.2158	0.2323	0.2477	Ave		0.2245				9.9		15.0			
2-Chloro-1,3-butadiene	0.3210 0.4544	0.3600	0.3838	0.4091	0.4602	Ave		0.3981				14.0		15.0			
Ethyl tert-butyl ether	0.6246 0.7813	0.6208	0.6460	0.7056	0.7487	Ave		0.6878				9.9		15.0			
Propionitrile	0.0202 0.0233	0.0212	0.0222	0.0237	0.0230	Ave		0.0223				6.1		15.0			
Ethyl acetate	0.1242 0.1243	0.1137	0.1178	0.1234	0.1203	Ave		0.1206				3.5		15.0			
Methacrylonitrile	0.1165 0.1250	0.1109	0.1132	0.1207	0.1200	Ave		0.1177				4.4		15.0			
Tert-amyl methyl ether	0.5221 0.6380	0.4590	0.5013	0.5638	0.6063	Ave		0.5484				12.0		15.0			
n-Butanol	0.0033 0.0042	0.0033	0.0036	0.0041	0.0042	Ave		0.0038				11.0		15.0			
Ethyl acrylate	0.1837 0.2183	0.1589	0.1773	0.1943	0.2076	Ave		0.1900				11.0		15.0			
Methyl methacrylate	0.1598 0.1865	0.1379	0.1537	0.1681	0.1776	Ave		0.1639				11.0		15.0			
2-Nitropropane	0.0345 0.0446	0.0272	0.0281	0.0341	0.0384	Qua	-0.037	0.0321	0.0001						1.0000		0.9900
Cyclohexanone	0.0078 0.0114	0.0099	0.0094	0.0110	0.0115	Ave		0.0102				14.0		15.0			
1,2,3-Trimethylbenzene	2.5683 3.3621	2.6171	2.7419	2.9169	3.3189	Ave		2.9209				12.0		15.0			
1,3,5-Trichlorobenzene	0.9676 1.2007	1.0824	0.9962	1.0805	1.2225	Ave		1.0916				9.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 120094

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/19/2014 15:57 Calibration End Date: 02/19/2014 17:49 Calibration ID: 20840

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Methylnaphthalene	0.7208 1.2877	0.8153	0.9841	1.2478	1.3350	Lin1	-1.669	1.2974							0.9970		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 128158

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/28/2014 09:58 Calibration End Date: 04/28/2014 12:11 Calibration ID: 21945

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-128158/8	UXM5145.D
Level 2	STD8260 240-128158/7	UXM5144.D
Level 3	STD8260 240-128158/6	UXM5143.D
Level 4	STD8260 240-128158/5	UXM5142.D
Level 5	STD8260 240-128158/4	UXM5141.D
Level 6	STD8260 240-128158/3	UXM5140.D
Level 7	STD8260 240-128158/2	UXM5139.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2909 0.3073	0.3227 0.2922	0.2726	0.2398	0.3437	Ave		0.2956			0.1000	11.0		15.0			
Chloromethane	0.4733 0.4258	0.4725 0.4105	0.4227	0.4101	0.4484	Ave		0.4376			0.1000	6.2		15.0			
Vinyl chloride	0.4105 0.3796	0.3922 0.3929	0.3514	0.3129	0.3994	Ave		0.3770			0.1000	9.0		15.0			
Bromomethane	0.2021 0.1946	0.2167 0.1630	0.1848	0.1817	0.1904	Ave		0.1905			0.0500	8.8		15.0			
Chloroethane	0.2284 0.2311	0.2447 0.2237	0.2070	0.2030	0.2314	Ave		0.2242				6.5		15.0			
Dichlorofluoromethane	0.5127 0.4937	0.5102 0.4940	0.4454	0.4294	0.4827	Ave		0.4812				6.6		15.0			
Trichlorofluoromethane	0.3641 0.3909	0.3811 0.4321	0.3172	0.2858	0.4040	Ave		0.3679			0.1000	14.0		15.0			
Ethyl ether	0.2013 0.2134	0.2394 0.2303	0.2363	0.2095	0.2241	Ave		0.2220				6.5		15.0			
Acrolein	0.0180 0.0186	0.0168 0.0207	0.0190	0.0184	0.0202	Ave		0.0188				7.0		15.0			
1,1-Dichloroethene	0.2462 0.2508	0.1727 0.2799	0.2544	0.2331	0.2627	Ave		0.2428			0.1000	14.0		15.0			
1,1,2-Trichlorotrifluoroethane	0.2164 0.1915	0.0913 0.2171	0.1927	0.1743	0.2022	Lin1	-0.048	0.2067			0.0500				0.9950		0.9900
Acetone	0.1227 0.0563	0.0828 0.0620	0.0711	0.0558	0.0630	Lin1	0.0564	0.0598			0.0500				0.9970		0.9900
Iodomethane	0.3694 0.4024	0.3707 0.4210	0.4089	0.3834	0.4144	Ave		0.3958				5.3		15.0			
Carbon disulfide	0.7341 0.8139	0.5406 0.9024	0.7430	0.7038	0.8304	Ave		0.7526			0.1000	15.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 128158

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/28/2014 09:58 Calibration End Date: 04/28/2014 12:11 Calibration ID: 21945

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.1144 0.1645	0.1147 0.1787	0.1473	0.1448	0.1654	Lin1	-0.052	0.1721							0.9970		0.9900
Methyl acetate	0.1605 0.1438	0.1534 0.1657	0.1697	0.1482	0.1570	Ave		0.1569			0.1000	5.9		15.0			
Methylene Chloride	1.4462 0.2798	0.7878 0.2849	0.3916	0.3200	0.2972	Lin1	0.5585	0.2750			0.1000				0.9990		0.9900
tert-Butyl alcohol	0.0177 0.0142	0.0205 0.0164	0.0236	0.0155	0.0167	Lin1	0.0397	0.0159							0.9900		0.9900
Acrylonitrile	0.0709 0.0671	0.0763 0.0769	0.0794	0.0692	0.0737	Ave		0.0734				6.1		15.0			
Methyl tert-butyl ether	0.5471 0.6010	0.5651 0.6592	0.6413	0.5778	0.6277	Ave		0.6027			0.1000	6.9		15.0			
trans-1,2-Dichloroethene	0.2891 0.2917	0.2398 0.3132	0.3001	0.2740	0.2982	Ave		0.2866			0.1000	8.3		15.0			
Hexane	0.1332 0.0732	0.0512 0.0876	0.0809	0.0658	0.0801	Lin1	0.0006	0.0815							0.9900		0.9900
1,1-Dichloroethane	0.5179 0.5201	0.4760 0.5556	0.5306	0.4983	0.5348	Ave		0.5190			0.1000	5.0		15.0			
Vinyl acetate	0.1952 0.2782	0.2370 0.3285	0.2739	0.2579	0.2891	Lin1	-0.083	0.3074							0.9930		0.9900
cis-1,2-Dichloroethene	0.3054 0.3025	0.2864 0.3182	0.3058	0.2931	0.3088	Ave		0.3029			0.1000	3.4		15.0			
2-Butanone (MEK)	+++++ 0.0809	0.1006 0.0945	0.1029	0.0820	0.0906	Ave		0.0919			0.0500	10.0		15.0			
2,2-Dichloropropane	0.2326 0.2918	0.1896 0.2849	0.2667	0.2563	0.2942	Ave		0.2595				15.0		15.0			
Bromochloromethane	0.1037 0.1235	0.1278 0.1306	0.1308	0.1194	0.1283	Ave		0.1235				7.8		15.0			
Tetrahydrofuran	0.0513 0.0537	0.0587 0.0654	0.0621	0.0538	0.0598	Ave		0.0578				8.8		15.0			
Chloroform	0.4253 0.4535	0.4233 0.4868	0.4809	0.4345	0.4674	Ave		0.4531				5.8		15.0			
1,1,1-Trichloroethane	0.3157 0.3848	0.2303 0.4157	0.3618	0.3441	0.3965	Lin1	-0.110	0.4028			0.1000				0.9980		0.9900
Cyclohexane	0.5302 0.5275	0.2564 0.6020	0.5284	0.4839	0.5675	Lin1	-0.154	0.5736			0.1000				0.9950		0.9900
1,1-Dichloropropene	0.3121 0.3421	0.2204 0.3905	0.3457	0.3137	0.3599	Lin1	-0.093	0.3710							0.9950		0.9900
Carbon tetrachloride	0.2528 0.3386	0.1617 0.3855	0.3085	0.2819	0.3406	Lin1	-0.141	0.3636			0.1000				0.9930		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 128158

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/28/2014 09:58 Calibration End Date: 04/28/2014 12:11 Calibration ID: 21945

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0062 0.0065	0.0089 0.0075	0.0117	0.0072	0.0077	Qua	0.3164	0.0059	0						0.9970		0.9900
1,2-Dichloroethane	0.3338 0.3090	0.3116 0.3429	0.3395	0.3088	0.3233	Ave		0.3241			0.1000	4.6		15.0			
Benzene	1.0630 1.1285	1.0367 1.2376	1.1732	1.0746	1.1581	Ave		1.1245			0.5000	6.3		15.0			
n-Heptane	0.0553 0.0821	0.0436 0.0993	0.0847	0.0771	0.0891	Lin1	-0.035	0.0928							0.9920		0.9900
Trichloroethene	0.2699 0.2764	0.2288 0.3101	0.2888	0.2597	0.2898	Ave		0.2748			0.2000	9.4		15.0			
Methylcyclohexane	0.5192 0.4868	0.2558 0.5734	0.4820	0.4406	0.5225	Lin1	-0.145	0.5383			0.1000				0.9930		0.9900
1,2-Dichloropropane	0.2573 0.2609	0.2576 0.2892	0.2746	0.2523	0.2742	Ave		0.2666			0.1000	4.9		15.0			
Dibromomethane	0.1206 0.1128	0.1116 0.1256	0.1260	0.1094	0.1210	Ave		0.1181				5.8		15.0			
1,4-Dioxane	+++++ 0.0015	0.0014 0.0017	0.0022	0.0016	0.0018	Lin1	0.0031	0.0017							0.9930		0.9900
Bromodichloromethane	0.2174 0.2958	0.2471 0.3350	0.2940	0.2621	0.3022	Ave		0.2791			0.1000	14.0		15.0			
2-Chloroethyl vinyl ether	+++++ 0.0873	0.0670 0.1058	0.0896	0.0781	0.0942	Ave		0.0870				15.0		15.0			
cis-1,3-Dichloropropene	0.2372 0.3418	0.2532 0.3904	0.3272	0.2957	0.3490	Lin1	-0.115	0.3688			0.1500				0.9950		0.9900
4-Methyl-2-pentanone (MIBK)	0.1449 0.1777	0.2000 0.2108	0.2578	0.1902	0.2057	Lin1	-0.015	0.2017			0.0500				0.9920		0.9900
Toluene	1.8428 1.7065	1.5906 1.8905	1.8174	1.6550	1.7471	Ave		1.7500			0.4000	6.1		15.0			
trans-1,3-Dichloropropene	0.2476 0.3851	0.2667 0.4501	0.3816	0.3469	0.3980	Lin1	-0.144	0.4229			0.1000				0.9940		0.9900
Ethyl methacrylate	0.2528 0.3361	0.2848 0.3939	0.3991	0.3330	0.3727	Lin1	-0.075	0.3748							0.9950		0.9900
1,1,2-Trichloroethane	0.2571 0.2454	0.2885 0.2747	0.3176	0.2612	0.2692	Ave		0.2734			0.1000	8.7		15.0			
1,3-Dichloropropane	0.4256 0.4444	0.4628 0.5060	0.5452	0.4554	0.4816	Ave		0.4744				8.5		15.0			
Tetrachloroethene	0.3241 0.3194	0.2311 0.3719	0.3373	0.3092	0.3405	Ave		0.3191			0.2000	14.0		15.0			
2-Hexanone	+++++ 0.1818	0.2090 0.2085	0.2654	0.2125	0.2167	Ave		0.2156			0.0500	13.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 128158

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/28/2014 09:58 Calibration End Date: 04/28/2014 12:11 Calibration ID: 21945

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.1604 0.2708	0.2045 0.3203	0.2759	0.2375	0.2816	Lin1	-0.103	0.2996							0.9930		0.9900
1,2-Dibromoethane	0.1992 0.2251	0.2254 0.2594	0.2766	0.2300	0.2451	Ave		0.2373				11.0		15.0			
Chlorobenzene	1.1809 1.0630	1.2036 1.1771	1.2728	1.0787	1.1320	Ave		1.1583			0.3000	6.3		15.0			
1,1,1,2-Tetrachloroethane	0.2620 0.3592	0.3164 0.3939	0.3951	0.3422	0.3722	Ave		0.3487				14.0		15.0			
Ethylbenzene	0.5558 0.6086	0.5580 0.6905	0.6715	0.5879	0.6448	Ave		0.6167				8.7		15.0			
m-Xylene & p-Xylene	0.7467 0.7617	0.7225 0.8458	0.8643	0.7401	0.7995	Ave		0.7829				7.0		15.0			
o-Xylene	0.6812 0.7711	0.7194 0.8483	0.8742	0.7476	0.7952	Ave		0.7767				8.8		15.0			
Styrene	1.1870 1.2730	1.1859 1.4168	1.3880	1.1909	1.2986	Ave		1.2772			0.3000	7.6		15.0			
Bromoform	0.0817 0.1367	0.1017 0.1712	0.1466	0.1222	0.1418	Qua	0.0812	0.1103	0.0006		0.1000				0.9990		0.9900
Isopropylbenzene	1.6986 2.0487	1.6124 2.3050	2.2615	1.9452	2.1298	Ave		2.0002			0.1000	13.0		15.0			
1,1,2,2-Tetrachloroethane	0.6077 0.5253	0.6989 0.5724	0.8135	0.6305	0.6204	Ave		0.6384			0.3000	15.0		15.0			
Bromobenzene	0.8652 0.7791	0.9785 0.8283	0.9982	0.8583	0.8547	Ave		0.8803				9.0		15.0			
1,2,3-Trichloropropane	0.1691 0.1676	0.2436 0.1837	0.2680	0.1997	0.1935	Lin1	0.0439	0.1825							0.9910		0.9900
trans-1,4-Dichloro-2-butene	0.1043 0.1612	0.1824 0.1847	0.2190	0.1681	0.1772	Lin1	-0.014	0.1780							0.9950		0.9900
N-Propylbenzene	0.9423 1.0105	0.9549 1.0913	1.2028	1.0099	1.1081	Ave		1.0457				8.9		15.0			
2-Chlorotoluene	0.9301 0.8327	0.9681 0.8831	1.0623	0.8982	0.9121	Ave		0.9267				7.9		15.0			
1,3,5-Trimethylbenzene	2.9772 3.1010	3.1178 3.3238	3.7348	3.1005	3.3491	Ave		3.2435				7.8		15.0			
4-Chlorotoluene	1.0645 0.8820	1.1451 0.9360	1.1592	0.9395	0.9591	Ave		1.0122				11.0		15.0			
tert-Butylbenzene	2.6526 2.7617	2.4477 3.0067	3.2592	2.7720	2.9548	Ave		2.8364				9.3		15.0			
1,2,4-Trimethylbenzene	3.3639 3.2076	3.5880 3.3532	4.0084	3.3188	3.4819	Ave		3.4745				7.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 128158

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/28/2014 09:58 Calibration End Date: 04/28/2014 12:11 Calibration ID: 21945

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	4.0479 3.9553	3.5549 4.3323	4.7922	3.9544	4.3739	Ave		4.1444				9.5		15.0			
1,3-Dichlorobenzene	2.3812 1.7179	2.5213 1.7756	2.2914	1.8588	1.8730	Lin1	0.5920	1.7749			0.6000				0.9980		0.9900
4-Isopropyltoluene	3.4482 3.5478	3.3986 3.8318	4.2720	3.5395	3.8719	Ave		3.7014				8.4		15.0			
1,4-Dichlorobenzene	2.9894 1.7133	2.8930 1.7532	2.3984	1.9323	1.8928	Lin1	0.9627	1.7612			0.5000				0.9970		0.9900
n-Butylbenzene	3.5324 3.0233	3.1779 3.2183	3.6117	3.0332	3.3241	Ave		3.2744				7.0		15.0			
1,2-Dichlorobenzene	2.4679 1.5481	2.4352 1.5633	2.1821	1.7515	1.7190	Lin1	0.7640	1.5846			0.4000				0.9960		0.9900
1,2-Dibromo-3-Chloropropane	+++++ 0.0723	0.0877 0.0816	0.1026	0.0783	0.0784	Ave		0.0835			0.0500	13.0		15.0			
1,2,4-Trichlorobenzene	2.3390 0.8363	1.9490 0.7920	1.2695	1.0117	0.9714	Lin1	1.0089	0.8241			0.2000				0.9920		0.9900
Hexachlorobutadiene	0.6121 0.4522	0.5070 0.4527	0.5716	0.5033	0.5424	Ave		0.5202				11.0		15.0			
Naphthalene	4.3999 1.5614	4.0741	2.4663	2.0445	1.8248	Lin	3.8401	1.5268							0.9940		0.9900
1,2,3-Trichlorobenzene	2.0757 0.7082	1.8054	1.1668	0.9321	0.8406	Lin	1.8396	0.6928							0.9920		0.9900
Dibromofluoromethane (Surr)	0.1995 0.2254	0.2158 0.2380	0.1976	0.2117	0.2187	Ave		0.2152				6.6		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2612 0.2462	0.2657 0.2611	0.2318	0.2424	0.2397	Ave		0.2497				5.2		15.0			
Toluene-d8 (Surr)	1.3035 1.3911	1.2176 1.5238	1.2363	1.2935	1.3608	Ave		1.3324				7.9		15.0			
4-Bromofluorobenzene (Surr)	0.6783 0.4972	0.5823 0.5222	0.4866	0.5039	0.4972	Ave		0.5382				13.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: BFB3781.D BFB Injection Date: 04/29/2014

Instrument ID: A3UX16 BFB Injection Time: 12:15

Analysis Batch No.: 128396

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.9	
75	30.0 - 60.0 % of mass 95	50.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.3	(0.4)1
174	50.0 - 120.00 % of mass 95	81.2	
175	5.0 - 9.0 % of mass 174	6.2	(7.7)1
176	95.0 - 101.0 % of mass 174	80.9	(99.6)1
177	5.0 - 9.0 % of mass 176	5.8	(7.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-128396/2	UXM5170.D	04/29/2014	12:51
	CCV 240-128396/3	UXM5171.D	04/29/2014	13:13
	LCS 240-128396/4	UXM5172.D	04/29/2014	13:35
	MB 240-128396/6	UXM5174.D	04/29/2014	14:20
MSA-DMW-5S-041814	240-36343-5	UXM5175.D	04/29/2014	14:54
MSA-DMW-3I-042214	240-36398-3	UXM5176.D	04/29/2014	15:16

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVIS 240-128396/2 Calibration Date: 04/29/2014 12:51

Instrument ID: A3UX16 Calib Start Date: 04/28/2014 09:58

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/28/2014 12:11

Lab File ID: UXM5170.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2956	0.2847	0.1000	0.310	0.0250	-3.7	20.0
Chloromethane	Ave	0.4376	0.4114	0.1000	0.300	0.0250	-6.0	20.0
Vinyl chloride	Ave	0.3770	0.3973	0.1000	0.220	0.0250	5.4	20.0
Bromomethane	Ave	0.1905	0.1890	0.0500	0.410	0.0250	-0.8	20.0
Chloroethane	Ave	0.2242	0.2289	0.0500	0.290	0.0250	2.1	20.0
Dichlorofluoromethane	Ave	0.4812	0.4843		0.420	0.0250	0.7	20.0
Trichlorofluoromethane	Ave	0.3679	0.4147	0.1000	0.210	0.0250	12.7	20.0
Ethyl ether	Ave	0.2220	0.2224		0.310	0.0250	0.2	20.0
Acrolein	Ave	0.0188	0.0182		2.20	0.125	-3.0	20.0
1,1-Dichloroethene	Ave	0.2428	0.2658	0.1000	0.190	0.0250	9.5	20.0
1,1,2-Trichlorotrifluoroethane	Lin1		0.2130	0.0500	0.280	0.0250	4.0	20.0
Acetone	Lin1		0.0627	0.0500	1.10	0.0500	2.9	20.0
Iodomethane	Ave	0.3958	0.4192		0.180	0.0250	5.9	20.0
Carbon disulfide	Ave	0.7526	0.8448	0.1000	0.130	0.0250	12.3	20.0
3-Chloro-1-propene	Lin1		0.1676		0.350	0.0250	-1.4	20.0
Methyl acetate	Ave	0.1569	0.1571	0.1000	0.380	0.125	0.1	20.0
Methylene Chloride	Lin1		0.2876	0.1000	0.330	0.0250	-3.5	20.0
tert-Butyl alcohol	Lin1		0.0148		3.90	0.250	-8.0	20.0
Acrylonitrile	Ave	0.0734	0.0723		2.00	0.250	-1.4	20.0
Methyl tert-butyl ether	Ave	0.6027	0.6333	0.1000	0.170	0.0250	5.1	20.0
trans-1,2-Dichloroethene	Ave	0.2866	0.3042	0.1000	0.190	0.0250	6.1	20.0
Hexane	Lin1		0.0859		0.260	0.0250	5.4	20.0
1,1-Dichloroethane	Ave	0.5190	0.5462	0.1000	0.150	0.0250	5.2	20.0
Vinyl acetate	Lin1		0.2738		0.190	0.0240	-9.8	20.0
2-Butanone (MEK)	Ave	0.0919	0.0899	0.0500	0.570	0.0500	-2.2	20.0
cis-1,2-Dichloroethene	Ave	0.3029	0.3117	0.1000	0.170	0.0250	2.9	20.0
2,2-Dichloropropane	Ave	0.2595	0.2852		0.130	0.0250	9.9	20.0
Bromochloromethane	Ave	0.1235	0.1290		0.290	0.0250	4.5	20.0
Tetrahydrofuran	Ave	0.0578	0.0593		0.420	0.0500	2.5	20.0
Chloroform	Ave	0.4531	0.4763	0.2000	0.160	0.0250	5.1	20.0
1,1,1-Trichloroethane	Lin1		0.4073	0.1000	0.220	0.0250	2.2	20.0
Cyclohexane	Lin1		0.5904	0.1000	0.120	0.0250	4.0	20.0
1,1-Dichloropropene	Lin1		0.3653		0.130	0.0250	-0.5	20.0
Carbon tetrachloride	Lin1		0.3585	0.1000	0.130	0.0250	0.1	20.0
Isobutyl alcohol	Qua		0.0067		8.20	0.625	-0.4	20.0
1,2-Dichloroethane	Ave	0.3241	0.3303	0.1000	0.220	0.0250	1.9	20.0
Benzene	Ave	1.125	1.174	0.5000	0.130	0.0250	4.4	20.0
n-Heptane	Lin1		0.0949		0.180	0.0250	3.7	20.0
Trichloroethene	Ave	0.2748	0.2955	0.2000	0.170	0.0250	7.5	20.0
Methylcyclohexane	Lin1		0.5401	0.1000	0.130	0.0250	1.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVIS 240-128396/2 Calibration Date: 04/29/2014 12:51

Instrument ID: A3UX16 Calib Start Date: 04/28/2014 09:58

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/28/2014 12:11

Lab File ID: UXM5170.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2666	0.2782	0.1000	0.180	0.0250	4.4	20.0
Dibromomethane	Ave	0.1181	0.1213		0.280	0.0250	2.7	20.0
1,4-Dioxane	Lin1		0.0015		19.0	0.500	-9.1	20.0
Bromodichloromethane	Ave	0.2791	0.3050	0.1000	0.150	0.0250	9.3	20.0
2-Chloroethyl vinyl ether	Ave	0.0870	0.0902		0.990	0.0500	3.7	20.0
cis-1,3-Dichloropropene	Lin1		0.3437	0.1500	0.140	0.0250	-5.6	20.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.1927	0.0500	0.320	0.0500	-4.3	20.0
Toluene	Ave	1.750	1.759	0.4000	0.130	0.0250	0.5	20.0
trans-1,3-Dichloropropene	Lin1		0.3809	0.1000	0.190	0.0250	-8.6	20.0
Ethyl methacrylate	Lin1		0.3477		0.140	0.0250	-6.4	20.0
1,1,2-Trichloroethane	Ave	0.2734	0.2580	0.1000	0.270	0.0250	-5.6	20.0
1,3-Dichloropropane	Ave	0.4744	0.4696		0.160	0.0250	-1.0	20.0
Tetrachloroethene	Ave	0.3191	0.3491	0.2000	0.290	0.0250	9.4	20.0
2-Hexanone	Ave	0.2156	0.1946	0.0500	0.410	0.0500	-9.8	20.0
Chlorodibromomethane	Lin1		0.2765		0.180	0.0250	-6.3	20.0
1,2-Dibromoethane	Ave	0.2373	0.2382		0.240	0.0250	0.4	20.0
Chlorobenzene	Ave	1.158	1.107	0.3000	0.150	0.0250	-4.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3487	0.3649		0.230	0.0250	4.6	20.0
Ethylbenzene	Ave	0.6167	0.6354		0.170	0.0250	3.0	20.0
m-Xylene & p-Xylene	Ave	0.7829	0.7790		0.240	0.0250	-0.5	20.0
o-Xylene	Ave	0.7767	0.7658		0.140	0.0250	-1.4	20.0
Styrene	Ave	1.277	1.217	0.3000	0.110	0.0250	-4.7	20.0
Bromoform	Qua		0.1332	0.1000	0.640	0.0250	3.4	20.0
Isopropylbenzene	Ave	2.000	2.072	0.1000	0.130	0.0250	3.6	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6384	0.5728	0.3000	0.180	0.0250	-10.3	20.0
Bromobenzene	Ave	0.8803	0.8231		0.130	0.0250	-6.5	20.0
1,2,3-Trichloropropane	Lin1		0.1850		0.430	0.0250	0.4	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.1637		0.150	0.0250	-7.7	20.0
N-Propylbenzene	Ave	1.046	1.084		0.140	0.0250	3.7	20.0
2-Chlorotoluene	Ave	0.9267	0.8856		0.110	0.0250	-4.4	20.0
1,3,5-Trimethylbenzene	Ave	3.243	3.234		0.0960	0.0250	-0.3	20.0
4-Chlorotoluene	Ave	1.012	0.9114		0.180	0.0250	-10.0	20.0
tert-Butylbenzene	Ave	2.836	2.985		0.130	0.0250	5.3	20.0
1,2,4-Trimethylbenzene	Ave	3.475	3.283		0.120	0.0250	-5.5	20.0
sec-Butylbenzene	Ave	4.144	4.263		0.130	0.0250	2.9	20.0
1,3-Dichlorobenzene	Lin1		1.728	0.6000	0.140	0.0250	-4.0	20.0
4-Isopropyltoluene	Ave	3.701	3.760		0.0254	0.0250	1.6	20.0
1,4-Dichlorobenzene	Lin1		1.728	0.5000	0.130	0.0250	-4.1	20.0
n-Butylbenzene	Ave	3.274	3.119		0.120	0.0250	-4.8	20.0
1,2-Dichlorobenzene	Lin1		1.579	0.4000	0.130	0.0250	-2.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0835	0.0724	0.0500	0.670	0.0250	-13.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVIS 240-128396/2 Calibration Date: 04/29/2014 12:51

Instrument ID: A3UX16 Calib Start Date: 04/28/2014 09:58

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/28/2014 12:11

Lab File ID: UXM5170.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Lin1		0.7776	0.2000	0.150	0.0250	-10.5	20.0
Hexachlorobutadiene	Ave	0.5202	0.5420		0.300	0.0250	4.2	20.0
Naphthalene	Lin		1.211		0.240	0.0250	-30.7*	20.0
1,2,3-Trichlorobenzene	Lin		0.6638		0.170	0.0250	-14.8	20.0
Dibromofluoromethane (Surr)	Ave	0.2152	0.2102		0.0278	0.0285	-2.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2497	0.2287		0.0261	0.0285	-8.4	20.0
Toluene-d8 (Surr)	Ave	1.332	1.336		0.0286	0.0285	0.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5382	0.4539		0.0240	0.0285	-15.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-128396/3 Calibration Date: 04/29/2014 13:13

Instrument ID: A3UX16 Calib Start Date: 02/19/2014 15:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 02/19/2014 17:49

Lab File ID: UXM5171.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0192	0.0218		3.50	0.250	13.3	20.0
Diisopropyl ether	Ave	0.2245	0.2010		1.50	0.0250	-10.4	20.0
2-Chloro-1,3-butadiene	Ave	0.3981	0.4176		0.290	0.0250	4.9	20.0
Ethyl tert-butyl ether	Ave	0.6878	0.6359		0.110	0.0250	-7.6	20.0
Propionitrile	Ave	0.0223	0.0212		1.20	0.250	-4.8	20.0
Ethyl acetate	Ave	0.1206	0.1047		0.500	0.0500	-13.2	20.0
Methacrylonitrile	Ave	0.1177	0.1059		0.510	0.250	-10.1	20.0
Tert-amyl methyl ether	Ave	0.5484	0.4540		0.0670	0.0250	-17.2	20.0
n-Butanol	Ave	0.0038	0.0034		7.30	0.625	-11.3	20.0
Ethyl acrylate	Ave	0.1900	0.1687		0.250	0.0250	-11.2	20.0
Methyl methacrylate	Ave	0.1639	0.1509		0.490	0.0500	-7.9	20.0
2-Nitropropane	Qua		0.0010		0.700	0.0500	-94.7*	20.0
Cyclohexanone	Ave	0.0102	0.0094		5.80	0.250	-7.9	20.0
1,2,3-Trimethylbenzene	Ave	2.921	2.638		0.0226	0.0250	-9.7	20.0
1,3,5-Trichlorobenzene	Ave	1.092	0.9430		0.110	0.0250	-13.6	20.0
2-Methylnaphthalene	Lin1		0.2593		0.470	0.0500	-77.4*	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: UXX9880.D Lab Sample ID: MB 240-127413/6

Matrix: Water Heated Purge: (Y/N) N

Instrument ID: A3UX10 Date Analyzed: 04/22/2014 13:02

GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-127413/4	UXX9878.D	04/22/2014 12:17
TB-041714	240-36343-1	UXX9899.D	04/22/2014 20:20

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127413/6

Matrix: Water | Lab File ID: UXX9880.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 13:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127413/6

Matrix: Water | Lab File ID: UXX9880.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 13:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127413/6

Matrix: Water | Lab File ID: UXX9880.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/22/2014 13:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127413 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	88		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-127413/6

Matrix: Water Lab File ID: UXX9880.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/22/2014 13:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127413 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9878.D

Lab ID: LCS 240-127413/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	9.42	94	72-120	
1,1,1-Trichloroethane	10.0	9.24	92	74-120	
1,1,2,2-Tetrachloroethane	10.0	12.0	120	68-120	
1,1,2-Trichlorotrifluoroethane	10.0	11.4	114	74-151	
1,1-Dichloroethane	10.0	10.3	103	80-120	
1,1-Dichloroethene	10.0	11.7	117	78-131	
1,1-Dichloropropene	10.0	10.8	108	80-120	
1,2,3-Trichlorobenzene	10.0	11.0	110	54-126	
1,2,3-Trichloropropane	10.0	11.6	116	73-129	
1,2,4-Trichlorobenzene	10.0	10.5	105	48-135	
1,2,4-Trimethylbenzene	10.0	11.3	113	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.46	95	42-136	
1,2-Dichlorobenzene	10.0	10.7	107	80-120	
1,2-Dichloroethane	10.0	10.2	102	71-127	
1,2-Dichloropropane	10.0	10.5	105	80-120	
1,3-Dichlorobenzene	10.0	9.90	99	80-120	
1,3-Dichloropropane	10.0	11.1	111	79-120	
1,4-Dichlorobenzene	10.0	10.1	101	80-120	
2,2-Dichloropropane	10.0	7.67	77	50-129	
2-Butanone (MEK)	20.0	22.7	114	60-126	
2-Chloroethyl vinyl ether	12.0	10.9	91	52-131	
2-Chlorotoluene	10.0	10.7	107	76-120	
2-Hexanone	20.0	20.4	102	55-133	
4-Chlorotoluene	10.0	10.4	104	77-120	
4-Isopropyltoluene	10.0	11.0	110	74-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.4	97	63-128	
Acetone	20.0	23.6	118	43-136	
Benzene	10.0	10.5	105	80-120	
Bromobenzene	10.0	9.81	98	76-120	
Bromoform	10.0	7.66	77	40-131	
Bromomethane	10.0	11.9	119	11-185	
Carbon disulfide	10.0	11.4	114	62-142	
Carbon tetrachloride	10.0	8.70	87	66-128	
Chlorobenzene	10.0	9.97	100	80-120	
Chlorodibromomethane	10.0	9.06	91	64-120	
Chloroethane	10.0	9.96	100	25-153	
Chloroform	10.0	10.4	104	79-120	
Chloromethane	10.0	9.33	93	44-126	
cis-1,2-Dichloroethene	10.0	9.45	94	80-120	
cis-1,3-Dichloropropene	10.0	9.72	97	61-120	
Dibromomethane	10.0	10.2	102	80-120	
Bromochloromethane	10.0	9.28	93	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX9878.D

Lab ID: LCS 240-127413/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	10.0	9.62	96	19-129	
Bromodichloromethane	10.0	9.40	94	72-121	
tert-Butyl alcohol	100	86.6	87	70-130	
Ethylbenzene	10.0	9.99	100	80-120	
Hexachlorobutadiene	10.0	10.8	108	36-134	
Isopropylbenzene	10.0	10.4	104	75-120	
Methyl tert-butyl ether	10.0	9.17	92	52-144	
Methylene Chloride	10.0	10.1	101	66-131	
m-Xylene & p-Xylene	10.0	10.0	100	80-120	
Naphthalene	10.0	10.4	104	32-141	
n-Butylbenzene	10.0	11.7	117	66-125	
N-Propylbenzene	10.0	10.5	105	74-121	
o-Xylene	10.0	10.0	100	80-120	
sec-Butylbenzene	10.0	11.3	113	70-120	
Styrene	10.0	9.69	97	79-120	
Tetrachloroethene	10.0	9.80	98	79-120	
Toluene	10.0	11.1	111	80-120	
trans-1,2-Dichloroethene	10.0	9.81	98	80-120	
trans-1,3-Dichloropropene	10.0	10.8	108	58-120	
Trichloroethene	10.0	9.33	93	76-120	
Trichlorofluoromethane	10.0	8.29	83	49-157	
Vinyl acetate	8.00	10.9	137	46-161	
Vinyl chloride	10.0	10.8	108	53-127	
Xylenes, Total	20.0	20.0	100	80-120	
tert-Butylbenzene	10.0	11.2	112	71-120	
1,2-Dibromoethane	10.0	10.2	102	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: U1237309.D Lab Sample ID: MB 240-128028/6

Matrix: Water Heated Purge: (Y/N) N

Instrument ID: A3UX12 Date Analyzed: 04/26/2014 11:02

GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-128028/4	U1237307.D	04/26/2014 10:14
MSA-MW-51D-041714	240-36343-2	U1237310.D	04/26/2014 11:25
MSA-MW-49D-041714	240-36343-3	U1237317.D	04/26/2014 14:12
MSA-DMW-5I-041814	240-36343-4	U1237318.D	04/26/2014 14:35
TB-042114	240-36355-1	U1237320.D	04/26/2014 15:23
MSA-MW-22D-042114	240-36355-2	U1237321.D	04/26/2014 15:46
MSA-MW-3-042114	240-36355-3	U1237322.D	04/26/2014 16:09
MSA-MW-19D-042114	240-36355-4	U1237323.D	04/26/2014 16:33
MSA-MW-38S-042114	240-36355-5	U1237324.D	04/26/2014 16:57
TB-042214	240-36398-1	U1237325.D	04/26/2014 17:20
MSA-DMW-3D-042214	240-36398-2	U1237326.D	04/26/2014 17:44
MSA-DMW-3S-042214	240-36398-4	U1237328.D	04/26/2014 18:31
MSA-DMW-2B-042214	240-36398-5	U1237329.D	04/26/2014 18:55
MSA-MW-51D-041714 MS	240-36343-2 MS	U1237330.D	04/26/2014 19:18
MSA-MW-51D-041714 MSD	240-36343-2 MSD	U1237331.D	04/26/2014 19:42

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-128028/6

Matrix: Water | Lab File ID: U1237309.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 11:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-128028/6

Matrix: Water | Lab File ID: U1237309.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 11:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-128028/6

Matrix: Water Lab File ID: U1237309.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 11:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-120
1868-53-7	Dibromofluoromethane (Surr)	93		75-121
460-00-4	4-Bromofluorobenzene (Surr)	82		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		63-129

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-128028/6

Matrix: Water Lab File ID: U1237309.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2014 11:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128028 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1237307.D

Lab ID: LCS 240-128028/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	18.2	91	72-120	
1,1,1-Trichloroethane	20.0	19.6	98	74-120	
1,1,2,2-Tetrachloroethane	20.0	16.3	81	68-120	
1,1,2-Trichlorotrifluoroethane	20.0	20.2	101	74-151	
1,1-Dichloroethane	20.0	19.0	95	80-120	
1,1-Dichloroethene	20.0	20.9	104	78-131	
1,1-Dichloropropene	20.0	20.8	104	80-120	
1,2,3-Trichlorobenzene	20.0	18.1	90	54-126	
1,2,3-Trichloropropane	20.0	16.9	85	73-129	
1,2,4-Trichlorobenzene	20.0	18.3	92	48-135	
1,2,4-Trimethylbenzene	20.0	15.3	76	76-120	
1,2-Dibromo-3-Chloropropane	20.0	16.4	82	42-136	
1,2-Dichlorobenzene	20.0	18.5	92	80-120	
1,2-Dichloroethane	20.0	17.5	88	71-127	
1,2-Dichloropropane	20.0	19.1	95	80-120	
1,3-Dichlorobenzene	20.0	18.3	92	80-120	
1,3-Dichloropropane	20.0	18.4	92	79-120	
1,4-Dichlorobenzene	20.0	17.6	88	80-120	
2,2-Dichloropropane	20.0	18.9	94	50-129	
2-Butanone (MEK)	40.0	41.8	105	60-126	
2-Chloroethyl vinyl ether	24.0	21.5	89	52-131	
2-Chlorotoluene	20.0	17.4	87	76-120	
2-Hexanone	40.0	41.4	104	55-133	
4-Chlorotoluene	20.0	17.7	89	77-120	
4-Isopropyltoluene	20.0	15.4	77	74-120	
4-Methyl-2-pentanone (MIBK)	40.0	40.2	101	63-128	
Acetone	40.0	41.8	104	43-136	
Benzene	20.0	20.0	100	80-120	
Bromobenzene	20.0	18.8	94	76-120	
Bromoform	20.0	16.6	83	40-131	
Bromomethane	20.0	21.9	109	11-185	
Carbon disulfide	20.0	23.7	119	62-142	
Carbon tetrachloride	20.0	21.9	110	66-128	
Chlorobenzene	20.0	20.6	103	80-120	
Chlorodibromomethane	20.0	17.5	88	64-120	
Chloroethane	20.0	21.3	107	25-153	
Chloroform	20.0	17.0	85	79-120	
Chloromethane	20.0	19.2	96	44-126	
cis-1,2-Dichloroethene	20.0	20.2	101	80-120	
cis-1,3-Dichloropropene	20.0	18.9	94	61-120	
Dibromomethane	20.0	24.6	123	80-120	*
Bromochloromethane	20.0	20.2	101	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1237307.D

Lab ID: LCS 240-128028/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	13.3	66	19-129	
Bromodichloromethane	20.0	17.3	87	72-121	
tert-Butyl alcohol	200	235	117	70-130	
Ethylbenzene	20.0	20.3	101	80-120	
Hexachlorobutadiene	20.0	16.2	81	36-134	
Isopropylbenzene	20.0	18.4	92	75-120	
Methyl tert-butyl ether	20.0	19.9	99	52-144	
Methylene Chloride	20.0	19.6	98	66-131	
m-Xylene & p-Xylene	20.0	20.0	100	80-120	
Naphthalene	20.0	16.5	83	32-141	
n-Butylbenzene	20.0	14.1	71	66-125	
N-Propylbenzene	20.0	16.4	82	74-121	
o-Xylene	20.0	20.2	101	80-120	
sec-Butylbenzene	20.0	15.2	76	70-120	
Styrene	20.0	18.7	93	79-120	
Tetrachloroethene	20.0	22.7	113	79-120	
Toluene	20.0	19.0	95	80-120	
trans-1,2-Dichloroethene	20.0	20.4	102	80-120	
trans-1,3-Dichloropropene	20.0	18.4	92	58-120	
Trichloroethene	20.0	22.3	111	76-120	
Trichlorofluoromethane	20.0	22.3	112	49-157	
Vinyl acetate	16.0	23.0	144	46-161	
Vinyl chloride	20.0	19.5	98	53-127	
Xylenes, Total	40.0	40.2	101	80-120	
tert-Butylbenzene	20.0	16.3	82	71-120	
1,2-Dibromoethane	20.0	19.7	98	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: UXM5174.D Lab Sample ID: MB 240-128396/6

Matrix: Water Heated Purge: (Y/N) N

Instrument ID: A3UX16 Date Analyzed: 04/29/2014 14:20

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-128396/4	UXM5172.D	04/29/2014 13:35
MSA-DMW-5S-041814	240-36343-5	UXM5175.D	04/29/2014 14:54
MSA-DMW-3I-042214	240-36398-3	UXM5176.D	04/29/2014 15:16

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-128396/6

Matrix: Water | Lab File ID: UXM5174.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 04/29/2014 14:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.152	J	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK) ok	0.32	U	10	0.32
67-64-1	Acetone	1.59	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.224	J	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-128396/6

Matrix: Water | Lab File ID: UXM5174.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 04/29/2014 14:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.212	J	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-128396/6

Matrix: Water | Lab File ID: UXM5174.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 04/29/2014 14:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128396 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		74-120
1868-53-7	Dibromofluoromethane (Surr)	90		75-121
460-00-4	4-Bromofluorobenzene (Surr)	81		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-129

FORM I

GC/MS VOA ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-128396/6

Matrix: Water | Lab File ID: UXM5174.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 04/29/2014 14:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128396 | Units: ug/L

Number TICs Found: 2 | TIC Result Total: 1.884

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
108-87-2	Methylcyclohexane	6.09	0.294	J
91-57-6	2-Methylnaphthalene	14.10	1.59	J

FORM III

GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5172.D

Lab ID: LCS 240-128396/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	25.0	25.8	103	72-120	
1,1,1-Trichloroethane	25.0	24.6	99	74-120	
1,1,2,2-Tetrachloroethane	25.0	22.5	90	68-120	
1,1,2-Trichlorotrifluoroethane	25.0	24.6	98	74-151	
1,1-Dichloroethane	25.0	26.7	107	80-120	
1,1-Dichloroethene	25.0	27.1	108	78-131	
1,1-Dichloropropene	25.0	26.4	106	80-120	
1,2,3-Trichlorobenzene	25.0	19.3	77	54-126	
1,2,3-Trichloropropane	25.0	25.7	103	73-129	
1,2,4-Trichlorobenzene	25.0	20.8	83	48-135	
1,2,4-Trimethylbenzene	25.0	22.4	90	76-120	
1,2-Dibromo-3-Chloropropane	25.0	20.6	82	42-136	
1,2-Dichlorobenzene	25.0	22.7	91	80-120	
1,2-Dichloroethane	25.0	25.8	103	71-127	
1,2-Dichloropropane	25.0	25.9	103	80-120	
1,3-Dichlorobenzene	25.0	23.1	93	80-120	
1,3-Dichloropropane	25.0	24.6	98	79-120	
1,4-Dichlorobenzene	25.0	23.6	94	80-120	
2,2-Dichloropropane	25.0	26.5	106	50-129	
2-Butanone (MEK)	50.0	50.1	100	60-126	
2-Chloroethyl vinyl ether	30.0	29.3	98	52-131	
2-Chlorotoluene	25.0	23.5	94	76-120	
2-Hexanone	50.0	43.7	87	55-133	
4-Chlorotoluene	25.0	22.4	89	77-120	
4-Isopropyltoluene	25.0	23.0	92	74-120	
4-Methyl-2-pentanone (MIBK)	50.0	46.1	92	63-128	
Acetone	50.0	52.4	105	43-136	
Benzene	25.0	26.3	105	80-120	
Bromobenzene	25.0	23.5	94	76-120	
Bromoform	25.0	24.0	96	40-131	
Bromomethane	25.0	21.1	84	11-185	
Carbon disulfide	25.0	28.2	113	62-142	
Carbon tetrachloride	25.0	24.6	99	66-128	
Chlorobenzene	25.0	23.6	94	80-120	
Chlorodibromomethane	25.0	23.0	92	64-120	
Chloroethane	25.0	21.5	86	25-153	
Chloroform	25.0	26.4	106	79-120	
Chloromethane	25.0	19.9	80	44-126	
cis-1,2-Dichloroethene	25.0	26.2	105	80-120	
cis-1,3-Dichloropropene	25.0	24.2	97	61-120	
Dibromomethane	25.0	25.4	102	80-120	
Bromochloromethane	25.0	26.2	105	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM5172.D

Lab ID: LCS 240-128396/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	25.0	15.1	60	19-129	
Bromodichloromethane	25.0	26.2	105	72-121	
tert-Butyl alcohol	250	192	77	70-130	
Ethylbenzene	25.0	24.7	99	80-120	
Hexachlorobutadiene	25.0	20.3	81	36-134	
Isopropylbenzene	25.0	24.6	98	75-120	
Methyl tert-butyl ether	25.0	26.2	105	52-144	
Methylene Chloride	25.0	24.7	99	66-131	
m-Xylene & p-Xylene	25.0	24.2	97	80-120	
Naphthalene	25.0	18.0	72	32-141	
n-Butylbenzene	25.0	21.4	85	66-125	
N-Propylbenzene	25.0	25.3	101	74-121	
o-Xylene	25.0	24.1	96	80-120	
sec-Butylbenzene	25.0	23.7	95	70-120	
Styrene	25.0	22.4	90	79-120	
Tetrachloroethene	25.0	26.5	106	79-120	
Toluene	25.0	25.2	101	80-120	
trans-1,2-Dichloroethene	25.0	27.1	108	80-120	
trans-1,3-Dichloropropene	25.0	25.4	101	58-120	
Trichloroethene	25.0	27.1	108	76-120	
Trichlorofluoromethane	25.0	24.0	96	49-157	
Vinyl acetate	20.0	29.0	145	46-161	
Vinyl chloride	25.0	21.5	86	53-127	
Xylenes, Total	50.0	48.3	97	80-120	
tert-Butylbenzene	25.0	24.8	99	71-120	
1,2-Dibromoethane	25.0	25.3	101	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1237330.D

Lab ID: 240-36343-2 MS Client ID: MSA-MW-51D-041714 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	0.58 U	39.7	79	64-120	
1,1,1-Trichloroethane	50.0	0.55 U	44.2	88	68-121	
1,1,2,2-Tetrachloroethane	50.0	0.45 U	38.3	77	63-122	
1,1,2-Trichlorotrifluoroethane	50.0	0.70 U	49.3	99	70-152	
1,1-Dichloroethane	50.0	0.38 U	45.9	92	79-120	
1,1-Dichloroethene	50.0	0.48 U	49.0	98	74-135	
1,1-Dichloropropene	50.0	0.33 U	49.0	98	80-120	
1,2,3-Trichlorobenzene	50.0	0.43 U	42.3	85	45-129	
1,2,3-Trichloropropane	50.0	1.1 U	41.9	84	67-132	
1,2,4-Trichlorobenzene	50.0	0.38 U	43.8	88	38-138	
1,2,4-Trimethylbenzene	50.0	0.30 U	35.4	71	67-124	
1,2-Dibromo-3-Chloropropane	50.0	1.7 U	33.8	68	32-139	
1,2-Dichlorobenzene	50.0	0.33 U	43.6	87	75-120	
1,2-Dichloroethane	50.0	0.65 J	43.5	86	68-129	
1,2-Dichloropropane	50.0	0.45 U	46.4	93	78-120	
1,3-Dichlorobenzene	50.0	0.35 U	42.1	84	73-120	
1,3-Dichloropropane	50.0	0.40 U	43.2	86	74-120	
1,4-Dichlorobenzene	50.0	0.33 U	40.3	81	75-120	
2,2-Dichloropropane	50.0	0.33 U	37.6	75	38-127	
2-Butanone (MEK)	100	1.4 U	95.7	96	54-129	
2-Chloroethyl vinyl ether	60.0	2.5 U	2.5 U	0	10-150	F1
2-Chlorotoluene	50.0	0.28 U	41.0	82	69-120	
2-Hexanone	100	1.0 U	88.1	88	47-139	
4-Chlorotoluene	50.0	0.45 U	41.4	83	71-120	
4-Isopropyltoluene	50.0	0.30 U	36.2	72	64-122	
4-Methyl-2-pentanone (MIBK)	100	0.80 U	92.9	93	56-131	
Acetone	100	2.8 U	82.2	82	33-145	
Benzene	50.0	0.33 U	48.4	97	72-121	
Bromobenzene	50.0	0.33 U	45.0	90	71-120	
Bromoform	50.0	1.6 U	30.4	61	32-128	
Bromomethane	50.0	1.0 U	53.9	108	10-186	
Carbon disulfide	50.0	0.33 U	54.9	110	57-147	
Carbon tetrachloride	50.0	0.33 U	45.2	90	59-129	
Chlorobenzene	50.0	0.70 J	47.9	94	80-120	
Chlorodibromomethane	50.0	0.45 U	37.1	74	56-120	
Chloroethane	50.0	0.73 U	50.5	101	21-165	
Chloroform	50.0	0.40 U	41.9	84	76-120	
Chloromethane	50.0	0.75 U	46.2	92	33-132	
cis-1,2-Dichloroethene	50.0	35	82.2	94	70-120	
cis-1,3-Dichloropropene	50.0	0.35 U	38.2	76	51-120	
Dibromomethane	50.0	0.70 U	60.2	120	77-121	
Bromochloromethane	50.0	0.73 U	50.5	101	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1237330.D

Lab ID: 240-36343-2 MS Client ID: MSA-MW-51D-041714 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	50.0	0.78 U	31.5	63	17-128	
Bromodichloromethane	50.0	0.38 U	39.9	80	67-120	
tert-Butyl alcohol	500	9.8 U	530	106	70-130	
Ethylbenzene	50.0	0.43 U	45.6	91	75-120	
Hexachlorobutadiene	50.0	0.75 U	33.6	67	27-132	
Isopropylbenzene	50.0	0.33 U	41.4	83	68-120	
Methyl tert-butyl ether	50.0	0.43 U	46.1	92	46-144	
Methylene Chloride	50.0	1.3 J	49.2	96	63-128	
m-Xylene & p-Xylene	50.0	0.60 U	44.5	89	75-120	
Naphthalene	50.0	0.60 U	38.1	76	15-158	
n-Butylbenzene	50.0	0.30 U	30.5	61	56-127	
N-Propylbenzene	50.0	0.35 U	37.9	76	64-124	
o-Xylene	50.0	0.35 U	46.1	92	76-120	
sec-Butylbenzene	50.0	0.33 U	34.2	68	60-120	
Styrene	50.0	0.28 U	43.2	86	71-120	
Tetrachloroethene	50.0	0.73 U	49.9	100	70-120	
Toluene	50.0	0.33 U	43.8	88	78-120	
trans-1,2-Dichloroethene	50.0	1.2 J	51.1	100	80-120	
trans-1,3-Dichloropropene	50.0	0.48 U	33.9	68	46-120	
Trichloroethene	50.0	94	136	85	66-120	
Trichlorofluoromethane	50.0	0.53 U	52.0	104	46-157	
Vinyl acetate	40.0	0.48 U	52.6	132	43-157	
Vinyl chloride	50.0	6.8	52.6	92	49-130	
Xylenes, Total	100	0.35 U	90.6	91	76-120	
tert-Butylbenzene	50.0	0.33 U	36.7	73	61-120	
1,2-Dibromoethane	50.0	0.60 U	45.1	90	74-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1237331.D

Lab ID: 240-36343-2 MSD Client ID: MSA-MW-51D-041714 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	40.1	80	1	30	64-120	
1,1,1-Trichloroethane	50.0	44.9	90	2	30	68-121	
1,1,2,2-Tetrachloroethane	50.0	39.6	79	3	30	63-122	
1,1,2-Trichlorotrifluoroethane	50.0	52.7	105	7	30	70-152	
1,1-Dichloroethane	50.0	46.8	94	2	30	79-120	
1,1-Dichloroethene	50.0	52.7	105	7	30	74-135	
1,1-Dichloropropene	50.0	50.2	100	2	30	80-120	
1,2,3-Trichlorobenzene	50.0	45.7	91	8	30	45-129	
1,2,3-Trichloropropane	50.0	43.0	86	3	30	67-132	
1,2,4-Trichlorobenzene	50.0	45.3	91	3	30	38-138	
1,2,4-Trimethylbenzene	50.0	36.9	74	4	30	67-124	
1,2-Dibromo-3-Chloropropane	50.0	33.5	67	1	30	32-139	
1,2-Dichlorobenzene	50.0	45.0	90	3	30	75-120	
1,2-Dichloroethane	50.0	43.4	86	0	30	68-129	
1,2-Dichloropropane	50.0	47.4	95	2	30	78-120	
1,3-Dichlorobenzene	50.0	44.8	90	6	30	73-120	
1,3-Dichloropropane	50.0	43.0	86	1	30	74-120	
1,4-Dichlorobenzene	50.0	41.7	83	3	30	75-120	
2,2-Dichloropropane	50.0	40.2	80	7	30	38-127	
2-Butanone (MEK)	100	94.2	94	2	30	54-129	
2-Chloroethyl vinyl ether	60.0	2.5 U	0	NC	30	10-150	F1
2-Chlorotoluene	50.0	42.2	84	3	30	69-120	
2-Hexanone	100	90.4	90	3	30	47-139	
4-Chlorotoluene	50.0	41.7	83	1	30	71-120	
4-Isopropyltoluene	50.0	37.8	76	4	30	64-122	
4-Methyl-2-pentanone (MIBK)	100	92.3	92	1	30	56-131	
Acetone	100	96.3	96	16	30	33-145	
Benzene	50.0	49.3	99	2	30	72-121	
Bromobenzene	50.0	46.5	93	3	30	71-120	
Bromoform	50.0	26.3	53	14	30	32-128	
Bromomethane	50.0	57.3	115	6	30	10-186	
Carbon disulfide	50.0	57.4	115	5	30	57-147	
Carbon tetrachloride	50.0	47.6	95	5	30	59-129	
Chlorobenzene	50.0	48.5	96	1	30	80-120	
Chlorodibromomethane	50.0	34.5	69	7	30	56-120	
Chloroethane	50.0	55.4	111	9	30	21-165	
Chloroform	50.0	42.6	85	1	30	76-120	
Chloromethane	50.0	49.3	99	7	30	33-132	
cis-1,2-Dichloroethene	50.0	80.2	90	3	30	70-120	
cis-1,3-Dichloropropene	50.0	39.7	79	4	30	51-120	
Dibromomethane	50.0	60.0	120	0	30	77-121	
Bromochloromethane	50.0	48.8	98	3	30	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1237331.D

Lab ID: 240-36343-2 MSD Client ID: MSA-MW-51D-041714 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	50.0	33.9	68	7	30	17-128	
Bromodichloromethane	50.0	40.0	80	0	30	67-120	
tert-Butyl alcohol	500	463	93	13	30	70-130	
Ethylbenzene	50.0	46.0	92	1	30	75-120	
Hexachlorobutadiene	50.0	35.7	71	6	30	27-132	
Isopropylbenzene	50.0	41.5	83	0	30	68-120	
Methyl tert-butyl ether	50.0	47.2	94	3	30	46-144	
Methylene Chloride	50.0	50.7	99	3	30	63-128	
m-Xylene & p-Xylene	50.0	44.6	89	0	30	75-120	
Naphthalene	50.0	40.1	80	5	30	15-158	
n-Butylbenzene	50.0	33.0	66	8	30	56-127	
N-Propylbenzene	50.0	39.3	79	4	30	64-124	
o-Xylene	50.0	45.9	92	0	30	76-120	
sec-Butylbenzene	50.0	35.9	72	5	30	60-120	
Styrene	50.0	43.9	88	2	30	71-120	
Tetrachloroethene	50.0	51.5	103	3	30	70-120	
Toluene	50.0	44.5	89	2	30	78-120	
trans-1,2-Dichloroethene	50.0	52.3	102	2	30	80-120	
trans-1,3-Dichloropropene	50.0	36.6	73	7	30	46-120	
Trichloroethene	50.0	136	85	0	30	66-120	
Trichlorofluoromethane	50.0	56.0	112	7	30	46-157	
Vinyl acetate	40.0	54.8	137	4	30	43-157	
Vinyl chloride	50.0	56.3	99	7	30	49-130	
Xylenes, Total	100	90.5	91	0	30	76-120	
tert-Butylbenzene	50.0	38.6	77	5	30	61-120	
1,2-Dibromoethane	50.0	44.6	89	1	30	74-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-041714	240-36343-1	92	99	93	89
MSA-MW-51D-041714	240-36343-2	102	96	100	84
MSA-MW-49D-041714	240-36343-3	102	92	100	84
MSA-DMW-5I-041814	240-36343-4	98	89	93	84
MSA-DMW-5S-041814	240-36343-5	92	90	95	82
TB-042114	240-36355-1	96	90	98	83
MSA-MW-22D-042114	240-36355-2	100	91	97	87
MSA-MW-3-042114	240-36355-3	96	92	97	83
MSA-MW-19D-042114	240-36355-4	99	91	100	84
MSA-MW-38S-042114	240-36355-5	96	87	98	84
TB-042214	240-36398-1	93	85	95	80
MSA-DMW-3D-042214	240-36398-2	97	89	96	85
MSA-DMW-3I-042214	240-36398-3	95	90	99	82
MSA-DMW-3S-042214	240-36398-4	91	87	96	81
MSA-DMW-2B-042214	240-36398-5	97	90	100	84
	MB 240-127413/6	88	97	97	88
	MB 240-128028/6	93	86	97	82
	MB 240-128396/6	90	92	95	81
	LCS 240-127413/4	85	95	100	96
	LCS 240-128028/4	95	88	100	87
	LCS 240-128396/4	98	91	102	83
MSA-MW-51D-041714 MS	240-36343-2 MS	97	88	100	86
MSA-MW-51D-041714 MSD	240-36343-2 MSD	97	99	96	85

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-120
BFB = 4-Bromofluorobenzene (Surr)	66-120

Column to be used to flag recovery values

FORM II 8260C

FORM VIII

GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD8260 240-122371/4 Date Analyzed: 03/13/2014 09:48

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX8836.D Heated Purge: (Y/N) N

Calibration ID: 21114

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1491749	5.55	1027785	8.23	613728	10.47
UPPER LIMIT		2983498	6.05	2055570	8.73	1227456	10.97
LOWER LIMIT		745875	5.05	513893	7.73	306864	9.97
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-122371/14		1457730	5.54	947218	8.23	600605	10.47
ICV 240-122371/15		1408930	5.55	916360	8.23	581640	10.47
CCVIS 240-127413/2		1110137	5.54	679098	8.23	390832	10.46

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII

GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: CCVIS 240-127413/2 Date Analyzed: 04/22/2014 11:32

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX9876.D Heated Purge: (Y/N) N

Calibration ID: 21354

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1110137	5.54	679098	8.23	390832	10.46
UPPER LIMIT		2220274	6.04	1358196	8.73	781664	10.96
LOWER LIMIT		555069	5.04	339549	7.73	195416	9.96
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-127413/3		1047298	5.55	652192	8.23	353729	10.47
LCS 240-127413/4		1082222	5.54	669802	8.23	372720	10.47
MB 240-127413/6		1048926	5.54	651347	8.23	343019	10.47
240-36343-1	TB-041714	961450	5.54	613816	8.23	336959	10.47

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII

GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD8260 240-123039/5 Date Analyzed: 03/18/2014 18:42

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1236336.D Heated Purge: (Y/N) N

Calibration ID: 21224

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1086536	5.40	799126	8.22	433029	10.61
UPPER LIMIT		2173072	5.90	1598252	8.72	866058	11.11
LOWER LIMIT		543268	4.90	399563	7.72	216515	10.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-123039/9		1055888	5.40	791274	8.22	396841	10.61
ICV 240-123039/19		1016952	5.40	744314	8.22	380732	10.61
STD8260 240-128028/2 CCVIS		1110535	5.40	838142	8.22	477059	10.61

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII

GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD8260 240-128028/2 Date Analyzed: 04/26/2014 09:26

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1237305.D Heated Purge: (Y/N) N

Calibration ID: 21227

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1110535	5.40	838142	8.22	477059	10.61
UPPER LIMIT		2221070	5.90	1676284	8.72	954118	11.11
LOWER LIMIT		555268	4.90	419071	7.72	238530	10.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-128028/3		1076628	5.40	838616	8.22	440693	10.61
LCS 240-128028/4		1071061	5.40	790772	8.22	470118	10.61
MB 240-128028/6		1023432	5.42	786902	8.22	445452	10.61
240-36343-2	MSA-MW-51D-041714	1000420	5.40	776579	8.22	418763	10.61
240-36343-3	MSA-MW-49D-041714	1001247	5.40	785848	8.22	438864	10.61
240-36343-4	MSA-DMW-5I-041814	1029303	5.40	799759	8.22	427971	10.61
240-36355-1	TB-042114	1011926	5.40	781343	8.22	419039	10.61
240-36355-2	MSA-MW-22D-042114	992796	5.40	780397	8.22	424150	10.61
240-36355-3	MSA-MW-3-042114	1035777	5.40	796129	8.22	431595	10.61
240-36355-4	MSA-MW-19D-042114	1009298	5.42	775419	8.22	426067	10.61
240-36355-5	MSA-MW-38S-042114	1023501	5.40	770366	8.22	428066	10.61
240-36398-1	TB-042214	1048319	5.40	784573	8.22	436250	10.61
240-36398-2	MSA-DMW-3D-042214	1039484	5.40	808533	8.22	442855	10.61
240-36398-4	MSA-DMW-3S-042214	1040025	5.40	795255	8.22	422304	10.61
240-36398-5	MSA-DMW-2B-042214	1029337	5.40	782042	8.22	414497	10.61
240-36343-2 MS	MSA-MW-51D-041714 MS	1061735	5.40	814770	8.22	463204	10.61
240-36343-2 MSD	MSA-MW-51D-041714 MSD	1018958	5.40	785687	8.22	443571	10.61

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII

GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD8260 240-128158/4 Date Analyzed: 04/28/2014 10:43

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5141.D Heated Purge: (Y/N) N

Calibration ID: 21945

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		2011601	5.60	1364640	8.30	741706	10.53
UPPER LIMIT		4023202	6.10	2729280	8.80	1483412	11.03
LOWER LIMIT		1005801	5.10	682320	7.80	370853	10.03
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-128158/9		1993397	5.60	1312501	8.30	753481	10.53
CCVIS 240-128396/2		1944698	5.60	1318823	8.29	696432	10.53

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: CCVIS 240-128396/2 Date Analyzed: 04/29/2014 12:51

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM5170.D Heated Purge: (Y/N) N

Calibration ID: 21945

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1944698	5.60	1318823	8.29	696432	10.53
UPPER LIMIT		3889396	6.10	2637646	8.79	1392864	11.03
LOWER LIMIT		972349	5.10	659412	7.79	348216	10.03
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-128396/3		1793172	5.60	1201250	8.30	623089	10.53
LCS 240-128396/4		1866691	5.60	1241715	8.30	631359	10.53
MB 240-128396/6		1817324	5.60	1265962	8.30	630457	10.53
240-36343-5	MSA-DMW-5S-041814	1803193	5.60	1232523	8.29	629625	10.53
240-36398-3	MSA-DMW-3I-042214	1737235	5.60	1191830	8.30	590950	10.53

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

Method 8270C

Semivolatile Organic Compounds (GC/MS) by Method 8270C

FORM V_
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: 0412001.D DFTPP Injection Date: 04/12/2014

Instrument ID: A4AG2 DFTPP Injection Time: 11:54

Analysis Batch No.: 126265

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	36.3	
68	Less than 2.0% of mass 69	0.5	(1.0)1
69	Mass 69 relative abundance	47.1	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	57.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.3	
275	10.0- 30.0% of mass 198	22.3	
365	Greater than 0.75% of mass 198	2.6	
441	Present, but less than mass 443	9.0	
442	40.0 - 110.0% of mass 198	64.7	
443	15.0 - 24.0% of mass 442	11.8	(18.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-126265/2	0412002.D	04/12/2014	12:17
	STD8 240-126265/3	0412003.D	04/12/2014	12:40
	STD7 240-126265/4	0412004.D	04/12/2014	13:03
	STD6 240-126265/5	0412005.D	04/12/2014	13:27
	STD5 240-126265/6	0412006.D	04/12/2014	13:50
	STD4 240-126265/7	0412007.D	04/12/2014	14:13
	STD3 240-126265/8	0412008.D	04/12/2014	14:36
	STD2 240-126265/9	0412009.D	04/12/2014	14:59
	STD1 240-126265/10	0412010.D	04/12/2014	15:22
	ICV 240-126265/11	0412011.D	04/12/2014	15:45

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 126265

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2014 12:17 Calibration End Date: 04/12/2014 15:22 Calibration ID: 21681

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-126265/10	0412010.D
Level 2	STD2 240-126265/9	0412009.D
Level 3	STD3 240-126265/8	0412008.D
Level 4	STD4 240-126265/7	0412007.D
Level 5	STD5 240-126265/6	0412006.D
Level 6	STD6 240-126265/5	0412005.D
Level 7	STD7 240-126265/4	0412004.D
Level 8	STD8 240-126265/3	0412003.D
Level 9	STD9 240-126265/2	0412002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5835	0.7184 0.5974	0.6260 0.5920	0.5895 0.6237	0.5877	Ave		0.6148				7.3		15.0			
N-Nitrosodimethylamine	0.7476	0.4701 0.8272	0.5795 0.8409	0.5869 0.8883	0.7359	Lin1	-28.80	0.8520							0.9960		0.9900
Pyridine	1.4924	1.2117 1.5636	1.2319 1.5659	1.2146 1.6389	1.4711	Ave		1.4238				12.0		15.0			
Benzaldehyde	0.7541	1.1588 0.5799	1.1407 0.5870	0.9801 0.5841	0.8636	Qua	121.11	0.6691	0						0.9900		0.9900
Phenol	1.6457	1.4197 1.7699	1.3831 1.8010	1.3435 1.8573	1.5016	Ave		1.5902				13.0		15.0			
Aniline	1.8942	1.5746 2.0720	1.6290 2.1635	1.6172 2.2272	1.7499	Ave		1.8660				14.0		15.0			
Bis(2-chloroethyl)ether	1.4092	1.2998 1.4316	1.2692 1.4313	1.3224 1.4750	1.3395	Ave		1.3723				5.4		15.0			
2-Chlorophenol	1.3900	1.2913 1.4548	1.2463 1.4528	1.2111 1.4880	1.3138	Ave		1.3560				7.7		15.0			
n-Decane	1.3065	1.4793 1.3312	1.4298 1.3104	1.4191 1.3298	1.3091	Ave		1.3644				5.0		15.0			
1,3-Dichlorobenzene	1.5046	1.6449 1.5195	1.4845 1.5046	1.5004 1.5359	1.5243	Ave		1.5273				3.3		15.0			
1,4-Dichlorobenzene	1.5206	1.5042 1.5366	1.5630 1.5311	1.5400 1.5687	1.5144	Ave		1.5348				1.5		15.0			
Benzyl alcohol	0.7034	0.5481 0.8856	0.5446 0.8733	0.4976 0.9156	0.6399	Lin	-88.28	0.9267							0.9940		0.9900
1,2-Dichlorobenzene	1.4521	1.6590 1.4669	1.6123 1.4388	1.5208 1.4932	1.4356	Ave		1.5098				5.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII

GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICV 240-126265/11 Calibration Date: 04/12/2014 15:45

Instrument ID: A4AG2 Calib Start Date: 04/12/2014 12:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/12/2014 15:22

Lab File ID: 0412011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6148	0.5571		0.906	1.00	-9.4	50.0
N-Nitrosodimethylamine	Lin1		0.7514		0.916	1.00	-8.4	50.0
Pyridine	Ave	1.424	1.489		1.05	1.00	4.6	50.0
Benzaldehyde	Qua		0.6640		1.94	2.00	-2.9	50.0
Phenol	Ave	1.590	1.719		1.08	1.00	8.1	20.0
Aniline	Ave	1.866	1.892		1.01	1.00	1.4	50.0
Bis(2-chloroethyl)ether	Ave	1.372	1.372		1.00	1.00	0.0	50.0
2-Chlorophenol	Ave	1.356	1.387		1.02	1.00	2.3	50.0
n-Decane	Ave	1.364	1.256		0.920	1.00	-8.0	50.0
1,3-Dichlorobenzene	Ave	1.527	1.444		0.945	1.00	-5.5	50.0
1,4-Dichlorobenzene	Ave	1.535	1.493		0.973	1.00	-2.7	20.0
Benzyl alcohol	Lin		0.7986		0.957	1.00	-4.3	50.0
1,2-Dichlorobenzene	Ave	1.510	1.384		0.917	1.00	-8.3	50.0
2-Methylphenol	Ave	1.201	1.252		1.04	1.00	4.3	50.0
bis (2-chloroisopropyl) ether	Ave	1.376	1.372		0.718	0.720	-0.3	50.0
Indene	Ave	2.447	2.622		2.14	2.00	7.1	50.0
3 & 4 Methylphenol	Ave	1.199	1.219		1.02	1.00	1.7	50.0
N-Nitrosodi-n-propylamine	Ave	0.9749	1.003	0.0500	1.03	1.00	2.9	50.0
Acetophenone	Ave	1.851	1.867		1.01	1.00	0.8	50.0
Hexachloroethane	Ave	0.6220	0.5983		0.962	1.00	-3.8	50.0
Nitrobenzene	Ave	0.3820	0.3756		0.983	1.00	-1.7	50.0
Isophorone	Ave	0.5989	0.5994		1.00	1.00	0.0	50.0
2-Nitrophenol	Ave	0.1504	0.1570		1.04	1.00	4.4	20.0
2,4-Dimethylphenol	Ave	0.3088	0.2985		0.967	1.00	-3.3	50.0
Benzoic acid	Ave	0.1566	0.1458		1.86	2.00	-6.9	50.0
Bis(2-chloroethoxy)methane	Ave	0.3933	0.3754		0.955	1.00	-4.5	50.0
2,4-Dichlorophenol	Ave	0.2323	0.2300		0.990	1.00	-1.0	20.0
1,2,4-Trichlorobenzene	Ave	0.2737	0.2679		0.979	1.00	-2.1	50.0
Naphthalene	Ave	1.040	0.9903		0.952	1.00	-4.8	50.0
4-Chloroaniline	Qua		0.2904		0.875	1.00	-12.5	50.0
Hexachlorobutadiene	Ave	0.1335	0.1255		0.940	1.00	-6.0	20.0
Caprolactam	Lin1		0.1158		2.14	2.00	6.8	50.0
4-Chloro-3-methylphenol	Ave	0.3080	0.2822		0.916	1.00	-8.4	20.0
2-Methylnaphthalene	Ave	0.7353	0.6281		0.854	1.00	-14.6	50.0
1-Methylnaphthalene	Ave	0.6957	0.6007		0.863	1.00	-13.7	50.0
Hexachlorocyclopentadiene	Lin1		0.2285	0.0500	0.869	1.00	-13.1	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4270	0.3999		0.937	1.00	-6.3	50.0
2,4,6-Trichlorophenol	Ave	0.2791	0.2913		1.04	1.00	4.4	20.0
2,4,5-Trichlorophenol	Ave	0.3158	0.2998		0.949	1.00	-5.1	50.0
1,1'-Biphenyl	Ave	1.451	1.332		0.918	1.00	-8.2	50.0

FORM V

GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: 0424001.D DFTPP Injection Date: 04/24/2014

Instrument ID: A4AG2 DFTPP Injection Time: 12:18

Analysis Batch No.: 127757

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.4	
68	Less than 2.0% of mass 69	0.5	(0.9)1
69	Mass 69 relative abundance	52.7	
70	Less than 2.0% of mass 69	0.3	(0.5)1
127	25.0 - 75.0% of mass 198	62.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	23.1	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	8.9	
442	40.0 - 110.0% of mass 198	62.4	
443	15.0 - 24.0% of mass 442	11.9	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-127757/2	0424002.D	04/24/2014	12:34
	MB 240-127363/14-A	0424003.D	04/24/2014	12:57
	LCS 240-127363/15-A	0424004.D	04/24/2014	13:21
MSA-MW-51D-041714	240-36343-2	0424005.D	04/24/2014	13:44
MSA-MW-51D-041714 MS	240-36343-2 MS	0424006.D	04/24/2014	14:07
MSA-MW-51D-041714 MSD	240-36343-2 MSD	0424007.D	04/24/2014	14:30
MSA-MW-49D-041714	240-36343-3	0424008.D	04/24/2014	14:53
MSA-DMW-5I-041814	240-36343-4	0424009.D	04/24/2014	15:16
MSA-DMW-5S-041814	240-36343-5	0424010.D	04/24/2014	15:40

FORM VII

GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: STD6 240-127757/2 Calibration Date: 04/24/2014 12:34

Instrument ID: A4AG2 Calib Start Date: 04/12/2014 12:17

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/12/2014 15:22

Lab File ID: 0424002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6148	0.5843		0.950	1.00	-5.0	50.0
N-Nitrosodimethylamine	Lin1		0.7547		0.920	1.00	-8.0	50.0
Pyridine	Ave	1.424	1.464		1.03	1.00	2.8	50.0
Benzaldehyde	Qua		0.6551		1.91	2.00	-4.4	50.0
Phenol	Ave	1.590	1.697		1.07	1.00	6.7	20.0
Aniline	Ave	1.866	1.955		1.05	1.00	4.8	50.0
Bis(2-chloroethyl)ether	Ave	1.372	1.385		1.01	1.00	0.9	50.0
2-Chlorophenol	Ave	1.356	1.406		1.04	1.00	3.7	50.0
n-Decane	Ave	1.364	1.248		0.914	1.00	-8.6	50.0
1,3-Dichlorobenzene	Ave	1.527	1.437		0.941	1.00	-5.9	50.0
1,4-Dichlorobenzene	Ave	1.535	1.472		0.959	1.00	-4.1	20.0
Benzyl alcohol	Lin		0.7879		0.945	1.00	-5.5	50.0
1,2-Dichlorobenzene	Ave	1.510	1.408		0.932	1.00	-6.8	50.0
2-Methylphenol	Ave	1.201	1.212		1.01	1.00	0.9	50.0
bis (2-chloroisopropyl) ether	Ave	1.376	1.298		0.943	1.00	-5.7	50.0
Indene	Ave	2.447	2.375		1.94	2.00	-3.0	50.0
3 & 4 Methylphenol	Ave	1.199	1.293		1.08	1.00	7.8	50.0
N-Nitrosodi-n-propylamine	Ave	0.9749	1.030	0.0500	1.06	1.00	5.7	50.0
Acetophenone	Ave	1.851	1.886		1.02	1.00	1.9	50.0
Hexachloroethane	Ave	0.6220	0.6220		1.00	1.00	-0.0	50.0
Nitrobenzene	Ave	0.3820	0.3716		0.973	1.00	-2.7	50.0
Isophorone	Ave	0.5989	0.6282		1.05	1.00	4.9	50.0
2-Nitrophenol	Ave	0.1504	0.1775		1.18	1.00	18.1	20.0
2,4-Dimethylphenol	Ave	0.3088	0.3042		0.985	1.00	-1.5	50.0
Benzoic acid	Ave	0.1566	0.1824		2.33	2.00	16.4	50.0
Bis(2-chloroethoxy)methane	Ave	0.3933	0.3950		1.00	1.00	0.5	50.0
2,4-Dichlorophenol	Ave	0.2323	0.2510		1.08	1.00	8.1	20.0
1,2,4-Trichlorobenzene	Ave	0.2737	0.2718		0.993	1.00	-0.7	50.0
Naphthalene	Ave	1.040	0.9795		0.942	1.00	-5.8	50.0
4-Chloroaniline	Qua		0.2606		0.770	1.00	-23.0	50.0
Hexachlorobutadiene	Ave	0.1335	0.1315		0.985	1.00	-1.5	20.0
Caprolactam	Lin1		0.1057		1.95	2.00	-2.3	50.0
4-Chloro-3-methylphenol	Ave	0.3080	0.2743		0.891	1.00	-10.9	20.0
2-Methylnaphthalene	Ave	0.7353	0.6426		0.874	1.00	-12.6	50.0
1-Methylnaphthalene	Ave	0.6957	0.6073		0.873	1.00	-12.7	50.0
Hexachlorocyclopentadiene	Lin1		0.2886	0.0500	1.09	1.00	8.9	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4270	0.4434		1.04	1.00	3.8	50.0
2,4,6-Trichlorophenol	Ave	0.2791	0.3149		1.13	1.00	12.8	20.0
2,4,5-Trichlorophenol	Ave	0.3158	0.3360		1.06	1.00	6.4	50.0
1,1'-Biphenyl	Ave	1.451	1.429		0.985	1.00	-1.5	50.0

FORM V_
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: B3.D DFTPP Injection Date: 04/25/2014

Instrument ID: A4AG2 DFTPP Injection Time: 09:46

Analysis Batch No.: 127881

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	36.1	
68	Less than 2.0% of mass 69	0.1	(0.3)1
69	Mass 69 relative abundance	48.0	
70	Less than 2.0% of mass 69	0.1	(0.2)1
127	25.0 - 75.0% of mass 198	56.7	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	24.1	
365	Greater than 0.75% of mass 198	2.6	
441	Present, but less than mass 443	9.6	
442	40.0 - 110.0% of mass 198	64.6	
443	15.0 - 24.0% of mass 442	12.2	(18.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-127881/2	0425002.D	04/25/2014	10:09
	STD8 240-127881/3	0425003.D	04/25/2014	10:33
	STD7 240-127881/4	0425004.D	04/25/2014	10:56
	STD6 240-127881/5	0425005.D	04/25/2014	11:20
	STD5 240-127881/6	0425006.D	04/25/2014	11:43
	STD4 240-127881/7	0425007.D	04/25/2014	12:06
	STD3 240-127881/8	0425008.D	04/25/2014	12:30
	STD2 240-127881/9	0425009.D	04/25/2014	12:53
	STD1 240-127881/10	0425010.D	04/25/2014	13:17
	ICV 240-127881/11	0425011.D	04/25/2014	13:41

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 127881

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/25/2014 10:09 Calibration End Date: 04/25/2014 13:17 Calibration ID: 21916

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-127881/10	0425010.D
Level 2	STD2 240-127881/9	0425009.D
Level 3	STD3 240-127881/8	0425008.D
Level 4	STD4 240-127881/7	0425007.D
Level 5	STD5 240-127881/6	0425006.D
Level 6	STD6 240-127881/5	0425005.D
Level 7	STD7 240-127881/4	0425004.D
Level 8	STD8 240-127881/3	0425003.D
Level 9	STD9 240-127881/2	0425002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.6053	0.6044 0.5896	0.6054 0.5762	0.5856 0.5632	0.5942	Ave		0.5905				2.6		15.0			
N-Nitrosodimethylamine	0.7055	0.3271 0.7714	0.3561 0.7537	0.4320 0.7766	0.6217	Lin1	-35.87	0.7704							0.9960		0.9900
Pyridine	1.4949	1.0565 1.4647	1.2654 1.4562	1.2326 1.4395	1.4209	Ave		1.3538				11.0		15.0			
Benzaldehyde	0.7726	1.0707 0.6454	1.0304 0.6810	0.7339 0.6050	0.7115	Lin1	55.730	0.6435							0.9920		0.9900
Phenol	1.7465	1.3882 1.7457	1.6601 1.7085	1.5858 1.6731	1.7325	Ave		1.6550				7.3		15.0			
Aniline	2.0994	0.9483 2.0928	1.4552 2.0930	1.3956 2.0560	1.8974	Lin1	-71.72	2.1094							0.9990		0.9900
Bis(2-chloroethyl)ether	1.3937	1.2863 1.3771	1.3201 1.3721	1.2886 1.3124	1.3489	Ave		1.3374				3.1		15.0			
2-Chlorophenol	1.4796	1.3766 1.4730	1.4152 1.4319	1.3107 1.4376	1.4024	Ave		1.4159				3.9		15.0			
n-Decane	1.3332	1.4455 1.3349	1.3029 1.3051	1.2730 1.2695	1.3381	Ave		1.3253				4.2		15.0			
1,3-Dichlorobenzene	1.5524	1.6006 1.5303	1.5474 1.4998	1.4777 1.4676	1.5173	Ave		1.5241				2.9		15.0			
1,4-Dichlorobenzene	1.5784	1.5541 1.5614	1.5268 1.5235	1.4592 1.4931	1.5331	Ave		1.5287				2.5		15.0			
Benzyl alcohol	0.9077	0.5988 0.8917	0.7908 0.8918	0.6783 0.8673	0.8323	Ave		0.8073				14.0		15.0			
1,2-Dichlorobenzene	1.5028	1.5466 1.4630	1.4732 1.4504	1.4157 1.4227	1.4630	Ave		1.4672				2.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII

GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICV 240-127881/11 Calibration Date: 04/25/2014 13:41

Instrument ID: A4AG2 Calib Start Date: 04/25/2014 10:09

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/25/2014 13:17

Lab File ID: 0425011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5905	0.5660		0.959	1.00	-4.1	50.0
N-Nitrosodimethylamine	Lin1		0.6574		0.900	1.00	-10.0	50.0
Pyridine	Ave	1.354	1.437		1.06	1.00	6.2	50.0
Benzaldehyde	Lin1		0.7161		2.14	2.00	7.0	50.0
Phenol	Ave	1.655	1.678		1.01	1.00	1.4	20.0
Aniline	Lin1		1.955		0.961	1.00	-3.9	50.0
Bis(2-chloroethyl)ether	Ave	1.337	1.319		0.987	1.00	-1.3	50.0
2-Chlorophenol	Ave	1.416	1.376		0.972	1.00	-2.8	50.0
n-Decane	Ave	1.325	1.259		0.950	1.00	-5.0	50.0
1,3-Dichlorobenzene	Ave	1.524	1.454		0.954	1.00	-4.6	50.0
1,4-Dichlorobenzene	Ave	1.529	1.494		0.977	1.00	-2.3	20.0
Benzyl alcohol	Ave	0.8073	0.8570		1.06	1.00	6.1	50.0
1,2-Dichlorobenzene	Ave	1.467	1.418		0.967	1.00	-3.3	50.0
2-Methylphenol	Ave	1.212	1.260		1.04	1.00	3.9	50.0
bis (2-chloroisopropyl) ether	Ave	1.425	1.424		0.720	0.720	-0.0	50.0
Indene	Ave	2.407	2.590		2.15	2.00	7.6	50.0
3 & 4 Methylphenol	Ave	1.263	1.285		1.02	1.00	1.7	50.0
N-Nitrosodi-n-propylamine	Ave	1.007	1.034	0.0500	1.03	1.00	2.7	50.0
Acetophenone	Ave	1.833	1.801		0.982	1.00	-1.8	50.0
Hexachloroethane	Ave	0.6055	0.6016		0.993	1.00	-0.7	50.0
Nitrobenzene	Ave	0.3628	0.3569		0.984	1.00	-1.6	50.0
Isophorone	Ave	0.6002	0.6435		1.07	1.00	7.2	50.0
2-Nitrophenol	Ave	0.1640	0.1649		1.01	1.00	0.5	20.0
2,4-Dimethylphenol	Ave	0.2991	0.3066		1.02	1.00	2.5	50.0
Benzoic acid	Ave	0.1786	0.1626		1.82	2.00	-9.0	50.0
Bis(2-chloroethoxy)methane	Ave	0.3815	0.3724		0.976	1.00	-2.4	50.0
2,4-Dichlorophenol	Ave	0.2476	0.2538		1.03	1.00	2.5	20.0
1,2,4-Trichlorobenzene	Ave	0.2900	0.2802		0.966	1.00	-3.4	50.0
Naphthalene	Ave	1.016	0.9745		0.959	1.00	-4.1	50.0
4-Chloroaniline	Qua		0.1925		0.779	1.00	-22.1	50.0
Hexachlorobutadiene	Ave	0.1413	0.1320		0.935	1.00	-6.6	20.0
Caprolactam	Ave	0.1016	0.1034		2.03	2.00	1.7	50.0
4-Chloro-3-methylphenol	Lin1		0.2624		0.968	1.00	-3.2	20.0
2-Methylnaphthalene	Ave	0.6782	0.6313		0.931	1.00	-6.9	50.0
1-Methylnaphthalene	Ave	0.6355	0.5924		0.932	1.00	-6.8	50.0
Hexachlorocyclopentadiene	Lin1		0.2205	0.0500	0.805	1.00	-19.5	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4610	0.4350		0.944	1.00	-5.6	50.0
2,4,6-Trichlorophenol	Ave	0.3214	0.3169		0.986	1.00	-1.4	20.0
2,4,5-Trichlorophenol	Ave	0.3309	0.3201		0.967	1.00	-3.3	50.0
1,1'-Biphenyl	Ave	1.423	1.354		0.952	1.00	-4.8	50.0

FORM V

GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: 0429001.D DFTPP Injection Date: 04/29/2014

Instrument ID: A4AG2 DFTPP Injection Time: 07:07

Analysis Batch No.: 128289

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	38.9	
68	Less than 2.0% of mass 69	0.9	(1.7)1
69	Mass 69 relative abundance	50.2	
70	Less than 2.0% of mass 69	0.2	(0.4)1
127	25.0 - 75.0% of mass 198	61.1	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	22.8	
365	Greater than 0.75% of mass 198	2.6	
441	Present, but less than mass 443	8.3	
442	40.0 - 110.0% of mass 198	59.8	
443	15.0 - 24.0% of mass 442	11.7	(19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-128289/2	0429002.D	04/29/2014	07:24
	MB 240-128083/15-A	0429003.D	04/29/2014	07:47
	LCS 240-128083/16-A	0429004.D	04/29/2014	08:10
	MB 240-127961/19-A	0429005.D	04/29/2014	08:34
	LCS 240-127961/20-A	0429006.D	04/29/2014	08:58
MSA-DMW-3D-042214	240-36398-2	0429011.D	04/29/2014	10:55
MSA-DMW-2B-042214	240-36398-5	0429014.D	04/29/2014	12:05
MSA-MW-38S-042114	240-36355-5	0429020.D	04/29/2014	14:26
MSA-MW-22D-042114	240-36355-2	0429021.D	04/29/2014	14:49
MSA-MW-3-042114	240-36355-3	0429022.D	04/29/2014	15:13
MSA-MW-19D-042114	240-36355-4	0429023.D	04/29/2014	15:36

FORM VII

GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: STD6 240-128289/2 Calibration Date: 04/29/2014 07:24

Instrument ID: A4AG2 Calib Start Date: 04/25/2014 10:09

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/25/2014 13:17

Lab File ID: 0429002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5905	0.6060		1.03	1.00	2.6	50.0
N-Nitrosodimethylamine	Lin1		0.7873		1.07	1.00	6.9	50.0
Pyridine	Ave	1.354	1.504		1.11	1.00	11.1	50.0
Benzaldehyde	Lin1		0.7665		2.30	2.00	14.8	50.0
Phenol	Ave	1.655	1.813		1.10	1.00	9.5	20.0
Aniline	Lin1		2.163		1.06	1.00	5.9	50.0
Bis(2-chloroethyl)ether	Ave	1.337	1.418		1.06	1.00	6.0	50.0
2-Chlorophenol	Ave	1.416	1.510		1.07	1.00	6.6	50.0
n-Decane	Ave	1.325	1.363		1.03	1.00	2.8	50.0
1,3-Dichlorobenzene	Ave	1.524	1.537		1.01	1.00	0.9	50.0
1,4-Dichlorobenzene	Ave	1.529	1.555		1.02	1.00	1.7	20.0
Benzyl alcohol	Ave	0.8073	0.8914		1.10	1.00	10.4	50.0
1,2-Dichlorobenzene	Ave	1.467	1.488		1.01	1.00	1.4	50.0
2-Methylphenol	Ave	1.212	1.317		1.09	1.00	8.7	50.0
bis (2-chloroisopropyl) ether	Ave	1.425	1.481		1.04	1.00	3.9	50.0
Indene	Ave	2.407	2.492		2.07	2.00	3.5	50.0
3 & 4 Methylphenol	Ave	1.263	1.366		1.08	1.00	8.2	50.0
N-Nitrosodi-n-propylamine	Ave	1.007	1.125	0.0500	1.12	1.00	11.8	50.0
Acetophenone	Ave	1.833	1.981		1.08	1.00	8.1	50.0
Hexachloroethane	Ave	0.6055	0.6375		1.05	1.00	5.3	50.0
Nitrobenzene	Ave	0.3628	0.3790		1.04	1.00	4.5	50.0
Isophorone	Ave	0.6002	0.6838		1.14	1.00	13.9	50.0
2-Nitrophenol	Ave	0.1640	0.1905		1.16	1.00	16.1	20.0
2,4-Dimethylphenol	Ave	0.2991	0.3387		1.13	1.00	13.2	50.0
Benzoic acid	Ave	0.1786	0.2064		2.31	2.00	15.6	50.0
Bis(2-chloroethoxy)methane	Ave	0.3815	0.4128		1.08	1.00	8.2	50.0
2,4-Dichlorophenol	Ave	0.2476	0.2655		1.07	1.00	7.2	20.0
1,2,4-Trichlorobenzene	Ave	0.2900	0.2889		0.996	1.00	-0.4	50.0
Naphthalene	Ave	1.016	1.034		1.02	1.00	1.8	50.0
4-Chloroaniline	Qua		0.2332		0.945	1.00	-5.5	50.0
Hexachlorobutadiene	Ave	0.1413	0.1387		0.982	1.00	-1.8	20.0
Caprolactam	Ave	0.1016	0.0963		1.90	2.00	-5.2	50.0
4-Chloro-3-methylphenol	Lin1		0.2955		1.09	1.00	8.6	20.0
2-Methylnaphthalene	Ave	0.6782	0.6868		1.01	1.00	1.3	50.0
1-Methylnaphthalene	Ave	0.6355	0.6331		0.996	1.00	-0.4	50.0
Hexachlorocyclopentadiene	Lin1		0.2537	0.0500	0.920	1.00	-8.0	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4610	0.4599		0.998	1.00	-0.2	50.0
2,4,6-Trichlorophenol	Ave	0.3214	0.3349		1.04	1.00	4.2	20.0
2,4,5-Trichlorophenol	Ave	0.3309	0.3458		1.04	1.00	4.5	50.0
1,1'-Biphenyl	Ave	1.423	1.462		1.03	1.00	2.8	50.0

FORM V

GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: 0430001.D DFTPP Injection Date: 04/30/2014

Instrument ID: A4AG2 DFTPP Injection Time: 07:29

Analysis Batch No.: 128487

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	37.3	
68	Less than 2.0% of mass 69	0.6	(1.3)1
69	Mass 69 relative abundance	47.2	
70	Less than 2.0% of mass 69	0.3	(0.6)1
127	25.0 - 75.0% of mass 198	58.8	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.7	
441	Present, but less than mass 443	9.6	
442	40.0 - 110.0% of mass 198	68.3	
443	15.0 - 24.0% of mass 442	13.1	(19.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-128487/2	0430002.D	04/30/2014	07:46
MSA-DMW-3I-042214	240-36398-3	0430008.D	04/30/2014	10:07
MSA-DMW-3S-042214	240-36398-4	0430009.D	04/30/2014	10:31

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: STD6 240-128487/2 Calibration Date: 04/30/2014 07:46

Instrument ID: A4AG2 Calib Start Date: 04/25/2014 10:09

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/25/2014 13:17

Lab File ID: 0430002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5905	0.5842		0.989	1.00	-1.1	50.0
N-Nitrosodimethylamine	Lin1		0.7944		1.08	1.00	7.8	50.0
Pyridine	Ave	1.354	1.470		1.09	1.00	8.6	50.0
Benzaldehyde	Lin1		0.6477		1.93	2.00	-3.7	50.0
Phenol	Ave	1.655	1.727		1.04	1.00	4.4	20.0
Aniline	Lin1		2.056		1.01	1.00	0.9	50.0
Bis(2-chloroethyl)ether	Ave	1.337	1.342		1.00	1.00	0.3	50.0
2-Chlorophenol	Ave	1.416	1.417		1.00	1.00	0.1	50.0
n-Decane	Ave	1.325	1.274		0.961	1.00	-3.9	50.0
1,3-Dichlorobenzene	Ave	1.524	1.423		0.933	1.00	-6.7	50.0
1,4-Dichlorobenzene	Ave	1.529	1.455		0.951	1.00	-4.9	20.0
Benzyl alcohol	Ave	0.8073	0.8514		1.05	1.00	5.5	50.0
1,2-Dichlorobenzene	Ave	1.467	1.388		0.946	1.00	-5.4	50.0
2-Methylphenol	Ave	1.212	1.248		1.03	1.00	3.0	50.0
bis (2-chloroisopropyl) ether	Ave	1.425	1.378		0.967	1.00	-3.3	50.0
Indene	Ave	2.407	2.312		1.92	2.00	-4.0	50.0
3 & 4 Methylphenol	Ave	1.263	1.293		1.02	1.00	2.4	50.0
N-Nitrosodi-n-propylamine	Ave	1.007	1.027	0.0500	1.02	1.00	2.0	50.0
Acetophenone	Ave	1.833	1.871		1.02	1.00	2.0	50.0
Hexachloroethane	Ave	0.6055	0.6059		1.00	1.00	0.0	50.0
Nitrobenzene	Ave	0.3628	0.3786		1.04	1.00	4.4	50.0
Isophorone	Ave	0.6002	0.6381		1.06	1.00	6.3	50.0
2-Nitrophenol	Ave	0.1640	0.1862		1.14	1.00	13.5	20.0
2,4-Dimethylphenol	Ave	0.2991	0.3338		1.12	1.00	11.6	50.0
Benzoic acid	Ave	0.1786	0.1802		2.02	2.00	0.9	50.0
Bis(2-chloroethoxy)methane	Ave	0.3815	0.4137		1.08	1.00	8.4	50.0
2,4-Dichlorophenol	Ave	0.2476	0.2620		1.06	1.00	5.8	20.0
1,2,4-Trichlorobenzene	Ave	0.2900	0.2807		0.968	1.00	-3.2	50.0
Naphthalene	Ave	1.016	1.010		0.994	1.00	-0.6	50.0
4-Chloroaniline	Qua		0.2246		0.909	1.00	-9.1	50.0
Hexachlorobutadiene	Ave	0.1413	0.1344		0.951	1.00	-4.9	20.0
Caprolactam	Ave	0.1016	0.1088		2.14	2.00	7.0	50.0
4-Chloro-3-methylphenol	Lin1		0.2895		1.06	1.00	6.5	20.0
2-Methylnaphthalene	Ave	0.6782	0.6497		0.958	1.00	-4.2	50.0
1-Methylnaphthalene	Ave	0.6355	0.6123		0.964	1.00	-3.6	50.0
Hexachlorocyclopentadiene	Lin1		0.2462	0.0500	0.894	1.00	-10.6	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4610	0.4337		0.941	1.00	-5.9	50.0
2,4,6-Trichlorophenol	Ave	0.3214	0.3188		0.992	1.00	-0.8	20.0
2,4,5-Trichlorophenol	Ave	0.3309	0.3461		1.05	1.00	4.6	50.0
1,1'-Biphenyl	Ave	1.423	1.407		0.989	1.00	-1.1	50.0

FORM V

GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: 0509001.D DFTPP Injection Date: 05/09/2014

Instrument ID: A4AG2 DFTPP Injection Time: 08:18

Analysis Batch No.: 129945

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	40.8	
68	Less than 2.0% of mass 69	0.8	(1.4)1
69	Mass 69 relative abundance	52.5	
70	Less than 2.0% of mass 69	0.1	(0.2)1
127	25.0 - 75.0% of mass 198	64.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	22.1	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.5	
442	40.0 - 110.0% of mass 198	62.8	
443	15.0 - 24.0% of mass 442	12.1	(19.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-129945/2	0509002.D	05/09/2014	08:35
	MB 240-128687/2-A	0509003.D	05/09/2014	08:58
	LCS 240-128687/3-A	0509004.D	05/09/2014	09:21
MSA-DMW-2B-042214 RE	240-36398-5 RE	0509009.D	05/09/2014	11:19

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: STD6 240-129945/2 Calibration Date: 05/09/2014 08:35

Instrument ID: A4AG2 Calib Start Date: 04/25/2014 10:09

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/25/2014 13:17

Lab File ID: 0509002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5905	0.5763		0.976	1.00	-2.4	50.0
N-Nitrosodimethylamine	Lin1		0.7684		1.04	1.00	4.4	50.0
Pyridine	Ave	1.354	1.427		1.05	1.00	5.4	50.0
Benzaldehyde	Lin1		0.6205		1.84	2.00	-7.9	50.0
Phenol	Ave	1.655	1.758		1.06	1.00	6.2	20.0
Aniline	Lin1		1.812		0.893	1.00	-10.7	50.0
Bis(2-chloroethyl)ether	Ave	1.337	1.374		1.03	1.00	2.8	50.0
2-Chlorophenol	Ave	1.416	1.452		1.03	1.00	2.5	50.0
n-Decane	Ave	1.325	1.227		0.926	1.00	-7.4	50.0
1,3-Dichlorobenzene	Ave	1.524	1.484		0.974	1.00	-2.6	50.0
1,4-Dichlorobenzene	Ave	1.529	1.458		0.954	1.00	-4.6	20.0
Benzyl alcohol	Ave	0.8073	0.8463		1.05	1.00	4.8	50.0
1,2-Dichlorobenzene	Ave	1.467	1.391		0.948	1.00	-5.2	50.0
2-Methylphenol	Ave	1.212	1.254		1.03	1.00	3.4	50.0
bis (2-chloroisopropyl) ether	Ave	1.425	1.330		0.933	1.00	-6.7	50.0
Indene	Ave	2.407	2.439		2.03	2.00	1.3	50.0
3 & 4 Methylphenol	Ave	1.263	1.236		0.979	1.00	-2.1	50.0
N-Nitrosodi-n-propylamine	Ave	1.007	0.8651	0.0500	0.859	1.00	-14.1	50.0
Acetophenone	Ave	1.833	1.837		1.00	1.00	0.2	50.0
Hexachloroethane	Ave	0.6055	0.6157		1.02	1.00	1.7	50.0
Nitrobenzene	Ave	0.3628	0.3598		0.992	1.00	-0.8	50.0
Isophorone	Ave	0.6002	0.4585		0.764	1.00	-23.6	50.0
2-Nitrophenol	Ave	0.1640	0.1732		1.06	1.00	5.6	20.0
2,4-Dimethylphenol	Ave	0.2991	0.2852		0.953	1.00	-4.7	50.0
Benzoic acid	Ave	0.1786	0.1705		1.91	2.00	-4.5	50.0
Bis(2-chloroethoxy)methane	Ave	0.3815	0.3757		0.985	1.00	-1.5	50.0
2,4-Dichlorophenol	Ave	0.2476	0.2277		0.919	1.00	-8.1	20.0
1,2,4-Trichlorobenzene	Ave	0.2900	0.2662		0.918	1.00	-8.2	50.0
Naphthalene	Ave	1.016	0.9760		0.961	1.00	-3.9	50.0
4-Chloroaniline	Qua		0.2524		1.02	1.00	2.4	50.0
Hexachlorobutadiene	Ave	0.1413	0.1257		0.890	1.00	-11.0	20.0
Caprolactam	Ave	0.1016	0.0993		1.95	2.00	-2.3	50.0
4-Chloro-3-methylphenol	Lin1		0.2966		1.09	1.00	9.0	20.0
2-Methylnaphthalene	Ave	0.6782	0.6570		0.969	1.00	-3.1	50.0
1-Methylnaphthalene	Ave	0.6355	0.6178		0.972	1.00	-2.8	50.0
Hexachlorocyclopentadiene	Lin1		0.1130	0.0500	0.432	1.00	-56.8*	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4610	0.4185		0.908	1.00	-9.2	50.0
2,4,6-Trichlorophenol	Ave	0.3214	0.2975		0.926	1.00	-7.4	20.0
2,4,5-Trichlorophenol	Ave	0.3309	0.3170		0.958	1.00	-4.2	50.0
1,1'-Biphenyl	Ave	1.423	1.379		0.969	1.00	-3.1	50.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: 0429003.D Lab Sample ID: MB 240-128083/15-A

Matrix: Water Date Extracted: 04/27/2014 11:00

Instrument ID: A4AG2 Date Analyzed: 04/29/2014 07:47

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-128083/16-A	0429004.D	04/29/2014 08:10
MSA-DMW-3D-042214	240-36398-2	0429011.D	04/29/2014 10:55
MSA-DMW-2B-042214	240-36398-5	0429014.D	04/29/2014 12:05
MSA-MW-38S-042114	240-36355-5	0429020.D	04/29/2014 14:26
MSA-DMW-3I-042214	240-36398-3	0430008.D	04/30/2014 10:07
MSA-DMW-3S-042214	240-36398-4	0430009.D	04/30/2014 10:31

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-128083/15-A

Matrix: Water | Lab File ID: 0429003.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 04/27/2014 11:00

Sample wt/vol: 250(mL) | Date Analyzed: 04/29/2014 07:47

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 128289 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.43		1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	74		29-110
367-12-4	2-Fluorophenol (Surr)	75		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	75		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	82		31-110
4165-62-2	Phenol-d5 (Surr)	82		10-110
1718-51-0	Terphenyl-d14 (Surr)	103		31-115

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0429004.D

Lab ID: LCS 240-128083/16-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	40.0	27.0	68	40-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: 0424003.D Lab Sample ID: MB 240-127363/14-A

Matrix: Water Date Extracted: 04/22/2014 07:42

Instrument ID: A4AG2 Date Analyzed: 04/24/2014 12:57

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-127363/15-A	0424004.D	04/24/2014 13:21
MSA-MW-51D-041714	240-36343-2	0424005.D	04/24/2014 13:44
MSA-MW-51D-041714 MS	240-36343-2 MS	0424006.D	04/24/2014 14:07
MSA-MW-51D-041714 MSD	240-36343-2 MSD	0424007.D	04/24/2014 14:30
MSA-MW-49D-041714	240-36343-3	0424008.D	04/24/2014 14:53
MSA-DMW-5I-041814	240-36343-4	0424009.D	04/24/2014 15:16
MSA-DMW-5S-041814	240-36343-5	0424010.D	04/24/2014 15:40

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127363/14-A

Matrix: Water | Lab File ID: 0424003.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 04/22/2014 07:42

Sample wt/vol: 250(mL) | Date Analyzed: 04/24/2014 12:57

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127757 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	72		29-110
367-12-4	2-Fluorophenol (Surr)	81		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	75		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	82		31-110
4165-62-2	Phenol-d5 (Surr)	88		10-110
1718-51-0	Terphenyl-d14 (Surr)	94		31-115

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0424004.D

Lab ID: LCS 240-127363/15-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	40.0	30.7	77	40-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: 0429005.D Lab Sample ID: MB 240-127961/19-A

Matrix: Water Date Extracted: 04/25/2014 11:53

Instrument ID: A4AG2 Date Analyzed: 04/29/2014 08:34

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-127961/20-A	0429006.D	04/29/2014 08:58
MSA-MW-22D-042114	240-36355-2	0429021.D	04/29/2014 14:49
MSA-MW-3-042114	240-36355-3	0429022.D	04/29/2014 15:13
MSA-MW-19D-042114	240-36355-4	0429023.D	04/29/2014 15:36

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127961/19-A

Matrix: Water | Lab File ID: 0429005.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 04/25/2014 11:53

Sample wt/vol: 250(mL) | Date Analyzed: 04/29/2014 08:34

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 128289 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	69		29-110
367-12-4	2-Fluorophenol (Surr)	74		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	61		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	77		31-110
4165-62-2	Phenol-d5 (Surr)	78		10-110
1718-51-0	Terphenyl-d14 (Surr)	88		31-115

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0429006.D

Lab ID: LCS 240-127961/20-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	40.0	22.4	56	40-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab File ID: 0509003.D Lab Sample ID: MB 240-128687/2-A

Matrix: Water Date Extracted: 05/01/2014 08:18

Instrument ID: A4AG2 Date Analyzed: 05/09/2014 08:58

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-128687/3-A	0509004.D	05/09/2014 09:21
MSA-DMW-2B-042214 RE	240-36398-5 RE	0509009.D	05/09/2014 11:19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-128687/2-A

Matrix: Water | Lab File ID: 0509003.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/01/2014 08:18

Sample wt/vol: 250(mL) | Date Analyzed: 05/09/2014 08:58

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 129945 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	75		29-110
367-12-4	2-Fluorophenol (Surr)	71		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	61		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	81		31-110
4165-62-2	Phenol-d5 (Surr)	58		10-110
1718-51-0	Terphenyl-d14 (Surr)	98		31-115

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0509004.D

Lab ID: LCS 240-128687/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	40.0	19.5	49	40-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0424006.D

Lab ID: 240-36343-2 MS Client ID: MSA-MW-51D-041714 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	38.5	2.8	28.4	67	10-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0424007.D

Lab ID: 240-36343-2 MSD Client ID: MSA-MW-51D-041714 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	37.0	25.6	62	11	30	10-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
MSA-MW-51D-041714	240-36343-2	77	86	80	67	79	100
MSA-MW-49D-041714	240-36343-3	75	86	76	64	81	95
MSA-DMW-5I-041814	240-36343-4	73	79	76	63	76	93
MSA-DMW-5S-041814	240-36343-5	75	84	77	63	74	92
MSA-MW-22D-042114	240-36355-2	82	87	83	69	68	87
MSA-MW-3-042114	240-36355-3	67	71	69	60	60	80
MSA-MW-19D-042114	240-36355-4	80	85	82	70	72	88
MSA-MW-38S-042114	240-36355-5	79	83	80	68	66	84
MSA-DMW-3D-042214	240-36398-2	76	81	82	69	68	89
MSA-DMW-3I-042214	240-36398-3	77	83	88	73	47	98
MSA-DMW-3S-042214	240-36398-4	78	83	84	72	80	90
MSA-DMW-2B-042214	240-36398-5	81	87	84	72	68	85
MSA-DMW-2B-042214 RE	240-36398-5 RE	71	62	76	66	64	95
	MB 240-127363/14-A	81	88	82	72	75	94
	MB 240-127961/19-A	74	78	77	69	61	88
	MB 240-128083/15-A	75	82	82	74	75	103
	MB 240-128687/2-A	71	58	81	75	61	98
	LCS 240-127363/15-A	91	98	92	81	90	96
	LCS 240-127961/20-A	64	69	69	60	60	77
	LCS 240-128083/16-A	72	77	76	66	68	83
	LCS 240-128687/3-A	67	56	80	77	71	92
MSA-MW-51D-041714 MS	240-36343-2 MS	76	84	78	71	82	86
MSA-MW-51D-041714 MSD	240-36343-2 MSD	69	76	70	60	71	80

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	15-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	31-110
FBP = 2-Fluorobiphenyl (Surr)	29-110
TBP = 2,4,6-Tribromophenol (Surr)	21-128
TPH = Terphenyl-d14 (Surr)	31-115

Column to be used to flag recovery values

FORM II 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD6 240-126265/5 Date Analyzed: 04/12/2014 13:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0412005.D Heated Purge: (Y/N) N

Calibration ID: 21681

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		193016	6.26	759602	7.32	431499	8.80
UPPER LIMIT		386032	6.76	1519204	7.82	862998	9.30
LOWER LIMIT		96508	5.76	379801	6.82	215750	8.30
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-126265/11		178921	6.26	737697	7.32	417148	8.80
STD6 240-127757/2 CCVIS		166040	6.19	677092	7.26	355167	8.74

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD6 240-126265/5 Date Analyzed: 04/12/2014 13:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0412005.D Heated Purge: (Y/N) N

Calibration ID: 21681

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		678754	10.06	621504	12.66	526227	14.77
UPPER LIMIT		1357508	10.56	1243008	13.16	1052454	15.27
LOWER LIMIT		339377	9.56	310752	12.16	263114	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-126265/11		637892	10.06	585188	12.66	478244	14.77
STD6 240-127757/2 CCVIS		555769	10.00	493439	12.56	419533	14.64

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD6 240-127757/2 Date Analyzed: 04/24/2014 12:34

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0424002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		166040	6.19	677092	7.26	355167	8.74
UPPER LIMIT		332080	6.69	1354184	7.76	710334	9.24
LOWER LIMIT		83020	5.69	338546	6.76	177584	8.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-127363/14-A		146730	6.19	598992	7.26	319879	8.74
LCS 240-127363/15-A		148704	6.19	616115	7.26	339958	8.74
240-36343-2	MSA-MW-51D-041714	158492	6.19	635632	7.26	339482	8.74
240-36343-2 MS	MSA-MW-51D-041714 MS	151160	6.19	617192	7.26	332680	8.74
240-36343-2 MSD	MSA-MW-51D-041714 MSD	142838	6.19	600695	7.26	331925	8.74
240-36343-3	MSA-MW-49D-041714	145874	6.19	611724	7.26	325990	8.74
240-36343-4	MSA-DMW-5I-041814	150595	6.19	602857	7.26	323140	8.74
240-36343-5	MSA-DMW-5S-041814	144902	6.19	590165	7.26	320673	8.74

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD6 240-127757/2 Date Analyzed: 04/24/2014 12:34

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0424002.D Heated Purge: (Y/N) N

Calibration ID: 21681

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		555769	10.00	493439	12.56	419533	14.64
UPPER LIMIT		1111538	10.50	986878	13.06	839066	15.14
LOWER LIMIT		277885	9.50	246720	12.06	209767	14.14
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-127363/14-A		525943	9.99	453029	12.56	378903	14.64
LCS 240-127363/15-A		523260	10.00	478568	12.56	384741	14.64
240-36343-2	MSA-MW-51D-041714	548988	10.00	459048	12.56	378578	14.64
240-36343-2 MS	MSA-MW-51D-041714 MS	536082	10.00	483208	12.56	394099	14.64
240-36343-2 MSD	MSA-MW-51D-041714 MSD	516333	10.00	460107	12.56	377269	14.64
240-36343-3	MSA-MW-49D-041714	534878	10.00	456915	12.56	380892	14.64
240-36343-4	MSA-DMW-5I-041814	515371	10.00	435625	12.56	359420	14.64
240-36343-5	MSA-DMW-5S-041814	519230	10.00	439850	12.56	374764	14.64

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD6 240-127881/5 Date Analyzed: 04/25/2014 11:20

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0425005.D Heated Purge: (Y/N) N

Calibration ID: 21916

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		183825	6.25	755405	7.32	420659	8.80
UPPER LIMIT		367650	6.75	1510810	7.82	841318	9.30
LOWER LIMIT		91913	5.75	377703	6.82	210330	8.30
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-127881/11		185952	6.25	764836	7.32	425664	8.80
STD6 240-128289/2 CCVIS		166449	6.23	680870	7.30	367626	8.78
STD6 240-128487/2 CCVIS		183604	6.23	714015	7.29	395132	8.77
STD6 240-129945/2 CCVIS		150885	6.21	613267	7.28	336595	8.76

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD6 240-127881/5 Date Analyzed: 04/25/2014 11:20

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0425005.D Heated Purge: (Y/N) N

Calibration ID: 21916

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		686989	10.06	669998	12.66	553417	14.77
UPPER LIMIT		1373978	10.56	1339996	13.16	1106834	15.27
LOWER LIMIT		343495	9.56	334999	12.16	276709	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-127881/11		678521	10.07	648095	12.66	541547	14.77
STD6 240-128289/2 CCVIS		586290	10.05	550623	12.64	457496	14.73
STD6 240-128487/2 CCVIS		656697	10.04	624226	12.62	498216	14.72
STD6 240-129945/2 CCVIS		532953	10.02	462802	12.60	406729	14.69

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD6 240-128289/2 Date Analyzed: 04/29/2014 07:24

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0429002.D Heated Purge: (Y/N) N

Calibration ID: 21939

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		166449	6.23	680870	7.30	367626	8.78
UPPER LIMIT		332898	6.73	1361740	7.80	735252	9.28
LOWER LIMIT		83225	5.73	340435	6.80	183813	8.28
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-128083/15-A		154883	6.23	609513	7.30	337881	8.78
LCS 240-128083/16-A		162511	6.23	665415	7.30	371164	8.78
MB 240-127961/19-A		162009	6.23	652270	7.30	357908	8.78
LCS 240-127961/20-A		164116	6.23	648102	7.30	367195	8.78
240-36398-2	MSA-DMW-3D-042214	175513	6.23	691407	7.30	371890	8.78
240-36398-5	MSA-DMW-2B-042214	174332	6.23	705997	7.30	390177	8.78
240-36355-5	MSA-MW-38S-042114	180824	6.23	742060	7.30	416076	8.78
240-36355-2	MSA-MW-22D-042114	188969	6.23	775293	7.30	429256	8.78
240-36355-3	MSA-MW-3-042114	197186	6.23	798407	7.30	443112	8.78
240-36355-4	MSA-MW-19D-042114	194117	6.23	781024	7.30	427512	8.78

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD6 240-128289/2 Date Analyzed: 04/29/2014 07:24

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0429002.D Heated Purge: (Y/N) N

Calibration ID: 21939

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		586290	10.05	550623	12.64	457496	14.73
UPPER LIMIT		1172580	10.55	1101246	13.14	914992	15.23
LOWER LIMIT		293145	9.55	275312	12.14	228748	14.23
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-128083/15-A		554058	10.04	490274	12.63	416763	14.73
LCS 240-128083/16-A		592784	10.04	575153	12.63	468167	14.73
MB 240-127961/19-A		605099	10.04	520237	12.63	423766	14.73
LCS 240-127961/20-A		610042	10.04	560580	12.63	470779	14.73
240-36398-2	MSA-DMW-3D-042214	625196	10.04	559037	12.63	481301	14.73
240-36398-5	MSA-DMW-2B-042214	669062	10.04	644550	12.63	538026	14.73
240-36355-5	MSA-MW-38S-042114	705676	10.04	664236	12.63	546518	14.73
240-36355-2	MSA-MW-22D-042114	701395	10.04	676173	12.63	528549	14.73
240-36355-3	MSA-MW-3-042114	753738	10.04	697102	12.63	550469	14.73
240-36355-4	MSA-MW-19D-042114	757674	10.04	685643	12.63	584371	14.73

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD6 240-128487/2 Date Analyzed: 04/30/2014 07:46

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0430002.D Heated Purge: (Y/N) N

Calibration ID: 21939

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		183604	6.23	714015	7.29	395132	8.77
UPPER LIMIT		367208	6.73	1428030	7.79	790264	9.27
LOWER LIMIT		91802	5.73	357008	6.79	197566	8.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-36398-3	MSA-DMW-3I-042214	176585	6.23	673323	7.29	385412	8.77
240-36398-4	MSA-DMW-3S-042214	173076	6.23	670554	7.29	387960	8.77

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD6 240-128487/2 Date Analyzed: 04/30/2014 07:46

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0430002.D Heated Purge: (Y/N) N

Calibration ID: 21939

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		656697	10.04	624226	12.62	498216	14.72
UPPER LIMIT		1313394	10.54	1248452	13.12	996432	15.22
LOWER LIMIT		328349	9.54	312113	12.12	249108	14.22
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-36398-3	MSA-DMW-3I-042214	655770	10.04	579534	12.62	488784	14.72
240-36398-4	MSA-DMW-3S-042214	650189	10.04	580131	12.62	484062	14.72

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD6 240-129945/2 Date Analyzed: 05/09/2014 08:35

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0509002.D Heated Purge: (Y/N) N

Calibration ID: 21939

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		150885	6.21	613267	7.28	336595	8.76
UPPER LIMIT		301770	6.71	1226534	7.78	673190	9.26
LOWER LIMIT		75443	5.71	306634	6.78	168298	8.26
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-128687/2-A		137292	6.21	569334	7.28	301667	8.76
LCS 240-128687/3-A		143283	6.21	589079	7.28	306894	8.76
240-36398-5 RE	MSA-DMW-2B-042214 RE	146425	6.21	603531	7.28	315186	8.76

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD6 240-129945/2 Date Analyzed: 05/09/2014 08:35

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0509002.D Heated Purge: (Y/N) N

Calibration ID: 21939

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		532953	10.02	462802	12.60	406729	14.69
UPPER LIMIT		1065906	10.52	925604	13.10	813458	15.19
LOWER LIMIT		266477	9.52	231401	12.10	203365	14.19
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-128687/2-A		471506	10.02	407814	12.59	350002	14.69
LCS 240-128687/3-A		496962	10.02	440709	12.59	359492	14.69
240-36398-5 RE	MSA-DMW-2B-042214 RE	508888	10.02	423252	12.59	349906	14.68

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

Method 8015B - DRO

Diesel Range Organics (DRO) (GC) by Method 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: A2HP14F Start Date: 11/25/2013 18:58

Analysis Batch Number: 111340 End Date: 11/25/2013 22:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-111340/8 IC		11/25/2013 18:58	1	P14F112508.D	RTX-5 0.53(mm)
STD2 240-111340/9 IC		11/25/2013 19:19	1	P14F112509.D	RTX-5 0.53(mm)
STD3 240-111340/10 ICRT		11/25/2013 19:40	1	P14F112510.D	RTX-5 0.53(mm)
STD4 240-111340/11 IC		11/25/2013 20:01	1	P14F112511.D	RTX-5 0.53(mm)
STD5 240-111340/12 IC		11/25/2013 20:22	1	P14F112512.D	RTX-5 0.53(mm)
ICV 240-111340/13		11/25/2013 20:42	1	P14F112513.D	RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:03	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:23	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:44	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 22:05	1		RTX-5 0.53(mm)
CCV 240-111340/18		11/25/2013 22:25	1		RTX-5 0.53(mm)

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	501990 429809	458731	454837	433618	Ave		455796.921				6.3		20.0			
o-Terphenyl (Surr)	553837 517394	508292	537146	516618	Ave		526657.319				3.5		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI

DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel Range Organics [C10 - C28]	5.856	5.856	5.856	5.856	5.856						2.980 - 8.732	5.856
o-Terphenyl (Surr)	6.202	6.199	6.197	6.200	6.209						6.102 - 6.302	6.201

FORM VI

DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel Range Organics [C10 - C28]	Ave	10040851	18351136	45488439	86732601	171941310	20.0	40.0	100	200	400
o-Terphenyl (Surr)	Ave	886139	1626533	4297171	8265892	16556593	1.60	3.20	8.00	16.0	32.0

Curve Type Legend:

Ave = Average

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICV 240-111340/13 Calibration Date: 11/25/2013 20:42

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F112513.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	413207		90.7	100	-9.3	

FORM VII 8015B

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICV 240-111340/13 Calibration Date: 11/25/2013 20:42

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F112513.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.86	2.98	8.73

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: A2HP14F Start Date: 04/24/2014 16:24

Analysis Batch Number: 127779 End Date: 04/24/2014 23:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-127779/7 CCVRT		04/24/2014 16:24	1	P14F042407.D	RTX-5 0.53(mm)
MB 240-127536/18-A		04/24/2014 16:45	1	P14F042408.D	RTX-5 0.53(mm)
LCS 240-127536/19-A		04/24/2014 17:06	1	P14F042409.D	RTX-5 0.53(mm)
ZZZZZ		04/24/2014 17:26	5		RTX-5 0.53(mm)
ZZZZZ		04/24/2014 17:47	1		RTX-5 0.53(mm)
ZZZZZ		04/24/2014 18:08	1		RTX-5 0.53(mm)
ZZZZZ		04/24/2014 18:29	1		RTX-5 0.53(mm)
ZZZZZ		04/24/2014 18:50	1		RTX-5 0.53(mm)
ZZZZZ		04/24/2014 19:10	1		RTX-5 0.53(mm)
ZZZZZ		04/24/2014 19:31	1		RTX-5 0.53(mm)
ZZZZZ		04/24/2014 19:52	1		RTX-5 0.53(mm)
CCV 240-127779/18		04/24/2014 20:13	1	P14F042418.D	RTX-5 0.53(mm)
ZZZZZ		04/24/2014 20:34	1		RTX-5 0.53(mm)
ZZZZZ		04/24/2014 20:55	1		RTX-5 0.53(mm)
ZZZZZ		04/24/2014 21:15	1		RTX-5 0.53(mm)
ZZZZZ		04/24/2014 21:36	1		RTX-5 0.53(mm)
ZZZZZ		04/24/2014 21:57	1		RTX-5 0.53(mm)
ZZZZZ		04/24/2014 22:18	1		RTX-5 0.53(mm)
240-36355-3	MSA-MW-3-042114	04/24/2014 22:38	1	P14F042425.D	RTX-5 0.53(mm)
240-36355-5	MSA-MW-38S-042114	04/24/2014 22:59	1	P14F042426.D	RTX-5 0.53(mm)
240-36343-5	MSA-DMW-5S-041814	04/24/2014 23:20	1	P14F042427.D	RTX-5 0.53(mm)
CCV 240-127779/28		04/24/2014 23:41	1	P14F042428.D	RTX-5 0.53(mm)

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127779/7 Calibration Date: 04/24/2014 16:24

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042407.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	481311		106	100	5.6	
o-Terphenyl (Surr)	Ave	526657	530.9		8060	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127779/7 Calibration Date: 04/24/2014 16:24

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042407.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.84	2.97	8.72
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127779/18 Calibration Date: 04/24/2014 20:13

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042418.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	476484		105	100	4.5	
o-Terphenyl (Surr)	Ave	526657	528.3		8030	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127779/18 Calibration Date: 04/24/2014 20:13

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042418.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.84	2.97	8.72
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127779/28 Calibration Date: 04/24/2014 23:41

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042428.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	482443		106	100	5.8	
o-Terphenyl (Surr)	Ave	526657	529.6		8050	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127779/28 Calibration Date: 04/24/2014 23:41

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042428.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.84	2.97	8.72
o-Terphenyl (Surr)	6.19	6.09	6.29

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: A2HP14F Start Date: 04/25/2014 16:21

Analysis Batch Number: 127973 End Date: 04/25/2014 23:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-127973/7 CCVRT		04/25/2014 16:21	1	P14F042507.D	RTX-5 0.53(mm)
ZZZZZ		04/25/2014 16:42	1		RTX-5 0.53(mm)
ZZZZZ		04/25/2014 17:02	5		RTX-5 0.53(mm)
ZZZZZ		04/25/2014 17:23	5		RTX-5 0.53(mm)
CCV 240-127973/11		04/25/2014 17:44	1	P14F042511.D	RTX-5 0.53(mm)
MB 240-127706/5-A		04/25/2014 18:05	1	P14F042512.D	RTX-5 0.53(mm)
LCS 240-127706/6-A		04/25/2014 18:26	1	P14F042513.D	RTX-5 0.53(mm)
ZZZZZ		04/25/2014 18:46	1		RTX-5 0.53(mm)
ZZZZZ		04/25/2014 19:07	1		RTX-5 0.53(mm)
ZZZZZ		04/25/2014 19:28	1		RTX-5 0.53(mm)
240-36398-4	MSA-DMW-3S-042214	04/25/2014 19:49	1	P14F042517.D	RTX-5 0.53(mm)
CCV 240-127973/18		04/25/2014 20:10	1	P14F042518.D	RTX-5 0.53(mm)
ZZZZZ		04/25/2014 20:31	1		RTX-5 0.53(mm)
ZZZZZ		04/25/2014 20:52	1		RTX-5 0.53(mm)
ZZZZZ		04/25/2014 21:12	1		RTX-5 0.53(mm)
ZZZZZ		04/25/2014 21:33	1		RTX-5 0.53(mm)
ZZZZZ		04/25/2014 21:54	1		RTX-5 0.53(mm)
ZZZZZ		04/25/2014 22:15	1		RTX-5 0.53(mm)
ZZZZZ		04/25/2014 22:36	1		RTX-5 0.53(mm)
ZZZZZ		04/25/2014 22:56	1		RTX-5 0.53(mm)
CCV 240-127973/27		04/25/2014 23:17	1		RTX-5 0.53(mm)

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127973/7 Calibration Date: 04/25/2014 16:21

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042507.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	485281		106	100	6.5	
o-Terphenyl (Surr)	Ave	526657	542.4		8240	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127973/7 Calibration Date: 04/25/2014 16:21

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042507.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.84	2.97	8.71
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127973/11 Calibration Date: 04/25/2014 17:44

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042511.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	481551		106	100	5.7	
o-Terphenyl (Surr)	Ave	526657	535.3		8130	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127973/11 Calibration Date: 04/25/2014 17:44

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042511.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.84	2.97	8.71
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127973/18 Calibration Date: 04/25/2014 20:10

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042518.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	455131		99.9	100	-0.1	
o-Terphenyl (Surr)	Ave	526657	511.2		7760	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127973/18 Calibration Date: 04/25/2014 20:10

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042518.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.84	2.97	8.71
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: MB 240-127536/18-A

Matrix: Water Date Extracted: 04/23/2014 08:25

Lab File ID:(1) P14F042408.D Lab File ID:(2)

Date Analyzed:(1) 04/24/2014 16:45 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-127536/19-A	04/24/2014 17:06	
MSA-MW-3-042114	240-36355-3	04/24/2014 22:38	
MSA-MW-38S-042114	240-36355-5	04/24/2014 22:59	
MSA-DMW-5S-041814	240-36343-5	04/24/2014 23:20	

FORM I

DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127536/18-A

Matrix: Water | Lab File ID: P14F042408.D

Analysis Method: 8015B | Date Collected:

Extraction Method: 3510C | Date Extracted: 04/23/2014 08:25

Sample wt/vol: 250(mL) | Date Analyzed: 04/24/2014 16:45

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127779 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	79		40-160

FORM III

DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P14F042409.D

Lab ID: LCS 240-127536/19-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1690	84	40-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: MB 240-127706/5-A

Matrix: Water Date Extracted: 04/24/2014 08:27

Lab File ID:(1) P14F042512.D Lab File ID:(2)

Date Analyzed:(1) 04/25/2014 18:05 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-127706/6-A	04/25/2014 18:26	
MSA-DMW-3S-042214	240-36398-4	04/25/2014 19:49	

FORM I

DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127706/5-A

Matrix: Water | Lab File ID: P14F042512.D

Analysis Method: 8015B | Date Collected:

Extraction Method: 3510C | Date Extracted: 04/24/2014 08:27

Sample wt/vol: 250(mL) | Date Analyzed: 04/25/2014 18:05

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 127973 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	82		40-160

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P14F042513.D

Lab ID: LCS 240-127706/6-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1970	98	40-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	OTPH1 #
MSA-DMW-5S-041814	240-36343-5	80
MSA-MW-3-042114	240-36355-3	80
MSA-MW-38S-042114	240-36355-5	79
MSA-DMW-3S-042214	240-36398-4	82
	MB 240-127536/18-A	79
	MB 240-127706/5-A	82
	LCS 240-127536/19-A	88
	LCS 240-127706/6-A	93

	QC LIMITS
OTPH = o-Terphenyl (Surr)	40-160

Column to be used to flag recovery values

FORM II 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: CCV 240-127779/7 Date Analyzed: 04/24/2014 16:24

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P14F042407.D Heated Purge: (Y/N) N

Calibration ID: 19058

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				6.19		
UPPER LIMIT						
LOWER LIMIT						
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-127779/7 CCVRT		04/24/2014 16:24	P14F042407.D	6.19		
MB 240-127536/18-A		04/24/2014 16:45	P14F042408.D	6.19		
LCS 240-127536/19-A		04/24/2014 17:06	P14F042409.D	6.19		
CCV 240-127779/18		04/24/2014 20:13	P14F042418.D	6.19		
240-36355-3	MSA-MW-3-042114	04/24/2014 22:38	P14F042425.D	6.19		
240-36355-5	MSA-MW-38S-042114	04/24/2014 22:59	P14F042426.D	6.19		
240-36343-5	MSA-DMW-5S-041814	04/24/2014 23:20	P14F042427.D	6.19		
CCV 240-127779/28		04/24/2014 23:41	P14F042428.D	6.19		

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: CCV 240-127973/7 Date Analyzed: 04/25/2014 16:21

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P14F042507.D Heated Purge: (Y/N) N

Calibration ID: 19058

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				6.19		
UPPER LIMIT						
LOWER LIMIT						
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-127973/7 CCVRT		04/25/2014 16:21	P14F042507.D	6.19		
CCV 240-127973/11		04/25/2014 17:44	P14F042511.D	6.19		
MB 240-127706/5-A		04/25/2014 18:05	P14F042512.D	6.19		
LCS 240-127706/6-A		04/25/2014 18:26	P14F042513.D	6.19		
240-36398-4	MSA-DMW-3S-042214	04/25/2014 19:49	P14F042517.D	6.19		
CCV 240-127973/18		04/25/2014 20:10	P14F042518.D	6.19		

Column used to flag values outside QC limits

FORM VIII 8015B

6850

Perchlorate by LC/MS or LC/MS/MS

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Instrument ID: A5 Start Date: 04/23/2014 13:45

Analysis Batch Number: 41075 End Date: 04/24/2014 02:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD01 320-41075/3 IC		04/23/2014 13:45	1	23APR14-Per-005 .d	Anion HR 4.6(mm)
STD02 320-41075/4 IC		04/23/2014 13:59	1	23APR14-Per-006 .d	Anion HR 4.6(mm)
STD03 320-41075/5 IC		04/23/2014 14:14	1	23APR14-Per-007 .d	Anion HR 4.6(mm)
STD04 320-41075/6 ICISAV		04/23/2014 14:28	1	23APR14-Per-008 .d	Anion HR 4.6(mm)
STD05 320-41075/7 IC		04/23/2014 14:43	1	23APR14-Per-009 .d	Anion HR 4.6(mm)
STD06 320-41075/8 IC		04/23/2014 14:57	1	23APR14-Per-010 .d	Anion HR 4.6(mm)
STD07 320-41075/9 IC		04/23/2014 15:11	1	23APR14-Per-011 .d	Anion HR 4.6(mm)
STD08 320-41075/10 IC		04/23/2014 15:37	1	23APR14-Per-012 .d	Anion HR 4.6(mm)
CCB 320-41075/11		04/23/2014 15:42	1	23APR14-Per-013 .d	Anion HR 4.6(mm)
ICV 320-41075/12		04/23/2014 15:56	1	23APR14-Per-014 .d	Anion HR 4.6(mm)
CCVL 320-41075/13		04/23/2014 16:11	1		Anion HR 4.6(mm)
CCV 320-41075/105		04/23/2014 16:25	1		Anion HR 4.6(mm)
LODV 320-41075/14		04/23/2014 16:39	1	23APR14-Per-017 .d	Anion HR 4.6(mm)
CCB 320-41075/15		04/23/2014 16:54	1		Anion HR 4.6(mm)
CCVL 320-41075/89		04/23/2014 20:15	1	23APR14-Per-032 .d	Anion HR 4.6(mm)
CCB 320-41075/91		04/23/2014 20:44	1		Anion HR 4.6(mm)
ZZZZZ		04/23/2014 20:58	1		Anion HR 4.6(mm)
ZZZZZ		04/23/2014 21:13	1		Anion HR 4.6(mm)
INF 320-40914/3-A		04/23/2014 21:27	1		Anion HR 4.6(mm)
ZZZZZ		04/23/2014 21:42	1		Anion HR 4.6(mm)
ZZZZZ		04/23/2014 21:56	1		Anion HR 4.6(mm)
ZZZZZ		04/23/2014 22:10	1		Anion HR 4.6(mm)
ZZZZZ		04/23/2014 22:25	1		Anion HR 4.6(mm)
ZZZZZ		04/23/2014 22:39	1		Anion HR 4.6(mm)
ZZZZZ		04/23/2014 22:54	1		Anion HR 4.6(mm)
ZZZZZ		04/23/2014 23:08	1		Anion HR 4.6(mm)
ZZZZZ		04/23/2014 23:22	1		Anion HR 4.6(mm)
ZZZZZ		04/23/2014 23:37	1		Anion HR 4.6(mm)
CCV 320-41075/120		04/23/2014 23:51	1	23APR14-Per-047 .d	Anion HR 4.6(mm)
CCB 320-41075/121		04/24/2014 00:06	1	23APR14-Per-048 .d	Anion HR 4.6(mm)
MB 320-41044/1-A		04/24/2014 00:20	1	23APR14-Per-049 .d	Anion HR 4.6(mm)
LCS 320-41044/2-A		04/24/2014 00:34	1	23APR14-Per-050 .d	Anion HR 4.6(mm)
INF 320-41044/3-A		04/24/2014 00:49	1	23APR14-Per-051 .d	Anion HR 4.6(mm)
240-36343-2	MSA-MW-51D-041714	04/24/2014 01:03	1	23APR14-Per-052 .d	Anion HR 4.6(mm)
240-36343-2 MS	MSA-MW-51D-041714 MS	04/24/2014 01:17	1	23APR14-Per-053 .d	Anion HR 4.6(mm)
240-36343-2 MSD	MSA-MW-51D-041714 MSD	04/24/2014 01:32	1	23APR14-Per-054 .d	Anion HR 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Instrument ID: A5 Start Date: 04/23/2014 13:45

Analysis Batch Number: 41075 End Date: 04/24/2014 02:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
240-36343-3	MSA-MW-49D-041714	04/24/2014 01:46	1	23APR14-Per-055 .d	Anion HR 4.6(mm)
240-36343-4	MSA-DMW-5I-041814	04/24/2014 02:01	1	23APR14-Per-056 .d	Anion HR 4.6(mm)
CCVL 320-41075/131		04/24/2014 02:15	1	23APR14-Per-057 .d	Anion HR 4.6(mm)
CCV 320-41075/133		04/24/2014 02:30	1	23APR14-Per-058 .d	Anion HR 4.6(mm)
CCB 320-41075/132		04/24/2014 02:44	1	23APR14-Per-059 .d	Anion HR 4.6(mm)

6850

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1 Analy Batch No.: 41075

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/23/2014 13:45 Calibration End Date: 04/23/2014 15:37 Calibration ID: 7090

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-41075/3	23APR14-Per-005.d
Level 2	STD02 320-41075/4	23APR14-Per-006.d
Level 3	STD03 320-41075/5	23APR14-Per-007.d
Level 4	STD04 320-41075/6	23APR14-Per-008.d
Level 5	STD05 320-41075/7	23APR14-Per-009.d
Level 6	STD06 320-41075/8	23APR14-Per-010.d
Level 7	STD07 320-41075/9	23APR14-Per-011.d
Level 8	STD08 320-41075/10	23APR14-Per-012.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Perchlorate	0.8066 0.8944	0.7915 0.9331	0.7811 1.0196	0.8220	0.8402	Ave		0.8611				9.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI

LCMS INITIAL CALIBRATION DATA

INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1 Analy Batch No.: 41075

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/23/2014 13:45 Calibration End Date: 04/23/2014 15:37 Calibration ID: 7090

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-41075/3	23APR14-Per-005.d
Level 2	STD02 320-41075/4	23APR14-Per-006.d
Level 3	STD03 320-41075/5	23APR14-Per-007.d
Level 4	STD04 320-41075/6	23APR14-Per-008.d
Level 5	STD05 320-41075/7	23APR14-Per-009.d
Level 6	STD06 320-41075/8	23APR14-Per-010.d
Level 7	STD07 320-41075/9	23APR14-Per-011.d
Level 8	STD08 320-41075/10	23APR14-Per-012.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Perchlorate	18OP	Ave	6239180 237391324	10343951 443155653	17942141 1098457180	57428189	109940275	0.150 5.00	0.300 10.0	0.500 20.0	1.00	2.00

Curve Type Legend:

Ave = Average ISTD

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICV 320-41075/12 Calibration Date: 04/23/2014 15:56

Instrument ID: A5 Calib Start Date: 04/23/2014 13:45

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/23/2014 15:37

Lab File ID: 23APR14-Per-014.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8611	0.8951		5.20	5.00	3.9	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Lab Sample ID: LODV 320-41075/14 Calibration Date: 04/23/2014 16:39

Instrument ID: A5 Calib Start Date: 04/23/2014 13:45

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/23/2014 15:37

Lab File ID: 23APR14-Per-017.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8611	0.8052		0.140	0.150	-6.5	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVL 320-41075/89 Calibration Date: 04/23/2014 20:15

Instrument ID: A5 Calib Start Date: 04/23/2014 13:45

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/23/2014 15:37

Lab File ID: 23APR14-Per-032.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8611	0.8387		0.974	1.00	-2.6	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 320-41075/120 Calibration Date: 04/23/2014 23:51

Instrument ID: A5 Calib Start Date: 04/23/2014 13:45

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/23/2014 15:37

Lab File ID: 23APR14-Per-047.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8611	0.9149		2.13	2.00	6.3	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVL 320-41075/131 Calibration Date: 04/24/2014 02:15

Instrument ID: A5 Calib Start Date: 04/23/2014 13:45

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/23/2014 15:37

Lab File ID: 23APR14-Per-057.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8611	0.8491		0.986	1.00	-1.4	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 320-41075/133 Calibration Date: 04/24/2014 02:30

Instrument ID: A5 Calib Start Date: 04/23/2014 13:45

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/23/2014 15:37

Lab File ID: 23APR14-Per-058.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8611	0.8767		2.04	2.00	1.8	15.0

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-41075/11

Matrix: Water Lab File ID: 23APR14-Per-013.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/23/2014 15:42

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41075 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I

LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-41075/121

Matrix: Water Lab File ID: 23APR14-Per-048.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/24/2014 00:06

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41075 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-41075/132

Matrix: Water Lab File ID: 23APR14-Per-059.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/24/2014 02:44

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41075 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 23APR14-Per-051.d

Lab ID: INF 320-41044/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	5.40	108	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Lab File ID: 23APR14-Per-049.d Lab Sample ID: MB 320-41044/1-A

Matrix: Water Date Extracted: 04/23/2014 09:10

Instrument ID: A5 Date Analyzed: 04/24/2014 00:20

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-41044/2-A	23APR14-Per-050.d	04/24/2014 00:34
MSA-MW-51D-041714	240-36343-2	23APR14-Per-052.d	04/24/2014 01:03
MSA-MW-51D-041714 MS	240-36343-2 MS	23APR14-Per-053.d	04/24/2014 01:17
MSA-MW-51D-041714 MSD	240-36343-2 MSD	23APR14-Per-054.d	04/24/2014 01:32
MSA-MW-49D-041714	240-36343-3	23APR14-Per-055.d	04/24/2014 01:46
MSA-DMW-5I-041814	240-36343-4	23APR14-Per-056.d	04/24/2014 02:01

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-41044/1-A

Matrix: Water Lab File ID: 23APR14-Per-049.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 04/23/2014 09:10

Sample wt/vol: 4.00(mL) Date Analyzed: 04/24/2014 00:20

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41075 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 23APR14-Per-050.d

Lab ID: LCS 320-41044/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.41	108	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 23APR14-Per-053.d

Lab ID: 240-36343-2 MS Client ID: MSA-MW-51D-041714 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	5.00	0.094 J	5.35	105	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 23APR14-Per-054.d

Lab ID: 240-36343-2 MSD Client ID: MSA-MW-51D-041714 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	5.00	5.51	108	3	15	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Instrument ID: A5 Calibration Start Date: 04/23/2014 13:45

GC Column: Anion HR ID: 4.6(mm) Calibration End Date: 04/23/2014 15:37

Calibration ID: 7090

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		542448617	9.95				
UPPER LIMIT		813672926	10.95				
LOWER LIMIT		271224309	8.95				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 320-41075/11		728684330	10.03				
ICV 320-41075/12		608232824	9.97				
LODV 320-41075/14		593655296	9.99				
CCVL 320-41075/89		554551412	9.92				
CCV 320-41075/120		213100863*	9.85				
CCB 320-41075/121		159389589*	9.87				
MB 320-41044/1-A		158088472*	9.91				
LCS 320-41044/2-A		173253443*	9.89				
INF 320-41044/3-A		202722501*	9.81				
240-36343-2	MSA-MW-51D-041714	222888672*	9.80				
240-36343-2 MS	MSA-MW-51D-041714 MS	195515889*	9.77				
240-36343-2 MSD	MSA-MW-51D-041714 MSD	211153048*	9.74				
240-36343-3	MSA-MW-49D-041714	386700011	9.72				
240-36343-4	MSA-DMW-5I-041814	295849336	9.70				
CCVL 320-41075/131		232910367*	9.78				
CCV 320-41075/133		233038373*	9.83				
CCB 320-41075/132		364843213	9.84				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

552.2

Haloacetic Acids (HAAs) (GC) by Method 552.2

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Instrument ID: CSGY Start Date: 04/25/2014 16:04

Analysis Batch Number: 326226 End Date: 04/25/2014 22:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 680-326226/3		04/25/2014 16:04	1	YD25003.D	CLP I 0.32(mm)
PEM 680-326226/3		04/25/2014 16:04	1	YD25003.D	CLP II 0.32(mm)
IC 680-326226/6		04/25/2014 16:54	1	YD25006.D	CLP I 0.32(mm)
IC 680-326226/6		04/25/2014 16:54	1	YD25006.D	CLP II 0.32(mm)
IC 680-326226/7		04/25/2014 17:10	1	YD25007.D	CLP I 0.32(mm)
IC 680-326226/7		04/25/2014 17:10	1	YD25007.D	CLP II 0.32(mm)
IC 680-326226/8		04/25/2014 17:27	1	YD25008.D	CLP I 0.32(mm)
IC 680-326226/8		04/25/2014 17:27	1	YD25008.D	CLP II 0.32(mm)
ICIS 680-326226/9		04/25/2014 17:44	1	YD25009.D	CLP I 0.32(mm)
ICIS 680-326226/9		04/25/2014 17:44	1	YD25009.D	CLP II 0.32(mm)
IC 680-326226/10		04/25/2014 18:00	1	YD25010.D	CLP I 0.32(mm)
IC 680-326226/10		04/25/2014 18:00	1	YD25010.D	CLP II 0.32(mm)
IC 680-326226/11		04/25/2014 18:17	1	YD25011.D	CLP I 0.32(mm)
IC 680-326226/11		04/25/2014 18:17	1	YD25011.D	CLP II 0.32(mm)
IC 680-326226/12		04/25/2014 18:34	1	YD25012.D	CLP I 0.32(mm)
IC 680-326226/12		04/25/2014 18:34	1	YD25012.D	CLP II 0.32(mm)
ICV 680-326226/13		04/25/2014 18:50	1	YD25013.D	CLP I 0.32(mm)
ICV 680-326226/13		04/25/2014 18:50	1	YD25013.D	CLP II 0.32(mm)
PIBLK 680-326226/14		04/25/2014 19:07	1	YD25014.D	CLP I 0.32(mm)
PIBLK 680-326226/14		04/25/2014 19:07	1	YD25014.D	CLP II 0.32(mm)
MB 680-326026/10-A		04/25/2014 19:24	1	YD25015.D	CLP I 0.32(mm)
MB 680-326026/10-A		04/25/2014 19:24	1	YD25015.D	CLP II 0.32(mm)
LCS 680-326026/11-A		04/25/2014 19:40	1	YD25016.D	CLP I 0.32(mm)
LCS 680-326026/11-A		04/25/2014 19:40	1	YD25016.D	CLP II 0.32(mm)
ZZZZZ		04/25/2014 19:57	1		CLP I 0.32(mm)
ZZZZZ		04/25/2014 19:57	1		CLP II 0.32(mm)
ZZZZZ		04/25/2014 20:14	1		CLP I 0.32(mm)
ZZZZZ		04/25/2014 20:14	1		CLP II 0.32(mm)
ZZZZZ		04/25/2014 20:30	1		CLP I 0.32(mm)
ZZZZZ		04/25/2014 20:30	1		CLP II 0.32(mm)
ZZZZZ		04/25/2014 20:47	1		CLP I 0.32(mm)
ZZZZZ		04/25/2014 20:47	1		CLP II 0.32(mm)
240-36343-5	MSA-DMW-5S-041814	04/25/2014 21:03	1	YD25021.D	CLP I 0.32(mm)
240-36343-5	MSA-DMW-5S-041814	04/25/2014 21:03	1	YD25021.D	CLP II 0.32(mm)
ZZZZZ		04/25/2014 21:20	1		CLP I 0.32(mm)
ZZZZZ		04/25/2014 21:20	1		CLP II 0.32(mm)
ZZZZZ		04/25/2014 21:36	1		CLP I 0.32(mm)
ZZZZZ		04/25/2014 21:36	1		CLP II 0.32(mm)
ZZZZZ		04/25/2014 21:53	1		CLP I 0.32(mm)
ZZZZZ		04/25/2014 21:53	1		CLP II 0.32(mm)
CCV 680-326226/25		04/25/2014 22:10	1	YD25025.D	CLP I 0.32(mm)
CCV 680-326226/25		04/25/2014 22:10	1	YD25025.D	CLP II 0.32(mm)
PIBLK 680-326226/26		04/25/2014 22:26	1	YD25026.D	CLP I 0.32(mm)
PIBLK 680-326226/26		04/25/2014 22:26	1	YD25026.D	CLP II 0.32(mm)

552.2

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-36343-1 Analy Batch No.: 326226

SDG No.:

Instrument ID: CSGY GC Column: CLP I ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/25/2014 16:54 Calibration End Date: 04/25/2014 18:34 Calibration ID: 28905

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-326226/12	YD25012.D
Level 2	IC 680-326226/11	YD25011.D
Level 3	IC 680-326226/10	YD25010.D
Level 4	ICIS 680-326226/9	YD25009.D
Level 5	IC 680-326226/8	YD25008.D
Level 6	IC 680-326226/7	YD25007.D
Level 7	IC 680-326226/6	YD25006.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochloroacetic acid	0.8913 0.5570	0.7837 0.5330	0.7107	0.5917	0.5803	Lin1	0.0049	0.5404							0.9960		0.9900
Monobromoacetic acid	6.7419 5.2495	6.1217 5.2780	5.8133	5.3280	5.3757	Ave		5.7011				9.9		20.0			
Dichloroacetic acid	8.7708 7.1317	8.1145 7.1816	7.9938	7.7141	7.2775	Ave		7.7406				7.8		20.0			
Trichloroacetic acid	9.8136 12.708	12.642 12.804	13.697	13.735	12.251	Lin2	-0.031	13.307							0.9960		0.9900
Dibromoacetic acid	18.327 16.559	17.613 16.447	18.098	17.868	16.432	Ave		17.335				4.8		20.0			
2,3-Dibromopropionic acid	9.7452 7.3489	7.9486 7.1112	8.5050	7.6132	6.7558	Ave		7.8611				13.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-36343-1 Analy Batch No.: 326226

SDG No.:

Instrument ID: CSGY GC Column: CLP II ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/25/2014 16:54 Calibration End Date: 04/25/2014 18:34 Calibration ID: 28906

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-326226/12	YD25012.D
Level 2	IC 680-326226/11	YD25011.D
Level 3	IC 680-326226/10	YD25010.D
Level 4	ICIS 680-326226/9	YD25009.D
Level 5	IC 680-326226/8	YD25008.D
Level 6	IC 680-326226/7	YD25007.D
Level 7	IC 680-326226/6	YD25006.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochloroacetic acid	0.5409 0.5591	0.6807 0.5339	0.6743	0.6037	0.5871	Ave		0.5971				10.0		20.0			
Monobromoacetic acid	4.6795 3.7120	4.4136 3.8314	4.1801	3.7958	3.8425	Ave		4.0650				9.1		20.0			
Dichloroacetic acid	6.6026 5.7682	6.5889 5.9639	6.4147	6.1823	5.9081	Ave		6.2041				5.5		20.0			
Trichloroacetic acid	8.2710 9.0987	9.4597 9.4033	9.8444	9.7997	8.8393	Ave		9.2452				6.0		20.0			
Dibromoacetic acid	13.083 12.030	12.780 12.122	13.180	12.942	12.046	Ave		12.598				4.1		20.0			
2,3-Dibromopropionic acid	7.1141 5.7126	6.0973 5.5814	6.4524	5.7283	5.2168	Ave		5.9861				11.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID (1): PEM 680-326226/3 Instrument ID (1): CSGY

GC Column (1): CLP I ID: 0.32(mm) Date Analyzed (1): 04/25/2014 16:04

ANALYTE	RT	RESOLUTION (%)
Chlorodibromoacetic acid	6.61	1.90

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID (2): PEM 680-326226/3 Instrument ID (2): CSGY

GC Column (2): CLP II ID: 0.32(mm) Date Analyzed (2): 04/25/2014 16:04

ANALYTE	RT	RESOLUTION (%)
Chlorodibromoacetic acid	5.93	0.80

FORM VI 552.2

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICV 680-326226/13 Calibration Date: 04/25/2014 18:50

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP I ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD25013.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Lin1		0.6275		0.400	0.0625	1.5	30.0
Monobromoacetic acid	Ave	5.701	5.113		0.750	0.0625	-10.3	30.0
Dichloroacetic acid	Ave	7.741	6.938		0.980	0.0625	-10.4	30.0
Trichloroacetic acid	Lin2		10.83		0.380	0.0625	-14.8	30.0
Dibromoacetic acid	Ave	17.33	15.64		0.380	0.0625	-9.8	30.0
2,3-Dibromopropionic acid	Ave	7.861	7.221		0.0574	0.0625	-8.1	30.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICV 680-326226/13 Calibration Date: 04/25/2014 18:50

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP I ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD25013.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.67	3.42	3.92
Monobromoacetic acid	4.07	3.82	4.32
Dichloroacetic acid	4.13	3.88	4.38
Trichloroacetic acid	4.64	4.39	4.89
Dibromoacetic acid	5.30	5.05	5.55
2,3-Dibromopropionic acid	6.82	6.72	6.92

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICV 680-326226/13 Calibration Date: 04/25/2014 18:50

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP II ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD25013.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.5971	0.6071		0.400	0.0625	1.7	30.0
Monobromoacetic acid	Ave	4.065	3.707		0.750	0.0625	-8.8	30.0
Dichloroacetic acid	Ave	6.204	5.656		0.980	0.0625	-8.8	30.0
Trichloroacetic acid	Ave	9.245	7.939		0.380	0.0625	-14.1	30.0
Dibromoacetic acid	Ave	12.60	11.39		0.380	0.0625	-9.6	30.0
2,3-Dibromopropionic acid	Ave	5.986	5.615		0.0586	0.0625	-6.2	30.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICV 680-326226/13 Calibration Date: 04/25/2014 18:50

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP II ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD25013.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.03	2.78	3.28
Monobromoacetic acid	3.54	3.29	3.79
Dichloroacetic acid	3.58	3.33	3.83
Trichloroacetic acid	4.07	3.82	4.32
Dibromoacetic acid	4.85	4.60	5.10
2,3-Dibromopropionic acid	6.00	5.90	6.10

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 680-326226/25 Calibration Date: 04/25/2014 22:10

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP I ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD25025.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Lin1		0.5910		0.400	0.125	2.1	30.0
Monobromoacetic acid	Ave	5.701	5.503		0.750	0.125	-3.5	30.0
Dichloroacetic acid	Ave	7.741	7.936		0.980	0.125	2.5	30.0
Trichloroacetic acid	Lin2		13.93		0.380	0.125	6.6	30.0
Dibromoacetic acid	Ave	17.33	18.09		0.380	0.125	4.4	30.0
2,3-Dibromopropionic acid	Ave	7.861	7.655		0.0609	0.0625	-2.6	30.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 680-326226/25 Calibration Date: 04/25/2014 22:10

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP I ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD25025.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.67	3.42	3.92
Monobromoacetic acid	4.07	3.82	4.32
Dichloroacetic acid	4.13	3.88	4.38
Trichloroacetic acid	4.64	4.39	4.89
Dibromoacetic acid	5.30	5.05	5.55
2,3-Dibromopropionic acid	6.82	6.72	6.92

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 680-326226/25 Calibration Date: 04/25/2014 22:10

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP II ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD25025.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.5971	0.5935		0.400	0.125	-0.6	30.0
Monobromoacetic acid	Ave	4.065	4.375		0.750	0.125	7.6	30.0
Dichloroacetic acid	Ave	6.204	6.707		0.980	0.125	8.1	30.0
Trichloroacetic acid	Ave	9.245	10.76		0.380	0.125	16.3	30.0
Dibromoacetic acid	Ave	12.60	13.66		0.380	0.125	8.4	30.0
2,3-Dibromopropionic acid	Ave	5.986	5.981		0.0625	0.0625	-0.0	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 680-326226/25 Calibration Date: 04/25/2014 22:10

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP II ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD25025.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.03	2.78	3.28
Monobromoacetic acid	3.54	3.29	3.79
Dichloroacetic acid	3.58	3.33	3.83
Trichloroacetic acid	4.07	3.82	4.32
Dibromoacetic acid	4.85	4.60	5.10
2,3-Dibromopropionic acid	6.00	5.90	6.10

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Instrument ID: CSGY Start Date: 04/28/2014 20:55

Analysis Batch Number: 326528 End Date: 04/29/2014 00:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 680-326528/24		04/28/2014 20:55	1	YD28024.D	CLP I 0.32(mm)
CCVIS 680-326528/24		04/28/2014 20:55	1	YD28024.D	CLP II 0.32(mm)
PIBLK 680-326528/25		04/28/2014 21:12	1	YD28025.D	CLP I 0.32(mm)
PIBLK 680-326528/25		04/28/2014 21:12	1	YD28025.D	CLP II 0.32(mm)
MB 680-326208/15-A		04/28/2014 21:28	1	YD28026.D	CLP I 0.32(mm)
MB 680-326208/15-A		04/28/2014 21:28	1	YD28026.D	CLP II 0.32(mm)
LCS 680-326208/16-A		04/28/2014 21:45	1	YD28027.D	CLP I 0.32(mm)
LCS 680-326208/16-A		04/28/2014 21:45	1	YD28027.D	CLP II 0.32(mm)
ZZZZZ		04/28/2014 22:01	1		CLP I 0.32(mm)
ZZZZZ		04/28/2014 22:01	1		CLP II 0.32(mm)
ZZZZZ		04/28/2014 22:18	1		CLP I 0.32(mm)
ZZZZZ		04/28/2014 22:18	1		CLP II 0.32(mm)
ZZZZZ		04/28/2014 22:34	1		CLP I 0.32(mm)
ZZZZZ		04/28/2014 22:34	1		CLP II 0.32(mm)
ZZZZZ		04/28/2014 22:51	1		CLP I 0.32(mm)
ZZZZZ		04/28/2014 22:51	1		CLP II 0.32(mm)
ZZZZZ		04/28/2014 23:07	1		CLP I 0.32(mm)
ZZZZZ		04/28/2014 23:07	1		CLP II 0.32(mm)
ZZZZZ		04/28/2014 23:24	1		CLP I 0.32(mm)
ZZZZZ		04/28/2014 23:24	1		CLP II 0.32(mm)
ZZZZZ		04/28/2014 23:40	1		CLP I 0.32(mm)
ZZZZZ		04/28/2014 23:40	1		CLP II 0.32(mm)
ZZZZZ		04/28/2014 23:57	1		CLP I 0.32(mm)
ZZZZZ		04/28/2014 23:57	1		CLP II 0.32(mm)
CCV 680-326528/36		04/29/2014 00:13	1	YD28036.D	CLP I 0.32(mm)
CCV 680-326528/36		04/29/2014 00:13	1	YD28036.D	CLP II 0.32(mm)
PIBLK 680-326528/37		04/29/2014 00:29	1	YD28037.D	CLP I 0.32(mm)
PIBLK 680-326528/37		04/29/2014 00:29	1	YD28037.D	CLP II 0.32(mm)

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVIS 680-326528/24 Calibration Date: 04/28/2014 20:55

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP I ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28024.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Lin1		0.5993		0.400	0.125	3.6	30.0
Monobromoacetic acid	Ave	5.701	5.524		0.750	0.125	-3.1	30.0
Dichloroacetic acid	Ave	7.741	7.988		0.980	0.125	3.2	30.0
Trichloroacetic acid	Lin2		13.97		0.380	0.125	6.9	30.0
Dibromoacetic acid	Ave	17.33	18.14		0.380	0.125	4.7	30.0
2,3-Dibromopropionic acid	Ave	7.861	7.716		0.0613	0.0625	-1.8	30.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVIS 680-326528/24 Calibration Date: 04/28/2014 20:55

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP I ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28024.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.67	3.42	3.92
Monobromoacetic acid	4.07	3.82	4.32
Dichloroacetic acid	4.13	3.88	4.38
Trichloroacetic acid	4.64	4.39	4.89
Dibromoacetic acid	5.30	5.05	5.55
2,3-Dibromopropionic acid	6.82	6.72	6.92

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVIS 680-326528/24 Calibration Date: 04/28/2014 20:55

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP II ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28024.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.5971	0.5727		0.400	0.125	-4.1	30.0
Monobromoacetic acid	Ave	4.065	3.926		0.750	0.125	-3.4	30.0
Dichloroacetic acid	Ave	6.204	6.388		0.980	0.125	3.0	30.0
Trichloroacetic acid	Ave	9.245	9.99		0.380	0.125	8.0	30.0
Dibromoacetic acid	Ave	12.60	13.10		0.380	0.125	4.0	30.0
2,3-Dibromopropionic acid	Ave	5.986	5.801		0.0606	0.0625	-3.1	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVIS 680-326528/24 Calibration Date: 04/28/2014 20:55

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP II ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28024.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.03	2.78	3.28
Monobromoacetic acid	3.54	3.29	3.79
Dichloroacetic acid	3.58	3.33	3.83
Trichloroacetic acid	4.07	3.82	4.32
Dibromoacetic acid	4.85	4.60	5.10
2,3-Dibromopropionic acid	6.00	5.90	6.10

FORM VII

GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 680-326528/36 Calibration Date: 04/29/2014 00:13

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP I ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28036.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Lin1		0.6672		0.400	0.0625	8.9	30.0
Monobromoacetic acid	Ave	5.701	5.745		0.750	0.0625	0.8	30.0
Dichloroacetic acid	Ave	7.741	7.924		0.980	0.0625	2.4	30.0
Trichloroacetic acid	Lin2		13.34		0.380	0.0625	4.0	30.0
Dibromoacetic acid	Ave	17.33	17.84		0.380	0.0625	2.9	30.0
2,3-Dibromopropionic acid	Ave	7.861	8.249		0.0525	0.0500	4.9	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 680-326528/36 Calibration Date: 04/29/2014 00:13

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP I ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28036.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.67	3.42	3.92
Monobromoacetic acid	4.07	3.82	4.32
Dichloroacetic acid	4.13	3.88	4.38
Trichloroacetic acid	4.64	4.39	4.89
Dibromoacetic acid	5.30	5.05	5.55
2,3-Dibromopropionic acid	6.82	6.72	6.92

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Instrument ID: CSGY Start Date: 04/29/2014 00:13

Analysis Batch Number: 326529 End Date: 04/29/2014 03:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 680-326529/36		04/29/2014 00:13	1	YD28036.D	CLP I 0.32(mm)
CCVIS 680-326529/36		04/29/2014 00:13	1	YD28036.D	CLP II 0.32(mm)
PIBLK 680-326529/37		04/29/2014 00:29	1	YD28037.D	CLP I 0.32(mm)
PIBLK 680-326529/37		04/29/2014 00:29	1	YD28037.D	CLP II 0.32(mm)
ZZZZZ		04/29/2014 00:46	1		CLP I 0.32(mm)
ZZZZZ		04/29/2014 00:46	1		CLP II 0.32(mm)
ZZZZZ		04/29/2014 01:02	1		CLP I 0.32(mm)
ZZZZZ		04/29/2014 01:02	1		CLP II 0.32(mm)
ZZZZZ		04/29/2014 01:19	1		CLP I 0.32(mm)
ZZZZZ		04/29/2014 01:19	1		CLP II 0.32(mm)
ZZZZZ		04/29/2014 01:35	1		CLP I 0.32(mm)
ZZZZZ		04/29/2014 01:35	1		CLP II 0.32(mm)
ZZZZZ		04/29/2014 01:51	1		CLP I 0.32(mm)
ZZZZZ		04/29/2014 01:51	1		CLP II 0.32(mm)
ZZZZZ		04/29/2014 02:08	1		CLP I 0.32(mm)
ZZZZZ		04/29/2014 02:08	1		CLP II 0.32(mm)
ZZZZZ		04/29/2014 02:24	1		CLP I 0.32(mm)
ZZZZZ		04/29/2014 02:24	1		CLP II 0.32(mm)
ZZZZZ		04/29/2014 02:41	1		CLP I 0.32(mm)
ZZZZZ		04/29/2014 02:41	1		CLP II 0.32(mm)
ZZZZZ		04/29/2014 02:57	1		CLP I 0.32(mm)
ZZZZZ		04/29/2014 02:57	1		CLP II 0.32(mm)
240-36398-4	MSA-DMW-3S-042214	04/29/2014 03:13	1	YD28047.D	CLP I 0.32(mm)
240-36398-4	MSA-DMW-3S-042214	04/29/2014 03:13	1	YD28047.D	CLP II 0.32(mm)
CCV 680-326529/48		04/29/2014 03:30	1	YD28048.D	CLP I 0.32(mm)
CCV 680-326529/48		04/29/2014 03:30	1	YD28048.D	CLP II 0.32(mm)
PIBLK 680-326529/49		04/29/2014 03:46	1	YD28049.D	CLP I 0.32(mm)
PIBLK 680-326529/49		04/29/2014 03:46	1	YD28049.D	CLP II 0.32(mm)

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVIS 680-326529/36 Calibration Date: 04/29/2014 00:13

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP I ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28036.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Lin1		0.6672		0.400	0.0625	8.9	30.0
Monobromoacetic acid	Ave	5.701	5.745		0.750	0.0625	0.8	30.0
Dichloroacetic acid	Ave	7.741	7.924		0.980	0.0625	2.4	30.0
Trichloroacetic acid	Lin2		13.34		0.380	0.0625	4.0	30.0
Dibromoacetic acid	Ave	17.33	17.84		0.380	0.0625	2.9	30.0
2,3-Dibromopropionic acid	Ave	7.861	8.249		0.0525	0.0500	4.9	30.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVIS 680-326529/36 Calibration Date: 04/29/2014 00:13

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP I ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28036.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.67	3.42	3.92
Monobromoacetic acid	4.07	3.82	4.32
Dichloroacetic acid	4.13	3.88	4.38
Trichloroacetic acid	4.64	4.39	4.89
Dibromoacetic acid	5.30	5.05	5.55
2,3-Dibromopropionic acid	6.82	6.72	6.92

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 680-326528/36 Calibration Date: 04/29/2014 00:13

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP II ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28036.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.5971	0.6369		0.400	0.0625	6.7	30.0
Monobromoacetic acid	Ave	4.065	4.204		0.750	0.0625	3.4	30.0
Dichloroacetic acid	Ave	6.204	6.386		0.980	0.0625	2.9	30.0
Trichloroacetic acid	Ave	9.245	9.746		0.380	0.0625	5.4	30.0
Dibromoacetic acid	Ave	12.60	13.03		0.380	0.0625	3.5	30.0
2,3-Dibromopropionic acid	Ave	5.986	6.378		0.0533	0.0500	6.5	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 680-326528/36 Calibration Date: 04/29/2014 00:13

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP II ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28036.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.03	2.78	3.28
Monobromoacetic acid	3.54	3.29	3.79
Dichloroacetic acid	3.58	3.33	3.83
Trichloroacetic acid	4.07	3.82	4.32
Dibromoacetic acid	4.85	4.60	5.10
2,3-Dibromopropionic acid	6.00	5.90	6.10

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVIS 680-326529/36 Calibration Date: 04/29/2014 00:13

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP II ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28036.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.5971	0.6369		0.400	0.0625	6.7	30.0
Monobromoacetic acid	Ave	4.065	4.204		0.750	0.0625	3.4	30.0
Dichloroacetic acid	Ave	6.204	6.386		0.980	0.0625	2.9	30.0
Trichloroacetic acid	Ave	9.245	9.746		0.380	0.0625	5.4	30.0
Dibromoacetic acid	Ave	12.60	13.03		0.380	0.0625	3.5	30.0
2,3-Dibromopropionic acid	Ave	5.986	6.378		0.0533	0.0500	6.5	30.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVIS 680-326529/36 Calibration Date: 04/29/2014 00:13

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP II ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28036.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.03	2.78	3.28
Monobromoacetic acid	3.54	3.29	3.79
Dichloroacetic acid	3.58	3.33	3.83
Trichloroacetic acid	4.07	3.82	4.32
Dibromoacetic acid	4.85	4.60	5.10
2,3-Dibromopropionic acid	6.00	5.90	6.10

FORM VII

GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 680-326529/48 Calibration Date: 04/29/2014 03:30

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP I ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28048.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Lin1		0.5889		0.400	0.125	1.7	30.0
Monobromoacetic acid	Ave	5.701	5.595		0.750	0.125	-1.9	30.0
Dichloroacetic acid	Ave	7.741	8.108		0.980	0.125	4.8	30.0
Trichloroacetic acid	Lin2		14.16		0.380	0.125	8.3	30.0
Dibromoacetic acid	Ave	17.33	18.53		0.380	0.125	6.9	30.0
2,3-Dibromopropionic acid	Ave	7.861	7.644		0.0608	0.0625	-2.8	30.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 680-326529/48 Calibration Date: 04/29/2014 03:30

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP I ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28048.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.67	3.42	3.92
Monobromoacetic acid	4.07	3.82	4.32
Dichloroacetic acid	4.13	3.88	4.38
Trichloroacetic acid	4.64	4.39	4.89
Dibromoacetic acid	5.30	5.05	5.55
2,3-Dibromopropionic acid	6.82	6.72	6.92

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 680-326529/48 Calibration Date: 04/29/2014 03:30

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP II ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28048.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.5971	0.5666		0.400	0.125	-5.1	30.0
Monobromoacetic acid	Ave	4.065	4.216		0.750	0.125	3.7	30.0
Dichloroacetic acid	Ave	6.204	6.597		0.980	0.125	6.3	30.0
Trichloroacetic acid	Ave	9.245	10.65		0.380	0.125	15.2	30.0
Dibromoacetic acid	Ave	12.60	13.62		0.380	0.125	8.2	30.0
2,3-Dibromopropionic acid	Ave	5.986	6.015		0.0628	0.0625	0.5	30.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 680-326529/48 Calibration Date: 04/29/2014 03:30

Instrument ID: CSGY Calib Start Date: 04/25/2014 16:54

GC Column: CLP II ID: 0.32(mm) Calib End Date: 04/25/2014 18:34

Lab File ID: YD28048.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.03	2.78	3.28
Monobromoacetic acid	3.54	3.29	3.79
Dichloroacetic acid	3.58	3.33	3.83
Trichloroacetic acid	4.07	3.82	4.32
Dibromoacetic acid	4.85	4.60	5.10
2,3-Dibromopropionic acid	6.00	5.90	6.10

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: MB 680-326026/10-A

Matrix: Water Date Extracted: 04/24/2014 12:54

Lab File ID:(1) YD25015.D Lab File ID:(2) YD25015.D

Date Analyzed:(1) 04/25/2014 19:24 Date Analyzed:(2) 04/25/2014 19:24

Instrument ID:(1) CSGY Instrument ID:(2) CSGY

GC Column:(1) CLP I ID: 0.32(mm) GC Column:(2) CLP II ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 680-326026/11-A	04/25/2014 19:40	04/25/2014 19:40
MSA-DMW-5S-041814	240-36343-5	04/25/2014 21:03	04/25/2014 21:03

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 680-326026/10-A

Matrix: Water | Lab File ID: YD25015.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: 552.2 | Date Extracted: 04/24/2014 12:54

Sample wt/vol: 40(mL) | Date Analyzed: 04/25/2014 19:24

Con. Extract Vol.: 4(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP I ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326226 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 680-326026/10-A

Matrix: Water Lab File ID: YD25015.D

Analysis Method: 552.2 Date Collected:

Extraction Method: 552.2 Date Extracted: 04/24/2014 12:54

Sample wt/vol: 40(mL) Date Analyzed: 04/25/2014 19:24

Con. Extract Vol.: 4(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP II ID: 0.32(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 326226 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid	85		70-130

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YD25016.D

Lab ID: LCS 680-326026/11-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Monochloroacetic acid	12.5	12.4	99	70-130	
Monobromoacetic acid	12.5	11.2	89	70-130	
Dichloroacetic acid	12.5	11.2	90	70-130	
Dibromoacetic acid	12.5	11.4	92	70-130	
Trichloroacetic acid	12.5	11.6	93	70-130	

Column to be used to flag recovery and RPD values

FORM III 552.2

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Lab Sample ID: MB 680-326208/15-A

Matrix: Water Date Extracted: 04/25/2014 13:27

Lab File ID:(1) YD28026.D Lab File ID:(2) YD28026.D

Date Analyzed:(1) 04/28/2014 21:28 Date Analyzed:(2) 04/28/2014 21:28

Instrument ID:(1) CSGY Instrument ID:(2) CSGY

GC Column:(1) CLP I ID: 0.32(mm) GC Column:(2) CLP II ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 680-326208/16-A	04/28/2014 21:45	04/28/2014 21:45
MSA-DMW-3S-042214	240-36398-4	04/29/2014 03:13	04/29/2014 03:13

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 680-326208/15-A

Matrix: Water Lab File ID: YD28026.D

Analysis Method: 552.2 Date Collected:

Extraction Method: 552.2 Date Extracted: 04/25/2014 13:27

Sample wt/vol: 40(mL) Date Analyzed: 04/28/2014 21:28

Con. Extract Vol.: 4(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP I ID: 0.32(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 326528 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid	88		70-130

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YD28027.D

Lab ID: LCS 680-326208/16-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Monochloroacetic acid	12.5	12.8	102	70-130	
Monobromoacetic acid	12.5	12.1	97	70-130	
Dichloroacetic acid	12.5	11.9	95	70-130	
Dibromoacetic acid	12.5	11.9	95	70-130	
Trichloroacetic acid	12.5	11.3	91	70-130	

Column to be used to flag recovery and RPD values

FORM III 552.2

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: PIBLK 680-326226/14

Matrix: Water Lab File ID: YD25014.D

Analysis Method: 552.2 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/25/2014 19:07

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP I ID: 0.32(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 326226 Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: PIBLK 680-326226/14

Matrix: Water | Lab File ID: YD25014.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/25/2014 19:07

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP II ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326226 | Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	*Monochloroacetic acid*	*0.40*	*U*	*2.0*	*0.40*
79-08-3	*Monobromoacetic acid*	*0.75*	*U*	*1.0*	*0.75*
79-43-6	*Dichloroacetic acid*	*0.98*	*U*	*1.0*	*0.98*
631-64-1	*Dibromoacetic acid*	*0.38*	*U*	*1.0*	*0.38*
76-03-9	*Trichloroacetic acid*	*0.38*	*U*	*1.0*	*0.38*

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: PIBLK 680-326226/26

Matrix: Water Lab File ID: YD25026.D

Analysis Method: 552.2 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/25/2014 22:26

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP I ID: 0.32(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 326226 Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: PIBLK 680-326226/26

Matrix: Water Lab File ID: YD25026.D

Analysis Method: 552.2 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/25/2014 22:26

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP II ID: 0.32(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 326226 Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	*Monochloroacetic acid*	*0.40*	*U*	*2.0*	*0.40*
79-08-3	*Monobromoacetic acid*	*0.75*	*U*	*1.0*	*0.75*
79-43-6	*Dichloroacetic acid*	*0.98*	*U*	*1.0*	*0.98*
631-64-1	*Dibromoacetic acid*	*0.38*	*U*	*1.0*	*0.38*
76-03-9	*Trichloroacetic acid*	*0.38*	*U*	*1.0*	*0.38*

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: PIBLK 680-326528/25

Matrix: Water Lab File ID: YD28025.D

Analysis Method: 552.2 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/28/2014 21:12

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP I ID: 0.32(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 326528 Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: PIBLK 680-326528/25

Matrix: Water | Lab File ID: YD28025.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/28/2014 21:12

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP II ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326528 | Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	*Monochloroacetic acid*	*0.40*	*U*	*2.0*	*0.40*
79-08-3	*Monobromoacetic acid*	*0.75*	*U*	*1.0*	*0.75*
79-43-6	*Dichloroacetic acid*	*0.98*	*U*	*1.0*	*0.98*
631-64-1	*Dibromoacetic acid*	*0.38*	*U*	*1.0*	*0.38*
76-03-9	*Trichloroacetic acid*	*0.38*	*U*	*1.0*	*0.38*

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: PIBLK 680-326528/37

Matrix: Water Lab File ID: YD28037.D

Analysis Method: 552.2 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/29/2014 00:29

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP I ID: 0.32(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 326528 Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: PIBLK 680-326528/37

Matrix: Water | Lab File ID: YD28037.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/29/2014 00:29

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP II ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326528 | Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	*Monochloroacetic acid*	*0.40*	*U*	*2.0*	*0.40*
79-08-3	*Monobromoacetic acid*	*0.75*	*U*	*1.0*	*0.75*
79-43-6	*Dichloroacetic acid*	*0.98*	*U*	*1.0*	*0.98*
631-64-1	*Dibromoacetic acid*	*0.38*	*U*	*1.0*	*0.38*
76-03-9	*Trichloroacetic acid*	*0.38*	*U*	*1.0*	*0.38*

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: PIBLK 680-326529/37

Matrix: Water | Lab File ID: YD28037.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 04/29/2014 00:29

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP I ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326529 | Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: PIBLK 680-326529/37

Matrix: Water Lab File ID: YD28037.D

Analysis Method: 552.2 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/29/2014 00:29

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP II ID: 0.32(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 326529 Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	*Monochloroacetic acid*	*0.40*	*U*	*2.0*	*0.40*
79-08-3	*Monobromoacetic acid*	*0.75*	*U*	*1.0*	*0.75*
79-43-6	*Dichloroacetic acid*	*0.98*	*U*	*1.0*	*0.98*
631-64-1	*Dibromoacetic acid*	*0.38*	*U*	*1.0*	*0.38*
76-03-9	*Trichloroacetic acid*	*0.38*	*U*	*1.0*	*0.38*

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: PIBLK 680-326529/49

Matrix: Water Lab File ID: YD28049.D

Analysis Method: 552.2 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/29/2014 03:46

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP I ID: 0.32(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 326529 Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I

GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: PIBLK 680-326529/49

Matrix: Water Lab File ID: YD28049.D

Analysis Method: 552.2 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 04/29/2014 03:46

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP II ID: 0.32(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 326529 Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	*Monochloroacetic acid*	*0.40*	*U*	*2.0*	*0.40*
79-08-3	*Monobromoacetic acid*	*0.75*	*U*	*1.0*	*0.75*
79-43-6	*Dichloroacetic acid*	*0.98*	*U*	*1.0*	*0.98*
631-64-1	*Dibromoacetic acid*	*0.38*	*U*	*1.0*	*0.38*
76-03-9	*Trichloroacetic acid*	*0.38*	*U*	*1.0*	*0.38*

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): CLP I ID: 0.32 (mm) GC Column (2): CLP II ID: 0.32 (mm)

Client Sample ID	Lab Sample ID	23DPA1 #	23DPA2 #
MSA-DMW-5S-041814	240-36343-5		112
MSA-DMW-3S-042214	240-36398-4		109
	MB 680-326026/10-A		85
	MB 680-326208/15-A	88	
	LCS 680-326026/11-A	93	
	LCS 680-326208/16-A		88

	QC LIMITS
23DPA = 2,3-Dibromopropionic acid	70-130

Column to be used to flag recovery values

FORM II 552.2

FORM VIII

GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Sample No.: ICIS 680-326226/9 Date Analyzed: 04/25/2014 17:44

Instrument ID: CSGY GC Column: CLP I ID: 0.32(mm)

Lab File ID (Standard): YD25009.D Heated Purge: (Y/N) N

Calibration ID: 28905

		TCP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		22518712	4.54				
UPPER LIMIT		29274326	4.84				
LOWER LIMIT		15763098	4.24				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-326226/13		22902668	4.54				
PIBLK 680-326226/14		23100038	4.54				
MB 680-326026/10-A		22824203	4.54				
LCS 680-326026/11-A		22895611	4.54				
240-36343-5	MSA-DMW-5S-041814	23698690	4.54				
CCV 680-326226/25		22596799	4.54				
PIBLK 680-326226/26		23418963	4.54				

TCP = 1,2,3-Trichloropropane

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 552.2

FORM VIII

GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Sample No.: ICIS 680-326226/9 Date Analyzed: 04/25/2014 17:44

Instrument ID: CSGY GC Column: CLP II ID: 0.32(mm)

Lab File ID (Standard): YD25009.D Heated Purge: (Y/N) N

Calibration ID: 28906

		TCP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		26537922	4.13				
UPPER LIMIT		34499299	4.43				
LOWER LIMIT		18576545	3.83				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-326226/13		26991799	4.13				
PIBLK 680-326226/14		25259959	4.13				
MB 680-326026/10-A		27042864	4.13				
LCS 680-326026/11-A		27207374	4.13				
240-36343-5	MSA-DMW-5S-041814	26577445	4.13				
CCV 680-326226/25		26924053	4.13				
PIBLK 680-326226/26		25287737	4.13				

TCP = 1,2,3-Trichloropropane

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 552.2

FORM VIII

GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Sample No.: CCVIS 680-326528/24 Date Analyzed: 04/28/2014 20:55

Instrument ID: CSGY GC Column: CLP I ID: 0.32(mm)

Lab File ID (Standard): YD28024.D Heated Purge: (Y/N) N

Calibration ID: 28905

		TCP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		21731367	4.54				
UPPER LIMIT		28250777	4.84				
LOWER LIMIT		15211957	4.24				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-326208/15-A		23688511	4.54				
LCS 680-326208/16-A		24001699	4.54				
CCV 680-326528/36		23029709	4.54				

TCP = 1,2,3-Trichloropropane

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 552.2

FORM VIII

GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Sample No.: CCVIS 680-326528/24 Date Analyzed: 04/28/2014 20:55

Instrument ID: CSGY GC Column: CLP II ID: 0.32(mm)

Lab File ID (Standard): YD28024.D Heated Purge: (Y/N) N

Calibration ID: 28906

		TCP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		25737039	4.13				
UPPER LIMIT		33458151	4.43				
LOWER LIMIT		18015927	3.83				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-326208/15-A		28311490	4.13				
LCS 680-326208/16-A		28221664	4.13				
CCV 680-326528/36		27182189	4.13				

TCP = 1,2,3-Trichloropropane

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 552.2

FORM VIII

GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Sample No.: CCVIS 680-326529/36 Date Analyzed: 04/29/2014 00:13

Instrument ID: CSGY GC Column: CLP I ID: 0.32(mm)

Lab File ID (Standard): YD28036.D Heated Purge: (Y/N) N

Calibration ID: 28905

		TCP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		23029709	4.54				
UPPER LIMIT		29938622	4.84				
LOWER LIMIT		16120796	4.24				
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-36398-4	MSA-DMW-3S-042214	24607482	4.54				
CCV 680-326529/48		22775434	4.54				

TCP = 1,2,3-Trichloropropane

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 552.2

FORM VIII

GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-36343-1

SDG No.:

Sample No.: CCVIS 680-326529/36 Date Analyzed: 04/29/2014 00:13

Instrument ID: CSGY GC Column: CLP II ID: 0.32(mm)

Lab File ID (Standard): YD28036.D Heated Purge: (Y/N) N

Calibration ID: 28906

		TCP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		27182189	4.13				
UPPER LIMIT		35336846	4.43				
LOWER LIMIT		19027532	3.83				
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-36398-4	MSA-DMW-3S-042214	28611031	4.13				
CCV 680-326529/48		26855898	4.13				

TCP = 1,2,3-Trichloropropane

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 552.2

VOC CALCULATION

	SAMPLE MSA-MW-49D-041714	
TARGET ANALYTE	**trichloroethene**	
ANALYTE RESPONSE	1086772	
INTERNAL STANDARD	fluorobenzene	
I.S. RESPONSE	1001247	
I.S. CONCENTRATION	20	µg/l
ANALYTE CAL. RF	0.3128	
DILUTION FACTOR (DF)	83.33	
INITIAL SAMPLE VOLUME - V1	5	ml
FINAL SAMPLE VOLUME - V2	5	ml

$$\frac{\text{(ANALYTE RESPONSE) x (I.S. CONCENTRATION) X DF x V2}}{\text{(I.S. RESPONSE) x (CAL. R.F.) x V1}} = \textbf{5783.12}\ \text{µg/l}$$

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-49D-041714 | Lab Sample ID: 240-36343-3

Matrix: Water | Lab File ID: U1237317.D

Analysis Method: 8260C | Date Collected: 04/17/2014 15:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/26/2014 14:12

Soil Aliquot Vol: | Dilution Factor: 83.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128028 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	24	U	83	24
67-66-3	Chloroform	13	U	83	13
74-87-3	Chloromethane	25	U	83	25
156-59-2	cis-1,2-Dichloroethene	1600		83	14
10061-01-5	cis-1,3-Dichloropropene	12	U	83	12
74-95-3	Dibromomethane	23	U *	83	23
74-97-5	Bromochloromethane	24	U	83	24
75-71-8	Dichlorodifluoromethane	26	U	83	26
75-27-4	Bromodichloromethane	12	U	83	12
75-65-0	tert-Butyl alcohol	320	U	4200	320
100-41-4	Ethylbenzene	14	U	83	14
87-68-3	Hexachlorobutadiene	25	U	83	25
108-20-3	Diisopropyl ether	120	U	830	120
98-82-8	Isopropylbenzene	11	U	83	11
1634-04-4	Methyl tert-butyl ether	14	U	83	14
75-09-2	Methylene Chloride	27	U	83	27
179601-23-1	m-Xylene & p-Xylene	20	U	170	20
91-20-3	Naphthalene	20	U	83	20
104-51-8	n-Butylbenzene	10	U	83	10
103-65-1	N-Propylbenzene	12	U	83	12
95-47-6	o-Xylene	12	U	83	12
135-98-8	sec-Butylbenzene	11	U	83	11
100-42-5	Styrene	9.2	U	83	9.2
994-05-8	Tert-amyl methyl ether	5.6	U	420	5.6
637-92-3	Ethyl tert-butyl ether	9.2	U	420	9.2
127-18-4	Tetrachloroethene	24	U	83	24
108-88-3	Toluene	11	U	83	11
156-60-5	trans-1,2-Dichloroethene	16	U	83	16
10061-02-6	trans-1,3-Dichloropropene	16	U	83	16
79-01-6	Trichloroethene	5800		83	14
75-69-4	Trichlorofluoromethane	17	U	83	17
108-05-4	Vinyl acetate	16	U	170	16
75-01-4	Vinyl chloride	490		83	18
1330-20-7	Xylenes, Total	12	U	170	12
98-06-6	tert-Butylbenzene	11	U	83	11
106-93-4	1,2-Dibromoethane	20	U	83	20

Report Date: 28-Apr-2014 07:53:08 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\A3UX12\20140426-30374.b\U1237317.D
Lims ID: 240-36343-B-3 Lab Sample ID: 240-36343-3
Client ID: MSA-MW-49D-041714
Sample Type: Client
Inject. Date: 26-Apr-2014 14:12:30 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 83.3300
Sample Info: 240-0030374-014
Operator ID: 001904 Instrument ID: A3UX12

Method: \\Ncchrom\ChromData\A3UX12\20140426-30374.b\8260_12.m
Limit Group: MSV 8260DOD ICAL
Last Update: 28-Apr-2014 07:52:21 Calib Date: 18-Mar-2014 23:58:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A3UX12\20140318-29119.b\U1236349.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: quayler Date: 28-Apr-2014 07:41:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.404	5.404	0.000	99	1001247	20.0	
* 2 Chlorobenzene-d5	117	8.220	8.221	-0.001	85	785848	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.611	10.611	0.000	93	438864	20.0	
$ 4 Dibromofluoromethane (Surr	113	4.824	4.824	0.000	58	220061	16.9	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.120	5.120	0.000	90	258381	15.2	
$ 6 Toluene-d8 (Surr)	98	6.836	6.836	0.000	92	955358	16.6	
$ 7 4-Bromofluorobenzene (Surr	95	9.404	9.404	0.000	94	329399	13.9	
9 Dichlorodifluoromethane	85		1.653					
10 Chloromethane	50		1.807					
11 Vinyl chloride	62	1.913	1.902	0.011	91	151290	5.89	
13 Bromomethane	94		2.221					
14 Chloroethane	64		2.316					
16 Trichlorofluoromethane	101		2.529					
21 Acetone	43		2.967					
22 1,1-Dichloroethene	61	2.978	2.967	0.011	65	58946	1.78	M
20 1,1,2-Trichloro-1,2,2-trif	101		2.978					
24 Carbon disulfide	76		3.168					
28 Methylene Chloride	49		3.381					
29 2-Methyl-2-propanol	59		3.416					
31 trans-1,2-Dichloroethene	61	3.582	3.570	0.012	45	3984	0.1645	
32 Methyl tert-butyl ether	73		3.570					
34 1,1-Dichloroethane	63	3.925	3.925	0.000	23	8070	0.2775	
35 Vinyl acetate	43		3.949					
36 Isopropyl ether	87		3.973					
38 Tert-butyl ethyl ether	59		4.280					
40 2-Butanone (MEK)	43		4.422					
39 cis-1,2-Dichloroethene	61	4.422	4.422	0.000	67	433837	19.4	
41 2,2-Dichloropropane	77		4.422					
45 Chlorobromomethane	49		4.623					
47 Chloroform	83		4.682					
48 1,1,1-Trichloroethane	97	4.860	4.860	0.000	50	10657	0.6758	
50 1,1-Dichloropropene	75		4.990					

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
51 Carbon tetrachloride	117		5.002					
54 1,2-Dichloroethane	62		5.179					
53 Benzene	78		5.179					
55 Tert-amyl methyl ether	73		5.250					
58 Trichloroethene	130	5.735	5.735	0.000	91	1086772	69.4	
61 1,2-Dichloropropane	63		5.937					
64 Dibromomethane	174		6.043					
65 Dichlorobromomethane	83		6.173					
67 2-Chloroethyl vinyl ether	63		6.434					
68 cis-1,3-Dichloropropene	75		6.576					
69 4-Methyl-2-pentanone (MIBK	43		6.706					
70 Toluene	91		6.895					
71 trans-1,3-Dichloropropene	75		7.084					
75 Tetrachloroethene	166		7.416					
76 1,3-Dichloropropane	76		7.428					
77 2-Hexanone	43		7.487					
79 Chlorodibromomethane	129		7.652					
80 Ethylene Dibromide	107		7.771					
82 Chlorobenzene	112		8.256					
83 1,1,1,2-Tetrachloroethane	131		8.327					
84 Ethylbenzene	106		8.351					
85 m-Xylene & p-Xylene	106		8.469					
86 o-Xylene	106		8.871					
87 Styrene	104		8.883					
88 Bromoform	173		9.072					
89 Isopropylbenzene	105		9.238					
91 1,1,2,2-Tetrachloroethane	83		9.534					
92 Bromobenzene	156		9.569					
93 1,2,3-Trichloropropane	110		9.593					
95 N-Propylbenzene	120		9.664					
96 2-Chlorotoluene	126		9.759					
98 4-Chlorotoluene	126		9.877					
99 tert-Butylbenzene	119		10.185					
101 1,2,4-Trimethylbenzene	105		10.232					
102 sec-Butylbenzene	105		10.421					
103 1,3-Dichlorobenzene	146		10.540					
104 4-Isopropyltoluene	119		10.563					
105 1,4-Dichlorobenzene	146		10.634					
106 1,2,3-Trimethylbenzene	105		10.682					
108 n-Butylbenzene	91		11.001					
109 1,2-Dichlorobenzene	146		11.025					
110 1,2-Dibromo-3-Chloropropan	157		11.853					
112 1,2,4-Trichlorobenzene	180		12.741					
113 Hexachlorobutadiene	225		12.930					
114 Naphthalene	128		13.013					
115 1,2,3-Trichlorobenzene	180		13.273					
S 126 Xylenes, Total	106		16.530					
T 133 Chlorodifluoromethane TIC	51		1.650					

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: STD8260 240-128028/2 Calibration Date: 04/26/2014 09:26

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1237305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4988	0.5299	0.1000	0.310	0.0200	6.2	20.0
Chloromethane	Ave	0.5020	0.5591	0.1000	0.300	0.0200	11.4	20.0
Vinyl chloride	Ave	0.5127	0.5719	0.1000	0.220	0.0200	11.5	20.0
Bromomethane	Ave	0.2464	0.3004	0.0500	0.410	0.0200	21.9*	20.0
Chloroethane	Ave	0.3073	0.3361	0.0500	0.290	0.0200	9.4	20.0
Dichlorofluoromethane	Ave	0.6201	0.6032		0.420	0.0200	-2.7	20.0
Trichlorofluoromethane	Lin1		0.5658	0.1000	0.210	0.0200	15.2	20.0
Ethyl ether	Ave	0.2789	0.2744		0.310	0.0200	-1.6	20.0
Acrolein	Ave	0.0458	0.0466		2.20	0.100	1.7	20.0
1,1-Dichloroethene	Ave	0.6619	0.6580	0.1000	0.190	0.0200	-0.6	20.0
Acetone	Lin1		0.1107	0.0500	1.10	0.0400	11.1	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3282	0.3637	0.0500	0.280	0.0200	10.8	20.0
Iodomethane	Ave	0.4775	0.5718		0.180	0.0200	19.7	20.0
Carbon disulfide	Ave	1.240	1.361	0.1000	0.130	0.0200	9.8	20.0
3-Chloro-1-propene	Ave	0.1910	0.2400		0.350	0.0200	25.7*	20.0
Methyl acetate	Ave	0.2571	0.2600	0.1000	0.380	0.100	1.1	20.0
Methylene Chloride	Ave	0.5455	0.5234	0.1000	0.330	0.0200	-4.0	20.0
tert-Butyl alcohol	Ave	0.0269	0.0336		3.90	0.200	25.2*	20.0
Acrylonitrile	Ave	0.1282	0.1425		2.00	0.200	11.2	20.0
Methyl tert-butyl ether	Ave	0.9500	0.9208	0.1000	0.170	0.0200	-3.1	20.0
trans-1,2-Dichloroethene	Ave	0.4839	0.4555	0.1000	0.190	0.0200	-5.9	20.0
Hexane	Lin1		0.3141		0.260	0.0200	4.2	20.0
1,1-Dichloroethane	Ave	0.5808	0.5193	0.1000	0.150	0.0200	-10.6	20.0
Vinyl acetate	Ave	0.4223	0.3792		0.190	0.0192	-10.2	20.0
2,2-Dichloropropane	Ave	0.2172	0.2034		0.130	0.0200	-6.4	20.0
2-Butanone (MEK)	Lin1		0.1628	0.0500	0.570	0.0400	8.1	20.0
cis-1,2-Dichloroethene	Ave	0.4465	0.4293	0.1000	0.170	0.0200	-3.9	20.0
Bromochloromethane	Ave	0.2599	0.2970		0.290	0.0200	14.3	20.0
Tetrahydrofuran	Lin1		0.0984		0.420	0.0400	2.7	20.0
Chloroform	Ave	0.5683	0.4780	0.2000	0.160	0.0200	-15.9	20.0
1,1,1-Trichloroethane	Ave	0.3150	0.2868	0.1000	0.220	0.0200	-9.0	20.0
Cyclohexane	Ave	0.4348	0.3260	0.1000	0.120	0.0200	-25.0*	20.0
1,1-Dichloropropene	Ave	0.4041	0.3827		0.130	0.0200	-5.3	20.0
Carbon tetrachloride	Ave	0.2352	0.2487	0.1000	0.130	0.0200	5.8	20.0
Isobutyl alcohol	Ave	0.0052	0.0071		8.20	0.500	36.7*	20.0
1,2-Dichloroethane	Ave	0.4374	0.3775	0.1000	0.220	0.0200	-13.7	20.0
Benzene	Ave	1.334	1.305	0.5000	0.130	0.0200	-2.2	20.0
n-Heptane	Lin1		0.0704		0.180	0.0200	-8.8	20.0
Trichloroethene	Ave	0.3128	0.3274	0.2000	0.170	0.0200	4.6	20.0
Methylcyclohexane	Ave	0.3956	0.3367	0.1000	0.130	0.0200	-14.9	20.0

SVOC CALCULATION LIQUIDS

	SAMPLE MSA-DMW-3S-042214	
TARGET ANALYTE	1,4-dioxane	
ANALYTE RESPONSE	564817	
INTERNAL STANDARD	1,4-dichlorobenzene-d4	
I.S. RESPONSE	173076	
I.S. CONCENTRATION	400	ng/ml
ANALYTE CAL. RELATIVE RESPONSE FACTOR (RRF)	0.5905	
VOLUME OF FINAL EXTRACT - V2	5	ml
VOLUME OF INITIAL EXTRACT - V1	250	ml
DILUTION FACTOR (DF)	10	
CONVERSION FACTOR - CF	1	

$$\frac{\text{(ANALYTE RESPONSE) X (I.S. CONCENTRATION) X DF X V2}}{\text{(I.S. RESPONSE) X (CAL. RRF) X (V1) X CF}} = 442.1208 \text{ ng/ml or ug/l}$$

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-3S-042214 | Lab Sample ID: 240-36398-4

Matrix: Water | Lab File ID: 0430009.D

Analysis Method: 8270C | Date Collected: 04/22/2014 12:00

Extract. Method: 3510C | Date Extracted: 04/27/2014 11:00

Sample wt/vol: 250(mL) | Date Analyzed: 04/30/2014 10:31

Con. Extract Vol.: 5(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 128487 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	440	B	10	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	72		29-110
367-12-4	2-Fluorophenol (Surr)	78		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	80		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	84		31-110
4165-62-2	Phenol-d5 (Surr)	83		10-110
1718-51-0	Terphenyl-d14 (Surr)	90		31-115

Report Date: 01-May-2014 06:19:33 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\A4AG2\20140430-30498.b\0430009.D
Lims ID: 240-36398-K-4-A Lab Sample ID: 240-36398-4
Client ID: MSA-DMW-3S-042214
Sample Type: Client
Inject. Date: 30-Apr-2014 10:31:30 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info: 240-0030498-009
Misc. Info.: 240-36398-K-4-A =240-36398-K-4-A
Operator ID: Instrument ID: A4AG2

Method: \\Ncchrom\ChromData\A4AG2\20140430-30498.b\LVI AG2 8270.m
Limit Group: MSS 8270C ICAL
Last Update: 01-May-2014 06:19:08 Calib Date: 28-Apr-2014 11:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A4AG2\20140428-30405.b\0428010.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: hulat Date: 30-Apr-2014 11:22:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.227	6.226	0.001	93	173076	400.0	
* 2 Naphthalene-d8	136	7.291	7.291	0.000	99	670554	400.0	
* 3 Acenaphthene-d10	164	8.772	8.772	0.000	91	387960	400.0	
* 4 Phenanthrene-d10	188	10.035	10.035	0.000	97	650189	400.0	
* 5 Chrysene-d12	240	12.618	12.623	-0.005	96	580131	400.0	
* 6 Perylene-d12	264	14.715	14.720	-0.005	96	484062	400.0	
$ 7 2-Fluorophenol	112	5.114	5.119	-0.005	90	89675	156.0	
$ 8 Phenol-d5	99	5.879	5.884	-0.005	95	114578	166.5	
$ 9 Nitrobenzene-d5	82	6.676	6.681	-0.005	85	102923	167.3	
$ 10 2-Fluorobiphenyl (Surr)	172	8.184	8.184	0.000	98	179946	144.0	
$ 11 2,4,6-Tribromophenol	330	9.436	9.436	0.000	81	21018	160.0	
$ 12 Terphenyl-d14	244	11.404	11.404	0.000	96	179797	179.1	
26 1,4-Dioxane	88	3.477	3.477	0.000	91	564817	2210.7	

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: STD6 240-128487/2 Calibration Date: 04/30/2014 07:46

Instrument ID: A4AG2 Calib Start Date: 04/25/2014 10:09

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/25/2014 13:17

Lab File ID: 0430002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5905	0.5842		0.989	1.00	-1.1	50.0
N-Nitrosodimethylamine	Lin1		0.7944		1.08	1.00	7.8	50.0
Pyridine	Ave	1.354	1.470		1.09	1.00	8.6	50.0
Benzaldehyde	Lin1		0.6477		1.93	2.00	-3.7	50.0
Phenol	Ave	1.655	1.727		1.04	1.00	4.4	20.0
Aniline	Lin1		2.056		1.01	1.00	0.9	50.0
Bis(2-chloroethyl)ether	Ave	1.337	1.342		1.00	1.00	0.3	50.0
2-Chlorophenol	Ave	1.416	1.417		1.00	1.00	0.1	50.0
n-Decane	Ave	1.325	1.274		0.961	1.00	-3.9	50.0
1,3-Dichlorobenzene	Ave	1.524	1.423		0.933	1.00	-6.7	50.0
1,4-Dichlorobenzene	Ave	1.529	1.455		0.951	1.00	-4.9	20.0
Benzyl alcohol	Ave	0.8073	0.8514		1.05	1.00	5.5	50.0
1,2-Dichlorobenzene	Ave	1.467	1.388		0.946	1.00	-5.4	50.0
2-Methylphenol	Ave	1.212	1.248		1.03	1.00	3.0	50.0
bis (2-chloroisopropyl) ether	Ave	1.425	1.378		0.967	1.00	-3.3	50.0
Indene	Ave	2.407	2.312		1.92	2.00	-4.0	50.0
3 & 4 Methylphenol	Ave	1.263	1.293		1.02	1.00	2.4	50.0
N-Nitrosodi-n-propylamine	Ave	1.007	1.027	0.0500	1.02	1.00	2.0	50.0
Acetophenone	Ave	1.833	1.871		1.02	1.00	2.0	50.0
Hexachloroethane	Ave	0.6055	0.6059		1.00	1.00	0.0	50.0
Nitrobenzene	Ave	0.3628	0.3786		1.04	1.00	4.4	50.0
Isophorone	Ave	0.6002	0.6381		1.06	1.00	6.3	50.0
2-Nitrophenol	Ave	0.1640	0.1862		1.14	1.00	13.5	20.0
2,4-Dimethylphenol	Ave	0.2991	0.3338		1.12	1.00	11.6	50.0
Benzoic acid	Ave	0.1786	0.1802		2.02	2.00	0.9	50.0
Bis(2-chloroethoxy)methane	Ave	0.3815	0.4137		1.08	1.00	8.4	50.0
2,4-Dichlorophenol	Ave	0.2476	0.2620		1.06	1.00	5.8	20.0
1,2,4-Trichlorobenzene	Ave	0.2900	0.2807		0.968	1.00	-3.2	50.0
Naphthalene	Ave	1.016	1.010		0.994	1.00	-0.6	50.0
4-Chloroaniline	Qua		0.2246		0.909	1.00	-9.1	50.0
Hexachlorobutadiene	Ave	0.1413	0.1344		0.951	1.00	-4.9	20.0
Caprolactam	Ave	0.1016	0.1088		2.14	2.00	7.0	50.0
4-Chloro-3-methylphenol	Lin1		0.2895		1.06	1.00	6.5	20.0
2-Methylnaphthalene	Ave	0.6782	0.6497		0.958	1.00	-4.2	50.0
1-Methylnaphthalene	Ave	0.6355	0.6123		0.964	1.00	-3.6	50.0
Hexachlorocyclopentadiene	Lin1		0.2462	0.0500	0.894	1.00	-10.6	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4610	0.4337		0.941	1.00	-5.9	50.0
2,4,6-Trichlorophenol	Ave	0.3214	0.3188		0.992	1.00	-0.8	20.0
2,4,5-Trichlorophenol	Ave	0.3309	0.3461		1.05	1.00	4.6	50.0
1,1'-Biphenyl	Ave	1.423	1.407		0.989	1.00	-1.1	50.0

TPH CALCULATION

	SAMPLE MSA-DMW-5S-041814	
TARGET ANALYTE	TPH C6-C10	
ANALYTE RESPONSE	130216912	
ANALYTE AVERAGE RESPONSE	188667	
		ml
		ml
DILUTION FACTOR (DF)	5	

$$\frac{\text{(ANALYTE RESPONSE) X DF X Vol final X CF1}}{\text{(AVERAGE ANALYTE RESPONSE) X (vol. initial)}} = 3450.9721 \text{ ug/l}$$

FORM I

GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-DMW-5S-041814 | Lab Sample ID: 240-36343-5

Matrix: Water | Lab File ID: YF042356.D

Analysis Method: 8015B | Date Collected: 04/18/2014 15:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/24/2014 20:34

Soil Aliquot Vol.: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127755 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	3500		500	130

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	88		40-133

Report Date: 25-Apr-2014 08:54:04 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\YPID\20140424-30305.b\YF042356.D
Lims ID: 240-36343-E-5 Lab Sample ID: 240-36343-5
Client ID: MSA-DMW-5S-041814
Sample Type: Client
Inject. Date: 24-Apr-2014 20:34:53 ALS Bottle#: 1 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 240-0030305-007
Operator ID: 431523 Instrument ID: YPID

Method: \\Ncchrom\ChromData\YPID\20140424-30305.b\Y80158021.m
Limit Group: GCV 8015B GRO ICAL
Last Update: 25-Apr-2014 08:54:01 Calib Date: 01-Apr-2014 16:22:10
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\YPID\20140401-29543.b\YF040109.D

Column 1 : Det: GC FID1A
Process Host: XAWRK034

First Level Reviewer: grantk Date: 25-Apr-2014 08:51:20

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	9.793	9.803	-0.010	1862196	8.82	
A 5 C6-C10	11.981	(5.057-18.905)		130216912	690.2	M

QC Flag Legend

Review Flags
M - Manually Integrated

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVRT 240-127755/2 Calibration Date: 04/24/2014 17:22

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF042351.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	191288		811	800	1.4	15.0
C6-C12	Ave	208879	218639		837	800	4.7	15.0
Trifluorotoluene (Surr)	Ave	211200	192924		9.13	10.0	-8.7	15.0

TPH CALCULATION

	SAMPLE MSA-DMW-3S-042214	
TARGET ANALYTE	TPH C10-C32	
ANALYTE RESPONSE	19404941	
ANALYTE AVERAGE RESPONSE	455797	
VOLUME OF FINAL EXTRACT	5	ml
VOLUME OF INITIAL EXTRACT	240	ml
DILUTION FACTOR (DF)	1	
CORRECTION FACTOR - CF1	1000	ml to l

$$\frac{\text{(ANALYTE RESPONSE) X DF X Vol final X CF1}}{\text{(AVERAGE ANALYTE RESPONSE) X (vol. initial)}} = 886.9510 \text{ ug/l}$$

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1
SDG No.:
Client Sample ID: MSA-DMW-3S-042214 | Lab Sample ID: 240-36398-4
Matrix: Water | Lab File ID: P14F042517.D
Analysis Method: 8015B | Date Collected: 04/22/2014 12:00
Extraction Method: 3510C | Date Extracted: 04/24/2014 08:27
Sample wt/vol: 240(mL) | Date Analyzed: 04/25/2014 19:49
Con. Extract Vol.: 5(mL) | Dilution Factor: 1
Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)
% Moisture: | GPC Cleanup:(Y/N) N
Analysis Batch No.: 127973 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	890		520	250

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	82		40-160

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\A2HP14F\20140425-30359.b\P14F042517.D
Lims ID: 240-36398-J-4-A Lab Sample ID: 240-36398-4
Client ID: MSA-DMW-3S-042214
Sample Type: Client
Inject. Date: 25-Apr-2014 19:49:30 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: 402582 Instrument ID: A2HP14F

Method: \\Ncchrom\ChromData\A2HP14F\20140425-30359.b\TPH14F.m
Limit Group: GC TPH DIESEL ICAL
Last Update: 28-Apr-2014 15:00:22 Calib Date: 25-Nov-2013 20:22:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A2HP14F\20131125-26063.b\P14F112512.D

Column 1 : Det: GC FID1A
Process Host: XAWRK040

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/ul	Flags
A 15 Diesel					
5.840	(2.967-8.713)		18899027	41.5	
A 17 C10-C32					
6.334	(2.967-9.701)		19404941	42.6	
$ 35 o-Terphenyl					
6.190	6.189	0.001	3458564	6.57	

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127973/11 Calibration Date: 04/25/2014 17:44

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F042511.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	481551		106	100	5.7	
o-Terphenyl (Surr)	Ave	526657	535.3		8130	8000	-99.9	

PERCHLORATE CALCULATION LIQUIDS

	SAMPLE MSA-MW-49D-041714		
TARGET ANALYTE	PERCHLORATE		
ANALYTE RESPONSE	30474919		
INTERNAL STANDARD	18-O PERCHLORATE		
I.S. RESPONSE	386700011		
I.S. CONCENTRATION	10.1	NG/ML	
ANALYTE CAL. RELATIVE RESPONSE FACTOR (RRF)	0.8611		
VOLUME OF FINAL EXTRACT	4	ML	
VOLUME OF INITIAL EXTRACT	4	ML	
DILUTION FACTOR (DF)	1		

$$\frac{\text{(ANALYTE RESPONSE) X (I.S. CONCENTRATION) X DF X Vol final}}{\text{(I.S. RESPONSE) X (CAL. RRF) X (vol. initial)}} = 0.9243 \text{ ng/ml or ug/l}$$

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Client Sample ID: MSA-MW-49D-041714 Lab Sample ID: 240-36343-3

Matrix: Water Lab File ID: 23APR14-Per-055.d

Analysis Method: 6850 Date Collected: 04/17/2014 15:40

Extraction Method: Filtration Date Extracted: 04/23/2014 09:10

Sample wt/vol: 4.00(mL) Date Analyzed: 04/24/2014 01:46

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41075 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.92		0.50	0.082

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A5\20140423-12027.b\23APR14-Per-055.d
Lims ID: 240-36343-D-3-A Lab Sample ID: 320-36343-3
Client ID: MSA-MW-49D-041714
Sample Type: Client
Inject. Date: 24-Apr-2014 01:46:47 ALS Bottle#: 0 Worklist Smp#: 128
Injection Vol: 80.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Instrument ID: A5

Method: \\Sacchrom\ChromData\A5\20140423-12027.b\6850_A5.m
Limit Group: LC 6850 ICAL
Last Update: 24-Apr-2014 13:08:50 Calib Date: 23-Apr-2014 15:37:15
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A5\20140423-12027.b\23APR14-Per-012.d

Column 1 : Det: MS QQQ
Process Host: XAWRK032

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
107.0 > 89.0	9.716	9.945	-0.229		386700011	10.1		8655	
109.0 > 91.0	9.726	9.945	-0.219		116177671		3.33(2.30-3.80)	3745	
2 Perchlorate									
99.0 > 83.0	9.723	9.949	-0.226	1.001	30474919	0.9219		383	
101.0 > 85.0	9.733	9.949	-0.216	1.002	11016714		2.77(2.30-3.80)	351	

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 320-41075/120 Calibration Date: 04/23/2014 23:51

Instrument ID: A5 Calib Start Date: 04/23/2014 13:45

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 04/23/2014 15:37

Lab File ID: 23APR14-Per-047.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8611	0.9149		2.13	2.00	6.3	15.0

Method 8015B - GRO

Gasoline Range Organics (GC) by Method 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: YPID Start Date: 04/01/2014 13:08

Analysis Batch Number: 124780 End Date: 04/01/2014 17:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-124780/4 IC		04/01/2014 13:08	1	YF040104.D	RTX-VRX 0.45(mm)
STD2 240-124780/5 IC		04/01/2014 13:46	1	YF040105.D	RTX-VRX 0.45(mm)
STD3 240-124780/6 IC		04/01/2014 14:25	1	YF040106.D	RTX-VRX 0.45(mm)
STD4 240-124780/7 ICRT		04/01/2014 15:04	1	YF040107.D	RTX-VRX 0.45(mm)
STD5 240-124780/8 IC		04/01/2014 15:43	1	YF040108.D	RTX-VRX 0.45(mm)
STD6 240-124780/9 IC		04/01/2014 16:22	1	YF040109.D	RTX-VRX 0.45(mm)
ICV 240-124780/10		04/01/2014 17:01	1	YF040110.D	RTX-VRX 0.45(mm)

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Gasoline Range Organics [C6 - C10]	204584 184488	200740 176831	187062	178295	Ave		188666.715				6.1		20.0			
C6-C12	235895 200911	223834 193438	204656	194539	Ave		208878.888				8.2		20.0			
Trifluorotoluene (Surr)	256304 194760	219953 178223	216487	201472	Ave		211199.772				13.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Gasoline Range Organics [C6 - C10]	11.937	11.937	11.937	11.937	11.937	11.937					5.000 - 18.927	11.937
C6-C12	13.475	13.475	13.475	13.475	13.475	13.475					5.000 - 22.005	13.475
Trifluorotoluene (Surr)	9.775	9.786	9.784	9.782	9.784	9.783					9.532 - 10.032	9.782

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-36343-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Gasoline Range Organics [C6 - C10]	Ave	20458395 282929804	40148085	74824833	142635995	221385250	100 1600	200	400	800	1200
C6-C12	Ave	23589536 309501068	44766859	81862354	155631080	241092921	100 1600	200	400	800	1200
Trifluorotoluene (Surr)	Ave	256304 8911159	439906	1082433	2014719	3895199	1.00 50.0	2.00	5.00	10.0	20.0

Curve Type Legend:
Ave = Average

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICV 240-124780/10 Calibration Date: 04/01/2014 17:01

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF040110.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	185962		789	800	-1.4	20.0
C6-C12	Ave	208879	209349		802	800	0.2	20.0
Trifluorotoluene (Surr)	Ave	211200	222713		10.5	10.0	5.5	20.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICV 240-124780/10 Calibration Date: 04/01/2014 17:01

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF040110.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.96	5.00	18.93
C6-C12	13.50	5.00	22.01
Trifluorotoluene (Surr)	9.79	9.53	10.03

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: YPID Start Date: 04/23/2014 11:05

Analysis Batch Number: 127543 End Date: 04/23/2014 23:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-127543/4		04/23/2014 11:05	1	YF042304.D	RTX-VRX 0.45(mm)
MB 240-127543/5		04/23/2014 11:43	1	YF042305.D	RTX-VRX 0.45(mm)
LCS 240-127543/6		04/23/2014 12:22	1	YF042306.D	RTX-VRX 0.45(mm)
ZZZZZ		04/23/2014 13:00	1		RTX-VRX 0.45(mm)
ZZZZZ		04/23/2014 13:39	100		RTX-VRX 0.45(mm)
ZZZZZ		04/23/2014 14:17	20		RTX-VRX 0.45(mm)
ZZZZZ		04/23/2014 14:55	1		RTX-VRX 0.45(mm)
ZZZZZ		04/23/2014 15:33	1		RTX-VRX 0.45(mm)
ZZZZZ		04/23/2014 16:12	1		RTX-VRX 0.45(mm)
240-36355-3	MSA-MW-3-042114	04/23/2014 16:50	1	YF042313.D	RTX-VRX 0.45(mm)
240-36355-5	MSA-MW-38S-042114	04/23/2014 17:29	1	YF042314.D	RTX-VRX 0.45(mm)
CCV 240-127543/15		04/23/2014 18:07	1	YF042315.D	RTX-VRX 0.45(mm)
ZZZZZ		04/23/2014 18:46	1		RTX-VRX 0.45(mm)
ZZZZZ		04/23/2014 19:24	1		RTX-VRX 0.45(mm)
ZZZZZ		04/23/2014 20:02	1		RTX-VRX 0.45(mm)
ZZZZZ		04/23/2014 20:41	1		RTX-VRX 0.45(mm)
ZZZZZ		04/23/2014 21:19	1		RTX-VRX 0.45(mm)
ZZZZZ		04/23/2014 21:58	1		RTX-VRX 0.45(mm)
ZZZZZ		04/23/2014 22:36	1		RTX-VRX 0.45(mm)
ZZZZZ		04/23/2014 23:14	1		RTX-VRX 0.45(mm)
CCV 240-127543/24		04/23/2014 23:52	1	YF042324.D	RTX-VRX 0.45(mm)

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVRT 240-127543/4 Calibration Date: 04/23/2014 11:05

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF042304.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	199828		847	800	5.9	15.0
C6-C12	Ave	208879	228137		874	800	9.2	15.0
Trifluorotoluene (Surr)	Ave	211200	186907		8.85	10.0	-11.5	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVRT 240-127543/4 Calibration Date: 04/23/2014 11:05

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF042304.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.91	5.00	18.82
C6-C12	13.57	5.00	22.14
Trifluorotoluene (Surr)	9.80	9.55	10.05

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127543/15 Calibration Date: 04/23/2014 18:07

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF042315.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	175515		744	800	-7.0	15.0
C6-C12	Ave	208879	199321		763	800	-4.6	15.0
Trifluorotoluene (Surr)	Ave	211200	169242		8.01	10.0	-19.9*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127543/15 Calibration Date: 04/23/2014 18:07

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF042315.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.91	5.00	18.82
C6-C12	13.57	5.00	22.14
Trifluorotoluene (Surr)	9.80	9.54	10.04

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127543/24 Calibration Date: 04/23/2014 23:52

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF042324.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	181279		769	800	-3.9	15.0
C6-C12	Ave	208879	197644		757	800	-5.4	15.0
Trifluorotoluene (Surr)	Ave	211200	175507		8.31	10.0	-16.9*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127543/24 Calibration Date: 04/23/2014 23:52

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF042324.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.91	5.00	18.82
C6-C12	13.57	5.00	22.14
Trifluorotoluene (Surr)	9.80	9.54	10.04

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: YPID Start Date: 04/24/2014 17:22

Analysis Batch Number: 127755 End Date: 04/25/2014 01:05

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-127755/2		04/24/2014 17:22	1	YF042351.D	RTX-VRX 0.45(mm)
MB 240-127755/3		04/24/2014 18:01	1	YF042352.D	RTX-VRX 0.45(mm)
LCS 240-127755/4		04/24/2014 18:39	1	YF042353.D	RTX-VRX 0.45(mm)
ZZZZZ		04/24/2014 19:17	20		RTX-VRX 0.45(mm)
ZZZZZ		04/24/2014 19:56	100		RTX-VRX 0.45(mm)
240-36343-5	MSA-DMW-5S-041814	04/24/2014 20:34	5	YF042356.D	RTX-VRX 0.45(mm)
240-36398-4	MSA-DMW-3S-042214	04/24/2014 21:13	1	YF042357.D	RTX-VRX 0.45(mm)
ZZZZZ		04/24/2014 21:51	1		RTX-VRX 0.45(mm)
ZZZZZ		04/24/2014 22:30	1		RTX-VRX 0.45(mm)
ZZZZZ		04/24/2014 23:09	1		RTX-VRX 0.45(mm)
ZZZZZ		04/24/2014 23:47	1		RTX-VRX 0.45(mm)
ZZZZZ		04/25/2014 00:26	1		RTX-VRX 0.45(mm)
CCV 240-127755/14		04/25/2014 01:05	1	YF042363.D	RTX-VRX 0.45(mm)

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVRT 240-127755/2 Calibration Date: 04/24/2014 17:22

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF042351.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	191288		811	800	1.4	15.0
C6-C12	Ave	208879	218639		837	800	4.7	15.0
Trifluorotoluene (Surr)	Ave	211200	192924		9.13	10.0	-8.7	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCVRT 240-127755/2 Calibration Date: 04/24/2014 17:22

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF042351.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	5.06	18.91
C6-C12	13.55	5.06	22.04
Trifluorotoluene (Surr)	9.80	9.55	10.05

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127755/14 Calibration Date: 04/25/2014 01:05

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF042363.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	181482		770	800	-3.8	15.0
C6-C12	Ave	208879	206651		791	800	-1.1	15.0
Trifluorotoluene (Surr)	Ave	211200	189742		8.98	10.0	-10.2	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: CCV 240-127755/14 Calibration Date: 04/25/2014 01:05

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF042363.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	5.06	18.91
C6-C12	13.55	5.06	22.04
Trifluorotoluene (Surr)	9.80	9.55	10.05

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: MB 240-127543/5

Matrix: Water Date Extracted: 04/23/2014 11:43

Lab File ID:(1) YF042305.D Lab File ID:(2)

Date Analyzed:(1) 04/23/2014 11:43 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-127543/6	04/23/2014 12:22	
MSA-MW-3-042114	240-36355-3	04/23/2014 16:50	
MSA-MW-38S-042114	240-36355-5	04/23/2014 17:29	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-127543/5

Matrix: Water Lab File ID: YF042305.D

Analysis Method: 8015B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/23/2014 11:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127543 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	25	U	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	77		40-133

FORM III

GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF042306.D

Lab ID: LCS 240-127543/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	833	104	67-132	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: MB 240-127755/3

Matrix: Water Date Extracted: 04/24/2014 18:01

Lab File ID:(1) YF042352.D Lab File ID:(2)

Date Analyzed:(1) 04/24/2014 18:01 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-127755/4	04/24/2014 18:39	
MSA-DMW-5S-041814	240-36343-5	04/24/2014 20:34	
MSA-DMW-3S-042214	240-36398-4	04/24/2014 21:13	

FORM I

GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36343-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-127755/3

Matrix: Water | Lab File ID: YF042352.D

Analysis Method: 8015B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/24/2014 18:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127755 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	25	U	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	82		40-133

FORM III

GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF042353.D

Lab ID: LCS 240-127755/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	760	95	67-132	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM II

GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1 #
MSA-DMW-5S-041814	240-36343-5	88
MSA-MW-3-042114	240-36355-3	81
MSA-MW-38S-042114	240-36355-5	84
MSA-DMW-3S-042214	240-36398-4	85
	MB 240-127543/5	77
	MB 240-127755/3	82
	LCS 240-127543/6	84
	LCS 240-127755/4	82

	QC LIMITS
TFT = Trifluorotoluene (Surr)	40-133

Column to be used to flag recovery values

FORM II 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: STD4 240-124780/7 Date Analyzed: 04/01/2014 15:04

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF040107.D Heated Purge: (Y/N) N

Calibration ID: 21446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
INITIAL CALIBRATION SURROGATE				9.78		
UPPER LIMIT				9.88		
LOWER LIMIT				9.68		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD4 240-124780/7 ICRT		04/01/2014 15:04	YF040107.D	9.78		
ICV 240-124780/10		04/01/2014 17:01	YF040110.D	9.79		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: CCVRT 240-127543/4 Date Analyzed: 04/23/2014 11:05

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF042304.D Heated Purge: (Y/N) N

Calibration ID: 21446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				9.80		
UPPER LIMIT				9.90		
LOWER LIMIT				9.70		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-127543/4		04/23/2014 11:05	YF042304.D	9.80		
MB 240-127543/5		04/23/2014 11:43	YF042305.D	9.79		
LCS 240-127543/6		04/23/2014 12:22	YF042306.D	9.80		
240-36355-3	MSA-MW-3-042114	04/23/2014 16:50	YF042313.D	9.79		
240-36355-5	MSA-MW-38S-042114	04/23/2014 17:29	YF042314.D	9.79		
CCV 240-127543/15		04/23/2014 18:07	YF042315.D	9.80		
CCV 240-127543/24		04/23/2014 23:52	YF042324.D	9.80		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Sample No.: CCVRT 240-127755/2 Date Analyzed: 04/24/2014 17:22

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF042351.D Heated Purge: (Y/N) N

Calibration ID: 21446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
CONTINUING CALIBRATION SURROGATE				9.80		
UPPER LIMIT				9.90		
LOWER LIMIT				9.70		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-127755/2		04/24/2014 17:22	YF042351.D	9.80		
MB 240-127755/3		04/24/2014 18:01	YF042352.D	9.79		
LCS 240-127755/4		04/24/2014 18:39	YF042353.D	9.80		
240-36343-5	MSA-DMW-5S-041814	04/24/2014 20:34	YF042356.D	9.79		
240-36398-4	MSA-DMW-3S-042214	04/24/2014 21:13	YF042357.D	9.79		
CCV 240-127755/14		04/25/2014 01:05	YF042363.D	9.80		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

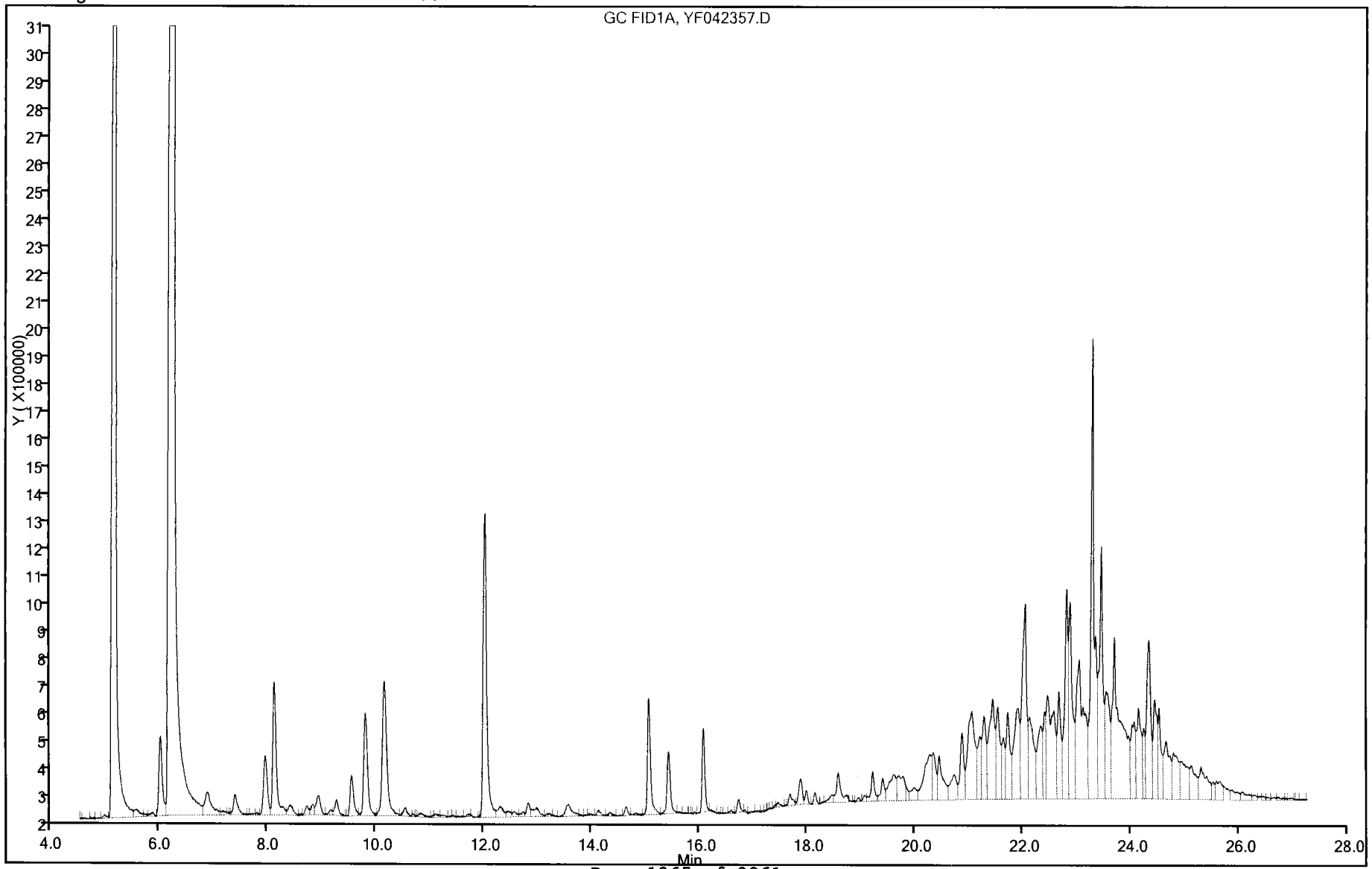
FORM VIII 8015B

Report Date: 25-Apr-2014 08:54:05 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\YPID\20140424-30305.b\YF042357.D				
Injection Date:	24-Apr-2014 21:13:28	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	240-36398-D-4	Lab Sample ID:	240-36398-4	Worklist Smp#:	8
Client ID:	MSA-DMW-3S-042214				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value

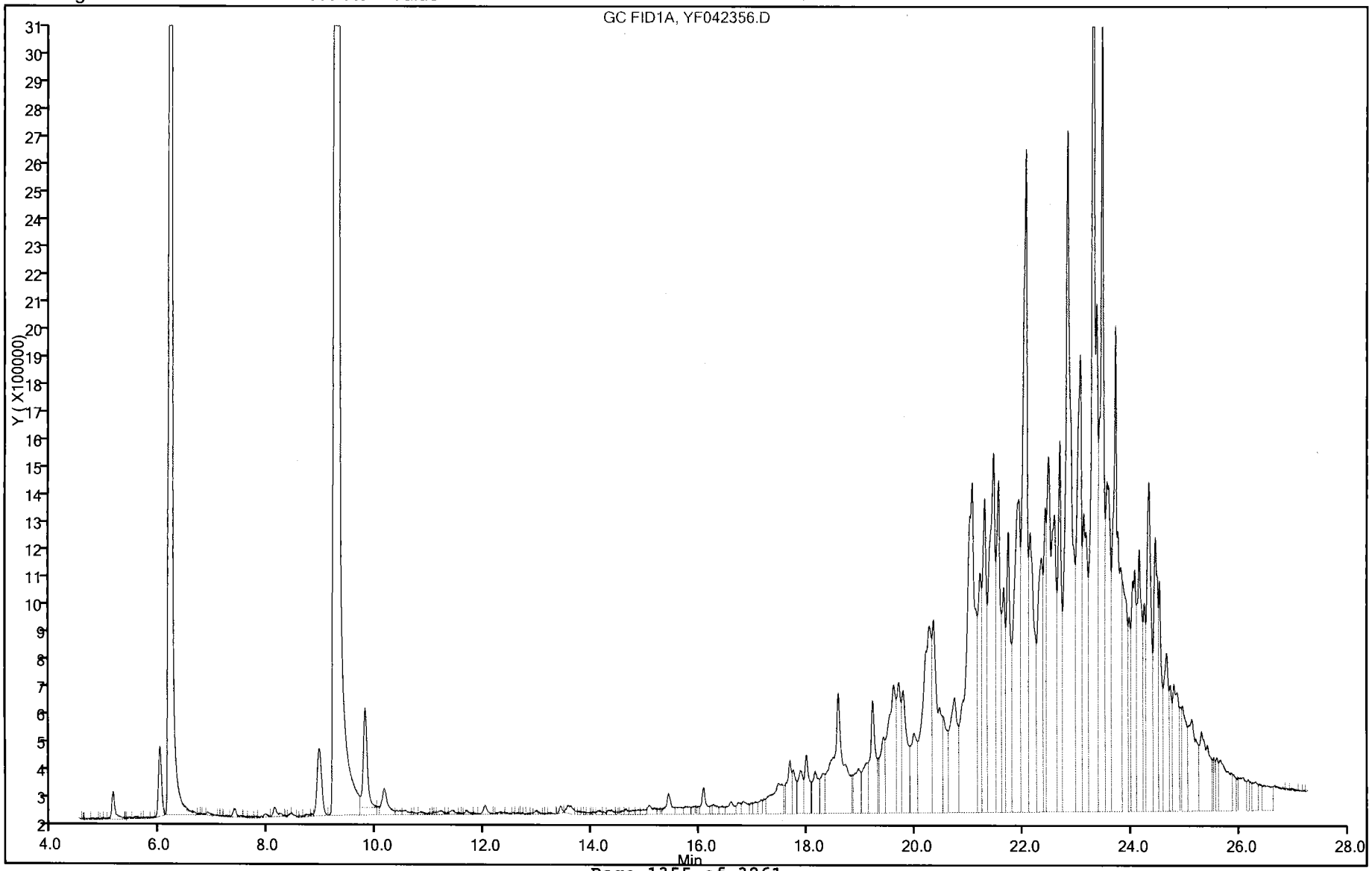


Report Date: 25-Apr-2014 08:54:04 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\YPID\20140424-30305.b\YF042356.D				
Injection Date:	24-Apr-2014 20:34:53	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	240-36343-E-5	Lab Sample ID:	240-36343-5	Worklist Smp#:	7
Client ID:	MSA-DMW-5S-041814				
Purge Vol:	5.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value

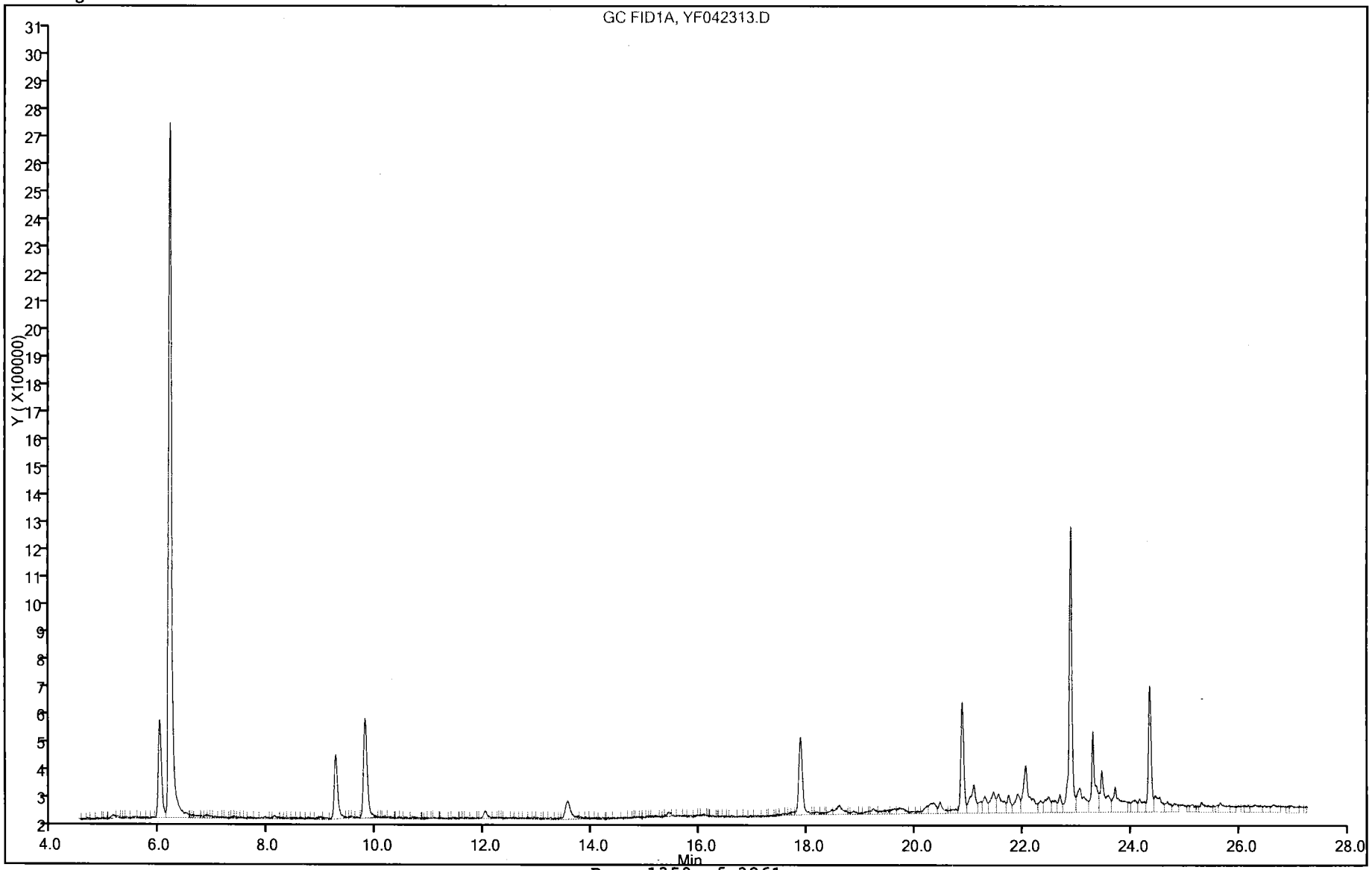


Report Date: 24-Apr-2014 07:39:30 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\YPID\20140423-30263.b\YF042313.D				
Injection Date:	23-Apr-2014 16:50:33	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	240-36355-E-3	Lab Sample ID:	240-36355-3	Worklist Smp#:	13
Client ID:	MSA-MW-3-042114				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value

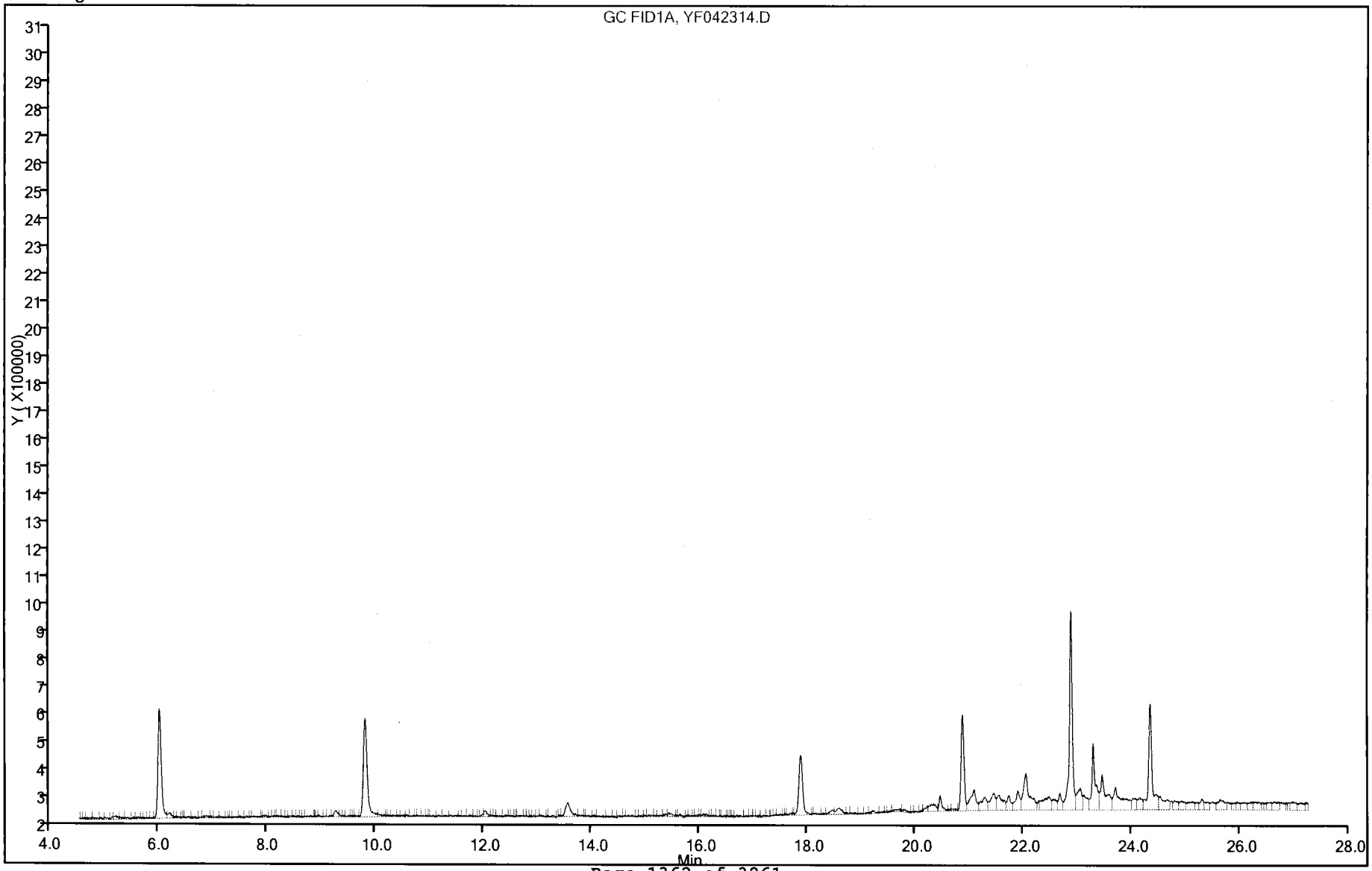


Report Date: 24-Apr-2014 07:39:31 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\YPID\20140423-30263.b\YF042314.D				
Injection Date:	23-Apr-2014 17:29:13	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	240-36355-E-5	Lab Sample ID:	240-36355-5	Worklist Smp#:	14
Client ID:	MSA-MW-38S-042114				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value

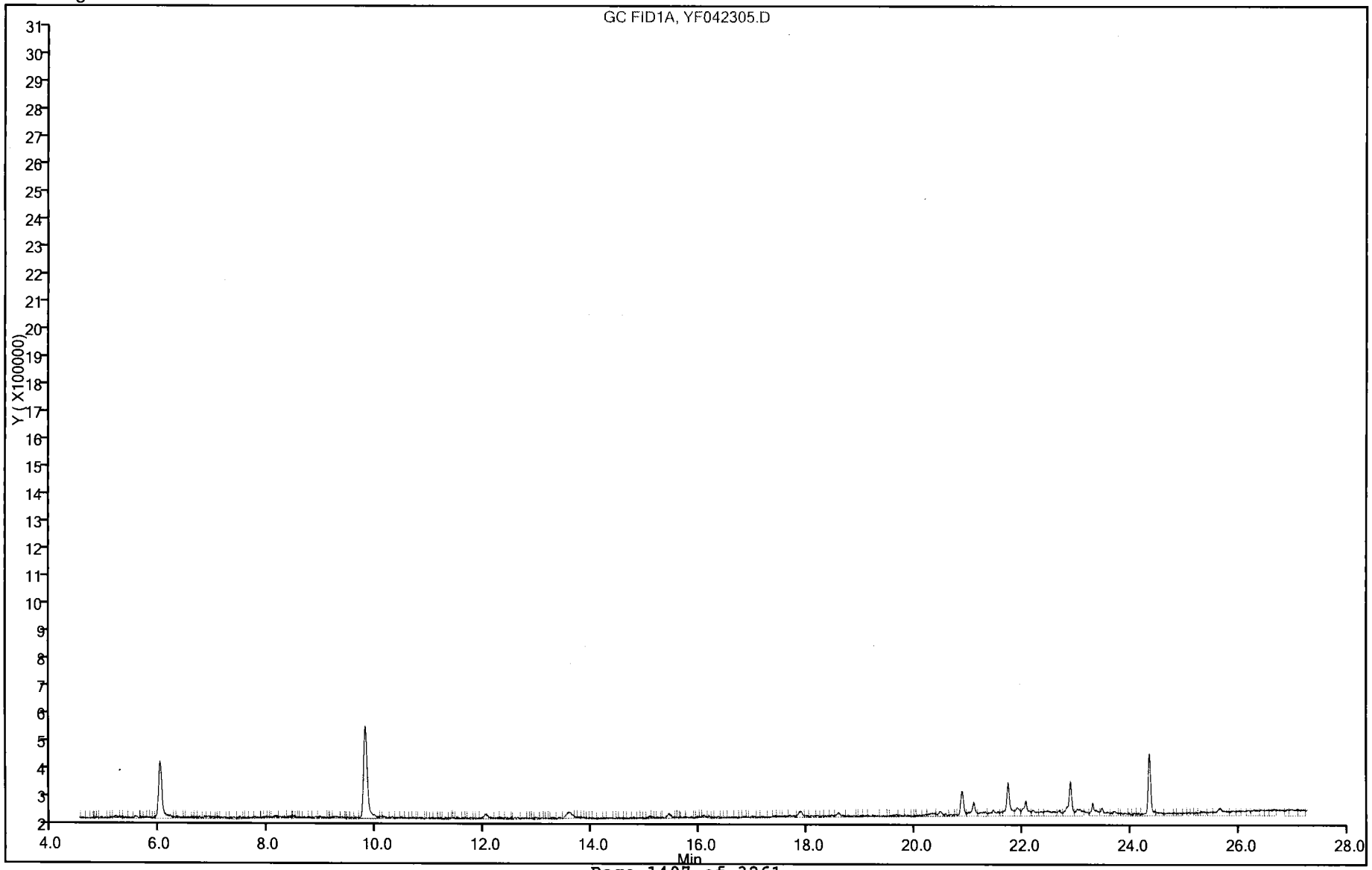


Report Date: 24-Apr-2014 07:39:23 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\YPID\20140423-30263.b\YF042305.D				
Injection Date:	23-Apr-2014 11:43:51	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	mb			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value



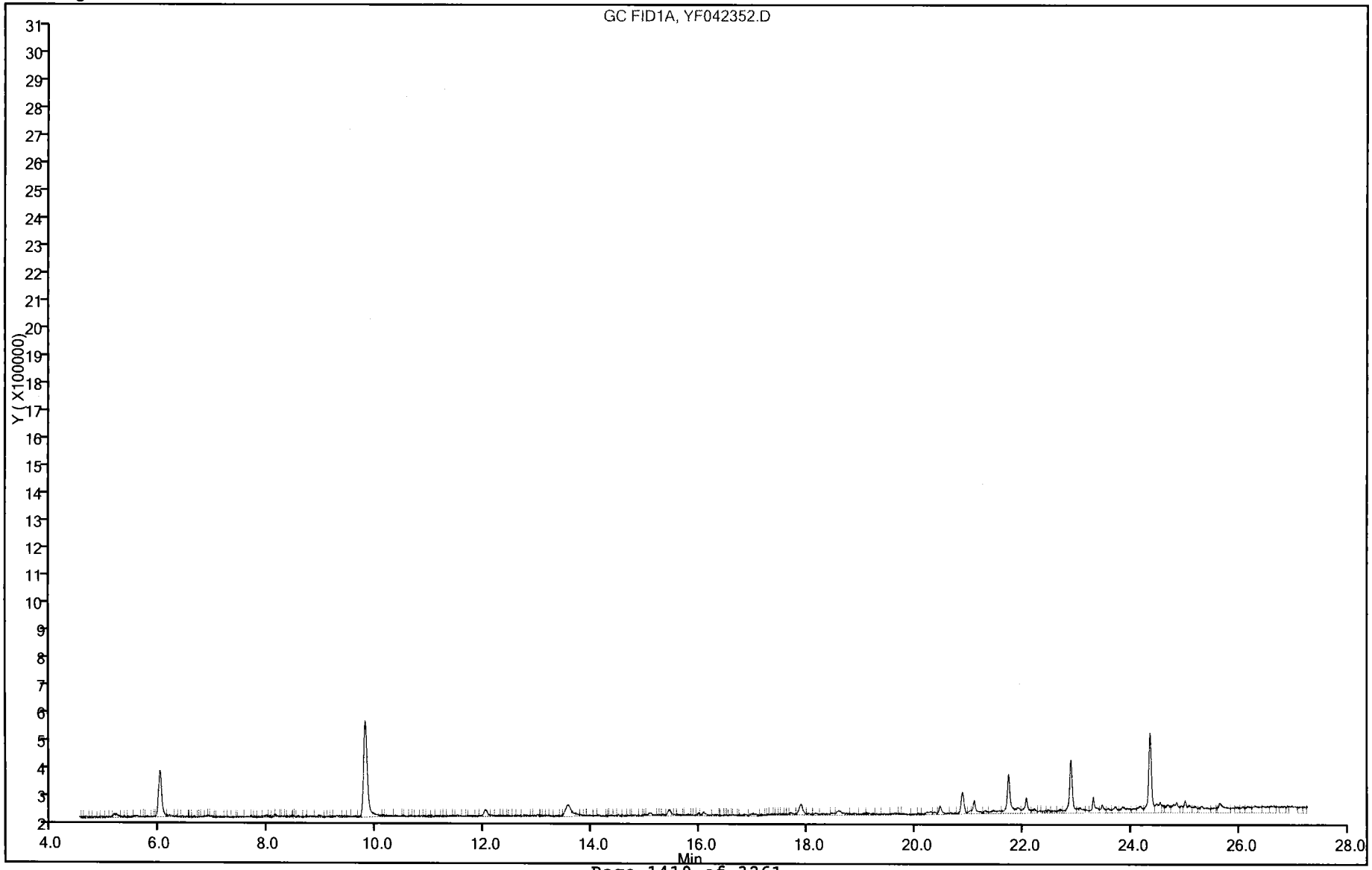
Report Date: 25-Apr-2014 08:54:02 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File: \\Ncchrom\ChromData\YPID\20140424-30305.b\YF042352.D

Injection Date:	24-Apr-2014 18:01:07	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	mb			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value



TETRA TECH

INTERNAL CORRESPONDENCE

TO: **T. APANAVAGE** **DATE:** **JUNE 11, 2014**

FROM: **EDWARD SEDLMYER** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – TOTAL AND DISSOLVED METALS**
MARTIN STATE AIRPORT (MSA) GROUNDWATER
SDG 240-36343-1

SAMPLES: 12 / Aqueous / Total and Dissolved Metals

MSA-DMW-2B-042214	MSA-DMW-3D-042214	MSA-DMW-3I-042214
MSA-DMW-3S-042214	MSA-DMW-5I-041814	MSA-DMW-5S-041814
MSA-MW-19D-042114	MSA-MW-22D-042114	MSA-MW-3-042114
MSA-MW-38S-042114	MSA-MW-49D-041714	MSA-MW-51D-041714

Overview

The sample set for Lockheed – MSA Groundwater, SDG 240-36343-1 consists of twelve (12) aqueous environmental samples. All samples were analyzed for total and dissolved metals.

The samples were collected by Tetra Tech on April 17, 18, 21, and 22, 2014 and analyzed by Test America (North Canton). All analyses were conducted in accordance with SW-846 Methods 6020A and 7470A analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, ICP/MS tuning, initial/continuing calibrations, laboratory method blank results, matrix spike/matrix spike duplicate results, blank spike/blank spike duplicate results, internal standard recoveries, ICP interference results, laboratory duplicate results, ICP serial dilution results, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

- None

Minor

- The following contaminants were detected in the preparation or calibration blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Arsenic[1]	0.432 ug/L	2.16 ug/L
Barium[1]	1.63 ug/L	8.15 ug/L
Copper[1]	1.38 ug/L	6.9 ug/L
Iron[1]	15.7 ug/L	78.5 ug/L
Manganese[1]	0.526 ug/L	2.63 ug/L
Nickel[1]	0.122 ug/L	0.61 ug/L
Lead[1]	0.178 ug/L	0.89 ug/L
Vanadium[1]	1.43 ug/L	7.15 ug/L
Antimony[2]	0.23 ug/L	1.2 ug/L
Arsenic[2]	0.112 ug/L	0.56 ug/L
Barium[2]	1.55 ug/L	7.75 ug/L
Copper[2]	0.94 ug/L	4.7 ug/L
Iron[2]	13.0 ug/L	65 ug/L
Nickel[2]	0.121 ug/L	0.605 ug/L
Lead[2]	0.158 ug/L	0.79 ug/L
Manganese[2]	0.615 ug/L	3.075 ug/L
Antimony[3]	0.261 ug/L	1.305 ug/L
Arsenic[3]	0.0980 ug/L	0.49 ug/L
Barium[3]	1.44 ug/L	7.2 ug/L
Copper[3]	0.849 ug/L	4.245 ug/L
Iron[3]	14.0 ug/L	70 ug/L
Nickel[3]	0.151 ug/L	0.755 ug/L
Lead[3]	0.198 ug/L	0.99 ug/L
Manganese[3]	0.426 ug/L	2.13 ug/L
Antimony[4]	0.410 ug/L	2.05 ug/L
Beryllium[5]	0.062 ug/L	0.31 ug/L
Selenium[5]	0.355 ug/L	1.775 ug/L
Silver[6]	0.01 ug/L	0.05 ug/L
Antimony[7]	0.428 ug/L	2.14 ug/L
Beryllium[7]	0.083 ug/L	0.415 ug/L
Copper[7]	1.27 ug/L	6.35 ug/L
Cadmium[8]	0.027 ug/L	0.135 ug/L
Cobalt[8]	0.026 ug/L	0.13 ug/L
Silver[8]	0.019 ug/L	0.095 ug/L
Cadmium[9]	0.14 ug/L	0.70 ug/L
Cobalt[9]	0.12 ug/L	0.60 ug/L
Iron[9]	18 ug/L	90 ug/L
Silver[9]	0.044 ug/L	0.22 ug/L
Vanadium[9]	0.16 ug/L	0.80 ug/L

(1) - Maximum concentration found in preparation blank (MB 240-127397/1-A) affecting total and dissolved samples MSA-MW-51D-041714, MSA-MW-49D-041714, and MSA-DMW-5I-041814.

(2) - Maximum concentration found in preparation blank (MB 240-127554/1-A) affecting total and dissolved samples MSA-DMW-5S-041814, MSA-MW-22D-042114, MSA-MW-3-042114, MSA-MW-19D-042114, and MSA-MW-38S-042114.

(3) - Maximum concentration found in preparation blank (MB 240-127722/1-A) affecting total and dissolved samples MSA-DMW-3D-042214, MSA-DMW-3I-

042214, MSA-DMW-3S-042214, and MSA-DMW-2B-042214.

(4) – Maximum concentration found in calibration blank (CCB240-127674/49 04/23/14 @ 14:04) affecting total and dissolved samples MSA-MW-51D-041714, MSA-MW-49D-041714, and MSA-DMW-5I-041814.

(5) - Maximum concentration found in calibration blank (CCB240-127674/73 04/23/14 @ 15:35) affecting total and dissolved samples total and dissolved samples MSA-MW-51D-041714, MSA-MW-49D-041714, and MSA-DMW-5I-041814.

(6) - Maximum concentration found in calibration blank (CCB240-127907/63 04/24/14 @ 13:23) affecting total and dissolved samples MSA-DMW-5I-041714, MSA-MW-51D-041714, and MSA-MW-49D-041714.

(7) - Maximum concentration found in calibration blank (CCB240-127907/99 04/24/14 @ 15:44) affecting total and dissolved samples MSA-DMW-5I-041714, MSA-MW-51D-041714, and MSA-MW-49D-041714.

(8) - Maximum concentration found in calibration blank (CCB240-127855/52 04/24/14 @ 16:01) affecting total and dissolved samples MSA-DMW-5S-041814, MSA-MW-22D-042114, MSA-MW-3-042114, MSA-MW-19D-042114, and MSA-MW-38S-042114.

(9) Maximum concentration found in calibration blanks analyzed on 4/25/14 affecting total and dissolved samples MSA-DMW-2B-042214, MSA-MW-3D-042214, MSA-MW-3I-042214, MSA-MW-3S-042214, and MSA-DMW-5S-041814.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. No action was taken on this basis because all results were greater than the action level.

- The recovery of the internal standard terbium (127%) was slightly greater than the upper quality control limit of 125% in sample MSA MW-49D-041714 analyzed on 4/24/14 @ 14:51. Barium was affected by this noncompliance and was qualified as estimated, (J).

- Positive results less than the reporting limit (RL) were qualified as estimated, (J), due to uncertainty near the detection limit.

Notes

The total and dissolved samples MSA-DMW-5S-041814 and MSA-MW-49D-041714 were diluted due to sample matrix interference for several metals. This accounts for the elevated detection limit for the nondetected metals.

Executive Summary

Laboratory Performance: Blank contamination resulted in the qualification of metals data. Barium was qualified in one sample for a slightly high internal standard recovery for terbium.

Other Factors Affecting Data Quality: Positive results less than the reporting limit (RL) were qualified as estimated, due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to USEPA National Functional Guidelines for Inorganic Data Validation (January 2010). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Edward Sedlmyer
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 06183	NSAMPLE	MSA-DMW-2B-042214			MSA-DMW-3D-042214			MSA-DMW-3I-042214			MSA-DMW-3S-042214		
SDG: 240-36343-1	LAB_ID	240-36398-5			240-36398-2			240-36398-3			240-36398-4		
FRACTION: M	SAMP_DATE	4/22/2014			4/22/2014			4/22/2014			4/22/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.31	U	A	0.15	U	A	0.23	U	A	0.27	U	A
ARSENIC		1.2	J	P	1.5	J	P	5.1			7.8		
BARIUM		22			77			12			54		
BERYLLIUM		0.18	J	P	0.97	J	P	0.14	J	P	0.031	U	
CADMIUM		0.42	U	A	0.71	J	P	120			6.2		
CHROMIUM		17			2.5			2.6			2.3		
COBALT		4.5			94			210			0.61	J	P
COPPER		14			4.1	U	A	5.3			7.8		
IRON		1900			870			47000			1200		
LEAD		6.9			1.3			0.53	U	A	1.5		
MANGANESE		40			600			5000			190		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		0.81	U		0.81	U		3.1	J	P
NICKEL		7.1			89			73			1.2	J	P
SELENIUM		0.34	U		1.3	J	P	7.4			0.34	U	
SILVER		0.05	U	A	0.009	U	A	0.0083	U		0.02	U	A
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		6.5			2.6	J	P	6.8			1.3	J	P

PROJ_NO: 06183	NSAMPLE	MSA-DMW-5I-041814			MSA-DMW-5S-041814			MSA-MW-19D-042114			MSA-MW-22D-042114		
SDG: 240-36343-1	LAB_ID	240-36343-4			240-36343-5			240-36355-4			240-36355-2		
FRACTION: M	SAMP_DATE	4/18/2014			4/18/2014			4/21/2014			4/21/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.17	U	A	1.1	U		0.11	U	A	1.1	U	A
ARSENIC		7			16			2.5	J	P	7		
BARIUM		16			21	U	A	54			60		
BERYLLIUM		2.4			4			2			0.3	J	P
CADMIUM		5.1			6.9			1.3			0.93	J	P
CHROMIUM		10			90			7.4			17		
COBALT		77			65			230			8.9		
COPPER		150			650			0.93	U	A	22		
IRON		28000			23000			550			4500		
LEAD		4			7.3	U	A	0.23	U	A	14		
MANGANESE		1900			3600			3000			51		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		2.2	J	P	0.81	U		1.9	J	P
NICKEL		75			60			110			9.8		
SELENIUM		24			33			3.1	J	P	1	J	P
SILVER		0.017	U	A	0.072	U	A	0.0083	U		0.19	J	P
THALLIUM		0.4	U		4	U		0.4	U		0.64	J	P
VANADIUM		2.3	U	A	9.3			4.7	J	P	19		

PROJ_NO: 06183	NSAMPLE	MSA-MW-3-042114			MSA-MW-38S-042114			MSA-MW-49D-041714			MSA-MW-51D-041714		
SDG: 240-36343-1	LAB_ID	240-36355-3			240-36355-5			240-36343-3			240-36343-2		
FRACTION: M	SAMP_DATE	4/21/2014			4/21/2014			4/17/2014			4/17/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.21	U	A	0.11	U		0.12	U	A	0.43	U	A
ARSENIC		1.1	J	P	14			17			2.1	U	A
BARIUM		52			46			14	J	N	96		
BERYLLIUM		0.078	J	P	0.12	J	P	9.7			0.63	J	P
CADMIUM		0.38	J	P	0.044	U	A	21			1.8		
CHROMIUM		0.92	J	P	0.45	J	P	7.7	J	P	1.2	J	P
COBALT		2.1			12			97			38		
COPPER		10			0.32	U	A	240			17		
IRON		1100			31000			7900			15000		
LEAD		0.7	U	A	0.14	U		1.7	U	A	0.91	J	P
MANGANESE		92			430			5500			1600		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.7	J	P	0.81	U		0.81	U		2.6	J	P
NICKEL		4.1			5.6			89			25		
SELENIUM		0.34	U		0.34	U		58			3	J	P
SILVER		0.0083	U		0.0083	U		0.014	U	A	0.0083	U	
THALLIUM		0.4	U		0.4	U		2	U		0.4	U	
VANADIUM		0.97	J	P	1.5	J	P	6	U	A	1.4	U	A

PROJ_NO: 06183	NSAMPLE	MSA-DMW-2B-042214			MSA-DMW-3D-042214			MSA-DMW-3I-042214			MSA-DMW-3S-042214		
SDG: 240-36343-1	LAB_ID	240-36398-5			240-36398-2			240-36398-3			240-36398-4		
FRACTION: MF	SAMP_DATE	4/22/2014			4/22/2014			4/22/2014			4/22/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.19	U	A	0.13	U	A	0.17	U	A	0.22	U	A
ARSENIC		0.36	U	A	1.2	J	P	5.3			9.4		
BARIUM		11			74			11			58		
BERYLLIUM		0.041	J	P	0.91	J	P	0.13	J	P	0.031	U	
CADMIUM		0.37	U	A	0.34	U	A	110			0.94	J	P
CHROMIUM		3.2			1.2	J	P	2.3			1.2	J	P
COBALT		1.5			91			220			0.56	U	A
COPPER		6.8			1	U	A	5.1			1.4	U	A
IRON		370			710			49000			200		
LEAD		1.5			0.19	U	A	0.14	U		0.24	U	A
MANGANESE		11			600			5200			170		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		0.81	U		0.81	U		4.6	J	P
NICKEL		3.5			89			76			1.3	J	P
SELENIUM		0.34	U		1.2	J	P	7.6			0.34	U	
SILVER		0.012	U	A	0.0083	U		0.0083	U		0.026	U	A
THALLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
VANADIUM		1.1	J	P	1.3	J	P	5.9			1.2	J	P

PROJ_NO: 06183	NSAMPLE	MSA-DMW-5I-041814			MSA-DMW-5S-041814			MSA-MW-19D-042114			MSA-MW-22D-042114		
SDG: 240-36343-1	LAB_ID	240-36343-4			240-36343-5			240-36355-4			240-36355-2		
FRACTION: MF	SAMP_DATE	4/18/2014			4/18/2014			4/21/2014			4/21/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.11	U		1.1	U		0.11	U		0.61	U	A
ARSENIC		7.6			15			2.3	J	P	4.9	J	P
BARIUM		16			25	U	A	54			42		
BERYLLIUM		2.6			4.1			2.1			0.075	J	P
CADMIUM		5.3			3.8			1			0.2	J	P
CHROMIUM		6.5			20			7.2			4.1		
COBALT		85			68			240			6.6		
COPPER		52			42			1.3	U	A	6.9		
IRON		31000			22000			540			1800		
LEAD		3.4			4.3	U	A	0.15	U	A	2.7		
MANGANESE		2100			3500			3100			44		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		0.81	U		0.81	U		1.4	J	P
NICKEL		84			64			110			6.4		
SELENIUM		27			32			2.8	J	P	0.34	J	P
SILVER		0.009	U	A	0.0083	U		0.0083	U		0.035	U	A
THALLIUM		0.4	U		4	U		0.4	U		0.4	U	
VANADIUM		2.4	U	A	8			4.5	J	P	5.4		

PROJ_NO: 06183	NSAMPLE	MSA-MW-3-042114			MSA-MW-38S-042114			MSA-MW-49D-041714			MSA-MW-51D-041714		
SDG: 240-36343-1	LAB_ID	240-36355-3			240-36355-5			240-36343-3			240-36343-2		
FRACTION: MF	SAMP_DATE	4/21/2014			4/21/2014			4/17/2014			4/17/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.2	U	A	0.11	U		0.11	U		0.5	U	A
ARSENIC		1.1	J	P	13			15			8.2		
BARIUM		61			45			13			27		
BERYLLIUM		0.031	U		0.089	J	P	9			3.3		
CADMIUM		0.24	J	P	0.026	U		21			4.7		
CHROMIUM		0.66	J	P	0.25	J	P	6.1			3.9		
COBALT		4.1			11			75			100		
COPPER		2.5	U	A	0.26	U	A	110			37		
IRON		1700			30000			4500			19000		
LEAD		0.15	U	A	0.14	U		1.5	U	A	1.4		
MANGANESE		210			430			4300			2800		
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.3	J	P	0.81	U		0.81	U		0.81	U	
NICKEL		5.4			5.5			68			60		
SELENIUM		0.34	U		0.34	U		54			17		
SILVER		0.0083	U		0.0083	U		0.0083	U		0.009	U	A
THALLIUM		0.4	U		0.4	U		2	U		0.4	U	
VANADIUM		0.35	J	P	0.57	J	P	4.3	U	A	2.8	U	A

Appendix B

Results as Reported by the Laboratory

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-2B-042214 Lab Sample ID: 240-36398-5

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2014 15:13

Reporting Basis: WET Date Received: 04/23/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-2B-042214 Lab Sample ID: 240-36398-5

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2014 15:13

Reporting Basis: WET Date Received: 04/23/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.31	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	1.2	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	22	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.18	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.42	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	4.5	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	17	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	14	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	1900	100	12	ug/L		B	1	6020
7439-96-5	Manganese	40	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	7.1	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	6.9	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	6.5	5.0	0.15	ug/L			1	6020
7440-22-4	Silver	0.050	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-2B-042214 Lab Sample ID: 240-36398-5

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2014 15:13

Reporting Basis: WET Date Received: 04/23/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.19	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.36	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	11	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.041	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.37	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	3.2	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	1.5	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	6.8	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	1.5	1.0	0.14	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	3.5	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	370	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	11	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.012	1.0	0.0083	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-3D-042214 Lab Sample ID: 240-36398-2

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2014 08:50

Reporting Basis: WET Date Received: 04/23/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-3D-042214 Lab Sample ID: 240-36398-2

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2014 08:50

Reporting Basis: WET Date Received: 04/23/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.15	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	1.5	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	77	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.97	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.71	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	94	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	2.5	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	4.1	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	870	100	12	ug/L		B	1	6020
7439-96-5	Manganese	600	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	89	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	1.3	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	1.3	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.6	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0090	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-3D-042214 Lab Sample ID: 240-36398-2

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2014 08:50

Reporting Basis: WET Date Received: 04/23/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.13	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	1.2	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	74	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.91	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.34	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	1.2	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	91	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	1.0	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.19	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	89	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	710	100	12	ug/L		B	1	6020
7782-49-2	Selenium	1.2	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	600	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.3	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-3I-042214 Lab Sample ID: 240-36398-3

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2014 10:30

Reporting Basis: WET Date Received: 04/23/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-3I-042214 Lab Sample ID: 240-36398-3

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2014 10:30

Reporting Basis: WET Date Received: 04/23/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.23	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	5.1	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	12	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.14	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	120	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	210	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	2.6	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	5.3	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	47000	100	12	ug/L		B	1	6020
7439-96-5	Manganese	5000	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	73	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.53	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	7.4	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	6.8	5.0	0.15	ug/L			1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-3I-042214 Lab Sample ID: 240-36398-3

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2014 10:30

Reporting Basis: WET Date Received: 04/23/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.17	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	5.3	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	11	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.13	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	110	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	2.3	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	220	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	5.1	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	76	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	49000	100	12	ug/L		B	1	6020
7782-49-2	Selenium	7.6	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	5200	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	5.9	5.0	0.15	ug/L			1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-3S-042214 Lab Sample ID: 240-36398-4

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2014 12:00

Reporting Basis: WET Date Received: 04/23/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-3S-042214 Lab Sample ID: 240-36398-4

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2014 12:00

Reporting Basis: WET Date Received: 04/23/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.27	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	7.8	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	54	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	6.2	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	0.61	1.0	0.020	ug/L	J		1	6020
7440-47-3	Chromium	2.3	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	7.8	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	1200	100	12	ug/L		B	1	6020
7439-96-5	Manganese	190	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	3.1	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	1.2	2.0	0.088	ug/L	J	B	1	6020
7439-92-1	Lead	1.5	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.3	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.020	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-3S-042214 Lab Sample ID: 240-36398-4

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2014 12:00

Reporting Basis: WET Date Received: 04/23/2014 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.22	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	9.4	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	58	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.94	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	1.2	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	0.56	1.0	0.020	ug/L	J		1	6020
7440-50-8	Copper	1.4	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.24	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	4.6	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	1.3	2.0	0.088	ug/L	J	B	1	6020
7439-89-6	Iron	200	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	170	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.026	1.0	0.0083	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-5I-041814 Lab Sample ID: 240-36343-4

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2014 11:35

Reporting Basis: WET Date Received: 04/19/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-5I-041814 Lab Sample ID: 240-36343-4

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2014 11:35

Reporting Basis: WET Date Received: 04/19/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.17	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	7.0	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	16	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	2.4	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	5.1	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	77	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	10	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	150	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	28000	100	12	ug/L		B	1	6020
7439-96-5	Manganese	1900	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	75	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	4.0	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	24	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.3	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.017	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-5I-041814 Lab Sample ID: 240-36343-4

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2014 11:35

Reporting Basis: WET Date Received: 04/19/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	7.6	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	16	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	2.6	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	5.3	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	6.5	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	85	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	52	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	3.4	1.0	0.14	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	84	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	31000	100	12	ug/L		B	1	6020
7782-49-2	Selenium	27	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	2100	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0090	1.0	0.0083	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.4	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-5S-041814 Lab Sample ID: 240-36343-5

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2014 15:30

Reporting Basis: WET Date Received: 04/19/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-5S-041814 Lab Sample ID: 240-36343-5

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2014 15:30

Reporting Basis: WET Date Received: 04/19/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.1	20	1.1	ug/L	U		10	6020
7440-38-2	Arsenic	16	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	21	50	3.2	ug/L	J	B	10	6020
7440-41-7	Beryllium	4.0	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	6.9	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	65	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	90	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	650	20	2.4	ug/L		B	10	6020
7439-89-6	Iron	23000	100	12	ug/L		B	1	6020
7439-96-5	Manganese	3600	50	4.1	ug/L		B	10	6020
7439-98-7	Molybdenum	2.2	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	60	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	7.3	10	1.4	ug/L	J	B	10	6020
7782-49-2	Selenium	33	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	4.0	20	4.0	ug/L	U		10	6020
7440-62-2	Vanadium	9.3	5.0	0.15	ug/L			1	6020
7440-22-4	Silver	0.072	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-5S-041814 Lab Sample ID: 240-36343-5

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2014 15:30

Reporting Basis: WET Date Received: 04/19/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.1	20	1.1	ug/L	U		10	6020
7440-38-2	Arsenic	15	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	25	50	3.2	ug/L	J	B	10	6020
7440-41-7	Beryllium	4.1	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	3.8	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	20	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	68	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	42	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	4.3	10	1.4	ug/L	J	B	10	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	64	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	22000	100	12	ug/L		B	1	6020
7782-49-2	Selenium	32	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	3500	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	4.0	20	4.0	ug/L	U		10	6020
7440-62-2	Vanadium	8.0	5.0	0.15	ug/L			1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-19D-042114 Lab Sample ID: 240-36355-4

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2014 12:23

Reporting Basis: WET Date Received: 04/22/2014 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-19D-042114 Lab Sample ID: 240-36355-4

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2014 12:23

Reporting Basis: WET Date Received: 04/22/2014 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	2.5	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	54	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	2.0	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	1.3	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	230	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	7.4	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	0.93	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	550	100	12	ug/L		B	1	6020
7439-96-5	Manganese	3000	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	110	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.23	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	3.1	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	4.7	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-19D-042114 Lab Sample ID: 240-36355-4

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2014 12:23

Reporting Basis: WET Date Received: 04/22/2014 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	2.3	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	54	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	2.1	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	1.0	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	7.2	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	240	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	1.3	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.15	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	110	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	540	100	12	ug/L		B	1	6020
7782-49-2	Selenium	2.8	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	3100	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	4.5	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-22D-042114 Lab Sample ID: 240-36355-2

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2014 09:22

Reporting Basis: WET Date Received: 04/22/2014 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-22D-042114 Lab Sample ID: 240-36355-2

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2014 09:22

Reporting Basis: WET Date Received: 04/22/2014 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.1	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	7.0	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	60	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.30	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.93	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	8.9	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	17	2.0	0.13	ug/L			1	6020
7440-50-8	Copper	22	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	4500	100	12	ug/L		B	1	6020
7439-96-5	Manganese	51	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	1.9	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	9.8	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	14	1.0	0.14	ug/L		B	1	6020
7782-49-2	Selenium	1.0	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.64	2.0	0.40	ug/L	J		1	6020
7440-62-2	Vanadium	19	5.0	0.15	ug/L			1	6020
7440-22-4	Silver	0.19	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-22D-042114 Lab Sample ID: 240-36355-2

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2014 09:22

Reporting Basis: WET Date Received: 04/22/2014 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.61	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	4.9	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	42	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.075	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.20	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	4.1	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	6.6	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	6.9	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	2.7	1.0	0.14	ug/L		B	1	6020
7439-98-7	Molybdenum	1.4	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	6.4	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	1800	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	44	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.035	1.0	0.0083	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	5.4	5.0	0.15	ug/L			1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-3-042114 Lab Sample ID: 240-36355-3

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2014 10:34

Reporting Basis: WET Date Received: 04/22/2014 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-3-042114 Lab Sample ID: 240-36355-3

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2014 10:34

Reporting Basis: WET Date Received: 04/22/2014 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.21	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	1.1	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	52	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.078	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.38	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	2.1	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.92	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	10	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	1100	100	12	ug/L		B	1	6020
7439-96-5	Manganese	92	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	1.7	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	4.1	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.70	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.97	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-3-042114 Lab Sample ID: 240-36355-3

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2014 10:34

Reporting Basis: WET Date Received: 04/22/2014 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.20	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	1.1	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	61	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.031	1.0	0.031	ug/L	U		1	6020
7440-43-9	Cadmium	0.24	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	0.66	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	4.1	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	2.5	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.15	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	1.3	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	5.4	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	1700	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	210	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.35	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-38S-042114 Lab Sample ID: 240-36355-5

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2014 16:00

Reporting Basis: WET Date Received: 04/22/2014 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-38S-042114 Lab Sample ID: 240-36355-5

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2014 16:00

Reporting Basis: WET Date Received: 04/22/2014 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	14	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	46	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.12	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.044	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	12	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.45	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	0.32	2.0	0.24	ug/L	J	B	1	6020
7439-89-6	Iron	31000	100	12	ug/L		B	1	6020
7439-96-5	Manganese	430	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	5.6	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.5	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-38S-042114 Lab Sample ID: 240-36355-5

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2014 16:00

Reporting Basis: WET Date Received: 04/22/2014 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	13	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	45	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.089	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.25	2.0	0.13	ug/L	J		1	6020
7440-48-4	Cobalt	11	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.26	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	5.5	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	30000	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	430	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.57	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-49D-041714 Lab Sample ID: 240-36343-3

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2014 15:40

Reporting Basis: WET Date Received: 04/19/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-49D-041714 Lab Sample ID: 240-36343-3

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2014 15:40

Reporting Basis: WET Date Received: 04/19/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.12	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	17	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	14	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	9.7	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	21	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	97	5.0	0.10	ug/L			5	6020
7440-47-3	Chromium	7.7	10	0.65	ug/L	J		5	6020
7440-50-8	Copper	240	10	1.2	ug/L		B	5	6020
7439-89-6	Iron	7900	500	59	ug/L		B	5	6020
7439-96-5	Manganese	5500	25	2.1	ug/L		B	5	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	89	10	0.44	ug/L		B	5	6020
7439-92-1	Lead	1.7	5.0	0.70	ug/L	J	B	5	6020
7782-49-2	Selenium	58	5.0	0.34	ug/L			1	6020
7440-28-0	Thallium	2.0	10	2.0	ug/L	U		5	6020
7440-62-2	Vanadium	6.0	25	0.75	ug/L	J	B	5	6020
7440-22-4	Silver	0.014	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-49D-041714 Lab Sample ID: 240-36343-3

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2014 15:40

Reporting Basis: WET Date Received: 04/19/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	15	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	13	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	9.0	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	21	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	6.1	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	75	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	110	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	1.5	5.0	0.70	ug/L	J	B	5	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	68	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	4500	100	12	ug/L		B	1	6020
7782-49-2	Selenium	54	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	4300	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	2.0	10	2.0	ug/L	U		5	6020
7440-62-2	Vanadium	4.3	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-51D-041714 Lab Sample ID: 240-36343-2

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2014 11:42

Reporting Basis: WET Date Received: 04/19/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-51D-041714 Lab Sample ID: 240-36343-2

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2014 11:42

Reporting Basis: WET Date Received: 04/19/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.43	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	2.1	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	96	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.63	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	1.8	1.0	0.026	ug/L			1	6020
7440-48-4	Cobalt	38	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	1.2	2.0	0.13	ug/L	J		1	6020
7440-50-8	Copper	17	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	15000	100	12	ug/L		B	1	6020
7439-96-5	Manganese	1600	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	2.6	10	0.81	ug/L	J		1	6020
7440-02-0	Nickel	25	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.91	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	3.0	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.4	5.0	0.15	ug/L	J	B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-51D-041714 Lab Sample ID: 240-36343-2

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2014 11:42

Reporting Basis: WET Date Received: 04/19/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.50	2.0	0.11	ug/L	J		1	6020
7440-38-2	Arsenic	8.2	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	27	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	3.3	1.0	0.031	ug/L			1	6020
7440-43-9	Cadmium	4.7	1.0	0.026	ug/L			1	6020
7440-47-3	Chromium	3.9	2.0	0.13	ug/L			1	6020
7440-48-4	Cobalt	100	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	37	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	1.4	1.0	0.14	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	60	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	19000	100	12	ug/L		B	1	6020
7782-49-2	Selenium	17	5.0	0.34	ug/L			1	6020
7439-96-5	Manganese	2800	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0090	1.0	0.0083	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	2.8	5.0	0.15	ug/L	J	B	1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

Appendix C

Support Documentation

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-36343-1

Job Description: MSA GW 2014

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Tony Apanavage

Approved for release.
John McFadden
Project Manager I
5/14/2014 4:39 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
05/14/2014

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2014

Report Number: 240-36343-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 552.2 Haloacetic Acids analysis was performed at the TestAmerica Savannah Laboratory. The 6850 Perchlorate analysis was performed at the TestAmerica Sacramento Laboratory. The Radiological analysis was performed at the TestAmerica Richland Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 4/19/2014 9:45 AM, 4/22/2014 9:50 AM and 4/23/2014 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.2° C, 1.8° C, 1.8° C, 2.2° C, 2.2° C and 3.0° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-041714 (240-36343-1), TB-042114 (240-36355-1), TB-042214 (240-36398-1), MSA-MW-51D-041714 (240-36343-2), MSA-MW-22D-042114 (240-36355-2), MSA-DMW-3D-042214 (240-36398-2), MSA-MW-49D-041714 (240-36343-3), MSA-MW-3-042114 (240-36355-3), MSA-DMW-3I-042214 (240-36398-3), MSA-DMW-5I-041814 (240-36343-4), MSA-MW-19D-042114 (240-36355-4), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5), MSA-MW-38S-042114 (240-36355-5) and MSA-DMW-2B-042214 (240-36398-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 04/22/2014, 04/26/2014 and 04/29/2014.

1,2,4-Trimethylbenzene, Acetone, Carbon disulfide and n-Butylbenzene were detected in method blank MB 240-128396/6 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples MSA-MW-51D-041714 (240-36343-2)[2.5X], MSA-MW-3-042114 (240-36343-3)[1.43X], MSA-DMW-3I-042214 (240-36343-3) [200X], MSA-MW-49D-041714 (240-36343-3)[83.33X], MSA-DMW-5I-041814 (240-36343-4)[3.33X], MSA-DMW-3S-042214 (240-36343-4)[40X] and MSA-DMW-5S-041814 (240-36343-5)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) for analytical batch 127413 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The laboratory control sample (LCS) for batch 128028 recovered outside control limits for the following analytes: Dibromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) for analytical batch 128028 exceeded control criteria for multiple compounds. The samples

associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The continuing calibration verification (CCV) for analytical batch 128396 exceeded control criteria for Napthalene. The samples associated with this CCV were non-detects for the affected analyte. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compound was detected; therefore the data has been reported. No further corrective action was required.

No other difficulties were encountered during the VOCs analysis. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-MW-51D-041714 (240-36343-2), MSA-MW-22D-042114 (240-36355-2), MSA-DMW-3D-042214 (240-36398-2), MSA-MW-49D-041714 (240-36343-3), MSA-MW-3-042114 (240-36355-3), MSA-DMW-3I-042214 (240-36398-3), MSA-DMW-5I-041814 (240-36343-4), MSA-MW-19D-042114 (240-36355-4), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5), MSA-MW-38S-042114 (240-36355-5) and MSA-DMW-2B-042214 (240-36398-5) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 04/22/2014, 04/25/2014, 04/27/2014 and 05/01/2014 and analyzed on 04/24/2014, 04/29/2014, 04/30/2014 and 05/09/2014.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

1,4-Dioxane was detected in method blank MB 240-128083/15-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples MSA-DMW-3I-042214 (240-36343-3)[10X] and MSA-DMW-3S-042214 (240-36343-4)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

1,4-Dioxane was detected above the reporting limit (RL) in the method blank associated with batch 128083 as well as in the following sample(s): MSA-DMW-2B-042214 (240-36398-5). This sample was re-extracted and re-analyzed with acceptable results, however the holding time was exceeded. Both sets of data have been reported.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 128083, 8270.

No other difficulties were encountered during the SVOCs analysis. All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)

Samples MSA-MW-3-042114 (240-36355-3), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5) and MSA-MW-38S-042114 (240-36355-5) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 04/23/2014 and 04/24/2014.

Sample MSA-DMW-5S-041814 (240-36343-5)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the GRO analysis. All quality control parameters were within the acceptance limits.

HALOACETIC ACIDS (HAAS)

Samples MSA-DMW-3S-042214 (240-36398-4) and MSA-DMW-5S-041814 (240-36343-5) were analyzed for Haloacetic Acids (HAAs) in accordance with EPA Method 552.2. The samples were prepared on 04/24/2014 and 04/25/2014 and analyzed on 04/25/2014 and 04/29/2014.

No difficulties were encountered during the haloacetic acids analysis. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Samples MSA-MW-3-042114 (240-36355-3), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5) and MSA-MW-38S-042114 (240-36355-5) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 04/23/2014 and 04/24/2014 and analyzed on 04/24/2014 and 04/25/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 127536, 8015.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 127706, 8015.

No other difficulties were encountered during the DRO analysis. All quality control parameters were within the acceptance limits.

PERCHLORATE
Samples MSA-MW-51D-041714 (240-36343-2), MSA-MW-49D-041714 (240-36343-3) and MSA-DMW-5I-041814 (240-36343-4) were analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 04/23/2014 and analyzed on 04/24/2014.

No difficulties were encountered during the perchlorate analysis. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)
Samples MSA-MW-51D-041714 (240-36343-2), MSA-MW-22D-042114 (240-36355-2), MSA-DMW-3D-042214 (240-36398-2), MSA-MW-49D-041714 (240-36343-3), MSA-MW-3-042114 (240-36355-3), MSA-DMW-3I-042214 (240-36398-3), MSA-DMW-5I-041814 (240-36343-4), MSA-MW-19D-042114 (240-36355-4), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5), MSA-MW-38S-042114 (240-36355-5) and MSA-DMW-2B-042214 (240-36398-5) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/22/2014, 04/23/2014 and 04/24/2014 and analyzed on 04/23/2014, 04/24/2014 and 04/25/2014.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-MW-49D-041714 (240-36343-3). Elevated reporting limits (RLs) are provided.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-DMW-5S-041814 (240-36343-5). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the metals analysis. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)
Samples MSA-MW-51D-041714 (240-36343-2), MSA-MW-22D-042114 (240-36355-2), MSA-DMW-3D-042214 (240-36398-2), MSA-MW-49D-041714 (240-36343-3), MSA-MW-3-042114 (240-36355-3), MSA-DMW-3I-042214 (240-36398-3), MSA-DMW-5I-041814 (240-36343-4), MSA-MW-19D-042114 (240-36355-4), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5), MSA-MW-38S-042114 (240-36355-5) and MSA-DMW-2B-042214 (240-36398-5) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 04/22/2014, 04/23/2014 and 04/24/2014 and analyzed on 04/23/2014, 04/24/2014 and 04/25/2014.

Several analytes were detected in method blank MB 240-127397/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 240-127554/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 240-127722/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples MSA-MW-49D-041714 (240-36343-3)[5X] and MSA-DMW-5S-041814 (240-36343-5)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-MW-49D-041714 (240-36343-3). Elevated reporting limits (RLs) are provided.

The following sample(s) was diluted due to the nature of the sample matrix: MSA-DMW-5S-041814 (240-36343-5). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)
Samples MSA-MW-51D-041714 (240-36343-2), MSA-MW-22D-042114 (240-36355-2), MSA-DMW-3D-042214 (240-36398-2), MSA-MW-49D-041714 (240-36343-3), MSA-MW-3-042114 (240-36355-3), MSA-DMW-3I-042214 (240-36398-3), MSA-DMW-5I-041814 (240-36343-4), MSA-MW-19D-042114 (240-36355-4), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5), MSA-MW-38S-042114 (240-36355-5) and MSA-DMW-2B-042214 (240-36398-5) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/22/2014, 04/23/2014 and 04/24/2014 and analyzed on 04/23/2014, 04/24/2014 and 04/25/2014.

No difficulties were encountered during the mercury analysis. All quality control parameters were within the acceptance limits.

TOTAL MERCURY
Samples MSA-MW-51D-041714 (240-36343-2), MSA-MW-22D-042114 (240-36355-2), MSA-DMW-3D-042214 (240-36398-2), MSA-MW-49D-041714 (240-36343-3), MSA-MW-3-042114 (240-36355-3), MSA-DMW-3I-042214 (240-36398-3), MSA-DMW-5I-041814 (240-36343-4), MSA-MW-19D-042114 (240-36355-4), MSA-DMW-3S-042214 (240-36398-4), MSA-DMW-5S-041814 (240-36343-5),

MSA-MW-38S-042114 (240-36355-5) and MSA-DMW-2B-042214 (240-36398-5) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/22/2014, 04/23/2014 and 04/24/2014 and analyzed on 04/23/2014, 04/24/2014 and 04/25/2014.

No difficulties were encountered during the mercury analysis. All quality control parameters were within the acceptance limits.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2014

TestAmerica Job ID: 240-36343-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015B	Gasoline Range Organics - (GC)	SW846	TAL CAN
552.2	Haloacetic Acids (HAAs) (GC)	EPA	TAL SAV
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CAN
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
Alpha Rad 224, 226 + Radium 228	Total Radium	NONE	TAL RCH

Protocol References:

EPA = US Environmental Protection Agency

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2014

TestAmerica Job ID: 240-36343-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-36343-1	TB-041714	Water	04/17/14 00:00	04/19/14 09:45
240-36343-2	MSA-MW-51D-041714	Water	04/17/14 11:42	04/19/14 09:45
240-36343-3	MSA-MW-49D-041714	Water	04/17/14 15:40	04/19/14 09:45
240-36343-4	MSA-DMW-5I-041814	Water	04/18/14 11:35	04/19/14 09:45
240-36343-5	MSA-DMW-5S-041814	Water	04/18/14 15:30	04/19/14 09:45
240-36355-1	TB-042114	Water	04/21/14 00:00	04/22/14 09:50
240-36355-2	MSA-MW-22D-042114	Water	04/21/14 09:22	04/22/14 09:50
240-36355-3	MSA-MW-3-042114	Water	04/21/14 10:34	04/22/14 09:50
240-36355-4	MSA-MW-19D-042114	Water	04/21/14 12:23	04/22/14 09:50
240-36355-5	MSA-MW-38S-042114	Water	04/21/14 16:00	04/22/14 09:50
240-36398-1	TB-042214	Water	04/22/14 00:00	04/23/14 09:20
240-36398-2	MSA-DMW-3D-042214	Water	04/22/14 08:50	04/23/14 09:20
240-36398-3	MSA-DMW-3I-042214	Water	04/22/14 10:30	04/23/14 09:20
240-36398-4	MSA-DMW-3S-042214	Water	04/22/14 12:00	04/23/14 09:20
240-36398-5	MSA-DMW-2B-042214	Water	04/22/14 15:13	04/23/14 09:20

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-36343-1

SDG No.:

Project: MSA GW 2014

Client Sample ID	Lab Sample ID
MSA-MW-51D-041714	240-36343-2
MSA-MW-49D-041714	240-36343-3
MSA-DMW-5I-041814	240-36343-4
MSA-DMW-5S-041814	240-36343-5
MSA-MW-22D-042114	240-36355-2
MSA-MW-3-042114	240-36355-3
MSA-MW-19D-042114	240-36355-4
MSA-MW-38S-042114	240-36355-5
MSA-DMW-3D-042214	240-36398-2
MSA-DMW-3I-042214	240-36398-3
MSA-DMW-3S-042214	240-36398-4
MSA-DMW-2B-042214	240-36398-5

Comments:

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Method: 6020 Instrument ID: I10

Lab Sample ID: CRI 240-127674/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.09		104	50-150
Arsenic	5.00	4.98	J	100	50-150
Barium	5.00	4.97	J	99	50-150
Beryllium	1.00	1.15		115	50-150
Cadmium	1.00	1.00		100	50-150
Chromium	2.00	2.19		110	50-150
Cobalt	1.00	1.05		105	50-150
Copper	2.00	2.21		111	50-150
Molybdenum	10.0	9.60	J	96	50-150
Iron	100	110		110	50-150
Nickel	2.00	2.23		111	50-150
Lead	1.00	1.13		113	50-150
Manganese	5.00	5.25		105	50-150
Selenium	5.00	5.04		101	50-150
Thallium	2.00	2.08		104	50-150
Silver	1.00	1.07		107	50-150
Vanadium	5.00	4.88	J	98	50-150

Lab Sample ID: CRI 240-127907/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.17		109	50-150
Arsenic	5.00	4.96	J	99	50-150
Barium	5.00	4.96	J	99	50-150
Beryllium	1.00	1.02		102	50-150
Cadmium	1.00	1.01		101	50-150
Chromium	2.00	2.29		115	50-150
Cobalt	1.00	1.06		106	50-150
Copper	2.00	2.20		110	50-150
Molybdenum	10.0	10.1		101	50-150
Iron	100	110		110	50-150
Nickel	2.00	2.33		116	50-150
Lead	1.00	1.15		115	50-150
Manganese	5.00	5.33		107	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Method: 6020 Instrument ID: I10

Lab Sample ID: CRI 240-127907/9 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Selenium	5.00	5.03		101	50-150
Thallium	2.00	2.18		109	50-150
Silver	1.00	1.13		113	50-150
Vanadium	5.00	5.15		103	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Method: 6020 Instrument ID: I11

Lab Sample ID: CRI 240-127855/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.00		100	50-150
Arsenic	5.00	5.10		102	50-150
Barium	5.00	4.95	J	99	50-150
Beryllium	1.00	1.02		102	50-150
Cadmium	1.00	1.04		104	50-150
Chromium	2.00	2.27		113	50-150
Cobalt	1.00	1.05		105	50-150
Copper	2.00	2.16		108	50-150
Molybdenum	10.0	9.62	J	96	50-150
Iron	100	111		111	50-150
Nickel	2.00	2.12		106	50-150
Lead	1.00	1.14		114	50-150
Manganese	5.00	4.98	J	100	50-150
Selenium	5.00	4.87	J	97	50-150
Thallium	2.00	2.17		109	50-150
Silver	1.00	1.09		109	50-150
Vanadium	5.00	4.94	J	99	50-150

Lab Sample ID: CRI 240-128116/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	1.99	J	100	50-150
Arsenic	5.00	4.89	J	98	50-150
Barium	5.00	4.99	J	100	50-150
Beryllium	1.00	0.995	J	100	50-150
Cadmium	1.00	1.05		105	50-150
Chromium	2.00	2.29		115	50-150
Cobalt	1.00	1.08		108	50-150
Copper	2.00	2.23		112	50-150
Molybdenum	10.0	9.71	J	97	50-150
Iron	100	113		113	50-150
Nickel	2.00	2.22		111	50-150
Lead	1.00	1.17		117	50-150
Manganese	5.00	5.13		103	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Method: 6020 Instrument ID: I11

Lab Sample ID: CRI 240-128116/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Selenium	5.00	5.36		107	50-150
Thallium	2.00	2.21		110	50-150
Silver	1.00	1.11		111	50-150
Vanadium	5.00	5.14		103	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICSA 240-127674/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Antimony		**0.278**	
Arsenic		**0.141**	
Barium		**0.0990**	
Beryllium		**0.0000**	
Cadmium		**0.0430**	
Chromium		**0.515**	
Cobalt		**0.0190**	
Copper		**0.178**	
Iron	**50000**	**50553**	**101**
Lead		**0.103**	
Manganese		**0.0830**	
Molybdenum	**1000**	**1037**	**104**
Nickel		**0.360**	
Selenium		**0.178**	
Silver		**0.0230**	
Thallium		**0.0040**	
Vanadium		**0.0880**	
Aluminum	*50000*	*48080*	*96*
Boron		*0.743*	
Calcium	*50000*	*49398*	*99*
Magnesium	*50000*	*50434*	*101*
Potassium	*50000*	*50111*	*100*
Sodium	*50000*	*50666*	*101*
Strontium		*2.25*	
Tin		*0.189*	
Titanium	*1000*	*994*	*99*
Tungsten		*0.191*	
Zinc		*1.10*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICSAB 240-127674/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**102**	**102**
Arsenic	**100**	**106**	**106**
Barium	**100**	**105**	**105**
Beryllium	**100**	**101**	**101**
Cadmium	**100**	**105**	**105**
Chromium	**100**	**105**	**105**
Cobalt	**100**	**108**	**108**
Copper	**100**	**106**	**106**
Iron	**50000**	**52521**	**105**
Lead	**100**	**103**	**103**
Manganese	**100**	**106**	**106**
Molybdenum	**1100**	**1141**	**104**
Nickel	**100**	**106**	**106**
Selenium	**100**	**106**	**106**
Silver	**100**	**99.3**	**99**
Thallium	**100**	**103**	**103**
Vanadium	**100**	**103**	**103**
Aluminum	*50000*	*50293*	*101*
Boron	*100*	*97.5*	*97*
Calcium	*50000*	*51680*	*103*
Magnesium	*50000*	*51993*	*104*
Potassium	*50000*	*52719*	*105*
Sodium	*50000*	*52258*	*105*
Strontium	*100*	*105*	*105*
Tin	*100*	*97.8*	*98*
Titanium	*1100*	*1132*	*103*
Tungsten	*100*	*104*	*104*
Zinc	*100*	*106*	*106*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICSA 240-127907/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Antimony		**0.299**	
Arsenic		**0.0830**	
Barium		**0.109**	
Beryllium		**-0.0020**	
Cadmium		**0.0150**	
Chromium		**0.570**	
Cobalt		**0.0150**	
Copper		**0.0730**	
Iron	**50000**	**51612**	**103**
Lead		**0.109**	
Manganese		**0.0990**	
Molybdenum	**1000**	**1017**	**102**
Nickel		**0.390**	
Selenium		**-0.0240**	
Silver		**0.0230**	
Thallium		**0.0070**	
Vanadium		**-0.0430**	
Aluminum	*50000*	*47574*	*95*
Boron		*0.408*	
Calcium	*50000*	*50541*	*101*
Magnesium	*50000*	*50056*	*100*
Potassium	*50000*	*50895*	*102*
Sodium	*50000*	*50254*	*101*
Strontium		*2.32*	
Tin		*0.255*	
Titanium	*1000*	*1033*	*103*
Tungsten		*0.313*	
Zinc		*0.852*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICSAB 240-127907/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**98.1**	**98**
Arsenic	**100**	**103**	**103**
Barium	**100**	**102**	**102**
Beryllium	**100**	**115**	**115**
Cadmium	**100**	**102**	**102**
Chromium	**100**	**101**	**101**
Cobalt	**100**	**102**	**102**
Copper	**100**	**103**	**103**
Iron	**50000**	**50932**	**102**
Lead	**100**	**102**	**102**
Manganese	**100**	**105**	**105**
Molybdenum	**1100**	**1125**	**102**
Nickel	**100**	**103**	**103**
Selenium	**100**	**103**	**103**
Silver	**100**	**102**	**102**
Thallium	**100**	**102**	**102**
Vanadium	**100**	**101**	**101**
Aluminum	*50000*	*46450*	*93*
Boron	*100*	*118*	*118*
Calcium	*50000*	*49783*	*100*
Magnesium	*50000*	*49058*	*98*
Potassium	*50000*	*50050*	*100*
Sodium	*50000*	*49691*	*99*
Strontium	*100*	*102*	*102*
Tin	*100*	*104*	*104*
Titanium	*1100*	*1123*	*102*
Tungsten	*100*	*103*	*103*
Zinc	*100*	*103*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICSA 240-127855/8 Instrument ID: I11

Lab File ID: I11042414A.csv ICS Source: MTMSICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Antimony		**0.163**	
Arsenic		**0.0710**	
Barium		**0.131**	
Beryllium		**-0.0010**	
Cadmium		**-0.161**	
Chromium		**0.570**	
Cobalt		**0.0590**	
Copper		**0.140**	
Iron	**50000**	**50940**	**102**
Lead		**0.118**	
Manganese		**-0.0760**	
Molybdenum	**1000**	**1004**	**100**
Nickel		**0.358**	
Selenium		**0.0150**	
Silver		**0.0280**	
Thallium		**0.0910**	
Vanadium		**-0.0020**	
Aluminum	*50000*	*49340*	*99*
Boron		*-0.412*	
Calcium	*50000*	*50190*	*100*
Magnesium	*50000*	*50930*	*102*
Potassium	*50000*	*51810*	*104*
Sodium	*50000*	*51800*	*104*
Strontium		*2.30*	
Tin		*0.0890*	
Titanium	*1000*	*1004*	*100*
Tungsten		*0.155*	
Zinc		*0.471*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICSAB 240-127855/9 Instrument ID: I11

Lab File ID: I11042414A.csv ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**100.0**	**100**
Arsenic	**100**	**101**	**101**
Barium	**100**	**102**	**102**
Beryllium	**100**	**101**	**101**
Cadmium	**100**	**101**	**101**
Chromium	**100**	**102**	**102**
Cobalt	**100**	**99.7**	**100**
Copper	**100**	**99.0**	**99**
Iron	**50000**	**50730**	**101**
Lead	**100**	**106**	**106**
Manganese	**100**	**105**	**105**
Molybdenum	**1100**	**1114**	**101**
Nickel	**100**	**98.7**	**99**
Selenium	**100**	**100**	**100**
Silver	**100**	**100**	**100**
Thallium	**100**	**104**	**104**
Vanadium	**100**	**103**	**103**
Aluminum	*50000*	*49250*	*99*
Boron	*100*	*102*	*102*
Calcium	*50000*	*50960*	*102*
Magnesium	*50000*	*50460*	*101*
Potassium	*50000*	*52410*	*105*
Sodium	*50000*	*51620*	*103*
Strontium	*100*	*103*	*103*
Tin	*100*	*96.9*	*97*
Titanium	*1100*	*1118*	*102*
Tungsten	*100*	*105*	*105*
Zinc	*100*	*102*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICSA 240-128116/8 Instrument ID: I11

Lab File ID: I11042514A.csv ICS Source: MTMSICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Antimony		**0.264**	
Arsenic		**0.148**	
Barium		**0.203**	
Beryllium		**0.0470**	
Cadmium		**-0.117**	
Chromium		**0.715**	
Cobalt		**0.0900**	
Copper		**0.201**	
Iron	**50000**	**49460**	**99**
Lead		**0.191**	
Manganese		**0.369**	
Molybdenum	**1000**	**996**	**100**
Nickel		**0.387**	
Selenium		**0.114**	
Silver		**0.0460**	
Thallium		**0.101**	
Vanadium		**0.0160**	
Aluminum	*50000*	*46370*	*93*
Boron		*-2.15*	
Calcium	*50000*	*49180*	*98*
Magnesium	*50000*	*49050*	*98*
Potassium	*50000*	*50300*	*101*
Sodium	*50000*	*50190*	*100*
Strontium		*2.42*	
Tin		*0.0860*	
Titanium	*1000*	*985*	*99*
Tungsten		*0.167*	
Zinc		*0.216*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Lab Sample ID: ICSAB 240-128116/9 Instrument ID: I11

Lab File ID: I11042514A.csv ICS Source: MTMSICSABW_00034

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**94.4**	**94**
Arsenic	**100**	**98.2**	**98**
Barium	**100**	**99.5**	**99**
Beryllium	**100**	**97.5**	**97**
Cadmium	**100**	**99.8**	**100**
Chromium	**100**	**99.0**	**99**
Cobalt	**100**	**97.5**	**97**
Copper	**100**	**97.7**	**98**
Iron	**50000**	**49070**	**98**
Lead	**100**	**104**	**104**
Manganese	**100**	**102**	**102**
Molybdenum	**1100**	**1100**	**100**
Nickel	**100**	**98.0**	**98**
Selenium	**100**	**97.3**	**97**
Silver	**100**	**97.6**	**98**
Thallium	**100**	**104**	**104**
Vanadium	**100**	**98.9**	**99**
Aluminum	*50000*	*45960*	*92*
Boron	*100*	*96.7*	*97*
Calcium	*50000*	*49450*	*99*
Magnesium	*50000*	*48600*	*97*
Potassium	*50000*	*50760*	*102*
Sodium	*50000*	*49900*	*100*
Strontium	*100*	*102*	*102*
Tin	*100*	*97.7*	*98*
Titanium	*1100*	*1085*	*99*
Tungsten	*100*	*103*	*103*
Zinc	*100*	*99.9*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-51D-041714 MS
Lab ID: 240-36343-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-36343-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	102		0.43	J	100	102	44-153		6020
Arsenic	994		2.1	J	1000	99	82-123		6020
Barium	1110		96		1000	101	45-144		6020
Beryllium	1160		0.63	J	1000	116	77-124		6020
Cadmium	1000		1.8		1000	100	78-117		6020
Cobalt	1010		38		1000	97	67-114		6020
Chromium	941		1.2	J	1000	94	72-110		6020
Copper	966		17		1000	95	60-123		6020
Iron	24800		15000		10000	102	22-169		6020
Manganese	2630		1600		1000	98	10-172		6020
Molybdenum	105		2.6	J	100	102	80-110		6020
Nickel	988		25		1000	96	72-111		6020
Lead	914		0.91	J	1000	91	73-115		6020
Selenium	973		3.0	J	1000	97	72-148		6020
Thallium	226		0.40	U	250	90	69-117		6020
Vanadium	953		1.4	J	1000	95	70-112		6020
Silver	99.9		0.0083	U	100	100	10-139		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-51D-041714 MSD
Lab ID: 240-36343-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-36343-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	104		100	104	44-153	2	20		6020
Arsenic	1020		1000	101	82-123	2	20		6020
Barium	1120		1000	103	45-144	1	20		6020
Beryllium	1020		1000	102	77-124	13	20		6020
Cadmium	1010		1000	101	78-117	1	20		6020
Cobalt	1010		1000	97	67-114	1	20		6020
Chromium	936		1000	93	72-110	1	20		6020
Copper	971		1000	95	60-123	0	20		6020
Iron	24500		10000	100	22-169	1	20		6020
Manganese	2650		1000	101	10-172	1	20		6020
Molybdenum	107		100	105	80-110	2	20		6020
Nickel	982		1000	96	72-111	1	20		6020
Lead	915		1000	91	73-115	0	20		6020
Selenium	984		1000	98	72-148	1	20		6020
Thallium	230		250	92	69-117	2	20		6020
Vanadium	962		1000	96	70-112	1	20		6020
Silver	98.8		100	99	10-139	1	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-51D-041714 MS
Lab ID: 240-36343-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-36343-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	101		0.50	J	100	100	44-153		6020
Arsenic	1010		8.2		1000	100	82-123		6020
Barium	1030		27		1000	100	45-144		6020
Beryllium	986		3.3		1000	98	77-124		6020
Cadmium	1000		4.7		1000	100	78-117		6020
Chromium	924		3.9		1000	92	72-110		6020
Cobalt	1050		100		1000	95	67-114		6020
Copper	956		37		1000	92	60-123		6020
Lead	827		1.4		1000	83	73-115		6020
Molybdenum	103		0.81	U	100	103	80-110		6020
Nickel	994		60		1000	93	72-111		6020
Iron	29000		19000		10000	99	22-169		6020
Selenium	994		17		1000	98	72-148		6020
Manganese	3700		2800		1000	95	10-172		6020
Silver	98.5		0.0090	J	100	99	10-139		6020
Thallium	207		0.40	U	250	83	69-117		6020
Vanadium	927		2.8	J	1000	92	70-112		6020
Mercury	0.852		0.12	U	1.00	85	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-51D-041714 MSD
Lab ID: 240-36343-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-36343-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	101		100	100	44-153	0	20		6020
Arsenic	999		1000	99	82-123	1	20		6020
Barium	1040		1000	102	45-144	2	20		6020
Beryllium	989		1000	99	77-124	0	20		6020
Cadmium	1000		1000	100	78-117	0	20		6020
Chromium	916		1000	91	72-110	1	20		6020
Cobalt	1050		1000	94	67-114	0	20		6020
Copper	952		1000	92	60-123	0	20		6020
Lead	842		1000	84	73-115	2	20		6020
Molybdenum	102		100	102	80-110	1	20		6020
Nickel	986		1000	93	72-111	1	20		6020
Iron	28600		10000	95	22-169	1	20		6020
Selenium	986		1000	97	72-148	1	20		6020
Manganese	3640		1000	89	10-172	2	20		6020
Silver	100		100	100	10-139	2	20		6020
Thallium	212		250	85	69-117	2	20		6020
Vanadium	931		1000	93	70-112	0	20		6020
Mercury	0.862		1.00	86	69-134	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-DMW-5S-041814 MS
Lab ID: 240-36343-5 MS
Lab Name: TestAmerica Canton
Job No.: 240-36343-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	91.6		1.1	U	100	92	44-153		6020
Arsenic	945		16		1000	93	82-123		6020
Barium	895		21	J	1000	87	45-144		6020
Beryllium	952		4.0		1000	95	77-124		6020
Cadmium	978		6.9		1000	97	78-117		6020
Chromium	1030		90		1000	94	72-110		6020
Cobalt	996		65		1000	93	67-114		6020
Copper	1580		650		1000	93	60-123		6020
Molybdenum	95.8		2.2	J	100	94	80-110		6020
Iron	34000		23000		10000	114	22-169		6020
Nickel	996		60		1000	94	72-111		6020
Lead	866		7.3	J	1000	86	73-115		6020
Manganese	4450		3600		1000	82	10-172		6020
Selenium	984		33		1000	95	72-148		6020
Thallium	215		4.0	U	250	86	69-117		6020
Silver	97.4		0.072	J	100	97	10-139		6020
Vanadium	950		9.3		1000	94	70-112		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-DMW-5S-041814 MSD
Lab ID: 240-36343-5 MSD
Lab Name: TestAmerica Canton
Job No.: 240-36343-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	91.6		100	92	44-153	0	20		6020
Arsenic	929		1000	91	82-123	2	20		6020
Barium	889		1000	87	45-144	1	20		6020
Beryllium	938		1000	93	77-124	1	20		6020
Cadmium	966		1000	96	78-117	1	20		6020
Chromium	1010		1000	92	72-110	3	20		6020
Cobalt	976		1000	91	67-114	2	20		6020
Copper	1580		1000	94	60-123	0	20		6020
Molybdenum	93.9		100	92	80-110	2	20		6020
Iron	33900		10000	113	22-169	0	20		6020
Nickel	975		1000	91	72-111	2	20		6020
Lead	872		1000	86	73-115	1	20		6020
Manganese	4490		1000	87	10-172	1	20		6020
Selenium	951		1000	92	72-148	3	20		6020
Thallium	216		250	87	69-117	1	20		6020
Silver	95.9		100	96	10-139	2	20		6020
Vanadium	914		1000	90	70-112	4	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-36343-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-36343-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.43	J	1.11	J	NC		6020
Arsenic	2.1	J	2.03	J	NC		6020
Barium	96		97.1		NC		6020
Beryllium	0.63	J	0.750	J	NC		6020
Cadmium	1.8		1.81	J	NC		6020
Chromium	1.2	J	1.10	J	NC		6020
Cobalt	38		39.9		NC		6020
Copper	17		18.4		NC		6020
Molybdenum	2.6	J	4.1	U	NC		6020
Iron	15000		15100		3.5		6020
Nickel	25		25.9		NC		6020
Lead	0.91	J	1.10	J	NC		6020
Manganese	1600		1740		6.1		6020
Selenium	3.0	J	3.03	J	NC		6020
Thallium	0.40	U	2.0	U	NC		6020
Silver	0.0083	U	0.042	U	NC		6020
Vanadium	1.4	J	1.54	J	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-36343-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-36343-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Lead	1.4		1.71	J	NC		6020
Thallium	0.40	U	2.0	U	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-36343-5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-36343-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	1.1	U	5.5	U	NC		6020
Arsenic	16		18.4	J	NC		6020
Barium	21	J	39.7	J	NC		6020
Beryllium	4.0		4.10	J	NC		6020
Cadmium	6.9		7.24		NC		6020
Chromium	90		96.9		NC		6020
Cobalt	65		70.8		NC		6020
Copper	650		666		NC		6020
Molybdenum	2.2	J	4.1	U	NC		6020
Iron	23000		24600		8.7		6020
Nickel	60		66.8		NC		6020
Lead	7.3	J	8.80	J	NC		6020
Manganese	3600		3830		NC		6020
Selenium	33		35.9		NC		6020
Thallium	4.0	U	20	U	NC		6020
Silver	0.072	J	0.100	J	NC		6020
Vanadium	9.3		10.0	J	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36343-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36343-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36343-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36343-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36343-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36343-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36343-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36343-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-36343-1

SDG No.:

Instrument ID: I10 Date: 04/14/2014 15:35

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		300	6020
Arsenic		10000	6020
Barium		10000	6020
Beryllium		10000	6020
Cadmium		4000	6020
Chromium		10000	6020
Cobalt		10000	6020
Copper		10000	6020
Molybdenum		2000	6020
Iron		200000	6020
Nickel		10000	6020
Lead		4000	6020
Manganese		10000	6020
Selenium		10000	6020
Thallium		5000	6020
Silver		300	6020
Vanadium		10000	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-36343-1

SDG No.:

Instrument ID: I11 Date: 03/10/2014 12:42

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		1000	6020
Arsenic		10000	6020
Barium		10000	6020
Beryllium		10000	6020
Cadmium		10000	6020
Chromium		10000	6020
Cobalt		10000	6020
Copper		10000	6020
Molybdenum		2000	6020
Iron		500000	6020
Nickel		10000	6020
Lead		10000	6020
Manganese		10000	6020
Selenium		10000	6020
Thallium		500	6020
Silver		500	6020
Vanadium		10000	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-36343-1

SDG No.:

Instrument ID: H1 Date: 12/10/2013 15:54

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-127397/1-A	04/22/2014 09:40	127397		50	50
LCS 240-127397/2-A	04/22/2014 09:40	127397		50	50
240-36343-2	04/22/2014 09:40	127397		50	50
240-36343-2 MS	04/22/2014 09:40	127397		50	50
240-36343-2 MSD	04/22/2014 09:40	127397		50	50
240-36343-2	04/22/2014 09:40	127397		50	50
240-36343-2 MS	04/22/2014 09:40	127397		50	50
240-36343-2 MSD	04/22/2014 09:40	127397		50	50
240-36343-3	04/22/2014 09:40	127397		50	50
240-36343-4	04/22/2014 09:40	127397		50	50
240-36343-3	04/22/2014 09:41	127397		50	50
240-36343-4	04/22/2014 09:41	127397		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-127397/1-A

Instrument Code: I10 Batch No.: 127674

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.11	U		6020
7440-38-2	Arsenic	0.432	J		6020
7440-39-3	Barium	1.63	J		6020
7440-41-7	Beryllium	0.031	U		6020
7440-43-9	Cadmium	0.026	U		6020
7440-47-3	Chromium	0.13	U		6020
7440-48-4	Cobalt	0.020	U		6020
7440-50-8	Copper	1.38	J		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-89-6	Iron	15.7	J		6020
7440-02-0	Nickel	0.122	J		6020
7439-92-1	Lead	0.178	J		6020
7439-96-5	Manganese	0.526	J		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-22-4	Silver	0.0083	U		6020
7440-62-2	Vanadium	1.43	J		6020

FORM III-IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-127397/2-A

Lab Name: TestAmerica Canton Job No.: 240-36343-1

Sample Matrix: Water LCS Source: MTICPMSB_00017

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	93.2		93	80	120		6020
Arsenic	1000	922		92	80	120		6020
Barium	1000	933		93	80	120		6020
Beryllium	1000	931		93	80	120		6020
Cadmium	1000	972		97	80	120		6020
Chromium	1000	929		93	80	120		6020
Cobalt	1000	964		96	80	120		6020
Copper	1000	981		98	80	120		6020
Molybdenum	100	92.7		93	80	120		6020
Iron	10000	9850		98	80	120		6020
Nickel	1000	978		98	80	120		6020
Lead	1000	914		91	80	120		6020
Manganese	1000	958		96	80	120		6020
Selenium	1000	923		92	80	120		6020
Thallium	250	230		92	80	120		6020
Silver	100	97.1		97	80	120		6020
Vanadium	1000	907		91	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-127554/1-A	04/23/2014 09:21	127554		50	50
LCS 240-127554/2-A	04/23/2014 09:21	127554		50	50
240-36343-5	04/23/2014 09:21	127554		50	50
240-36343-5 MS	04/23/2014 09:21	127554		50	50
240-36343-5 MSD	04/23/2014 09:21	127554		50	50
240-36355-2	04/23/2014 09:21	127554		50	50
240-36355-3	04/23/2014 09:21	127554		50	50
240-36355-4	04/23/2014 09:21	127554		50	50
240-36355-5	04/23/2014 09:21	127554		50	50
240-36343-5	04/23/2014 09:21	127554		50	50
240-36355-2	04/23/2014 09:21	127554		50	50
240-36355-3	04/23/2014 09:21	127554		50	50
240-36355-4	04/23/2014 09:21	127554		50	50
240-36355-5	04/23/2014 09:21	127554		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-127554/1-A

Instrument Code: I11 Batch No.: 127855

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.228	J		6020
7440-38-2	Arsenic	0.112	J		6020
7440-39-3	Barium	1.55	J		6020
7440-41-7	Beryllium	0.031	U		6020
7440-43-9	Cadmium	0.026	U		6020
7440-47-3	Chromium	0.13	U		6020
7440-48-4	Cobalt	0.020	U		6020
7440-50-8	Copper	0.935	J		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-89-6	Iron	13.0	J		6020
7440-02-0	Nickel	0.121	J		6020
7439-92-1	Lead	0.158	J		6020
7439-96-5	Manganese	0.615	J		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-22-4	Silver	0.0083	U		6020
7440-62-2	Vanadium	0.15	U		6020

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-127554/2-A

Lab Name: TestAmerica Canton Job No.: 240-36343-1

Sample Matrix: Water LCS Source: MTICPMSB_00017

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	94.4		94	80	120		6020
Arsenic	1000	975		98	80	120		6020
Barium	1000	924		92	80	120		6020
Beryllium	1000	1000		100	80	120		6020
Cadmium	1000	974		97	80	120		6020
Chromium	1000	950		95	80	120		6020
Cobalt	1000	958		96	80	120		6020
Copper	1000	986		99	80	120		6020
Molybdenum	100	97.7		98	80	120		6020
Iron	10000	9870		99	80	120		6020
Nickel	1000	975		97	80	120		6020
Lead	1000	966		97	80	120		6020
Manganese	1000	987		99	80	120		6020
Selenium	1000	993		99	80	120		6020
Thallium	250	240		96	80	120		6020
Silver	100	101		101	80	120		6020
Vanadium	1000	937		94	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-127722/1-A	04/24/2014 09:05	127722		50	50
LCS 240-127722/2-A	04/24/2014 09:05	127722		50	50
240-36398-2	04/24/2014 09:05	127722		50	50
240-36398-3	04/24/2014 09:05	127722		50	50
240-36398-4	04/24/2014 09:05	127722		50	50
240-36398-5	04/24/2014 09:05	127722		50	50
240-36398-2	04/24/2014 09:05	127722		50	50
240-36398-3	04/24/2014 09:05	127722		50	50
240-36398-4	04/24/2014 09:05	127722		50	50
240-36398-5	04/24/2014 09:05	127722		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-127722/1-A

Instrument Code: I11 Batch No.: 128116

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.261	J		6020
7440-38-2	Arsenic	0.0980	J		6020
7440-39-3	Barium	1.44	J		6020
7440-41-7	Beryllium	0.031	U		6020
7440-43-9	Cadmium	0.026	U		6020
7440-47-3	Chromium	0.13	U		6020
7440-48-4	Cobalt	0.020	U		6020
7440-50-8	Copper	0.849	J		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-89-6	Iron	14.0	J		6020
7440-02-0	Nickel	0.151	J		6020
7439-92-1	Lead	0.198	J		6020
7439-96-5	Manganese	0.426	J		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-22-4	Silver	0.0083	U		6020
7440-62-2	Vanadium	0.15	U		6020

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-127722/2-A

Lab Name: TestAmerica Canton Job No.: 240-36343-1

Sample Matrix: Water LCS Source: MTICPMSB_00017

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	92.1		92	80	120		6020
Arsenic	1000	951		95	80	120		6020
Barium	1000	911		91	80	120		6020
Beryllium	1000	920		92	80	120		6020
Cadmium	1000	966		97	80	120		6020
Chromium	1000	927		93	80	120		6020
Cobalt	1000	918		92	80	120		6020
Copper	1000	986		99	80	120		6020
Molybdenum	100	96.1		96	80	120		6020
Iron	10000	8870		89	80	120		6020
Nickel	1000	970		97	80	120		6020
Lead	1000	895		89	80	120		6020
Manganese	1000	958		96	80	120		6020
Selenium	1000	967		97	80	120		6020
Thallium	250	224		90	80	120		6020
Silver	100	101		101	80	120		6020
Vanadium	1000	912		91	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/23/2014 11:00 End Date: 04/23/2014 22:49

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V												
ZZZZZZ			11:00																													
ICIS 240-127674/2			11:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
STD1 240-127674/3 IC	1		11:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
STD2 240-127674/4 IC	1		11:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
STD3 240-127674/5 IC	1		11:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
STD4 240-127674/6 IC	1		11:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICV 240-127674/7	1		11:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICB 240-127674/8	1		11:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CRI 240-127674/9	1		11:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICSA 240-127674/10	1		11:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICSAB 240-127674/11	1		11:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCV 240-127674/12			11:42																													
CCB 240-127674/13			11:46																													
ZZZZZZ			11:50																													
ZZZZZZ			11:54																													
ZZZZZZ			11:58																													
ZZZZZZ			12:02																													
ZZZZZZ			12:06																													
ZZZZZZ			12:10																													
ZZZZZZ			12:14																													
ZZZZZZ			12:18																													
ZZZZZZ			12:22																													
ZZZZZZ			12:26																													
CCV 240-127674/24			12:30																													
CCB 240-127674/25			12:33																													
ZZZZZZ			12:37																													
ZZZZZZ			12:41																													
ZZZZZZ			12:45																													
ZZZZZZ			12:49																													
ZZZZZZ			12:52																													
ZZZZZZ			12:56																													
ZZZZZZ			12:59																													
ZZZZZZ			13:03																													
ZZZZZZ			13:07																													
ZZZZZZ			13:11																													
CCV 240-127674/36			13:14																													
CCB 240-127674/37			13:18																													
ZZZZZZ			13:22																													
ZZZZZZ			13:26																													
ZZZZZZ			13:30																													
ZZZZZZ			13:34																													
ZZZZZZ			13:37																													

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/23/2014 11:00 End Date: 04/23/2014 22:49

Lab Sample Id	D/F	Type	Time	Analytes																
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V
ZZZZZZ			13:41																	
ZZZZZZ			13:45																	
ZZZZZZ			13:49																	
ZZZZZZ			13:53																	
ZZZZZZ			13:57																	
CCV 240-127674/48	1		14:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-127674/49	1		14:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			~~14:08~~																	
ZZZZZZ			14:12																	
ZZZZZZ			14:16																	
ZZZZZZ			14:20																	
ZZZZZZ			14:23																	
ZZZZZZ			14:27																	
ZZZZZZ			14:31																	
MB 240-127397/1-A	1	R	14:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LCS 240-127397/2-A	1	R	14:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-36343-2 SID F	1	R	14:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 240-127674/60	1		14:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-127674/61	1		14:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-36343-2 SD	5	R	14:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-36343-2 MS	1	R	14:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-36343-2 MSD	1	R	15:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-36343-2 SID	1	D	15:05	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X
240-36343-2 MS	1	D	15:08	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X
240-36343-2 MSD	1	D	15:12	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X
ZZZZZZ			15:15																	
ZZZZZZ			15:19																	
ZZZZZZ			15:23																	
ZZZZZZ			15:27																	
CCV 240-127674/72	1		15:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-127674/73	1		15:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			~~15:39~~																	
ZZZZZZ			15:42																	
ZZZZZZ			15:46																	
ZZZZZZ			15:50																	
ZZZZZZ			15:54																	
ZZZZZZ			15:58																	
ZZZZZZ			16:02																	
ZZZZZZ			16:06																	
ZZZZZZ			16:10																	
ZZZZZZ			16:13																	
CCV 240-127674/84	1		16:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/23/2014 11:00 End Date: 04/23/2014 22:49

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V										
CCB 240-127674/85	1		16:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			16:25																											
ZZZZZZ			16:29																											
ZZZZZZ			16:33																											
ZZZZZZ			16:36																											
ZZZZZZ			16:40																											
ZZZZZZ			16:44																											
ZZZZZZ			16:48																											
ZZZZZZ			16:51																											
ZZZZZZ			16:55																											
ZZZZZZ			16:59																											
CCV 240-127674/96	1		17:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-127674/97	1		17:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			17:10																											
ZZZZZZ			17:14																											
ZZZZZZ			17:18																											
ZZZZZZ			17:21																											
ZZZZZZ			17:25																											
ZZZZZZ			17:29																											
ZZZZZZ			17:33																											
ZZZZZZ			17:37																											
ZZZZZZ			17:41																											
ZZZZZZ			17:45																											
CCV 240-127674/108			17:48																											
CCB 240-127674/109			17:52																											
ZZZZZZ			17:56																											
ZZZZZZ			18:00																											
ZZZZZZ			18:04																											
ZZZZZZ			18:08																											
ZZZZZZ			18:11																											
ZZZZZZ			18:15																											
ZZZZZZ			18:19																											
ZZZZZZ			18:23																											
ZZZZZZ			18:27																											
ZZZZZZ			18:31																											
CCV 240-127674/120			18:35																											
CCB 240-127674/121			18:39																											
ZZZZZZ			18:42																											
ZZZZZZ			18:46																											
ZZZZZZ			18:50																											
ZZZZZZ			18:54																											
ZZZZZZ			18:57																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/23/2014 11:00 End Date: 04/23/2014 22:49

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V										
ZZZZZZ			19:00																											
ZZZZZZ			19:04																											
ZZZZZZ			19:08																											
ZZZZZZ			19:12																											
ZZZZZZ			19:16																											
CCV 240-127674/132			19:20																											
CCB 240-127674/133			19:24																											
ZZZZZZ			19:27																											
ZZZZZZ			19:31																											
ZZZZZZ			19:35																											
ZZZZZZ			19:39																											
ZZZZZZ			19:43																											
ZZZZZZ			19:47																											
ZZZZZZ			19:50																											
ZZZZZZ			19:54																											
ZZZZZZ			19:58																											
ZZZZZZ			20:01																											
CCV 240-127674/144			20:05																											
CCB 240-127674/145			20:09																											
ZZZZZZ			20:13																											
ZZZZZZ			20:17																											
ZZZZZZ			20:21																											
ZZZZZZ			20:24																											
ZZZZZZ			20:28																											
ZZZZZZ			20:32																											
ZZZZZZ			20:36																											
ZZZZZZ			20:40																											
ZZZZZZ			20:44																											
ZZZZZZ			20:47																											
CCV 240-127674/156			20:51																											
CCB 240-127674/157			20:55																											
ZZZZZZ			20:59																											
ZZZZZZ			21:03																											
ZZZZZZ			21:07																											
ZZZZZZ			21:10																											
ZZZZZZ			21:14																											
ZZZZZZ			21:18																											
ZZZZZZ			21:22																											
ZZZZZZ			21:26																											
ZZZZZZ			21:29																											
ZZZZZZ			21:33																											
ZZZZZZ			21:37																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/23/2014 11:00 End Date: 04/23/2014 22:49

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V											
ZZZZZZ			21:41																												
CCV 240-127674/170	1		21:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-127674/171	1		21:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ZZZZZZ			21:52																												
ZZZZZZ			21:56																												
ZZZZZZ			22:00																												
ZZZZZZ			22:04																												
ZZZZZZ			22:08																												
ZZZZZZ			22:12																												
ZZZZZZ			22:15																												
ZZZZZZ			22:19																												
ZZZZZZ			22:23																												
ZZZZZZ			22:27																												
CCV 240-127674/182	1		22:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-127674/183	1		22:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ZZZZZZ			22:38																												
ZZZZZZ			22:42																												
CCV 240-127674/186	1		22:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-127674/187	1		22:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											

Prep Types:
D = Dissolved
R = Total Recoverable

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	ICV 240-127674/7 04/23/2014 11:23				CCV 240-127674/48 04/23/2014 14:00				CCV 240-127674/60 04/23/2014 14:46			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	36.0		40.0	90	48.8		50.0	98	49.1		50.0	98
Arsenic	39.5		40.0	99	49.9		50.0	100	49.7		50.0	99
Barium	38.7		40.0	97	49.4		50.0	99	49.4		50.0	99
Beryllium	40.5		40.0	101	49.7		50.0	99	49.7		50.0	99
Cadmium	40.4		40.0	101	51.1		50.0	102	50.2		50.0	100
Chromium	39.2		40.0	98	50.1		50.0	100	49.6		50.0	99
Cobalt	40.2		40.0	100	51.4		50.0	103	50.3		50.0	101
Copper	41.6		40.0	104	52.7		50.0	105	51.3		50.0	103
Iron	9900		10000	99	12800		12500	102	12700		12500	102
Lead	40.6		40.0	102	49.6		50.0	99	49.5		50.0	99
Manganese	201		200	101	252		250	101	254		250	101
Molybdenum	40.0		40.0	100	48.9		50.0	98	49.0		50.0	98
Nickel	41.2		40.0	103	52.1		50.0	104	51.0		50.0	102
Selenium	40.7		40.0	102	48.8		50.0	98	48.8		50.0	98
Silver	40.4		40.0	101	49.2		50.0	98	49.1		50.0	98
Thallium	40.9		40.0	102	49.9		50.0	100	50.4		50.0	101
Vanadium	38.8		40.0	97	49.8		50.0	100	49.4		50.0	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	CCV 240-127674/72 04/23/2014 15:31				CCV 240-127674/84 04/23/2014 16:17				CCV 240-127674/96 04/23/2014 17:02			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	48.6		50.0	97	49.0		50.0	98	49.2		50.0	98
Arsenic	48.6		50.0	97	49.6		50.0	99	49.8		50.0	100
Barium	48.8		50.0	98	50.0		50.0	100	50.1		50.0	100
Beryllium	47.1		50.0	94	48.6		50.0	97	48.4		50.0	97
Cadmium	48.8		50.0	98	49.6		50.0	99	49.5		50.0	99
Chromium	47.8		50.0	96	48.2		50.0	96	48.0		50.0	96
Cobalt	48.8		50.0	98	49.3		50.0	99	48.4		50.0	97
Copper	48.3		50.0	97	48.4		50.0	97	47.9		50.0	96
Iron	12500		12500	100	12500		12500	100	12500		12500	100
Lead	48.1		50.0	96	48.0		50.0	96	47.4		50.0	95
Manganese	253		250	101	257		250	103	256		250	102
Molybdenum	49.0		50.0	98	49.9		50.0	100	50.3		50.0	101
Nickel	48.8		50.0	98	48.9		50.0	98	48.3		50.0	97
Selenium	49.2		50.0	98	50.7		50.0	101	51.0		50.0	102
Silver	48.8		50.0	98	48.5		50.0	97	48.4		50.0	97
Thallium	48.5		50.0	97	48.8		50.0	98	48.0		50.0	96
Vanadium	48.2		50.0	96	48.5		50.0	97	48.3		50.0	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	CCV 240-127674/170 04/23/2014 21:45				CCV 240-127674/182 04/23/2014 22:31				CCV 240-127674/186 04/23/2014 22:45			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	49.3		50.0	99	48.2		50.0	96	47.4		50.0	95
Arsenic	50.8		50.0	102	50.1		50.0	100	48.7		50.0	97
Barium	50.3		50.0	101	49.6		50.0	99	48.2		50.0	96
Beryllium	47.2		50.0	94	45.5		50.0	91	46.6		50.0	93
Cadmium	48.3		50.0	97	47.6		50.0	95	45.8		50.0	92
Chromium	47.2		50.0	94	46.4		50.0	93	44.6		50.0	89
Cobalt	49.0		50.0	98	47.9		50.0	96	46.9		50.0	94
Copper	46.0		50.0	92	44.8		50.0	90	44.2		50.0	88
Iron	12400		12500	99	12500		12500	100	11800		12500	95
Lead	46.3		50.0	93	45.0		50.0	90	43.3		50.0	87
Manganese	256		250	102	256		250	102	246		250	99
Molybdenum	52.4		50.0	105	51.9		50.0	104	50.9		50.0	102
Nickel	45.6		50.0	91	44.7		50.0	89	43.6		50.0	87
Selenium	52.9		50.0	106	53.3		50.0	107	51.6		50.0	103
Silver	49.4		50.0	99	49.0		50.0	98	47.5		50.0	95
Thallium	47.0		50.0	94	46.5		50.0	93	44.3		50.0	89
Vanadium	48.6		50.0	97	47.3		50.0	95	45.6		50.0	91

Not used

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-127674/8 04/23/2014 11:27		CCB 240-127674/49 04/23/2014 14:04		CCB 240-127674/61 04/23/2014 14:50		CCB 240-127674/73 04/23/2014 15:35	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.582	J	0.410	J	0.398	J	0.397	J
Arsenic	5.0	0.063	U	0.063	U	0.063	U	0.063	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.031	U	0.0370	J	0.0620	J
Cadmium	1.0	0.026	U	0.026	U	0.026	U	0.026	U
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	12	U	12	U	12	U
Lead	1.0	0.14	U	0.14	U	0.14	U	0.14	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.355	J
Silver	1.0	0.0083	U	0.0083	U	0.0083	U	0.0083	U
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Not used

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-127674/85 04/23/2014 16:21		CCB 240-127674/97 04/23/2014 17:06		CCB 240-127674/171 04/23/2014 21:48		CCB 240-127674/183 04/23/2014 22:34	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.419	J	0.534	J	0.164	J	0.148	J
Arsenic	5.0	0.063	U	0.063	U	0.063	U	0.063	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.0910	J	0.031	U	0.031	U
Cadmium	1.0	0.026	U	0.026	U	0.026	U	0.026	U
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Copper	2.0	0.24	U	0.24	U	0.24	U	0.884	J
Iron	100	12	U	12	U	12	U	12	U
Lead	1.0	0.14	U	0.14	U	0.14	U	0.14	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.511	J	1.06	J	1.26	J
Silver	1.0	0.0083	U	0.0083	U	0.0083	U	0.0083	U
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

not used

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-127674/187 04/23/2014 22:49							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.250	J						
Arsenic	5.0	0.063	U						
Barium	5.0	0.32	U						
Beryllium	1.0	0.117	J						
Cadmium	1.0	0.0270	J						
Chromium	2.0	0.13	U						
Cobalt	1.0	0.020	U						
Copper	2.0	1.06	J						
Iron	100	12	U						
Lead	1.0	0.14	U						
Manganese	5.0	0.41	U						
Molybdenum	10	0.81	U						
Nickel	2.0	0.088	U						
Selenium	5.0	1.22	J						
Silver	1.0	0.0083	U						
Thallium	2.0	0.40	U						
Vanadium	5.0	0.15	U						

not used

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/24/2014 09:21 End Date: 04/24/2014 20:48

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V											
ZZZZZZ			09:21																												
ICIS 240-127907/2			09:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
STD1 240-127907/3 IC	1		09:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
STD2 240-127907/4 IC	1		09:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
STD3 240-127907/5 IC	1		09:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
STD4 240-127907/6 IC	1		09:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ICV 240-127907/7	1		09:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ICB 240-127907/8	1		09:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CRI 240-127907/9	1		09:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ICSA 240-127907/10	1		09:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ICSAB 240-127907/11	1		10:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCV 240-127907/12			10:04																												
CCB 240-127907/13			10:08																												
CCV 240-127907/14			10:14																												
CCB 240-127907/15			10:18																												
EMPTY 240-127907/16			10:22																												
EMPTY 240-127907/17			10:25																												
ZZZZZZ			10:29																												
ZZZZZZ			10:33																												
ZZZZZZ			10:37																												
ZZZZZZ			10:41																												
ZZZZZZ			10:45																												
ZZZZZZ			10:49																												
ZZZZZZ			10:53																												
ZZZZZZ			10:57																												
CCV 240-127907/26			11:01																												
CCB 240-127907/27			11:04																												
ZZZZZZ			11:08																												
ZZZZZZ			11:12																												
ZZZZZZ			11:16																												
ZZZZZZ			11:20																												
ZZZZZZ			11:24																												
ZZZZZZ			11:28																												
ZZZZZZ			11:32																												
ZZZZZZ			11:36																												
ZZZZZZ			11:39																												
ZZZZZZ			11:43																												
CCV 240-127907/38			11:47																												
CCB 240-127907/39			11:51																												
ZZZZZZ			11:55																												
ZZZZZZ			11:59																												
ZZZZZZ			12:03																												

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/24/2014 09:21 End Date: 04/24/2014 20:48

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V								
ZZZZZZ			12:07																									
ZZZZZZ			12:10																									
ZZZZZZ			12:14																									
ZZZZZZ			12:18																									
ZZZZZZ			12:22																									
ZZZZZZ			12:26																									
ZZZZZZ			12:30																									
CCV 240-127907/50			12:34																									
CCB 240-127907/51			12:37																									
ZZZZZZ			12:41																									
ZZZZZZ			12:45																									
ZZZZZZ			12:49																									
ZZZZZZ			12:53																									
ZZZZZZ			12:56																									
ZZZZZZ			13:00																									
ZZZZZZ			13:04																									
ZZZZZZ			13:07																									
ZZZZZZ			13:11																									
ZZZZZZ			13:15																									
CCV 240-127907/62	1		13:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-127907/63	1		13:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			13:26																									
ZZZZZZ			13:30																									
ZZZZZZ			13:34																									
ZZZZZZ			13:38																									
ZZZZZZ			13:42																									
ZZZZZZ			13:46																									
ZZZZZZ			13:49																									
ZZZZZZ			13:53																									
ZZZZZZ			13:57																									
240-36343-2	1	D	14:01													X			X									
CCV 240-127907/74	1		14:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-127907/75	1		14:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-36343-2 SD	5	D	14:12													X			X									
240-36343-2 MS	1	D	14:16													X			X									
240-36343-2 MSD	1	D	14:20													X			X									
ZZZZZZ			14:23																									
ZZZZZZ			14:27																									
ZZZZZZ			14:31																									
ZZZZZZ			14:35																									
ZZZZZZ			14:43																									
ZZZZZZ			14:47																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/24/2014 09:21 End Date: 04/24/2014 20:48

Lab Sample Id	D/F	Type	Time	Analytes																
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V
240-36343-3 49D	1	R	14:51	X	X	X	X	X						X			X	X		
CCV 240-127907/86	1		14:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-127907/87	1		14:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-36343-3	5	R	15:02						X	X	X	X	X		X	X			X	X
240-36343-4 5I	1	R	15:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			15:10																	
240-36343-3 49D	1	D	15:14	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X
240-36343-3	5	D	15:18													X			X	
240-36343-4 5I	1	D	15:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			15:25																	
ZZZZZZ			15:29																	
ZZZZZZ			15:33																	
ZZZZZZ			15:37																	
CCV 240-127907/98	1		15:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-127907/99	1		15:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			15:48																	
ZZZZZZ			15:52																	
ZZZZZZ			15:56																	
ZZZZZZ			15:59																	
ZZZZZZ			16:03																	
ZZZZZZ			16:06																	
ZZZZZZ			16:10																	
ZZZZZZ			16:14																	
ZZZZZZ			16:17																	
ZZZZZZ			16:21																	
CCV 240-127907/110			16:25																	
CCB 240-127907/111			16:29																	
CCV 240-127907/112			16:33																	
CCB 240-127907/113			16:37																	
ZZZZZZ			16:41																	
ZZZZZZ			16:44																	
ZZZZZZ			16:48																	
ZZZZZZ			16:52																	
ZZZZZZ			16:56																	
ZZZZZZ			17:00																	
ZZZZZZ			17:04																	
ZZZZZZ			17:07																	
ZZZZZZ			17:11																	
ZZZZZZ			17:15																	
CCV 240-127907/124			17:19																	
CCB 240-127907/125			17:23																	
ZZZZZZ			17:27																	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/24/2014 09:21 End Date: 04/24/2014 20:48

Lab Sample Id	D/F	Type	Time	Analytes
ZZZZZZ			17:31	
ZZZZZZ			17:34	
ZZZZZZ			17:38	
ZZZZZZ			17:42	
ZZZZZZ			17:46	
ZZZZZZ			17:49	
ZZZZZZ			17:53	
ZZZZZZ			17:57	
ZZZZZZ			18:01	
CCV 240-127907/136			18:04	
CCB 240-127907/137			18:08	
ZZZZZZ			18:12	
ZZZZZZ			18:16	
ZZZZZZ			18:19	
ZZZZZZ			18:23	
ZZZZZZ			18:27	
ZZZZZZ			18:31	
ZZZZZZ			18:35	
ZZZZZZ			18:39	
ZZZZZZ			18:42	
ZZZZZZ			18:46	
CCV 240-127907/148			18:50	
CCB 240-127907/149			18:54	
ZZZZZZ			18:58	
ZZZZZZ			19:02	
ZZZZZZ			19:06	
ZZZZZZ			19:09	
ZZZZZZ			19:13	
ZZZZZZ			19:17	
ZZZZZZ			19:20	
ZZZZZZ			19:24	
ZZZZZZ			19:28	
ZZZZZZ			19:31	
CCV 240-127907/160			19:35	
CCB 240-127907/161			19:39	
ZZZZZZ			19:43	
ZZZZZZ			19:47	
ZZZZZZ			19:51	
ZZZZZZ			19:55	
ZZZZZZ			19:58	
ZZZZZZ			20:02	
ZZZZZZ			20:06	

Analytes: Ag, As, Ba, Be, Cd, Co, Cr, Cu, Fe, Mn, Mo, Ni, Pb, Sb, Se, Tl, V

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020

Start Date: 04/24/2014 09:21 End Date: 04/24/2014 20:48

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V												
ZZZZZZ			20:10																													
ZZZZZZ			20:14																													
ZZZZZZ			20:18																													
CCV 240-127907/172			20:21																													
CCB 240-127907/173			20:25																													
ZZZZZZ			20:29																													
ZZZZZZ			20:33																													
ZZZZZZ			20:37																													
ZZZZZZ			20:41																													
CCV 240-127907/178			20:44																													
CCB 240-127907/179			20:48																													

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	ICV 240-127907/7 04/24/2014 09:45				CCV 240-127907/62 04/24/2014 13:19				CCV 240-127907/74 04/24/2014 14:05			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.1		40.0	100	50.8		50.0	102	51.9		50.0	104
Arsenic	40.9		40.0	102	50.5		50.0	101	51.8		50.0	104
Barium	40.2		40.0	101	50.0		50.0	100	51.8		50.0	104
Beryllium	41.3		40.0	103	49.0		50.0	98	49.3		50.0	99
Cadmium	41.3		40.0	103	50.8		50.0	102	51.8		50.0	104
Chromium	40.8		40.0	102	51.7		50.0	103	53.2		50.0	106
Cobalt	40.6		40.0	101	51.6		50.0	103	53.4		50.0	107
Copper	42.8		40.0	107	53.8		50.0	108	56.7		50.0	113
Iron	9970		10000	100	12900		12500	103	13200		12500	106
Lead	42.5		40.0	106	51.3		50.0	103	52.1		50.0	104
Manganese	208		200	104	263		250	105	271		250	108
Molybdenum	41.8		40.0	105	52.0		50.0	104	53.2		50.0	106
Nickel	41.3		40.0	103	52.2		50.0	104	53.4		50.0	107
Selenium	41.1		40.0	103	50.5		50.0	101	51.7		50.0	103
Silver	43.3		40.0	108	53.2		50.0	106	53.7		50.0	107
Thallium	42.4		40.0	106	52.2		50.0	104	52.0		50.0	104
Vanadium	40.5		40.0	101	51.2		50.0	102	52.9		50.0	106

Cu not used

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	CCV 240-127907/86 04/24/2014 14:55				CCV 240-127907/98 04/24/2014 15:40							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	48.6		50.0	97	49.6		50.0	99				
Arsenic	50.4		50.0	101	50.7		50.0	101				
Barium	49.1		50.0	98	49.9		50.0	100				
Beryllium	49.9		50.0	100	49.2		50.0	98				
Cadmium	49.2		50.0	98	49.5		50.0	99				
Chromium	49.8		50.0	100	50.7		50.0	101				
Cobalt	50.2		50.0	100	50.8		50.0	102				
Copper	52.0		50.0	104	54.1		50.0	108				
Iron	12500		12500	100	12700		12500	102				
Lead	50.1		50.0	100	49.9		50.0	100				
Manganese	257		250	103	260		250	104				
Molybdenum	51.1		50.0	102	51.2		50.0	102				
Nickel	50.5		50.0	101	51.3		50.0	103				
Selenium	50.8		50.0	102	51.8		50.0	104				
Silver	51.4		50.0	103	51.0		50.0	102				
Thallium	50.2		50.0	100	50.3		50.0	101				
Vanadium	49.5		50.0	99	50.9		50.0	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-127907/8 04/24/2014 09:48		CCB 240-127907/63 04/24/2014 13:23		CCB 240-127907/75 04/24/2014 14:08		CCB 240-127907/87 04/24/2014 14:59	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.517	J	0.323	J	0.289	J	0.363	J
Arsenic	5.0	0.063	U	0.063	U	0.063	U	0.063	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.0690	J	0.0310	J	0.0600	J
Cadmium	1.0	0.026	U	0.026	U	0.026	U	0.026	U
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Copper	2.0	0.24	U	0.594	J	1.18	J	0.709	J
Iron	100	12	U	12	U	12	U	12	U
Lead	1.0	0.14	U	0.14	U	0.14	U	0.14	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0083	U	0.0100	J	0.0083	U	0.0083	U
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Not used

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-127907/99 04/24/2014 15:44							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.428	J						
Arsenic	5.0	0.063	U						
Barium	5.0	0.32	U						
Beryllium	1.0	0.0830	J						
Cadmium	1.0	0.026	U						
Chromium	2.0	0.13	U						
Cobalt	1.0	0.020	U						
Copper	2.0	1.27	J						
Iron	100	12	U						
Lead	1.0	0.14	U						
Manganese	5.0	0.41	U						
Molybdenum	10	0.81	U						
Nickel	2.0	0.088	U						
Selenium	5.0	0.34	U						
Silver	1.0	0.0083	U						
Thallium	2.0	0.40	U						
Vanadium	5.0	0.15	U						

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/24/2014 09:57 End Date: 04/25/2014 04:43

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V												
ICIS 240-127855/1			09:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
STD2 240-127855/2 IC	1		10:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
STD3 240-127855/3 IC	1		10:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
STD4 240-127855/4 IC	1		10:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICV 240-127855/5	1		10:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICB 240-127855/6	1		10:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CRI 240-127855/7	1		10:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICSA 240-127855/8	1		10:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ICSAB 240-127855/9	1		10:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCV 240-127855/10			11:03																													
CCB 240-127855/11			11:10																													
CCV 240-127855/12	1		11:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCB 240-127855/13	1		11:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
MB 240-127554/1-A	1	R	11:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
LCS 240-127554/2-A	1	R	11:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ZZZZZZ			11:46																													
ZZZZZZ			11:53																													
ZZZZZZ			12:00																													
ZZZZZZ			12:07																													
ZZZZZZ			12:14																													
ZZZZZZ			12:21																													
ZZZZZZ			12:28																													
ZZZZZZ			12:35																													
CCV 240-127855/24	1		12:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCB 240-127855/25	1		12:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ZZZZZZ			12:57																													
ZZZZZZ			13:04																													
CCV 240-127855/28	1		13:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCB 240-127855/29	1		13:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36343-5	1	R	13:25	X	X		X	X	X	X		X		X	X			X		X												
240-36343-5 SD	5	R	13:32	X	X		X	X	X	X		X		X	X			X		X												
240-36343-5 MS	5	R	13:39	X	X		X	X	X	X		X		X	X			X		X												
240-36343-5 MSD	5	R	13:46	X	X		X	X	X	X		X		X	X			X		X												
240-36355-2	1	R	13:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36355-3	1	R	14:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36355-4	1	R	14:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36355-5	1	R	14:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36343-5	1	D	14:22	X	X		X	X	X	X	X	X	X	X	X			X		X												
240-36355-2	1	D	14:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCV 240-127855/40	1		14:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCB 240-127855/41	1		14:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36355-3	1	D	14:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/24/2014 09:57 End Date: 04/25/2014 04:43

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V												
240-36355-4	1	D	14:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36355-5	1	D	15:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ZZZZZZ			15:12																													
ZZZZZZ			15:19																													
ZZZZZZ			15:26																													
ZZZZZZ			15:33																													
ZZZZZZ			15:40																													
ZZZZZZ			15:47																													
CCV 240-127855/51	1		15:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCB 240-127855/52	1		16:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ZZZZZZ			16:08																													
ZZZZZZ			16:16																													
ZZZZZZ			16:23																													
ZZZZZZ			16:30																													
ZZZZZZ			16:37																													
ZZZZZZ			16:44																													
ZZZZZZ			16:51																													
ZZZZZZ			16:58																													
ZZZZZZ			17:05																													
ZZZZZZ			17:13																													
CCV 240-127855/63			17:20																													
CCB 240-127855/64			17:27																													
ZZZZZZ			17:34																													
ZZZZZZ			17:41																													
ZZZZZZ			17:48																													
ZZZZZZ			17:55																													
ZZZZZZ			18:02																													
ZZZZZZ			18:09																													
ZZZZZZ			18:16																													
ZZZZZZ			18:24																													
ZZZZZZ			18:31																													
ZZZZZZ			18:38																													
CCV 240-127855/75			18:45																													
CCB 240-127855/76			18:52																													
ZZZZZZ			18:59																													
ZZZZZZ			19:06																													
ZZZZZZ			19:13																													
ZZZZZZ			19:20																													
ZZZZZZ			19:27																													
ZZZZZZ			19:35																													
ZZZZZZ			19:42																													
CCV 240-127855/84			19:49																													

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/24/2014 09:57 End Date: 04/25/2014 04:43

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V												
CCB 240-127855/85			19:56																													
ICSA 240-127855/86			20:03																													
ICSAB 240-127855/87			20:10																													
CCV 240-127855/88			20:17																													
CCB 240-127855/89			20:24																													
ZZZZZZ			20:31																													
CCV 240-127855/91			20:39																													
CCB 240-127855/92			20:46																													
ZZZZZZ			20:53																													
ZZZZZZ			21:00																													
ZZZZZZ			21:07																													
ZZZZZZ			21:14																													
ZZZZZZ			21:21																													
ZZZZZZ			21:28																													
ZZZZZZ			21:35																													
ZZZZZZ			21:42																													
ZZZZZZ			21:49																													
ZZZZZZ			21:57																													
CCV 240-127855/103			22:04																													
CCB 240-127855/104			22:11																													
ZZZZZZ			22:18																													
ZZZZZZ			22:25																													
ZZZZZZ			22:32																													
ZZZZZZ			22:39																													
ZZZZZZ			22:46																													
ZZZZZZ			22:53																													
ZZZZZZ			23:00																													
ZZZZZZ			23:08																													
ZZZZZZ			23:15																													
ZZZZZZ			23:22																													
CCV 240-127855/115			23:29																													
CCB 240-127855/116			23:36																													
ZZZZZZ			23:43																													
ZZZZZZ			23:50																													
ZZZZZZ			23:57																													
ZZZZZZ			00:04																													
ZZZZZZ			00:12																													
ZZZZZZ			00:19																													
ZZZZZZ			00:26																													
ZZZZZZ			00:33																													
ZZZZZZ			00:40																													
ZZZZZZ			00:47																													

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/24/2014 09:57 End Date: 04/25/2014 04:43

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V												
CCV 240-127855/127			00:54																													
CCB 240-127855/128			01:02																													
ZZZZZZ			01:09																													
CCV 240-127855/130			01:16																													
CCB 240-127855/131			01:23																													
ZZZZZZ			01:30																													
ZZZZZZ			01:37																													
ZZZZZZ			01:44																													
ZZZZZZ			01:51																													
ZZZZZZ			01:59																													
CCV 240-127855/137			02:06																													
CCB 240-127855/138			02:13																													
ZZZZZZ			02:20																													
ZZZZZZ			02:27																													
ZZZZZZ			02:34																													
ZZZZZZ			02:41																													
ZZZZZZ			02:49																													
ZZZZZZ			02:56																													
ZZZZZZ			03:03																													
ZZZZZZ			03:10																													
ZZZZZZ			03:17																													
CCV 240-127855/148			03:24																													
CCB 240-127855/149			03:31																													
ZZZZZZ			03:39																													
ZZZZZZ			03:46																													
ZZZZZZ			03:53																													
ZZZZZZ			04:00																													
ZZZZZZ			04:07																													
ZZZZZZ			04:14																													
ZZZZZZ			04:21																													
ZZZZZZ			04:28																													
ZZZZZZ			04:36																													
ZZZZZZ			04:43																													

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	ICV 240-127855/5 04/24/2014 10:28				CCV 240-127855/12 04/24/2014 11:17				CCV 240-127855/24 04/24/2014 12:42			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	39.5		40.0	99	48.6		50.0	97	48.9		50.0	98
Arsenic	40.2		40.0	101	49.5		50.0	99	49.5		50.0	99
Barium	40.8		40.0	102	49.3		50.0	99	49.3		50.0	99
Beryllium	40.7		40.0	102	48.5		50.0	97	49.3		50.0	99
Cadmium	41.7		40.0	104	50.4		50.0	101	50.6		50.0	101
Chromium	40.9		40.0	102	49.3		50.0	99	50.2		50.0	100
Cobalt	40.6		40.0	102	49.4		50.0	99	50.0		50.0	100
Copper	41.9		40.0	105	49.7		50.0	99	50.1		50.0	100
Iron	10000		10000	100	12400		12500	100	12600		12500	101
Lead	41.7		40.0	104	51.3		50.0	103	51.1		50.0	102
Manganese	206		200	103	255		250	102	252		250	101
Molybdenum	40.4		40.0	101	49.8		50.0	100	49.9		50.0	100
Nickel	41.0		40.0	102	48.9		50.0	98	50.1		50.0	100
Selenium	41.3		40.0	103	50.6		50.0	101	51.0		50.0	102
Silver	41.6		40.0	104	50.3		50.0	101	50.2		50.0	100
Thallium	41.2		40.0	103	51.8		50.0	104	51.6		50.0	103
Vanadium	41.2		40.0	103	49.3		50.0	99	49.9		50.0	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	CCV 240-127855/28 04/24/2014 13:11				CCV 240-127855/40 04/24/2014 14:36				CCV 240-127855/51 04/24/2014 15:54			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	48.9		50.0	98	49.7		50.0	99	49.4		50.0	99
Arsenic	50.0		50.0	100	49.9		50.0	100	50.9		50.0	102
Barium	49.8		50.0	100	50.1		50.0	100	50.3		50.0	101
Beryllium	49.6		50.0	99	49.9		50.0	100	49.8		50.0	100
Cadmium	50.3		50.0	101	50.6		50.0	101	51.4		50.0	103
Chromium	49.4		50.0	99	49.4		50.0	99	50.1		50.0	100
Cobalt	49.9		50.0	100	49.6		50.0	99	50.5		50.0	101
Copper	49.8		50.0	100	49.8		50.0	100	50.5		50.0	101
Iron	12300		12500	99	12400		12500	99	12500		12500	100
Lead	51.1		50.0	102	51.8		50.0	104	51.5		50.0	103
Manganese	255		250	102	254		250	102	257		250	103
Molybdenum	50.4		50.0	101	50.1		50.0	100	50.8		50.0	102
Nickel	49.3		50.0	99	49.6		50.0	99	50.4		50.0	101
Selenium	50.5		50.0	101	51.1		50.0	102	51.4		50.0	103
Silver	50.2		50.0	100	50.5		50.0	101	51.1		50.0	102
Thallium	51.6		50.0	103	52.3		50.0	105	51.6		50.0	103
Vanadium	49.5		50.0	99	50.3		50.0	101	50.5		50.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-127855/6 04/24/2014 10:35		CCB 240-127855/13 04/24/2014 11:24		CCB 240-127855/25 04/24/2014 12:49		CCB 240-127855/29 04/24/2014 13:18	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.11	U	0.11	U	0.11	U	0.11	U
Arsenic	5.0	0.063	U	0.063	U	0.063	U	0.063	U
Barium	5.0	0.32	U	0.32	U	0.32	U	0.32	U
Beryllium	1.0	0.031	U	0.031	U	0.031	U	0.031	U
Cadmium	1.0	0.026	U	0.026	U	0.026	U	0.026	U
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	12	U	12	U	12	U
Lead	1.0	0.14	U	0.14	U	0.14	U	0.14	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0083	U	0.0140	J	0.0083	U	0.0083	U
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Not used Not used

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-127855/41 04/24/2014 14:43		CCB 240-127855/52 04/24/2014 16:01					
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.11	U	0.11	U				
Arsenic	5.0	0.0630	J	0.0660	J				
Barium	5.0	0.32	U	0.32	U				
Beryllium	1.0	0.031	U	0.031	U				
Cadmium	1.0	0.026	U	0.0270	J				
Chromium	2.0	0.13	U	0.13	U				
Cobalt	1.0	0.020	U	0.0260	J				
Copper	2.0	0.24	U	0.24	U				
Iron	100	12	U	12	U				
Lead	1.0	0.14	U	0.14	U				
Manganese	5.0	0.41	U	0.41	U				
Molybdenum	10	0.81	U	0.81	U				
Nickel	2.0	0.088	U	0.088	U				
Selenium	5.0	0.34	U	0.34	U				
Silver	1.0	0.0120	J	0.0190	J				
Thallium	2.0	0.40	U	0.40	U				
Vanadium	5.0	0.15	U	0.15	U				

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/25/2014 10:42 End Date: 04/26/2014 01:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V								
ICIS 240-128116/1	1		10:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-128116/2 IC	1		10:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-128116/3 IC	1		10:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-128116/4 IC	1		11:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-128116/5	1		11:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-128116/6	1		11:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CRI 240-128116/7	1		11:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-128116/8	1		11:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSAB 240-128116/9	1		11:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-128116/10			11:46																									
CCB 240-128116/11			11:53																									
ZZZZZZ			12:00																									
ZZZZZZ			12:07																									
ZZZZZZ			12:15																									
ZZZZZZ			12:22																									
ZZZZZZ			12:29																									
ZZZZZZ			12:36																									
ZZZZZZ			12:43																									
ZZZZZZ			12:50																									
ZZZZZZ			12:57																									
CCV 240-128116/21			13:04																									
CCB 240-128116/22			13:11																									
CRI 240-128116/23			13:19																									
ZZZZZZ			13:28																									
ZZZZZZ			13:35																									
CCV 240-128116/26	1		13:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-128116/27	1		13:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
MB 240-127722/1-A	1	R	13:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
LCS 240-127722/2-A	1	R	14:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			14:10																									
ZZZZZZ			14:17																									
ZZZZZZ			14:24																									
ZZZZZZ			14:31																									
ZZZZZZ			14:39																									
ZZZZZZ			14:46																									
ZZZZZZ			14:53																									
ZZZZZZ			15:00																									
CCV 240-128116/38	1		15:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-128116/39	1		15:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			15:21																									
CCV 240-128116/41	1		15:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-128116/42	1		15:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/25/2014 10:42 End Date: 04/26/2014 01:11

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V												
ZZZZZZ			15:42																													
ZZZZZZ			15:49																													
ZZZZZZ			15:57																													
ZZZZZZ			16:04																													
240-36398-2	1	R	16:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36398-3	1	R	16:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ZZZZZZ			16:25																													
240-36398-4	1	R	16:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36398-5	1	R	16:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCV 240-128116/52	1		16:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCB 240-128116/53	1		16:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36398-2	1	D	17:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36398-3	1	D	17:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36398-4	1	D	17:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36398-5	1	D	17:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCV 240-128116/58	1		17:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCB 240-128116/59	1		17:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
240-36343-5	10	R	17:43			X				X		X			X	X		X														
240-36343-5 SD	50	R	17:50			X				X		X			X	X		X														
ZZZZZZ			17:57																													
240-36343-5 MS	10	R	18:04			X				X		X			X	X		X														
240-36343-5 MSD	10	R	18:11			X				X		X			X	X		X														
240-36343-5	10	D	18:19			X									X	X		X														
ZZZZZZ			18:26																													
ZZZZZZ			18:33																													
ZZZZZZ			18:40																													
ZZZZZZ			18:47																													
CCV 240-128116/70	1		18:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCB 240-128116/71	1		19:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
ZZZZZZ			19:08																													
ZZZZZZ			19:15																													
ZZZZZZ			19:22																													
ZZZZZZ			19:30																													
ZZZZZZ			19:37																													
ZZZZZZ			19:44																													
ZZZZZZ			19:51																													
ZZZZZZ			19:58																													
ZZZZZZ			20:05																													
ZZZZZZ			20:12																													
CCV 240-128116/82			20:19																													
CCB 240-128116/83			20:26																													
ICSA 240-128116/84			20:34																													

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/25/2014 10:42 End Date: 04/26/2014 01:11

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V											
ICSAB 240-128116/85			20:41																												
CCV 240-128116/86			20:48																												
CCB 240-128116/87			20:55																												
ZZZZZZ			21:02																												
CCV 240-128116/89			21:09																												
CCB 240-128116/90			21:16																												
ZZZZZZ			21:23																												
ZZZZZZ			21:30																												
ZZZZZZ			21:38																												
ZZZZZZ			21:45																												
ZZZZZZ			21:52																												
ZZZZZZ			21:59																												
ZZZZZZ			22:06																												
ZZZZZZ			22:13																												
ZZZZZZ			22:20																												
ZZZZZZ			22:27																												
CCV 240-128116/101			22:34																												
CCB 240-128116/102			22:41																												
ZZZZZZ			22:49																												
ZZZZZZ			22:56																												
ZZZZZZ			23:03																												
ZZZZZZ			23:10																												
ZZZZZZ			23:17																												
ZZZZZZ			23:24																												
ZZZZZZ			23:31																												
ZZZZZZ			23:38																												
CCV 240-128116/111			23:46																												
CCB 240-128116/112			23:53																												
ZZZZZZ			00:00																												
ZZZZZZ			00:07																												
ZZZZZZ			00:14																												
ZZZZZZ			00:21																												
ZZZZZZ			00:28																												
ZZZZZZ			00:35																												
ZZZZZZ			00:43																												
ZZZZZZ			00:50																												
ZZZZZZ			00:57																												
CCV 240-128116/122			01:04																												
CCB 240-128116/123			01:11																												

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 04/25/2014 10:42 End Date: 04/26/2014 01:11

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V											

Prep Types:
D = Dissolved
R = Total Recoverable

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	ICV 240-128116/5 04/25/2014 11:11				CCV 240-128116/26 04/25/2014 13:42				CCV 240-128116/38 04/25/2014 15:07			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	39.9		40.0	100	49.2		50.0	98	49.1		50.0	98
Arsenic	40.0		40.0	100	50.0		50.0	100	50.3		50.0	101
Barium	40.7		40.0	102	49.7		50.0	99	50.3		50.0	101
Beryllium	40.6		40.0	101	49.0		50.0	98	49.0		50.0	98
Cadmium	41.7		40.0	104	51.3		50.0	103	51.9		50.0	104
Chromium	40.5		40.0	101	50.2		50.0	100	50.4		50.0	101
Cobalt	40.3		40.0	101	50.7		50.0	101	51.0		50.0	102
Copper	41.9		40.0	105	51.5		50.0	103	52.2		50.0	104
Iron	10100		10000	101	11800		12500	94	11600		12500	92
Lead	41.8		40.0	105	51.5		50.0	103	51.9		50.0	104
Manganese	204		200	102	254		250	102	253		250	101
Molybdenum	40.6		40.0	101	50.8		50.0	102	51.1		50.0	102
Nickel	40.8		40.0	102	51.0		50.0	102	51.4		50.0	103
Selenium	41.0		40.0	102	50.7		50.0	101	51.7		50.0	103
Silver	41.9		40.0	105	51.0		50.0	102	51.7		50.0	103
Thallium	41.5		40.0	104	51.9		50.0	104	52.3		50.0	105
Vanadium	40.7		40.0	102	49.6		50.0	99	49.4		50.0	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	CCV 240-128116/41 04/25/2014 15:28				CCV 240-128116/52 04/25/2014 16:46				CCV 240-128116/58 04/25/2014 17:29			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	49.0		50.0	98	49.2		50.0	98	49.1		50.0	98
Arsenic	51.0		50.0	102	50.1		50.0	100	50.6		50.0	101
Barium	50.1		50.0	100	49.6		50.0	99	49.6		50.0	99
Beryllium	49.2		50.0	98	49.1		50.0	98	49.2		50.0	98
Cadmium	51.4		50.0	103	51.8		50.0	104	51.3		50.0	103
Chromium	50.9		50.0	102	50.2		50.0	100	50.4		50.0	101
Cobalt	51.9		50.0	104	50.7		50.0	101	51.1		50.0	102
Copper	52.4		50.0	105	51.2		50.0	102	52.1		50.0	104
Iron	11600		12500	93	11400		12500	91	11500		12500	92
Lead	51.1		50.0	102	51.4		50.0	103	51.3		50.0	103
Manganese	255		250	102	253		250	101	254		250	102
Molybdenum	51.4		50.0	103	51.1		50.0	102	50.9		50.0	102
Nickel	52.0		50.0	104	50.9		50.0	102	50.9		50.0	102
Selenium	51.0		50.0	102	49.7		50.0	99	51.1		50.0	102
Silver	51.6		50.0	103	51.3		50.0	103	51.4		50.0	103
Thallium	51.7		50.0	103	51.6		50.0	103	51.4		50.0	103
Vanadium	50.3		50.0	101	50.0		50.0	100	49.7		50.0	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTMSICVW_00033 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00088

Analyte	CCV 240-128116/70 04/25/2014 18:54											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.0		50.0	100								
Arsenic	50.6		50.0	101								
Barium	50.5		50.0	101								
Beryllium	49.3		50.0	99								
Cadmium	52.3		50.0	105								
Chromium	50.9		50.0	102								
Cobalt	51.2		50.0	102								
Copper	51.6		50.0	103								
Iron	11500		12500	92								
Lead	51.9		50.0	104								
Manganese	257		250	103								
Molybdenum	51.5		50.0	103								
Nickel	51.2		50.0	102								
Selenium	51.3		50.0	103								
Silver	51.5		50.0	103								
Thallium	52.5		50.0	105								
Vanadium	50.4		50.0	101								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-128116/6 04/25/2014 11:18		CCB 240-128116/27 04/25/2014 13:49		CCB 240-128116/39 04/25/2014 15:14		CCB 240-128116/42 04/25/2014 15:35	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.118	J	0.11	U	0.11	U	0.11	U
Arsenic	5.0	0.0850	J	0.0820	J	0.217	J	0.146	J
Barium	5.0	0.32	U	0.32	U	0.340	J	0.32	U
Beryllium	1.0	0.031	U	0.031	U	0.0660	J	0.031	U
Cadmium	1.0	0.0400	J	0.102	J	0.188	J	0.137	J
Chromium	2.0	0.13	U	0.134	J	0.174	J	0.13	U
Cobalt	1.0	0.0250	J	0.0820	J	0.171	J	0.109	J
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	21.4	J	16.1	J	18.0	J
Lead	1.0	0.14	U	0.14	U	0.204	J	0.14	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.171	J	0.110	J
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0240	J	0.0260	J	0.0340	J	0.0440	J
Thallium	2.0	0.40	U	0.40	U	0.40	U	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.180	J	0.161	J

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-128116/53 04/25/2014 16:53		CCB 240-128116/59 04/25/2014 17:36		CCB 240-128116/71 04/25/2014 19:01			
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.11	U	0.11	U	0.11	U		
Arsenic	5.0	0.0740	J	0.063	U	0.119	J		
Barium	5.0	0.32	U	0.32	U	0.32	U		
Beryllium	1.0	0.031	U	0.031	U	0.0370	J		
Cadmium	1.0	0.0720	J	0.0460	J	0.114	J		
Chromium	2.0	0.13	U	0.13	U	0.13	U		
Cobalt	1.0	0.0660	J	0.0410	J	0.119	J		
Copper	2.0	0.24	U	0.24	U	0.24	U		
Iron	100	15.5	J	12	U	12	U		
Lead	1.0	0.14	U	0.14	U	0.14	U		
Manganese	5.0	0.41	U	0.41	U	0.41	U		
Molybdenum	10	0.81	U	0.81	U	0.81	U		
Nickel	2.0	0.088	U	0.088	U	0.112	J		
Selenium	5.0	0.34	U	0.34	U	0.34	U		
Silver	1.0	0.0250	J	0.0220	J	0.0360	J		
Thallium	2.0	0.40	U	0.40	U	0.40	U		
Vanadium	5.0	0.15	U	0.15	U	0.161	J		

Italicized analytes were not requested for this sequence.

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/23/2014 End Date: 04/23/2014

Lab Sample ID	Time	Internal Standards %RI For: 103 115									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-127674/3 IC	11:07	101		101		98		99		99	
STD2 240-127674/4 IC	11:11	97		96		97		94		94	
STD3 240-127674/5 IC	11:15	97		99		98		93		97	
STD4 240-127674/6 IC	11:19	101		101		100		100		100	
ICV 240-127674/7	11:23	102		103		101		99		103	
ICB 240-127674/8	11:27	99		103		95		104		103	
CRI 240-127674/9	11:31	94		103		89		103		103	
ICSA 240-127674/10	11:35	96		99		99		92		96	
ICSAB 240-127674/11	11:38	94		95		97		92		93	
CCV 240-127674/48	14:00	94		97		97		98		97	
CCB 240-127674/49	14:04	100		98		102		101		97	
MB 240-127397/1-A	14:35	109		101		105		103		102	
LCS 240-127397/2-A	14:39	110		100		108		102		103	
240-36343-2	14:42	106		103		109		99		99	
CCV 240-127674/60	14:46	104		104		106		103		104	
CCB 240-127674/61	14:50	108		103		109		104		103	
240-36343-2 SD	14:54	108		105		109		102		104	
240-36343-2 MS	14:58	90		101		90		99		99	
240-36343-2 MSD	15:01	104		102		110		98		98	
240-36343-2	15:05	107		110		116		104		105	
240-36343-2 MS	15:08	106		106		115		99		101	
240-36343-2 MSD	15:12	106		107		115		101		102	
CCV 240-127674/72	15:31	111		109		120		105		110	
CCB 240-127674/73	15:35	111		110		115		107		111	
CCV 240-127674/84	16:17	112		111		118		106		110	
CCB 240-127674/85	16:21	113		115		116		112		114	
240-36343-3	16:25	113		142	*	152	*	100		107	
240-36343-4	16:29	111		119		132	*	104		108	
240-36343-3	16:33	110		141	*	154	*	101		107	
240-36343-4	16:36	111		118		129	*	105		108	
CCV 240-127674/96	17:02	112		113		123	*	108		112	
CCB 240-127674/97	17:06	131	*	116		143	*	112		119	
CCV 240-127674/170	21:45	134	*	136	*	159	*	122	*	135	*
CCB 240-127674/171	21:48	136	*	143	*	152	*	132	*	143	*
240-36343-2	22:27	145	*	134	*	166	*	112		126	*
CCV 240-127674/182	22:31	141	*	137	*	159	*	121	*	135	*
CCB 240-127674/183	22:34	141	*	141	*	157	*	127	*	142	*
240-36343-2 MS	22:38	139	*	134	*	165	*	115		127	*
240-36343-2 MSD	22:42	142	*	135	*	170	*	116		130	*
CCV 240-127674/186	22:45	139	*	143	*	162	*	125	*	140	*
CCB 240-127674/187	22:49	142	*	141	*	161	*	130	*	142	*

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/23/2014 End Date: 04/23/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-127674/3 IC	11:07	100		102		93					
STD2 240-127674/4 IC	11:11	96		98		91					
STD3 240-127674/5 IC	11:15	98		99		95					
STD4 240-127674/6 IC	11:19	100		102		95					
ICV 240-127674/7	11:23	103		104		95					
ICB 240-127674/8	11:27	103		103		94					
CRI 240-127674/9	11:31	103		103		98					
ICSA 240-127674/10	11:35	98		99		106					
ICSAB 240-127674/11	11:38	95		96		94					
CCV 240-127674/48	14:00	100		103		85					
CCB 240-127674/49	14:04	102		103		91					
MB 240-127397/1-A	14:35	105		108		104					
LCS 240-127397/2-A	14:39	108		109		102					
240-36343-2	14:42	106		110		94					
CCV 240-127674/60	14:46	106		108		89					
CCB 240-127674/61	14:50	103		105		92					
240-36343-2 SD	14:54	106		108		114					
240-36343-2 MS	14:58	106		109		95					
240-36343-2 MSD	15:01	107		108		91					
240-36343-2 510 1=	15:05	124	*	125	*	95					
240-36343-2 MS	15:08	122	*	123	*	95					
240-36343-2 MSD	15:12	123	*	125	*	95					
CCV 240-127674/72	15:31	107		108		89					
CCB 240-127674/73	15:35	108		108		101					
CCV 240-127674/84	16:17	110		111		90					
CCB 240-127674/85	16:21	110		111		97					
240-36343-3	16:25	143	*	143	*	99					
240-36343-4	16:29	125	*	126	*	95					
240-36343-3	16:33	143	*	144	*	93					
240-36343-4	16:36	125	*	126	*	94					
CCV 240-127674/96	17:02	111		111		88					
CCB 240-127674/97	17:06	113		113		101					
CCV 240-127674/170	21:45	120		119		90					
CCB 240-127674/171	21:48	126	*	124	*	106					
240-36343-2	22:27	128	*	128	*	94					
CCV 240-127674/182	22:31	117		117		93					
CCB 240-127674/183	22:34	120		119		97					
240-36343-2 MS	22:38	131	*	131	*	100					
240-36343-2 MSD	22:42	135	*	136	*	91					
CCV 240-127674/186	22:45	123	*	123	*	92					
CCB 240-127674/187	22:49	120		119		93					

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/24/2014 End Date: 04/24/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-127907/3 IC	09:29	101		98		98		98		99	
STD2 240-127907/4 IC	09:33	98		101		98		96		98	
STD3 240-127907/5 IC	09:37	97		98		97		95		97	
STD4 240-127907/6 IC	09:41	101		100		98		100		101	
ICV 240-127907/7	09:45	96		100		99		96		98	
ICB 240-127907/8	09:48	98		100		101		101		102	
CRI 240-127907/9	09:52	98		101		100		100		102	
ICSA 240-127907/10	09:56	92		96		97		92		94	
ICSAB 240-127907/11	10:00	81		97		83		92		95	
CCV 240-127907/62	13:19	95		95		99		92		94	
CCB 240-127907/63	13:23	98		96		100		98		98	
240-36343-2	14:01	78		92		87		89		91	
CCV 240-127907/74	14:05	92		94		101		93		95	
CCB 240-127907/75	14:08	94		99		102		100		101	
240-36343-2 SD	14:12	83		97		90		95		97	
240-36343-2 MS	14:16	82		93		92		86		89	
240-36343-2 MSD	14:20	83		89		95		86		88	
240-36343-2	14:27	100		95		101		95		96	
240-36343-2 SD	14:31	99		98		104		97		101	
240-36343-2 MS	14:35	97		96		102		93		97	
240-36343-2 MSD	14:43	95		96		97		93		96	
240-36343-3	14:51	89		122	*	127	*	88		91	
CCV 240-127907/86	14:55	96		103		106		99		102	
CCB 240-127907/87	14:59	104		100		113		100		104	
240-36343-3	15:02	95		106		107		97		100	
240-36343-4	15:06	92		99		105		89		92	
240-36343-4	15:10	97		97		106		97		98	
240-36343-3	15:14	89		119		125	*	87		91	
240-36343-3	15:18	93		102		108		95		98	
240-36343-4	15:22	84		94		103		85		87	
240-36343-4	15:25	91		95		101		93		97	
CCV 240-127907/98	15:40	95		96		101		94		95	
CCB 240-127907/99	15:44	94		97		102		97		99	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/24/2014 End Date: 04/24/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element 158 Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-127907/3 IC	09:29	99		100		104					
STD2 240-127907/4 IC	09:33	101		103		104					
STD3 240-127907/5 IC	09:37	99		101		107					
STD4 240-127907/6 IC	09:41	101		102		104					
ICV 240-127907/7	09:45	100		101		102					
ICB 240-127907/8	09:48	100		102		102					
CRI 240-127907/9	09:52	102		102		105					
ICSA 240-127907/10	09:56	96		98		115					
ICSAB 240-127907/11	10:00	98		100		101					
CCV 240-127907/62	13:19	97		97		94					
CCB 240-127907/63	13:23	97		97		96					
240-36343-2	14:01	108		108		94					
CCV 240-127907/74	14:05	96		97		91					
CCB 240-127907/75	14:08	99		99		97					
240-36343-2 SD	14:12	100		101		112					
240-36343-2 MS	14:16	106		108		97					
240-36343-2 MSD	14:20	105		106		92					
240-36343-2	14:27	101		101		99					
240-36343-2 SD	14:31	98		99		98					
240-36343-2 MS	14:35	99		100		111					
240-36343-2 MSD	14:43	99		100		105					
240-36343-3	14:51	127	*	128	*	97					
CCV 240-127907/86	14:55	100		101		94					
CCB 240-127907/87	14:59	97		99		98					
240-36343-3	15:02	107		107		118					
240-36343-4	15:06	108		109		100					
240-36343-4	15:10	100		101		100					
240-36343-3	15:14	124	*	124	*	94					
240-36343-3	15:18	104		105		99					
240-36343-4	15:22	104		106		93					
240-36343-4	15:25	98		100		97					
CCV 240-127907/98	15:40	95		97		92					
CCB 240-127907/99	15:44	96		96		91					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/24/2014 End Date: 04/24/2014

Lab Sample ID	Time	Internal Standards %RI For: 115									
		Element Li-6	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
STD2 240-127855/2 IC	10:05	95		96		94		92		94	
STD3 240-127855/3 IC	10:12	89		93		91		88		91	
STD4 240-127855/4 IC	10:19	94		97		93		93		97	
ICV 240-127855/5	10:28	93		96		94		93		97	
ICB 240-127855/6	10:35	95		97		93		93		97	
CRI 240-127855/7	10:42	96		98		95		95		100	
ICSA 240-127855/8	10:49	85		88		83		83		90	
ICSAB 240-127855/9	10:56	81		87		82		83		89	
CCV 240-127855/12	11:17	86		93		86		86		93	
CCB 240-127855/13	11:24	88		94		86		89		96	
MB 240-127554/1-A	11:31	84		86		82		85		91	
LCS 240-127554/2-A	11:39	81		83		80		79		88	
CCV 240-127855/24	12:42	85		92		84		85		90	
CCB 240-127855/25	12:49	88		93		84		87		93	
CCV 240-127855/28	13:11	87		92		86		86		90	
CCB 240-127855/29	13:18	89		93		86		88		93	
240-36343-5	13:25	76		86		81		86		82	
240-36343-5 SD	13:32	82		87		83		86		90	
240-36343-5 MS	13:39	82		88		81		84		89	
240-36343-5 MSD	13:46	82		86		81		84		88	
240-36355-2	13:53	80		83		79		82		87	
240-36355-3	14:00	82		85		80		82		87	
240-36355-4	14:08	81		84		77		79		82	
240-36355-5	14:15	81		83		79		82		86	
240-36343-5	14:22	77		86		80		86		81	
240-36355-2	14:29	82		85		80		83		87	
CCV 240-127855/40	14:36	86		92		86		85		90	
CCB 240-127855/41	14:43	88		92		86		87		92	
240-36355-3	14:50	84		85		80		81		87	
240-36355-4	14:57	81		83		77		79		83	
240-36355-5	15:04	82		85		79		82		86	
CCV 240-127855/51	15:54	87		92		84		84		90	
CCB 240-127855/52	16:01	89		91		83		85		91	

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/24/2014 End Date: 04/24/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD2 240-127855/2 IC	10:05			99							
STD3 240-127855/3 IC	10:12			98							
STD4 240-127855/4 IC	10:19			102							
ICV 240-127855/5	10:28			102							
ICB 240-127855/6	10:35			101							
CRI 240-127855/7	10:42			103							
ICSA 240-127855/8	10:49			96							
ICSAB 240-127855/9	10:56			98							
CCV 240-127855/12	11:17			102							
CCB 240-127855/13	11:24			102							
MB 240-127554/1-A	11:31			98							
LCS 240-127554/2-A	11:39			97							
CCV 240-127855/24	12:42			98							
CCB 240-127855/25	12:49			98							
CCV 240-127855/28	13:11			98							
CCB 240-127855/29	13:18			99							
240-36343-5	13:25			225	*						
240-36343-5 SD	13:32			127	*						
240-36343-5 MS	13:39			126	*						
240-36343-5 MSD	13:46			125	*						
240-36355-2	13:53			98							
240-36355-3	14:00			96							
240-36355-4	14:08			103							
240-36355-5	14:15			95							
240-36343-5	14:22			221	*						
240-36355-2	14:29			97							
CCV 240-127855/40	14:36			95							
CCB 240-127855/41	14:43			98							
240-36355-3	14:50			96							
240-36355-4	14:57			103							
240-36355-5	15:04			95							
CCV 240-127855/51	15:54			97							
CCB 240-127855/52	16:01			98							

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/25/2014 End Date: 04/25/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
ICIS 240-128116/1	10:42	100		100		100		100		100	
STD2 240-128116/2 IC	10:49	98		97		95		93		93	
STD3 240-128116/3 IC	10:56	93		94		91		88		90	
STD4 240-128116/4 IC	11:03	99		96		93		94		95	
ICV 240-128116/5	11:11	97		95		93		92		93	
ICB 240-128116/6	11:18	99		97		92		93		96	
CRI 240-128116/7	11:25	100		96		92		92		95	
ICSA 240-128116/8	11:32	88		86		81		80		85	
ICSAB 240-128116/9	11:39	83		83		79		79		86	
CCV 240-128116/26	13:42	89		84		79		79		84	
CCB 240-128116/27	13:49	92		86		80		82		88	
MB 240-127722/1-A	13:56	89		79		76		78		83	
LCS 240-127722/2-A	14:03	85		76		74		72		80	
CCV 240-128116/38	15:07	90		85		85		84		88	
CCB 240-128116/39	15:14	95		88		86		88		91	
CCV 240-128116/41	15:28	93		85		83		82		87	
CCB 240-128116/42	15:35	97		87		86		86		92	
240-36398-2	16:11	89		77		77		78		82	
240-36398-3	16:18	81		73		76		75		79	
240-36398-3	16:25	89		80		79		80		85	
240-36398-4	16:32	80		76		80		75		78	
240-36398-5	16:39	93		81		82		83		88	
CCV 240-128116/52	16:46	94		86		84		83		87	
CCB 240-128116/53	16:53	98		87		85		86		91	
240-36398-2	17:01	91		78		80		81		85	
240-36398-3	17:08	84		75		78		76		80	
240-36398-4	17:15	81		76		81		76		79	
240-36398-5	17:22	96		82		85		86		89	
CCV 240-128116/58	17:29	95		86		86		84		89	
CCB 240-128116/59	17:36	98		88		88		88		92	
240-36343-5	17:43	97		86		86		87		91	
240-36343-5 SD	17:50	99		87		87		89		93	
240-36343-5 PDS	17:57	94		83		82		82		86	
240-36343-5 MS	18:04	93		83		82		84		88	
240-36343-5 MSD	18:11	93		82		81		84		88	
240-36343-5	18:19	93		82		83		84		89	
240-36343-5	18:26	96		84		84		86		89	
CCV 240-128116/70	18:54	95		84		84		83		87	
CCB 240-128116/71	19:01	99		87		85		86		91	

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 04/25/2014 End Date: 04/25/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
ICIS 240-128116/1	10:42			100							
STD2 240-128116/2 IC	10:49			97							
STD3 240-128116/3 IC	10:56			95							
STD4 240-128116/4 IC	11:03			99							
ICV 240-128116/5	11:11			98							
ICB 240-128116/6	11:18			99							
CRI 240-128116/7	11:25			100							
ICSA 240-128116/8	11:32			92							
ICSAB 240-128116/9	11:39			94							
CCV 240-128116/26	13:42			92							
CCB 240-128116/27	13:49			94							
MB 240-127722/1-A	13:56			92							
LCS 240-127722/2-A	14:03			89							
CCV 240-128116/38	15:07			93							
CCB 240-128116/39	15:14			96							
CCV 240-128116/41	15:28			94							
CCB 240-128116/42	15:35			96							
240-36398-2	16:11			97							
240-36398-3	16:18			114							
240-36398-3	16:25			99							
240-36398-4	16:32			88							
240-36398-5	16:39			96							
CCV 240-128116/52	16:46			94							
CCB 240-128116/53	16:53			97							
240-36398-2	17:01			98							
240-36398-3	17:08			116							
240-36398-4	17:15			88							
240-36398-5	17:22			96							
CCV 240-128116/58	17:29			95							
CCB 240-128116/59	17:36			97							
240-36343-5	17:43			111							
240-36343-5 SD	17:50			101							
240-36343-5 PDS	17:57			109							
240-36343-5 MS	18:04			110							
240-36343-5 MSD	18:11			110							
240-36343-5	18:19			111							
240-36343-5	18:26			105							
CCV 240-128116/70	18:54			94							
CCB 240-128116/71	19:01			96							

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00619

Analyte	ICV 240-127799/7-A 04/23/2014 13:09				CCVL 240-127799/10-A 04/23/2014 13:14				CCV 240-127799/11-A 04/23/2014 14:10			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.53		2.50	101	5.07		5.00	101	5.17		5.00	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00619

Analyte	CCV 240-127799/11-A 04/23/2014 14:29				CCV 240-127799/11-A 04/23/2014 14:48				CCV 240-127799/11-A 04/23/2014 15:08			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.13		5.00	103	5.14		5.00	103	5.15		5.00	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00619

Analyte	CCV 240-127799/11-A 04/23/2014 15:18											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.13		5.00	103								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00619

Analyte	ICV 240-127799/7-A 04/24/2014 07:35				CCVL 240-127799/10-A 04/24/2014 08:38				CCV 240-127799/11-A 04/24/2014 08:55			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.50		2.50	100	5.07		5.00	101	5.09		5.00	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00619

Analyte	CCV 240-127799/11-A 04/24/2014 09:13				CCV 240-127799/11-A 04/24/2014 09:34				CCV 240-127799/11-A 04/24/2014 09:53			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.04		5.00	101	5.03		5.00	101	4.00		5.00	80

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00621

Analyte	ICV 240-127983/7-A 04/25/2014 11:35				CCVL 240-127983/10-A 04/25/2014 11:41				CCV 240-127983/11-A 04/25/2014 12:00			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.48		2.50	99	5.19		5.00	104	5.19		5.00	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00621

Analyte	CCV 240-127983/11-A 04/25/2014 12:19				CCV 240-127983/11-A 04/25/2014 12:38				CCV 240-127983/11-A 04/25/2014 12:57			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.04		5.00	101	5.06		5.00	101	5.02		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Method: 7470A Instrument ID: H1

Lab Sample ID: CRA 240-127799/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00619

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.144	J	72	50-150

Lab Sample ID: CRA 240-127799/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00619

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.204		102	50-150

Lab Sample ID: CRA 240-127983/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00621

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.195	J	97	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-127799/8-A 04/23/2014 13:10		CCB 240-127799/12-A 04/23/2014 14:12		CCB 240-127799/12-A 04/23/2014 14:31		CCB 240-127799/12-A 04/23/2014 14:50	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-127799/12-A 04/23/2014 15:10		CCB 240-127799/12-A 04/23/2014 15:20					
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U				

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-127799/8-A 04/24/2014 07:37		CCB 240-127799/12-A 04/24/2014 08:56		CCB 240-127799/12-A 04/24/2014 09:15		CCB 240-127799/12-A 04/24/2014 09:35	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-127799/12-A 04/24/2014 09:54							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-127983/8-A 04/25/2014 11:37		CCB 240-127983/12-A 04/25/2014 12:01		CCB 240-127983/12-A 04/25/2014 12:20		CCB 240-127983/12-A 04/25/2014 12:40	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-127983/12-A 04/25/2014 12:59							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-127400/1-A

Instrument Code: H1 Batch No.: 127677

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-127560/1-A

Instrument Code: H1 Batch No.: 127806

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-127723/1-A

Instrument Code: H1 Batch No.: 127982

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-51D-041714 MS
Lab ID: 240-36343-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-36343-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR C		Sample Result (SR) C		Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.01		0.12	U	1.00	101	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MSA-DMW-5S-041814 MS
Lab ID: 240-36343-5 MS
Lab Name: TestAmerica Canton
Job No.: 240-36343-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.954		0.12	U	1.00	95	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-51D-041714 MSD Lab ID: 240-36343-2 MSD

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.896	1.00	90	69-134	12	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MSA-DMW-5S-041814 MSD Lab ID: 240-36343-5 MSD

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.947		1.00	95	69-134	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-127400/2-A

Lab Name: TestAmerica Canton Job No.: 240-36343-1

Sample Matrix: Water LCS Source: MTHGCALW_00618

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.19		104	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-127560/2-A

Lab Name: TestAmerica Canton Job No.: 240-36343-1

Sample Matrix: Water LCS Source: MTHGCALW_00619

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.94		99	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-127723/2-A

Lab Name: TestAmerica Canton Job No.: 240-36343-1

Sample Matrix: Water LCS Source: MTHGCALW_00620

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.95		99	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-36343-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-36343-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A XMDL Date: 02/08/2010 16:06

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36343-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36343-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A XMDL Date: 02/08/2010 16:06

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.12

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-127400/1-A	04/22/2014 15:35	127400		50	50
LCS 240-127400/2-A	04/22/2014 15:35	127400		50	50
240-36343-2	04/22/2014 15:35	127400		50	50
240-36343-2 MS	04/22/2014 15:35	127400		50	50
240-36343-2 MSD	04/22/2014 15:35	127400		50	50
240-36343-2	04/22/2014 15:35	127400		50	50
240-36343-2 MS	04/22/2014 15:35	127400		50	50
240-36343-2 MSD	04/22/2014 15:35	127400		50	50
240-36343-3	04/22/2014 15:35	127400		50	50
240-36343-4	04/22/2014 15:35	127400		50	50
240-36343-3	04/22/2014 15:35	127400		50	50
240-36343-4	04/22/2014 15:35	127400		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-127560/1-A	04/23/2014 14:15	127560		50	50
LCS 240-127560/2-A	04/23/2014 14:15	127560		50	50
240-36343-5	04/23/2014 14:15	127560		50	50
240-36343-5 MS	04/23/2014 14:15	127560		50	50
240-36343-5 MSD	04/23/2014 14:15	127560		50	50
240-36355-2	04/23/2014 14:15	127560		50	50
240-36355-3	04/23/2014 14:15	127560		50	50
240-36355-4	04/23/2014 14:15	127560		50	50
240-36355-5	04/23/2014 14:15	127560		50	50
240-36343-5	04/23/2014 14:15	127560		50	50
240-36355-2	04/23/2014 14:15	127560		50	50
240-36355-3	04/23/2014 14:15	127560		50	50
240-36355-4	04/23/2014 14:15	127560		50	50
240-36355-5	04/23/2014 14:15	127560		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-127723/1-A	04/24/2014 13:50	127723		50	50
LCS 240-127723/2-A	04/24/2014 13:50	127723		50	50
240-36398-2	04/24/2014 13:50	127723		50	50
240-36398-3	04/24/2014 13:50	127723		50	50
240-36398-4	04/24/2014 13:50	127723		50	50
240-36398-5	04/24/2014 13:50	127723		50	50
240-36398-2	04/24/2014 13:50	127723		50	50
240-36398-3	04/24/2014 13:50	127723		50	50
240-36398-4	04/24/2014 13:50	127723		50	50
240-36398-5	04/24/2014 13:50	127723		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/23/2014 12:55 End Date: 04/23/2014 15:20

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-127799/1-A			12:55	X
IC 240-127799/1-A			13:00	X
IC 240-127799/2-A			13:01	X
IC 240-127799/3-A			13:03	X
IC 240-127799/4-A			13:04	X
IC 240-127799/5-A			13:06	X
IC 240-127799/6-A			13:07	X
ICV 240-127799/7-A	1		13:09	X
ICB 240-127799/8-A	1		13:10	X
CRA 240-127799/9-A	1		13:12	X
CCVL 240-127799/10-A	1		13:14	X
CCB 240-127799/12-A			13:15	
ZZZZZZ			13:17	
ZZZZZZ			13:18	
ZZZZZZ			13:20	
ZZZZZZ			13:22	
ZZZZZZ			13:23	
ZZZZZZ			13:25	
ZZZZZZ			13:26	
ZZZZZZ			13:27	
ZZZZZZ			13:29	
ZZZZZZ			13:30	
CCV 240-127799/11-A			13:32	
CCB 240-127799/12-A			13:33	
ZZZZZZ			13:35	
ZZZZZZ			13:37	
ZZZZZZ			13:38	
ZZZZZZ			13:40	
ZZZZZZ			13:41	
ZZZZZZ			13:42	
ZZZZZZ			13:44	
ZZZZZZ			13:46	
ZZZZZZ			13:48	
ZZZZZZ			13:49	
CCV 240-127799/11-A			13:51	
CCB 240-127799/12-A			13:52	
ZZZZZZ			13:54	
ZZZZZZ			13:56	
ZZZZZZ			13:57	
ZZZZZZ			13:59	
ZZZZZZ			14:00	
ZZZZZZ			14:01	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/23/2014 12:55 End Date: 04/23/2014 15:20

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			14:03	
ZZZZZZ			14:05	
ZZZZZZ			14:07	
ZZZZZZ			14:09	
CCV 240-127799/11-A	1		14:10	X
CCB 240-127799/12-A	1		14:12	X
ZZZZZZ			14:13	
ZZZZZZ			14:15	
ZZZZZZ			14:16	
ZZZZZZ			14:18	
ZZZZZZ			14:20	
ZZZZZZ			14:21	
ZZZZZZ			14:23	
ZZZZZZ			14:24	
ZZZZZZ			14:26	
MB 240-127400/1-A	1	T	14:27	X
CCV 240-127799/11-A	1		14:29	X
CCB 240-127799/12-A	1		14:31	X
LCS 240-127400/2-A	1	T	14:33	X
240-36343-2	1	T	14:35	X
240-36343-2 MS	1	T	14:36	X
240-36343-2 MSD	1	T	14:38	X
240-36343-2	1	D	14:39	X
240-36343-2 MS	1	D	14:40	X
240-36343-2 MSD	1	D	14:42	X
ZZZZZZ			14:43	
ZZZZZZ			14:45	
ZZZZZZ			14:46	
CCV 240-127799/11-A	1		14:48	X
CCB 240-127799/12-A	1		14:50	X
ZZZZZZ			14:51	
ZZZZZZ			14:53	
ZZZZZZ			14:54	
ZZZZZZ			14:55	
ZZZZZZ			14:57	
ZZZZZZ			14:59	
ZZZZZZ			15:01	
ZZZZZZ			15:02	
ZZZZZZ			15:04	
ZZZZZZ			15:06	
CCV 240-127799/11-A	1		15:08	X
CCB 240-127799/12-A	1		15:10	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/23/2014 12:55 End Date: 04/23/2014 15:20

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			15:11	
240-36343-3	1	T	15:12	X
240-36343-4	1	T	15:14	X
240-36343-3	1	D	15:15	X
240-36343-4	1	D	15:17	X
CCV 240-127799/11-A	1		15:18	X
CCB 240-127799/12-A	1		15:20	X

Prep Types:
D = Dissolved
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/24/2014 07:03 End Date: 04/24/2014 14:22

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-127799/1-A			07:03	X
IC 240-127799/2-A			07:05	X
IC 240-127799/3-A			07:06	X
IC 240-127799/4-A			07:08	X
IC 240-127799/5-A			07:09	X
IC 240-127799/6-A			07:11	X
ICV 240-127799/7-A	1		07:35	X
ICB 240-127799/8-A	1		07:37	X
CRA 240-127799/9-A	1		07:38	X
CCVL 240-127799/10-A	1		08:38	X
CCB 240-127799/12-A			08:39	
ZZZZZZ			08:40	
ZZZZZZ			08:42	
ZZZZZZ			08:43	
ZZZZZZ			08:45	
ZZZZZZ			08:46	
ZZZZZZ			08:48	
ZZZZZZ			08:49	
ZZZZZZ			08:51	
ZZZZZZ			08:52	
ZZZZZZ			08:54	
CCV 240-127799/11-A	1		08:55	X
CCB 240-127799/12-A	1		08:56	X
ZZZZZZ			08:58	
ZZZZZZ			09:00	
ZZZZZZ			09:01	
ZZZZZZ			09:03	
ZZZZZZ			09:04	
ZZZZZZ			09:06	
ZZZZZZ			09:08	
MB 240-127560/1-A	1	T	09:09	X
LCS 240-127560/2-A	1	T	09:10	X
240-36343-5	1	T	09:12	X
CCV 240-127799/11-A	1		09:13	X
CCB 240-127799/12-A	1		09:15	X
240-36343-5 MS	1	T	09:16	X
240-36343-5 MSD	1	T	09:19	X
240-36355-2	1	D	09:20	X
240-36355-3	1	T	09:23	X
240-36355-4	1	T	09:24	X
240-36355-5	1	T	09:26	X
ZZZZZZ			09:27	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/24/2014 07:03 End Date: 04/24/2014 14:22

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			09:29	
ZZZZZZ			09:31	
ZZZZZZ			09:32	
CCV 240-127799/11-A	1		09:34	X
CCB 240-127799/12-A	1		09:35	X
ZZZZZZ			09:37	
240-36343-5	1	D	09:38	X
240-36355-2	1	T	09:40	X
240-36355-3	1	D	09:41	X
240-36355-4	1	D	09:43	X
240-36355-5	1	D	09:44	X
ZZZZZZ			09:46	
ZZZZZZ			09:48	
ZZZZZZ			09:49	
ZZZZZZ			09:51	
CCV 240-127799/11-A	1		09:53	X
CCB 240-127799/12-A	1		09:54	X
ZZZZZZ			09:56	
ZZZZZZ			09:57	
ZZZZZZ			09:59	
ZZZZZZ			10:00	
ZZZZZZ			10:03	
ZZZZZZ			10:04	
ZZZZZZ			10:06	
ZZZZZZ			10:08	
ZZZZZZ			10:09	
ZZZZZZ			10:10	
CCV 240-127799/11-A			10:12	
CCB 240-127799/12-A			10:13	
ZZZZZZ			10:15	
ZZZZZZ			10:16	
ZZZZZZ			10:18	
ZZZZZZ			10:19	
ZZZZZZ			10:21	
ZZZZZZ			10:23	
ZZZZZZ			10:25	
ZZZZZZ			10:26	
ZZZZZZ			10:28	
ZZZZZZ			10:29	
CCV 240-127799/11-A			10:31	
CCB 240-127799/12-A			10:32	
ZZZZZZ			10:34	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/24/2014 07:03 End Date: 04/24/2014 14:22

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			10:35	
CCV 240-127799/11-A			10:37	
CCB 240-127799/12-A			10:38	
CCV 240-127799/11-A			11:39	
CCB 240-127799/12-A			11:40	
ZZZZZZ			11:42	
ZZZZZZ			11:43	
ZZZZZZ			11:45	
ZZZZZZ			11:47	
ZZZZZZ			11:48	
ZZZZZZ			11:50	
ZZZZZZ			11:52	
ZZZZZZ			11:53	
ZZZZZZ			11:55	
ZZZZZZ			11:57	
CCV 240-127799/11-A			11:58	
CCB 240-127799/12-A			11:59	
ZZZZZZ			12:01	
ZZZZZZ			12:02	
ZZZZZZ			12:04	
CCV 240-127799/11-A			12:05	
CCB 240-127799/12-A			12:07	
CCV 240-127799/11-A			12:43	
CCB 240-127799/12-A			12:45	
ZZZZZZ			12:47	
ZZZZZZ			12:49	
ZZZZZZ			12:50	
ZZZZZZ			12:52	
ZZZZZZ			12:53	
ZZZZZZ			12:54	
ZZZZZZ			12:56	
ZZZZZZ			12:58	
ZZZZZZ			12:59	
ZZZZZZ			13:00	
CCV 240-127799/11-A			13:02	
CCB 240-127799/12-A			13:04	
ZZZZZZ			13:05	
ZZZZZZ			13:07	
ZZZZZZ			13:08	
ZZZZZZ			13:10	
ZZZZZZ			13:11	
ZZZZZZ			13:13	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/24/2014 07:03 End Date: 04/24/2014 14:22

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			13:15	
ZZZZZZ			13:16	
ZZZZZZ			13:17	
ZZZZZZ			13:19	
CCV 240-127799/11-A			13:20	
CCB 240-127799/12-A			13:22	
ZZZZZZ			13:23	
ZZZZZZ			13:25	
ZZZZZZ			13:26	
ZZZZZZ			13:28	
ZZZZZZ			13:29	
CCV 240-127799/11-A			13:32	
CCB 240-127799/12-A			13:33	
ZZZZZZ			13:35	
ZZZZZZ			13:36	
ZZZZZZ			13:37	
ZZZZZZ			13:39	
ZZZZZZ			13:40	
ZZZZZZ			13:42	
ZZZZZZ			13:43	
ZZZZZZ			13:45	
ZZZZZZ			13:46	
ZZZZZZ			13:48	
CCV 240-127799/11-A			13:49	
CCB 240-127799/12-A			13:51	
ZZZZZZ			13:52	
ZZZZZZ			13:53	
ZZZZZZ			13:55	
ZZZZZZ			13:56	
ZZZZZZ			13:58	
ZZZZZZ			13:59	
ZZZZZZ			14:01	
ZZZZZZ			14:02	
ZZZZZZ			14:04	
ZZZZZZ			14:05	
CCV 240-127799/11-A			14:07	
CCB 240-127799/12-A			14:08	
ZZZZZZ			14:11	
ZZZZZZ			14:13	
ZZZZZZ			14:14	
ZZZZZZ			14:15	
ZZZZZZ			14:17	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/24/2014 07:03 End Date: 04/24/2014 14:22

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			14:19	
CCV 240-127799/11-A			14:20	
CCB 240-127799/12-A			14:22	

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/25/2014 11:24 End Date: 04/25/2014 16:47

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-127983/1-A			11:24	X
IC 240-127983/2-A			11:26	X
IC 240-127983/3-A			11:28	X
IC 240-127983/4-A			11:30	X
IC 240-127983/5-A			11:32	X
IC 240-127983/6-A			11:34	X
ICV 240-127983/7-A	1		11:35	X
ICB 240-127983/8-A	1		11:37	X
CRA 240-127983/9-A	1		11:39	X
CCVL 240-127983/10-A	1		11:41	X
CCB 240-127983/12-A			11:43	
ZZZZZZ			11:44	
ZZZZZZ			11:46	
ZZZZZZ			11:48	
ZZZZZZ			11:49	
ZZZZZZ			11:51	
ZZZZZZ			11:52	
ZZZZZZ			11:54	
ZZZZZZ			11:55	
ZZZZZZ			11:56	
ZZZZZZ			11:58	
CCV 240-127983/11-A	1		12:00	X
CCB 240-127983/12-A	1		12:01	X
ZZZZZZ			12:03	
ZZZZZZ			12:05	
ZZZZZZ			12:07	
ZZZZZZ			12:08	
ZZZZZZ			12:10	
ZZZZZZ			12:11	
ZZZZZZ			12:13	
ZZZZZZ			12:14	
ZZZZZZ			12:15	
MB 240-127723/1-A	1	T	12:17	X
CCV 240-127983/11-A	1		12:19	X
CCB 240-127983/12-A	1		12:20	X
LCS 240-127723/2-A	1	T	12:22	X
ZZZZZZ			12:24	
ZZZZZZ			12:25	
ZZZZZZ			12:27	
ZZZZZZ			12:28	
ZZZZZZ			12:30	
ZZZZZZ			12:32	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/25/2014 11:24 End Date: 04/25/2014 16:47

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			12:33	
ZZZZZZ			12:35	
ZZZZZZ			12:36	
CCV 240-127983/11-A	1		12:38	X
CCB 240-127983/12-A	1		12:40	X
ZZZZZZ			12:41	
ZZZZZZ			12:43	
240-36398-2	1	T	12:44	X
240-36398-3	1	T	12:46	X
240-36398-4	1	T	12:48	X
240-36398-5	1	T	12:49	X
240-36398-2	1	D	12:51	X
240-36398-3	1	D	12:52	X
240-36398-4	1	D	12:54	X
240-36398-5	1	D	12:56	X
CCV 240-127983/11-A	1		12:57	X
CCB 240-127983/12-A	1		12:59	X
CCV 240-127983/11-A			14:33	
CCB 240-127983/12-A			14:35	
ZZZZZZ			14:36	
ZZZZZZ			14:38	
ZZZZZZ			14:40	
ZZZZZZ			14:42	
ZZZZZZ			14:43	
ZZZZZZ			14:45	
ZZZZZZ			14:46	
ZZZZZZ			14:48	
ZZZZZZ			14:49	
ZZZZZZ			14:51	
CCV 240-127983/11-A			14:52	
CCB 240-127983/12-A			14:53	
ZZZZZZ			14:55	
ZZZZZZ			14:57	
ZZZZZZ			14:58	
ZZZZZZ			15:00	
ZZZZZZ			15:01	
ZZZZZZ			15:03	
ZZZZZZ			15:05	
ZZZZZZ			15:06	
ZZZZZZ			15:08	
ZZZZZZ			15:09	
CCV 240-127983/11-A			15:11	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/25/2014 11:24 End Date: 04/25/2014 16:47

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
CCB 240-127983/12-A			15:13	
ZZZZZZ			15:14	
ZZZZZZ			15:16	
CCV 240-127983/11-A			15:18	
CCB 240-127983/12-A			15:19	
ZZZZZZ			15:20	
ZZZZZZ			15:22	
ZZZZZZ			15:24	
ZZZZZZ			15:26	
ZZZZZZ			15:27	
ZZZZZZ			15:29	
ZZZZZZ			15:30	
ZZZZZZ			15:32	
ZZZZZZ			15:33	
ZZZZZZ			15:35	
CCV 240-127983/11-A			15:36	
CCB 240-127983/12-A			15:38	
ZZZZZZ			15:40	
ZZZZZZ			15:41	
ZZZZZZ			15:43	
ZZZZZZ			15:45	
ZZZZZZ			15:46	
ZZZZZZ			15:48	
ZZZZZZ			15:50	
ZZZZZZ			15:52	
ZZZZZZ			15:53	
ZZZZZZ			15:55	
CCV 240-127983/11-A			15:56	
CCB 240-127983/12-A			15:58	
ZZZZZZ			15:59	
ZZZZZZ			16:01	
ZZZZZZ			16:03	
ZZZZZZ			16:04	
ZZZZZZ			16:06	
ZZZZZZ			16:07	
ZZZZZZ			16:09	
ZZZZZZ			16:10	
ZZZZZZ			16:12	
ZZZZZZ			16:14	
CCV 240-127983/11-A			16:15	
CCB 240-127983/12-A			16:17	
ZZZZZZ			16:18	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36343-1

SDG No.:

Instrument ID: H1 Analysis Method: 7470A

Start Date: 04/25/2014 11:24 End Date: 04/25/2014 16:47

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			16:20	
ZZZZZZ			16:22	
ZZZZZZ			16:24	
ZZZZZZ			16:25	
ZZZZZZ			16:27	
ZZZZZZ			16:28	
ZZZZZZ			16:30	
ZZZZZZ			16:32	
ZZZZZZ			16:33	
CCV 240-127983/11-A			16:35	
CCB 240-127983/12-A			16:37	
ZZZZZZ			16:38	
ZZZZZZ			16:39	
ZZZZZZ			16:41	
CRA 240-127983/9-A			16:43	
CCV 240-127983/11-A			16:44	
CCB 240-127983/12-A			16:47	

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **T. APANAVAGE** **DATE:** **JULY 8, 2014**

FROM: **J. KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / 1,4-DIOXANE / TPH C06-C10 / TPH C10-C32**
INORGANIC DATA VALIDATION – TOTAL & DISSOLVED METALS / PERCHLORATE
LOCKHEED MARTIN STATE AIRPORT (MSA)
SAMPLE DELIVERY GROUP (SDG) 240-36857-1

SAMPLES: 3 / Aqueous – VOC / 1,4-Dioxane / Total & Dissolved Metals

MSA-DMW-1S-050114 MSA-DMW-6S-050114 MSA-MW-27D-050114

2 / Aqueous – TPH C06-C10 / TPH C10-C32

MSA-DMW-1S-050114 MSA-DMW-6S-050114

1 / Aqueous – Perchlorate

MSA-MW-27D-050114

Overview

The sample set for Lockheed MSA, SDG 240-36857-1, consisted of three (3) aqueous samples. All samples were analyzed for volatile organic compounds (VOCs), 1,4-dioxane, and for total and dissolved metals as listed above. Two (2) aqueous samples were analyzed for total petroleum hydrocarbons (TPH) TPH C06-C10 & TPH C10-C32, as listed above. One (1) aqueous sample was analyzed for perchlorate as listed above. No field duplicate sample pairs were included in the sample delivery group (SDG).

The samples were collected by Tetra Tech on May 1, 2014 and analyzed by TestAmerica Laboratories, Inc., North Canton and Sacramento for all analyses. All analyses were conducted in accordance with EPA SW-846 Methods 8260C for VOCs, 8270C for SVOCs, 8015B for TPH C06-C10 & TPH C10-C32, 6850 for perchlorate, 6020A for metals, and 7470A for mercury, analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, blank results, blank spike/blank spike duplicate results, matrix spike/matrix spike duplicate results, surrogate spike recoveries, internal standard recoveries, chromatographic resolution, ICP interference results, laboratory duplicate results, ICP serial dilution results, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major Problems

- All VOC samples had detected silanol compound VOCs in the tentatively identified compound (TIC) results.
  Actions: The sample silanol related compound results were qualified rejected (R), as they were considered present due to analytical column bleed.

Minor Problems

- Detected results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

- The following VOC contaminant was detected in the method blank MB 240-130437/6 affecting sample MSA-DMW-6S-050114.

Analytes	Maximum Concentration	Action Level
Carbon disulfide [(1)]	0.342 µg/l	1.7 µg/l

An action level of five times the maximum level for carbon disulfide was used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The sample positive sample result was less than the action level and was qualified non-detected, (U), for blank contamination.

- The VOC continuing calibration verification (CCV) percent differences (%Ds) were greater than the 20% quality control limit for dibromomethane, 1,2,4-trimethylbenzene, sec-butylbenzene, 4-isopropyltoluene, n-butylbenzene, and 1,2,3-trimethylbenzene for instrument A3UX12 on 05/13/14 @ 09:39 and @ 10:27.
  Affected Sample: MSA-DMW-6S-050114
  Action: The sample non-detected aforementioned analyte results were qualified estimated, (UJ).

- The VOC CCV %Ds were greater than the 20% quality control limit for trichlorofluoromethane, carbon tetrachloride, 1,2-dichloroethane, bromodichloromethane, trans-1,3-dichloropropene, 2-hexanone, chlorodibromomethane, 1,2-dibromo-3-chloropropane, 1,2,4-trichlorobenzene, hexachlorobutadiene, naphthalene, and 1,2,3-trichlorobenzene for instrument A3UX15 on 05/06/14 @ 09:34.
  Affected Samples: MSA-DMW-1S-050114 and MSA-MW-27D-050114
  Action: The sample non-detected aforementioned analyte results were qualified estimated, (UJ).

- TPH C06-C10 was detected in the method blank MB 240-129818 affecting samples MSA-DMW-1S-050114 and MSA-DMW-6S-050114.

Analytes	Maximum Conc.	Action Level
TPH C06-C10	25.6 µg/l	128 µg/l

An action level of five times the maximum level for TPH C06-C10 was used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The positive sample results less than the action level were qualified non-detected, (U), for blank contamination.

- The perchlorate ion ratio for the sample MSA-MW-27D-050114 was outside the acceptable range for confirmation of perchlorate and the detected result was quantified at an Estimated Maximum Possible Concentration (EMPC).
  Action: The sample perchlorate result was qualified estimated, (J).

- The following contaminants were detected in the preparation or calibration blanks at the following maximum concentrations:

Analyte	Maximum Conc. µg/l	Action Level µg/l
Antimony [1]	0.141	0.705
Arsenic [1]	0.198	0.990
Barium [1]	1.44	7.20
Beryllium [1]	0.115	0.575
Cadmium [1]	0.061	0.305
Chromium [1]	0.167	0.835
Cobalt [1]	0.133	0.665
Copper [1]	0.820	4.10
Iron [1]	21.5	107.5
Lead [1]	0.154	0.770
Manganese [1]	0.429	2.145
Nickel [1]	0.224	1.12
Silver [1]	0.045	0.225
Thallium [1]	0.770	3.85

[1] Maximum concentration found in continuing calibration blanks (CCB) and the method blank affecting all total and dissolved metal samples.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors were taken into consideration when evaluating for blank contamination. Sample analyte results less than the action level were qualified non-detected, (U), for blank contamination.

- The interfering analyte iron was present in the total and dissolved samples MSA-DMW-6S-050114 at concentrations comparable to the concentration of iron in the interference check sample (ICS) solution. Chromium and nickel were present in the ICS solution at a concentration that exceeded the absolute value of the instrument detection limit (IDL). Interference effects exist for nickel in the dissolved metal MSA-DMW-6S-050114 and chromium for the total metal sample MSA-DMW-6S-050114. The detected result reported for nickel in the dissolved metals for sample MSA-DMW-6S-050114 was qualified as estimated, (J). The detected result reported for chromium in the total metals for sample MSA-DMW-6S-050114 was qualified as estimated, (J).

Notes

The VOC laboratory control sample (LCS) percent recovery (%R) was greater than the quality control limit for trans-1,3-dichloropropene for sample for batch 240-129443. No action was required because all results were nondetected.

The VOC LCS %R was greater than the quality control limit for dibromomethane for sample for batch 240-130437. No action was required because the result for dibromomethane was nondetected.

EXECUTIVE SUMMARY

Laboratory Performance Issues: VOC, TPH C06-C10, and metal sample results were qualified non-detected for blank contamination. VOC sample results were qualified for CCV %D non-compliances.

Other Factors Affecting Data Quality: Detected results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J). A sample detected perchlorate result was qualified

as an EMPC. Detected metal sample results were qualified for an interfering analyte. VOC silanol compound TIC results were rejected as due to column bleed.

The data for these analyses were reviewed with reference to EPA SW-846 Methods 8260C, 8270C, 8015B, 6850, 6020, 7470A, the USEPA National Functional Guidelines for Organic Data Validation (June 2008), and the USEPA National Functional Guidelines for Inorganic Data Validation (January 2010).

Tetra Tech
Joseph Kalinyak
Data Validator/Environmental Scientist

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	ICP PDS Recovery Noncompliance; MSA's r < 0.995
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (i.e., base-time drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	RPD between columns/detectors >40% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient r < 0.995
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is less than sample activity
Z1	=	Tentatively Identified Compound considered presumptively present
Z2	=	Tentatively Identified Compound column bleed

PROJ_NO: 06183	NSAMPLE	MSA-DMW-1S-050114			MSA-DMW-6S-050114			MSA-MW-27D-050114		
SDG: 240-36857-1	LAB_ID	240-36857-1			240-36857-3			240-36857-2		
FRACTION: OV	SAMP_DATE	5/1/2014			5/1/2014			5/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	UJ	C	0.17	U		0.17	UJ	C
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	UJ	C	0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	UJ	C	0.15	U		0.15	UJ	C
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	UJ	C	0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	UJ	C	0.67	U		0.67	UJ	C
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	UJ	C	0.22	U		0.22	UJ	C
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	UJ	C	0.41	U		0.41	UJ	C
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	UJ	C	0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U	
ACETONE		2.1	J	P	11			3.3	J	P
BENZENE		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	UJ	C	0.15	U		0.15	UJ	C
BROMOFORM		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW-1S-050114			MSA-DMW-6S-050114			MSA-MW-27D-050114		
SDG: 240-36857-1	LAB_ID	240-36857-1			240-36857-3			240-36857-2		
FRACTION: OV	SAMP_DATE	5/1/2014			5/1/2014			5/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.25	U	A	0.13	U	
CARBON TETRACHLORIDE		0.13	UJ	C	0.13	U		0.13	UJ	C
CHLOROBENZENE		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	UJ	C	0.18	U		0.18	UJ	C
CHLOROETHANE		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		2.9			0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	UJ	C	0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	UJ	C	0.3	U		0.3	UJ	C
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	UJ	C	0.24	U		0.24	UJ	C
N-BUTYLBENZENE		0.12	U		0.12	UJ	C	0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	UJ	C	0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	U		3.9	U		3.9	U	
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.13	U	
TOTAL XYLENES		0.14	U		0.14	U		0.14	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	UJ	C	0.19	U		0.19	UJ	C
TRICHLOROETHENE		0.17	U		0.58	J	P	0.17	U	
TRICHLOROFLUOROMETHANE		0.21	UJ	C	0.21	U		0.21	UJ	C

PROJ_NO: 06183	NSAMPLE	MSA-DMW-1S-050114			MSA-DMW-6S-050114			MSA-MW-27D-050114		
SDG: 240-36857-1	LAB_ID	240-36857-1			240-36857-3			240-36857-2		
FRACTION: OV	SAMP_DATE	5/1/2014			5/1/2014			5/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW-1S-050114			MSA-DMW-6S-050114			MSA-MW-27D-050114		
SDG: 240-36857-1	LAB_ID	240-36857-1			240-36857-3			240-36857-2		
FRACTION: TICOV	SAMP_DATE	5/1/2014			5/1/2014			5/1/2014		
MEDIA: WATER	QC_TYPE	TIC			TIC			TIC		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
SILANOL, TRIMETHYL-					2.7	R	Z2	3.8	R	Z2
TERT-BUTYLDIMETHYLSILANOL		2.3	R	Z2						

PROJ_NO: 06183	NSAMPLE	MSA-DMW-1S-050114			MSA-DMW-6S-050114			MSA-MW-27D-050114		
SDG: 240-36857-1	LAB_ID	240-36857-1			240-36857-3			240-36857-2		
FRACTION: OS	SAMP_DATE	5/1/2014			5/1/2014			5/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.26	U		0.55	J	P	0.24	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW-1S-050114			MSA-DMW-6S-050114		
SDG: 240-36857-1	LAB_ID	240-36857-1			240-36857-3		
FRACTION: PET	SAMP_DATE	5/1/2014			5/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		36	U	A	35	U	A
TPH (C10-C32)		240	U		1400		

PROJ_NO: 06183	NSAMPLE	MSA-MW-27D-050114		
SDG: 240-36857-1	LAB_ID	240-36857-2		
FRACTION: MISC	SAMP_DATE	5/1/2014		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
PERCHLORATE		0.085	J	PW

PROJ_NO: 06183	NSAMPLE	MSA-DMW-1S-050114			MSA-DMW-6S-050114			MSA-MW-27D-050114		
SDG: 240-36857-1	LAB_ID	240-36857-1			240-36857-3			240-36857-2		
FRACTION: M	SAMP_DATE	5/1/2014			5/1/2014			5/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.71	J	P	0.25	U	A	0.11	U	
ARSENIC		0.38	U	A	7			0.16	U	A
BARIUM		20			43			15		
BERYLLIUM		0.057	U	A	0.051	U	A	0.2	U	A
CADMIUM		0.5	J	P	0.026	U		0.045	U	A
CHROMIUM		0.73	U	A	1	J	KP	0.13	U	
COBALT		0.12	U	A	5.2			3.6		
COPPER		4	U	A	2	U	A	3.1	U	A
IRON		150			150000			90	U	A
LEAD		0.96	J	P	0.58	U	A	0.14	U	
MANGANESE		6.6			1400			120		
MERCURY		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		0.81	U		0.81	U	
NICKEL		0.98	U	A	38			7.8		
SELENIUM		0.34	U		0.77	J	P	0.34	U	
SILVER		0.044	U	A	0.0083	U		0.0083	U	
THALLIUM		0.4	U		0.4	U		0.4	U	
VANADIUM		1.1	J	P	1.2	J	P	0.15	U	

PROJ_NO: 06183	NSAMPLE	MSA-DMW-1S-050114			MSA-DMW-6S-050114			MSA-MW-27D-050114		
SDG: 240-36857-1	LAB_ID	240-36857-1			240-36857-3			240-36857-2		
FRACTION: MF	SAMP_DATE	5/1/2014			5/1/2014			5/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.74	J	P	0.23	U	A	0.11	U	
ARSENIC		0.39	U	A	6.2			0.12	U	A
BARIUM		22			38			13		
BERYLLIUM		0.045	U	A	0.035	U	A	0.16	U	A
CADMIUM		0.54	J	P	0.026	U		0.034	U	A
CHROMIUM		0.28	U	A	0.4	U	A	0.13	U	
COBALT		0.072	U	A	5			3.1		
COPPER		4.8			0.39	U	A	3.7	U	A
IRON		30	U	A	140000			15	U	A
LEAD		0.4	U	A	0.14	U		0.14	U	
MANGANESE		2.6	J	P	1300			94		
MERCURY		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		0.81	U		0.81	U		0.81	U	
NICKEL		1.6	J	P	2.6	J	K	7.3		
SELENIUM		0.34	U		0.75	J	P	0.34	U	
SILVER		0.023	U	A	0.0083	U		0.0083	U	
THALLIUM		0.4	U		0.4	U		0.4	U	
VANADIUM		0.87	J	P	0.45	J	P	0.15	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-1S-050114 | Lab Sample ID: 240-36857-1

Matrix: Water | Lab File ID: UXC1263.D

Analysis Method: 8260C | Date Collected: 05/01/2014 10:48

Sample wt/vol: 5(mL) | Date Analyzed: 05/06/2014 18:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 129443 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	2.1	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-1S-050114 Lab Sample ID: 240-36857-1

Matrix: Water Lab File ID: UXC1263.D

Analysis Method: 8260C Date Collected: 05/01/2014 10:48

Sample wt/vol: 5(mL) Date Analyzed: 05/06/2014 18:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 129443 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U *	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-1S-050114 Lab Sample ID: 240-36857-1

Matrix: Water Lab File ID: UXC1263.D

Analysis Method: 8260C Date Collected: 05/01/2014 10:48

Sample wt/vol: 5(mL) Date Analyzed: 05/06/2014 18:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 129443 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		74-120
1868-53-7	Dibromofluoromethane (Surr)	102		75-121
460-00-4	4-Bromofluorobenzene (Surr)	80		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	125		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-1S-050114 | Lab Sample ID: 240-36857-1

Matrix: Water | Lab File ID: UXC1263.D

Analysis Method: 8260C | Date Collected: 05/01/2014 10:48

Sample wt/vol: 5(mL) | Date Analyzed: 05/06/2014 18:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 129443 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 2.3

CAS NO.	COMPOUND NAME	RT	RESULT	Q
18173-64-3	tert-Butyldimethylsilanol	4.17	2.3	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-6S-050114 | Lab Sample ID: 240-36857-3

Matrix: Water | Lab File ID: U1237591.D

Analysis Method: 8260C | Date Collected: 05/01/2014 15:17

Sample wt/vol: 5(mL) | Date Analyzed: 05/13/2014 12:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 130437 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	11		10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.25	J B	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-6S-050114 | Lab Sample ID: 240-36857-3

Matrix: Water | Lab File ID: U1237591.D

Analysis Method: 8260C | Date Collected: 05/01/2014 15:17

Sample wt/vol: 5(mL) | Date Analyzed: 05/13/2014 12:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 130437 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	2.9		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.58	J	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-6S-050114 Lab Sample ID: 240-36857-3

Matrix: Water Lab File ID: U1237591.D

Analysis Method: 8260C Date Collected: 05/01/2014 15:17

Sample wt/vol: 5(mL) Date Analyzed: 05/13/2014 12:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130437 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		74-120
1868-53-7	Dibromofluoromethane (Surr)	97		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	81		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-6S-050114 Lab Sample ID: 240-36857-3

Matrix: Water Lab File ID: U1237591.D

Analysis Method: 8260C Date Collected: 05/01/2014 15:17

Sample wt/vol: 5(mL) Date Analyzed: 05/13/2014 12:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130437 Units: ug/L

Number TICs Found: 1 TIC Result Total: 2.7

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.30	2.7	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-MW-27D-050114 | Lab Sample ID: 240-36857-2

Matrix: Water | Lab File ID: UXC1264.D

Analysis Method: 8260C | Date Collected: 05/01/2014 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 05/06/2014 19:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 129443 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	3.3	J	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-MW-27D-050114 | Lab Sample ID: 240-36857-2

Matrix: Water | Lab File ID: UXC1264.D

Analysis Method: 8260C | Date Collected: 05/01/2014 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 05/06/2014 19:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 129443 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U *	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-MW-27D-050114 Lab Sample ID: 240-36857-2

Matrix: Water Lab File ID: UXC1264.D

Analysis Method: 8260C Date Collected: 05/01/2014 12:35

Sample wt/vol: 5(mL) Date Analyzed: 05/06/2014 19:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 129443 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	85		74-120
1868-53-7	Dibromofluoromethane (Surr)	101		75-121
460-00-4	4-Bromofluorobenzene (Surr)	83		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	125		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-MW-27D-050114 | Lab Sample ID: 240-36857-2

Matrix: Water | Lab File ID: UXC1264.D

Analysis Method: 8260C | Date Collected: 05/01/2014 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 05/06/2014 19:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 129443 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 3.8

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.17	3.8	T J N

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-1S-050114 | Lab Sample ID: 240-36857-1

Matrix: Water | Lab File ID: 0509021.D

Analysis Method: 8270C | Date Collected: 05/01/2014 10:48

Extract. Method: 3510C | Date Extracted: 05/05/2014 08:04

Sample wt/vol: 250(mL) | Date Analyzed: 05/09/2014 16:00

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 129945 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	62		29-110
367-12-4	2-Fluorophenol (Surr)	77		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	62		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	77		31-110
4165-62-2	Phenol-d5 (Surr)	79		10-110
1718-51-0	Terphenyl-d14 (Surr)	93		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-6S-050114 | Lab Sample ID: 240-36857-3

Matrix: Water | Lab File ID: 0509023.D

Analysis Method: 8270C | Date Collected: 05/01/2014 15:17

Extract. Method: 3510C | Date Extracted: 05/05/2014 08:04

Sample wt/vol: 265(mL) | Date Analyzed: 05/09/2014 16:47

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 129945 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.55	J	0.94	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	62		29-110
367-12-4	2-Fluorophenol (Surr)	51		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	66		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	68		31-110
4165-62-2	Phenol-d5 (Surr)	29		10-110
1718-51-0	Terphenyl-d14 (Surr)	87		31-115

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-MW-27D-050114 | Lab Sample ID: 240-36857-2

Matrix: Water | Lab File ID: 0509022.D

Analysis Method: 8270C | Date Collected: 05/01/2014 12:35

Extract. Method: 3510C | Date Extracted: 05/05/2014 08:04

Sample wt/vol: 275(mL) | Date Analyzed: 05/09/2014 16:23

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 129945 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.24	U	0.91	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	65		29-110
367-12-4	2-Fluorophenol (Surr)	78		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	55		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	77		31-110
4165-62-2	Phenol-d5 (Surr)	67		10-110
1718-51-0	Terphenyl-d14 (Surr)	93		31-115

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-1S-050114 Lab Sample ID: 240-36857-1

Matrix: Water Lab File ID: YF050807.D

Analysis Method: 8015B Date Collected: 05/01/2014 10:48

Sample wt/vol: 5(mL) Date Analyzed: 05/08/2014 13:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 129818 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	36	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	74		40-133

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-6S-050114 Lab Sample ID: 240-36857-3

Matrix: Water Lab File ID: YF050810.D

Analysis Method: 8015B Date Collected: 05/01/2014 15:17

Sample wt/vol: 5(mL) Date Analyzed: 05/08/2014 15:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 129818 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	35	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	76		40-133

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-1S-050114 | Lab Sample ID: 240-36857-1

Matrix: Water | Lab File ID: P14F050911.D

Analysis Method: 8015B | Date Collected: 05/01/2014 10:48

Extraction Method: 3510C | Date Extracted: 05/07/2014 08:35

Sample wt/vol: 250(mL) | Date Analyzed: 05/09/2014 14:37

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 130034 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	70		40-160

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-6S-050114 Lab Sample ID: 240-36857-3

Matrix: Water Lab File ID: P14F050912.D

Analysis Method: 8015B Date Collected: 05/01/2014 15:17

Extraction Method: 3510C Date Extracted: 05/07/2014 08:35

Sample wt/vol: 270(mL) Date Analyzed: 05/09/2014 14:58

Con. Extract Vol.: 5.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130034 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	1400		460	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	61		40-160

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-MW-27D-050114 | Lab Sample ID: 240-36857-2

Matrix: Water | Lab File ID: 13MAY2014_034.d

Analysis Method: 6850 | Date Collected: 05/01/2014 12:35

Extraction Method: Filtration | Date Extracted: 05/06/2014 18:16

Sample wt/vol: 4.00(mL) | Date Analyzed: 05/13/2014 16:05

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: Xterra C18 ID: 3.2(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42339 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.085	J I	0.50	0.082

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-1S-050114 Lab Sample ID: 240-36857-1

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG ID.:

Matrix: Water Date Sampled: 05/01/2014 10:48

Reporting Basis: WET Date Received: 05/03/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-DMW-6S-050114 Lab Sample ID: 240-36857-3

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG ID.:

Matrix: Water Date Sampled: 05/01/2014 15:17

Reporting Basis: WET Date Received: 05/03/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-27D-050114 Lab Sample ID: 240-36857-2

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG ID.:

Matrix: Water Date Sampled: 05/01/2014 12:35

Reporting Basis: WET Date Received: 05/03/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-1S-050114 Lab Sample ID: 240-36857-1

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG ID.:

Matrix: Water Date Sampled: 05/01/2014 10:48

Reporting Basis: WET Date Received: 05/03/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.71	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.38	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	20	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.057	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.50	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	0.12	1.0	0.020	ug/L	J		1	6020
7440-47-3	Chromium	0.73	2.0	0.13	ug/L	J	B	1	6020
7440-50-8	Copper	4.0	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	150	100	12	ug/L		B	1	6020
7439-96-5	Manganese	6.6	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	0.98	2.0	0.088	ug/L	J	B	1	6020
7439-92-1	Lead	0.96	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.044	1.0	0.0083	ug/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-DMW-6S-050114 Lab Sample ID: 240-36857-3

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG ID.:

Matrix: Water Date Sampled: 05/01/2014 15:17

Reporting Basis: WET Date Received: 05/03/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.25	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	7.0	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	43	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.051	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-48-4	Cobalt	5.2	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	1.0	2.0	0.13	ug/L	J	B	1	6020
7440-50-8	Copper	2.0	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	150000	100	12	ug/L		B	1	6020
7439-96-5	Manganese	1400	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	38	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.58	1.0	0.14	ug/L	J	B	1	6020
7782-49-2	Selenium	0.77	5.0	0.34	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	5.0	0.15	ug/L	J		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-27D-050114 Lab Sample ID: 240-36857-2

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG ID.:

Matrix: Water Date Sampled: 05/01/2014 12:35

Reporting Basis: WET Date Received: 05/03/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	0.16	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	15	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.20	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.045	1.0	0.026	ug/L	J		1	6020
7440-48-4	Cobalt	3.6	1.0	0.020	ug/L			1	6020
7440-47-3	Chromium	0.13	2.0	0.13	ug/L	U		1	6020
7440-50-8	Copper	3.1	2.0	0.24	ug/L		B	1	6020
7439-89-6	Iron	90	100	12	ug/L	J	B	1	6020
7439-96-5	Manganese	120	5.0	0.41	ug/L		B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	7.8	2.0	0.088	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.15	5.0	0.15	ug/L	U		1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-1S-050114 Lab Sample ID: 240-36857-1

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG ID.:

Matrix: Water Date Sampled: 05/01/2014 10:48

Reporting Basis: WET Date Received: 05/03/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.74	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.39	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	22	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.045	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.54	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	0.28	2.0	0.13	ug/L	J	B	1	6020
7440-48-4	Cobalt	0.072	1.0	0.020	ug/L	J		1	6020
7440-50-8	Copper	4.8	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.40	1.0	0.14	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	1.6	2.0	0.088	ug/L	J	B	1	6020
7439-89-6	Iron	30	100	12	ug/L	J	B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	2.6	5.0	0.41	ug/L	J	B	1	6020
7440-22-4	Silver	0.023	1.0	0.0083	ug/L	J		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.87	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-DMW-6S-050114 Lab Sample ID: 240-36857-3

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG ID.:

Matrix: Water Date Sampled: 05/01/2014 15:17

Reporting Basis: WET Date Received: 05/03/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.23	2.0	0.11	ug/L	J	B	1	6020
7440-38-2	Arsenic	6.2	5.0	0.063	ug/L		B	1	6020
7440-39-3	Barium	38	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.035	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.026	1.0	0.026	ug/L	U		1	6020
7440-47-3	Chromium	0.40	2.0	0.13	ug/L	J	B	1	6020
7440-48-4	Cobalt	5.0	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	0.39	2.0	0.24	ug/L	J	B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	2.6	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	140000	100	12	ug/L		B	1	6020
7782-49-2	Selenium	0.75	5.0	0.34	ug/L	J		1	6020
7439-96-5	Manganese	1300	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.45	5.0	0.15	ug/L	J		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-27D-050114 Lab Sample ID: 240-36857-2

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG ID.:

Matrix: Water Date Sampled: 05/01/2014 12:35

Reporting Basis: WET Date Received: 05/03/2014 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.11	ug/L	U		1	6020
7440-38-2	Arsenic	0.12	5.0	0.063	ug/L	J	B	1	6020
7440-39-3	Barium	13	5.0	0.32	ug/L		B	1	6020
7440-41-7	Beryllium	0.16	1.0	0.031	ug/L	J		1	6020
7440-43-9	Cadmium	0.034	1.0	0.026	ug/L	J		1	6020
7440-47-3	Chromium	0.13	2.0	0.13	ug/L	U		1	6020
7440-48-4	Cobalt	3.1	1.0	0.020	ug/L			1	6020
7440-50-8	Copper	3.7	2.0	0.24	ug/L		B	1	6020
7439-92-1	Lead	0.14	1.0	0.14	ug/L	U		1	6020
7439-98-7	Molybdenum	0.81	10	0.81	ug/L	U		1	6020
7440-02-0	Nickel	7.3	2.0	0.088	ug/L		B	1	6020
7439-89-6	Iron	15	100	12	ug/L	J	B	1	6020
7782-49-2	Selenium	0.34	5.0	0.34	ug/L	U		1	6020
7439-96-5	Manganese	94	5.0	0.41	ug/L		B	1	6020
7440-22-4	Silver	0.0083	1.0	0.0083	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.40	ug/L	U		1	6020
7440-62-2	Vanadium	0.15	5.0	0.15	ug/L	U		1	6020
7439-97-6	Mercury	0.12	0.20	0.12	ug/L	U		1	7470A

APPENDIX C

SUPPORT DOCUMENTATION

HOLDTIME

SDG 240-36857-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	MSA-DMW-1S-050114	240-36857-1	NM	05/01/2014	05/05/2014	05/06/2014	4	1	5
HG	UG/L	MSA-DMW-6S-050114	240-36857-3	NM	05/01/2014	05/05/2014	05/06/2014	4	1	5
HG	UG/L	MSA-MW-27D-050114	240-36857-2	NM	05/01/2014	05/05/2014	05/06/2014	4	1	5
M	UG/L	MSA-MW-27D-050114	240-36857-2	NM	05/01/2014	05/05/2014	05/06/2014	4	1	5
M	UG/L	MSA-DMW-6S-050114	240-36857-3	NM	05/01/2014	05/05/2014	05/06/2014	4	1	5
M	UG/L	MSA-DMW-1S-050114	240-36857-1	NM	05/01/2014	05/05/2014	05/06/2014	4	1	5
PCL	UG/L	MSA-MW-27D-050114	240-36857-2	NM	05/01/2014	05/06/2014	05/13/2014	5	7	12
OS	UG/L	MSA-DMW-6S-050114	240-36857-3	NM	05/01/2014	05/05/2014	05/09/2014	4	4	8
OS	UG/L	MSA-DMW-1S-050114	240-36857-1	NM	05/01/2014	05/05/2014	05/09/2014	4	4	8
OS	UG/L	MSA-MW-27D-050114	240-36857-2	NM	05/01/2014	05/05/2014	05/09/2014	4	4	8
OV	UG/L	MSA-DMW-1S-050114	240-36857-1	NM	05/01/2014	05/06/2014	05/06/2014	5	0	5
OV	UG/L	MSA-DMW-6S-050114	240-36857-3	NM	05/01/2014	05/13/2014	05/13/2014	12	0	12
OV	UG/L	MSA-MW-27D-050114	240-36857-2	NM	05/01/2014	05/06/2014	05/06/2014	5	0	5
	UG/L	MSA-DMW-1S-050114	240-36857-1	NM	05/01/2014	05/07/2014	05/09/2014	6	2	8
	UG/L	MSA-DMW-6S-050114	240-36857-3	NM	05/01/2014	05/08/2014	05/08/2014	7	0	7

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
	UG/L	MSA-DMW-6S-050114	240-36857-3	NM	05/01/2014	05/07/2014	05/09/2014	6	2	8
	UG/L	MSA-DMW-1S-050114	240-36857-1	NM	05/01/2014	05/08/2014	05/08/2014	7	0	7

TestAmerica Canton
4101 Shuffel Street, N. W.
North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

4.2

Chain of Custody Record

042345

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Tony Apanavage	Site Contact: Walt Pryor	Date: 5-1-14	COC No:
Company Name:	Tetra Tech Inc.	Tel/Fax: 301 528-3021	Lab Contact: Pat O'Meara	Carrier: Fed EX	1 of 1 COCs
Address:	20251 Century Blvd STE 200	Analysis Turnaround Time			Sampler:
City/State/Zip:	Germantown, MD 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	301 528-3021	TAT if different from Below _____			Walk-in Client:
Fax:	3000	☐ 2 weeks			Lab Sampling:
Project Name:	MSA GW 2014	☐ 1 week 21 day			
Site:	MSA	☐ 2 days			Job / SDG No.:
PO#	Project # 112EC06193	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	Total metals	Diss metals	1,4 Dioxane	TPH-GRO	TPH-DRO	Radium 224, 226, 228	Perchlorate	Sample Specific Notes:
TB-050114	5-1-14	—	G	GW	2			X								
MSA-DMW-1s-050114	↓	1048	↓	↓	12			X	X	X	X	X	X			
MSA-MW-27D-050114	↓	1235	↓	↓	11			X	X	X	X			X	X	
MSA-DMW-6s-050114	↓	1517	↓	↓	16			X	X	X	X	X	X	X		

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt Pryor	TT Inc	5-2-14 / 1350	[signature]	TestAmerica	5/2/14 / 1350
[signature]	TestAmerica	5/2/14 / 1555	Kyle Roth	Test America	5/3/14 945

TestAmerica Canton Sample Receipt Form/Narrative Login # : 30857
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: Ryan Rood

Cooler Received on 5/3/14 Opened on 5/3/14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box (Client Cooler) Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +0 °C) Observed Cooler Temp. 4.2 °C Corrected Cooler Temp. 4.2 °C

~~IR GUN# 4 (CF -1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~ ☐ See Multiple Cooler Form

IR GUN# 5 (CF +1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN# 8 (CF +1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. ~~Did custody papers accompany the sample(s)?~~ (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC391902
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? Yes (No)

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES — Samples processed by: Ryan Rood

TB-050114 2x 40mL vials missing

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-DMW-1S-050114	240-36857-J-1	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-1S-050114	240-36857-K-1	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-27D-050114	240-36857-G-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-27D-050114	240-36857-H-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-27D-050114	240-36857-I-2	Plastic 1 liter - Nitric Acid	<2		
MSA-MW-27D-050114	240-36857-J-2	Plastic 1 liter - Nitric Acid	<2		
MSA-MW-27D-050114	240-36857-K-2	Plastic 1 liter - Nitric Acid	<2		
MSA-DMW-6S-050114	240-36857-J-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-6S-050114	240-36857-K-3	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-6S-050114	240-36857-L-3	Plastic 1 liter - Nitric Acid	<2		
MSA-DMW-6S-050114	240-36857-M-3	Plastic 1 liter - Nitric Acid	<2		
MSA-DMW-6S-050114	240-36857-N-3	Plastic 1 liter - Nitric Acid	<2		

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-36857-1

Login Number: 36857
List Number: 321
Creator: Nelson, Kym D

List Source: TestAmerica Sacramento
List Creation: 05/06/14 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2014

Report Number: 240-36857-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 6850 Perchlorate analysis was performed at TestAmerica Sacramento. The Alpha Rad 224, 226 + Radium 228 was performed at TestAmerica Richland.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 5/3/2014 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2° C.

The following sample was listed on the Chain of Custody (COC); however, no sample was received: TB-050114.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-DMW-1S-050114 (240-36857-1), MSA-MW-27D-050114 (240-36857-2) and MSA-DMW-6S-050114 (240-36857-3) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/06/2014 and 05/13/2014.

Carbon disulfide was detected in method blank MB 240-130437/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The laboratory control sample (LCS) for batch 129443 recovered outside control limits for the following analytes: trans-1,3-Dichloropropene. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

The laboratory control sample (LCS) for batch 130437 recovered outside control limits for the following analytes: Dibromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) for analytical batch 129443 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The continuing calibration verification (CCV) for analytical batch 130437 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

The continuing calibration verification (CCV) for analytical batch 130437 exceeded control criteria for 1,2,3-Trimethylbenzene. The

samples associated with this CCV were non-detects for the affected analyte. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compound was detected; therefore the data has been reported. No further corrective action was required.

No other difficulties were encountered during the VOCs analysis. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)
Samples MSA-DMW-1S-050114 (240-36857-1), MSA-MW-27D-050114 (240-36857-2) and MSA-DMW-6S-050114 (240-36857-3) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 05/05/2014 and analyzed on 05/09/2014.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

No difficulties were encountered during the SVOCs analysis. All quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS (GRO)
Samples MSA-DMW-1S-050114 (240-36857-1) and MSA-DMW-6S-050114 (240-36857-3) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 05/08/2014.

Gasoline Range Organics [C6 - C10] was detected in method blank MB 240-129818/5 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No other difficulties were encountered during the GRO analysis. All other quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)
Samples MSA-DMW-1S-050114 (240-36857-1) and MSA-DMW-6S-050114 (240-36857-3) were analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 05/07/2014 and analyzed on 05/09/2014.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 129611.

No other difficulties were encountered during the DRO analysis. All other quality control parameters were within the acceptance limits.

PERCHLORATE
Sample MSA-MW-27D-050114 (240-36857-2) was analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 05/06/2014 and analyzed on 05/13/2014.

The ion ratio in MSA-MW-27D-050114 (240-36857-2) is outside the acceptable range for confirmation of perchlorate; however, the detected amount was below the lower limit of quantitation.

No other difficulties were encountered during the perchlorate analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)
Samples MSA-DMW-1S-050114 (240-36857-1), MSA-MW-27D-050114 (240-36857-2) and MSA-DMW-6S-050114 (240-36857-3) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/05/2014 and analyzed on 05/06/2014.

No difficulties were encountered during the metals analysis. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)
Samples MSA-DMW-1S-050114 (240-36857-1), MSA-MW-27D-050114 (240-36857-2) and MSA-DMW-6S-050114 (240-36857-3) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 05/05/2014 and analyzed on 05/06/2014.

Several analytes were detected in method blank MB 240-129245/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)
Samples MSA-DMW-1S-050114 (240-36857-1), MSA-MW-27D-050114 (240-36857-2) and MSA-DMW-6S-050114 (240-36857-3) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/05/2014 and analyzed on 05/06/2014.

No difficulties were encountered during the mercury analysis. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples MSA-DMW-1S-050114 (240-36857-1), MSA-MW-27D-050114 (240-36857-2) and MSA-DMW-6S-050114 (240-36857-3) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/05/2014 and analyzed on 05/06/2014.

No difficulties were encountered during the mercury analysis. All quality control parameters were within the acceptance limits.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits
B	Compound was found in the blank and sample.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	This flag indicates the presumptive evidence of a compound.
T	Result is a tentatively identified compound (TIC) and an estimated value.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
I	Ion Ratio outside of limits, value is EMPC.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2014

TestAmerica Job ID: 240-36857-1

Client Sample ID: MSA-DMW-6S-050114

Lab Sample ID: 240-36857-3

Date Collected: 05/01/14 15:17
Date Received: 05/03/14 09:45

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			129611	05/07/14 08:35	CSC	TAL CAN
Total/NA	Analysis	8015B		1	130034	05/09/14 14:58	DEB	TAL CAN
Dissolved	Prep	3005A			129245	05/05/14 08:41	LPM	TAL CAN
Dissolved	Analysis	6020		1	129585	05/06/14 14:47	NJT	TAL CAN
Total Recoverable	Prep	3005A			129245	05/05/14 08:41	LPM	TAL CAN
Total Recoverable	Analysis	6020		1	129585	05/06/14 14:33	NJT	TAL CAN
Dissolved	Prep	7470A			129242	05/05/14 14:25	LPM	TAL CAN
Dissolved	Analysis	7470A		1	129528	05/06/14 11:30	ADS	TAL CAN
Total/NA	Prep	7470A			129242	05/05/14 14:25	LPM	TAL CAN
Total/NA	Analysis	7470A		1	129528	05/06/14 11:23	ADS	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2014

TestAmerica Job ID: 240-36857-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015B	Gasoline Range Organics - (GC)	SW846	TAL CAN
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL CAN
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
Alpha Rad 224, 226 + Radium 228	Total Radium	NONE	TAL RCH

Protocol References:

EPA = US Environmental Protection Agency

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab File ID: BFB2547.D BFB Injection Date: 03/18/2014

Instrument ID: A3UX12 BFB Injection Time: 17:23

Analysis Batch No.: 123039

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.5	
75	30.0 - 60.0 % of mass 95	51.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	69.3	
175	5.0 - 9.0 % of mass 174	5.6	(8.0)1
176	95.0 - 101.0 % of mass 174	66.4	(95.8)1
177	5.0 - 9.0 % of mass 176	4.5	(6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-123039/3	U1236334.D	03/18/2014	17:53
	STD8260 240-123039/4	U1236335.D	03/18/2014	18:18
	STD8260 240-123039/5	U1236336.D	03/18/2014	18:42
	STD8260 240-123039/6	U1236337.D	03/18/2014	19:07
	STD8260 240-123039/7	U1236338.D	03/18/2014	19:31
	STD8260 240-123039/8	U1236339.D	03/18/2014	19:56
	ICV 240-123039/9	U1236340.D	03/18/2014	20:20
	STD 240-123039/13	U1236344.D	03/18/2014	21:56
	STD 240-123039/14	U1236345.D	03/18/2014	22:21
	STD 240-123039/15	U1236346.D	03/18/2014	22:44
	STD 240-123039/16	U1236347.D	03/18/2014	23:09
	STD 240-123039/17	U1236348.D	03/18/2014	23:33
	STD 240-123039/18	U1236349.D	03/18/2014	23:58
	ICV 240-123039/19	U1236350.D	03/19/2014	00:23

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-123039/8	U1236339.D
Level 2	STD8260 240-123039/7	U1236338.D
Level 3	STD8260 240-123039/6	U1236337.D
Level 4	STD8260 240-123039/5	U1236336.D
Level 5	STD8260 240-123039/4	U1236335.D
Level 6	STD8260 240-123039/3	U1236334.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.5344 0.5037	0.5482	0.4736	0.4481	0.4847	Ave		0.4988			0.1000	7.6		15.0			
Chloromethane	0.5548 0.5203	0.4941	0.4787	0.5026	0.4615	Ave		0.5020			0.1000	6.5		15.0			
Vinyl chloride	0.6018 0.5213	0.4945	0.4958	0.4867	0.4761	Ave		0.5127			0.1000	9.0		15.0			
Bromomethane	0.2193 0.2899	0.2045	0.2459	0.2648	0.2544	Ave		0.2464			0.0500	13.0		15.0			
Chloroethane	0.3033 0.3389	0.2806	0.2921	0.3217	0.3071	Ave		0.3073				6.8		15.0			
Dichlorofluoromethane	0.5609 0.7093	0.5861	0.6018	0.6515	0.6113	Ave		0.6201				8.5		15.0			
Trichlorofluoromethane	+++++ 0.5269	0.2817	0.4322	0.4446	0.4751	Lin1	-0.305	0.5045			0.1000				0.9960		0.9900
Ethyl ether	0.3032 0.2882	0.2907	0.2519	0.2786	0.2610	Ave		0.2789				6.9		15.0			
Acrolein	0.0515 0.0491	0.0375	0.0429	0.0480	0.0456	Ave		0.0458				11.0		15.0			
1,1,2-Trichlorotrifluoroethane	0.3320 0.3359	0.3222	0.3336	0.3136	0.3318	Ave		0.3282			0.0500	2.6		15.0			
1,1-Dichloroethene	0.7910 0.6719	0.6581	0.6096	0.6244	0.6161	Ave		0.6619			0.1000	10.0		15.0			
Acetone	+++++ 0.1001	0.2185	0.1045	0.0981	0.0901	Lin1	0.2349	0.0943			0.0500				0.9970		0.9900
Iodomethane	0.4769 0.4952	0.4880	0.4499	0.4888	0.4663	Ave		0.4775				3.5		15.0			
Carbon disulfide	1.1951 1.3615	1.1225	1.2245	1.2583	1.2782	Ave		1.2400			0.1000	6.5		15.0			
3-Chloro-1-propene	+++++ 0.2030	0.2178	0.1733	0.1834	0.1773	Ave		0.1910				9.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl acetate	0.3031 0.2545	0.2745	0.2318	0.2393	0.2392	Ave		0.2571			0.1000	11.0		15.0			
Methylene Chloride	0.6765 0.5132	0.5933	0.4925	0.5139	0.4835	Ave		0.5455			0.1000	14.0		15.0			
tert-Butyl alcohol	0.0202 0.0257	0.0324	0.0268	0.0282	0.0278	Ave		0.0269				15.0		15.0			
Acrylonitrile	0.1341 0.1327	0.1320	0.1163	0.1261	0.1281	Ave		0.1282				5.1		15.0			
Methyl tert-butyl ether	1.0062 0.9932	0.9235	0.9091	0.9545	0.9132	Ave		0.9500			0.1000	4.4		15.0			
trans-1,2-Dichloroethene	0.5271 0.5012	0.4980	0.4592	0.4640	0.4537	Ave		0.4839			0.1000	6.0		15.0			
Hexane	+++++ 0.2954	0.4135	0.3254	0.2694	0.3140	Lin1	0.1168	0.2958							0.9970		0.9900
1,1-Dichloroethane	0.6779 0.6169	0.4973	0.5423	0.5740	0.5766	Ave		0.5808			0.1000	11.0		15.0			
Vinyl acetate	+++++ 0.4525	0.4327	0.3948	0.4055	0.4261	Ave		0.4223				5.4		15.0			
cis-1,2-Dichloroethene	0.4179 0.4827	0.4437	0.4224	0.4587	0.4536	Ave		0.4465			0.1000	5.4		15.0			
2-Butanone (MEK)	0.2587 0.1551	0.1857	0.1436	0.1418	0.1443	Lin1	0.0864	0.1486			0.0500				0.9980		0.9900
2,2-Dichloropropane	0.2676 0.2152	0.1894	0.2086	0.2096	0.2130	Ave		0.2172				12.0		15.0			
Bromochloromethane	0.2758 0.2868	0.2301	0.2520	0.2560	0.2586	Ave		0.2599				7.6		15.0			
Tetrahydrofuran	+++++ 0.0953	0.1822	0.0998	0.0931	0.0901	Lin1	0.1722	0.0916							0.9990		0.9900
Chloroform	0.6928 0.5875	0.5420	0.5287	0.5342	0.5248	Ave		0.5683				11.0		15.0			
1,1,1-Trichloroethane	0.2746 0.3435	0.3102	0.3127	0.3304	0.3187	Ave		0.3150			0.1000	7.4		15.0			
Cyclohexane	0.4181 0.4385	0.4958	0.4312	0.4020	0.4233	Ave		0.4348			0.1000	7.4		15.0			
1,1-Dichloropropene	0.4031 0.4327	0.3936	0.4016	0.3893	0.4041	Ave		0.4041				3.8		15.0			
Carbon tetrachloride	0.1984 0.2686	0.2307	0.2255	0.2395	0.2486	Ave		0.2352			0.1000	10.0		15.0			
Isobutyl alcohol	0.0045 0.0054	0.0057	0.0046	0.0053	0.0056	Ave		0.0052				10.0		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzene	1.2944 1.4547	1.2963	1.2921	1.3280	1.3370	Ave		1.3337			0.5000	4.7		15.0			
1,2-Dichloroethane	0.4248 0.4542	0.4749	0.4145	0.4376	0.4186	Ave		0.4374			0.1000	5.3		15.0			
n-Heptane	+++++ 0.0662	0.1969	0.0896	0.0818	0.0795	Lin1	0.1399	0.0696							0.9920		0.9900
Trichloroethene	0.3045 0.3247	0.3258	0.3052	0.3092	0.3076	Ave		0.3128			0.2000	3.1		15.0			
Methylcyclohexane	0.4881 0.3641	0.4436	0.3691	0.3342	0.3743	Ave		0.3956			0.1000	15.0		15.0			
1,2-Dichloropropane	0.3334 0.3447	0.3482	0.3093	0.3256	0.3132	Ave		0.3291			0.1000	4.9		15.0			
Dibromomethane	0.1765 0.1949	0.1618	0.1583	0.1793	0.1739	Ave		0.1741				7.6		15.0			
1,4-Dioxane	+++++ 0.0038	0.0041	0.0041	0.0035	0.0039	Ave		0.0039				6.5		15.0			
Bromodichloromethane	0.3572 0.4374	0.3124	0.3800	0.4088	0.4032	Ave		0.3832			0.1000	11.0		15.0			
2-Chloroethyl vinyl ether	0.2301 0.2460	0.2276	0.2192	0.2322	0.2293	Ave		0.2307				3.8		15.0			
cis-1,3-Dichloropropene	0.4629 0.5280	0.4272	0.4389	0.4776	0.4865	Ave		0.4702			0.1500	7.7		15.0			
4-Methyl-2-pentanone (MIBK)	0.3482 0.3206	0.3018	0.2959	0.2975	0.3034	Ave		0.3112			0.0500	6.5		15.0			
Toluene	1.9139 2.0526	1.8706	1.7880	1.9419	1.8871	Ave		1.9090			0.4000	4.6		15.0			
trans-1,3-Dichloropropene	0.4264 0.5793	0.3714	0.4536	0.5264	0.5367	Lin1	-0.140	0.5564			0.1000				0.9960		0.9900
Ethyl methacrylate	0.5082 0.5962	0.4790	0.4960	0.5638	0.5701	Ave		0.5356				8.8		15.0			
1,1,2-Trichloroethane	0.4068 0.4106	0.4633	0.3730	0.3988	0.3856	Ave		0.4064			0.1000	7.7		15.0			
Tetrachloroethene	0.4136 0.3782	0.3907	0.3287	0.3598	0.3525	Ave		0.3706			0.2000	8.1		15.0			
1,3-Dichloropropane	0.8469 0.7831	0.7392	0.7278	0.7778	0.7406	Ave		0.7692				5.7		15.0			
2-Hexanone	0.3156 0.3048	0.3117	0.2900	0.2927	0.2889	Ave		0.3006			0.0500	3.9		15.0			
Chlorodibromomethane	0.2944 0.3839	0.2962	0.3175	0.3459	0.3528	Ave		0.3318				11.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dibromoethane	0.3244 0.4134	0.3551	0.3575	0.3902	0.3885	Ave		0.3715				8.6		15.0			
Chlorobenzene	1.2565 1.2815	1.1770	1.1292	1.2390	1.1758	Ave		1.2098			0.3000	4.8		15.0			
1,1,1,2-Tetrachloroethane	0.2981 0.3700	0.3435	0.3033	0.3406	0.3344	Ave		0.3316				8.1		15.0			
Ethylbenzene	0.5132 0.6643	0.6084	0.5658	0.6503	0.6141	Ave		0.6027				9.3		15.0			
m-Xylene & p-Xylene	0.7032 0.8380	0.7202	0.7202	0.8049	0.7681	Ave		0.7591				7.1		15.0			
o-Xylene	0.6982 0.8523	0.6109	0.7218	0.8168	0.7765	Ave		0.7461				12.0		15.0			
Styrene	1.3247 1.5928	1.2622	1.2631	1.4995	1.4228	Ave		1.3942			0.3000	9.7		15.0			
Bromoform	+++++ 0.2322	0.1706	0.1834	0.2065	0.2183	Ave		0.2022			0.1000	12.0		15.0			
Isopropylbenzene	1.6638 1.9849	1.7715	1.6596	1.8529	1.7872	Ave		1.7867			0.1000	6.9		15.0			
1,1,2,2-Tetrachloroethane	1.2337 1.1786	1.2869	1.1354	1.1574	1.1978	Ave		1.1983			0.3000	4.6		15.0			
Bromobenzene	1.0408 0.9784	0.9261	0.9050	0.9222	0.9629	Ave		0.9559				5.2		15.0			
1,2,3-Trichloropropane	0.4346 0.3752	0.3379	0.3702	0.3656	0.4000	Ave		0.3806				8.7		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.3290	0.2219	0.3251	0.2995	0.3428	Lin1	-0.118	0.3317							0.9980		0.9900
N-Propylbenzene	0.9948 0.9153	0.9570	0.8646	0.8716	0.9092	Ave		0.9188				5.4		15.0			
2-Chlorotoluene	0.9043 0.8650	0.9134	0.7867	0.8180	0.8665	Ave		0.8590				5.7		15.0			
1,3,5-Trimethylbenzene	2.9225 2.9576	2.9760	2.8291	2.8643	2.9472	Ave		2.9161				2.0		15.0			
4-Chlorotoluene	0.9026 0.9528	0.9436	0.8795	0.9312	0.9220	Ave		0.9220				2.9		15.0			
tert-Butylbenzene	2.2905 2.3478	2.5249	2.1963	2.2569	2.4046	Ave		2.3368				5.0		15.0			
1,2,4-Trimethylbenzene	3.3154 3.2157	3.1289	2.9041	3.0536	3.1626	Ave		3.1300				4.5		15.0			
sec-Butylbenzene	3.6452 3.3155	3.5969	3.1772	3.2733	3.3970	Ave		3.4008				5.4		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 123039

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2014 17:53 Calibration End Date: 03/18/2014 19:56 Calibration ID: 21224

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	1.7868 1.7316	1.9264	1.6377	1.6501	1.7030	Ave		1.7393			0.6000	6.1		15.0			
4-Isopropyltoluene	3.0928 2.8938	3.2329	2.7355	2.7788	2.9119	Ave		2.9410				6.4		15.0			
1,4-Dichlorobenzene	2.5229 1.8330	1.9959	1.7496	1.7493	1.7858	Ave		1.9394			0.5000	15.0		15.0			
n-Butylbenzene	3.0017 2.5834	2.9769	2.4071	2.5189	2.6067	Ave		2.6825				9.2		15.0			
1,2-Dichlorobenzene	1.9814 1.7212	1.7245	1.6875	1.6633	1.7263	Ave		1.7507			0.4000	6.6		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1943	0.1038	0.1650	0.1665	0.1956	Lin1	-0.114	0.1922			0.0500				0.9970		0.9900
1,2,4-Trichlorobenzene	1.2300 0.8935	1.2187	0.9363	0.9162	0.9077	Lin1	0.2252	0.8974			0.2000				1.0000		0.9900
Hexachlorobutadiene	0.9001 0.3264	0.9868	0.4256	0.3916	0.3694	Lin1	0.4220	0.3425							0.9900		0.9900
Naphthalene	3.0738 3.1787	3.7993	3.0910	3.0797	3.2159	Ave		3.2397				8.7		15.0			
1,2,3-Trichlorobenzene	1.3764 0.8208	1.1441	0.8784	0.8429	0.8752	Lin1	0.2925	0.8342							0.9990		0.9900
Dibromofluoromethane (Surr)	+++++ 0.2732	0.2622	0.2400	0.2643	0.2584	Ave		0.2596				4.7		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3571	0.3041	0.3481	0.3572	0.3335	Ave		0.3400				6.6		15.0			
Toluene-d8 (Surr)	+++++ 1.5610	1.4174	1.3869	1.4974	1.4676	Ave		1.4661				4.7		15.0			
4-Bromofluorobenzene (Surr)	+++++ 0.6491	0.6096	0.5569	0.6072	0.5858	Ave		0.6017				5.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab File ID: BFB2595.D BFB Injection Date: 05/13/2014

Instrument ID: A3UX12 BFB Injection Time: 09:13

Analysis Batch No.: 130437

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	49.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.3	(0.3)1
174	50.0 - 120.00 % of mass 95	95.6	
175	5.0 - 9.0 % of mass 174	7.1	(7.4)1
176	95.0 - 101.0 % of mass 174	94.1	(98.5)1
177	5.0 - 9.0 % of mass 176	5.8	(6.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-130437/2	U1237585.D	05/13/2014	09:39
	LCS 240-130437/3	U1237586.D	05/13/2014	10:03
	CCV 240-130437/4	U1237587.D	05/13/2014	10:27
	MB 240-130437/6	U1237589.D	05/13/2014	11:15
MSA-DMW-6S-050114	240-36857-3	U1237591.D	05/13/2014	12:02

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: STD8260 240-130437/2 Calibration Date: 05/13/2014 09:39

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1237585.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4988	0.4922	0.1000	0.310	0.0200	-1.3	20.0
Chloromethane	Ave	0.5020	0.5088	0.1000	0.300	0.0200	1.4	20.0
Vinyl chloride	Ave	0.5127	0.5306	0.1000	0.220	0.0200	3.5	20.0
Bromomethane	Ave	0.2464	0.2834	0.0500	0.410	0.0200	15.0	20.0
Chloroethane	Ave	0.3073	0.3232	0.0500	0.290	0.0200	5.2	20.0
Dichlorofluoromethane	Ave	0.6201	0.6069		0.420	0.0200	-2.1	20.0
Trichlorofluoromethane	Lin1		0.5670	0.1000	0.210	0.0200	15.4	20.0
Ethyl ether	Ave	0.2789	0.2627		0.310	0.0200	-5.8	20.0
Acrolein	Ave	0.0458	0.0373		2.20	0.100	-18.5	20.0
Acetone	Lin1		0.0862	0.0500	1.10	0.0400	-14.9	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3282	0.3281	0.0500	0.280	0.0200	-0.0	20.0
1,1-Dichloroethene	Ave	0.6619	0.6066	0.1000	0.190	0.0200	-8.4	20.0
Iodomethane	Ave	0.4775	0.5636		0.180	0.0200	18.0	20.0
Carbon disulfide	Ave	1.240	1.408	0.1000	0.130	0.0200	13.5	20.0
3-Chloro-1-propene	Ave	0.1910	0.3581		0.350	0.0200	87.5*	20.0
Methyl acetate	Ave	0.2571	0.2328	0.1000	0.380	0.100	-9.5	20.0
Methylene Chloride	Ave	0.5455	0.4895	0.1000	0.330	0.0200	-10.3	20.0
tert-Butyl alcohol	Ave	0.0269	0.0259		3.90	0.200	-3.6	20.0
Acrylonitrile	Ave	0.1282	0.1313		2.00	0.200	2.4	20.0
Methyl tert-butyl ether	Ave	0.9500	0.9020	0.1000	0.170	0.0200	-5.0	20.0
trans-1,2-Dichloroethene	Ave	0.4839	0.4226	0.1000	0.190	0.0200	-12.7	20.0
Hexane	Lin1		0.2953		0.260	0.0200	-2.1	20.0
1,1-Dichloroethane	Ave	0.5808	0.4946	0.1000	0.150	0.0200	-14.9	20.0
Vinyl acetate	Ave	0.4223	0.3671		0.190	0.0192	-13.1	20.0
2,2-Dichloropropane	Ave	0.2172	0.2045		0.130	0.0200	-5.9	20.0
2-Butanone (MEK)	Lin1		0.1302	0.0500	0.570	0.0400	-13.8	20.0
cis-1,2-Dichloroethene	Ave	0.4465	0.4027	0.1000	0.170	0.0200	-9.8	20.0
Bromochloromethane	Ave	0.2599	0.2383		0.290	0.0200	-8.3	20.0
Tetrahydrofuran	Lin1		0.0879		0.420	0.0400	-8.8	20.0
Chloroform	Ave	0.5683	0.4822	0.2000	0.160	0.0200	-15.2	20.0
1,1,1-Trichloroethane	Ave	0.3150	0.3052	0.1000	0.220	0.0200	-3.1	20.0
Cyclohexane	Ave	0.4348	0.3065	0.1000	0.120	0.0200	-29.5*	20.0
1,1-Dichloropropene	Ave	0.4041	0.3689		0.130	0.0200	-8.7	20.0
Carbon tetrachloride	Ave	0.2352	0.2529	0.1000	0.130	0.0200	7.5	20.0
Isobutyl alcohol	Ave	0.0052	0.0056		8.20	0.500	8.7	20.0
1,2-Dichloroethane	Ave	0.4374	0.3573	0.1000	0.220	0.0200	-18.3	20.0
Benzene	Ave	1.334	1.244	0.5000	0.130	0.0200	-6.7	20.0
n-Heptane	Lin1		0.0752		0.180	0.0200	-2.0	20.0
Trichloroethene	Ave	0.3128	0.3367	0.2000	0.170	0.0200	7.6	20.0
Methylcyclohexane	Ave	0.3956	0.3207	0.1000	0.130	0.0200	-18.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: STD8260 240-130437/2 Calibration Date: 05/13/2014 09:39

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1237585.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3291	0.2983	0.1000	0.180	0.0200	-9.4	20.0
1,4-Dioxane	Ave	0.0039	0.0026		19.0	0.400	-32.8*	20.0
Dibromomethane	Ave	0.1741	0.2155		0.280	0.0200	23.7*	20.0
Bromodichloromethane	Ave	0.3832	0.3403	0.1000	0.150	0.0200	-11.2	20.0
2-Chloroethyl vinyl ether	Ave	0.2307	0.2122		0.990	0.0400	-8.0	20.0
cis-1,3-Dichloropropene	Ave	0.4702	0.4186	0.1500	0.140	0.0200	-11.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3112	0.2846	0.0500	0.320	0.0400	-8.6	20.0
Toluene	Ave	1.909	1.692	0.4000	0.130	0.0200	-11.4	20.0
trans-1,3-Dichloropropene	Lin1		0.4480	0.1000	0.190	0.0200	-18.2	20.0
Ethyl methacrylate	Ave	0.5356	0.5101		0.140	0.0200	-4.8	20.0
1,1,2-Trichloroethane	Ave	0.4064	0.3584	0.1000	0.270	0.0200	-11.8	20.0
Tetrachloroethene	Ave	0.3706	0.3912	0.2000	0.290	0.0200	5.6	20.0
1,3-Dichloropropane	Ave	0.7692	0.6570		0.160	0.0200	-14.6	20.0
2-Hexanone	Ave	0.3006	0.2622	0.0500	0.410	0.0400	-12.8	20.0
Chlorodibromomethane	Ave	0.3318	0.3181		0.180	0.0200	-4.1	20.0
1,2-Dibromoethane	Ave	0.3715	0.3615		0.240	0.0200	-2.7	20.0
Chlorobenzene	Ave	1.210	1.171	0.3000	0.150	0.0200	-3.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3316	0.3170		0.230	0.0200	-4.4	20.0
Ethylbenzene	Ave	0.6027	0.5634		0.170	0.0200	-6.5	20.0
m-Xylene & p-Xylene	Ave	0.7591	0.7101		0.240	0.0200	-6.5	20.0
o-Xylene	Ave	0.7461	0.7430		0.140	0.0200	-0.4	20.0
Styrene	Ave	1.394	1.305	0.3000	0.110	0.0200	-6.4	20.0
Bromoform	Ave	0.2022	0.2042	0.1000	0.640	0.0200	1.0	20.0
Isopropylbenzene	Ave	1.787	1.570	0.1000	0.130	0.0200	-12.1	20.0
1,1,2,2-Tetrachloroethane	Ave	1.198	0.9904	0.3000	0.180	0.0200	-17.3	20.0
Bromobenzene	Ave	0.9559	0.9305		0.130	0.0200	-2.7	20.0
1,2,3-Trichloropropane	Ave	0.3806	0.3168		0.430	0.0200	-16.8	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.1962		0.150	0.0200	-39.1*	20.0
N-Propylbenzene	Ave	0.9188	0.7746		0.140	0.0200	-15.7	20.0
2-Chlorotoluene	Ave	0.8590	0.7462		0.110	0.0200	-13.1	20.0
1,3,5-Trimethylbenzene	Ave	2.916	2.234		0.0960	0.0200	-23.4*	20.0
4-Chlorotoluene	Ave	0.9220	0.8289		0.180	0.0200	-10.1	20.0
tert-Butylbenzene	Ave	2.337	1.887		0.130	0.0200	-19.2	20.0
1,2,4-Trimethylbenzene	Ave	3.130	2.393		0.120	0.0200	-23.6*	20.0
sec-Butylbenzene	Ave	3.401	2.536		0.130	0.0200	-25.4*	20.0
1,3-Dichlorobenzene	Ave	1.739	1.607	0.6000	0.140	0.0200	-7.6	20.0
4-Isopropyltoluene	Ave	2.941	2.320		0.0158	0.0200	-21.1*	20.0
1,4-Dichlorobenzene	Ave	1.939	1.666	0.5000	0.130	0.0200	-14.1	20.0
n-Butylbenzene	Ave	2.682	1.781		0.120	0.0200	-33.6*	20.0
1,2-Dichlorobenzene	Ave	1.751	1.605	0.4000	0.130	0.0200	-8.3	20.0
1,2-Dibromo-3-Chloropropane	Lin1		0.1788	0.0500	0.670	0.0200	-4.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: STD8260 240-130437/2 Calibration Date: 05/13/2014 09:39

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1237585.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Lin1		0.8638	0.2000	0.150	0.0200	-5.0	20.0
Hexachlorobutadiene	Lin1		0.3000		0.300	0.0200	-18.6	20.0
Naphthalene	Ave	3.240	2.721		0.240	0.0200	-16.0	20.0
1,2,3-Trichlorobenzene	Lin1		0.8032		0.170	0.0200	-5.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2596	0.2569		0.0163	0.0165	-1.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3400	0.2918		0.0142	0.0165	-14.2	20.0
Toluene-d8 (Surr)	Ave	1.466	1.416		0.0160	0.0165	-3.4	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6017	0.4893		0.0134	0.0165	-18.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCV 240-130437/4 Calibration Date: 05/13/2014 10:27

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 21:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 23:58

Lab File ID: U1237587.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0474	0.0453		3.50	0.200	-4.4	20.0
Diisopropyl ether	Ave	0.2684	0.2718		1.50	0.0200	1.3	20.0
2-Chloro-1,3-butadiene	Ave	0.4715	0.4330		0.290	0.0200	-8.2	20.0
Ethyl tert-butyl ether	Ave	0.9662	0.9234		0.110	0.0200	-4.4	20.0
Ethyl acetate	Ave	0.2044	0.2016		0.500	0.0400	-1.4	20.0
Propionitrile	Ave	0.0488	0.0433		1.20	0.200	-11.3	20.0
Methacrylonitrile	Ave	0.2096	0.1963		0.510	0.200	-6.4	20.0
Tert-amyl methyl ether	Ave	0.9067	0.8891		0.0670	0.0200	-1.9	20.0
n-Butanol	Ave	0.0043	0.0056		7.30	0.500	32.3*	20.0
Ethyl acrylate	Ave	0.3726	0.3832		0.250	0.0200	2.9	20.0
Methyl methacrylate	Ave	0.2616	0.2623		0.490	0.0400	0.2	20.0
2-Nitropropane	Ave	0.0291	0.0323		0.700	0.0400	11.3	20.0
Cyclohexanone	Ave	0.0157	0.0162		5.80	0.200	3.3	20.0
1,2,3-Trimethylbenzene	Ave	3.327	2.619		0.0157	0.0200	-21.3*	20.0
1,3,5-Trichlorobenzene	Lin1		0.9302		0.110	0.0200	-2.1	20.0
2-Methylnaphthalene	Lin1		1.049		0.470	0.0400	-33.0*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab File ID: BFB357.D BFB Injection Date: 03/14/2014

Instrument ID: A3UX15 BFB Injection Time: 10:19

Analysis Batch No.: 122576

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.0	
75	30.0 - 60.0 % of mass 95	49.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.2	(0.3)1
174	50.0 - 120.00 % of mass 95	74.2	
175	5.0 - 9.0 % of mass 174	5.2	(6.9)1
176	95.0 - 101.0 % of mass 174	72.2	(97.3)1
177	5.0 - 9.0 % of mass 176	4.2	(5.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-122576/2	UXC9602.D	03/14/2014	11:04
	STD8260 240-122576/3	UXC9603.D	03/14/2014	11:27
	STD8260 240-122576/4	UXC9604.D	03/14/2014	11:49
	STD8260 240-122576/5	UXC9605.D	03/14/2014	12:12
	STD8260 240-122576/6	UXC9606.D	03/14/2014	13:05
	STD8260 240-122576/7	UXC9607.D	03/14/2014	13:28
	STD 240-122576/8	UXC9608.D	03/14/2014	13:50
	STD 240-122576/9	UXC9609.D	03/14/2014	14:13
	STD 240-122576/10	UXC9610.D	03/14/2014	14:35
	STD 240-122576/11	UXC9611.D	03/14/2014	14:58
	STD 240-122576/12	UXC9612.D	03/14/2014	15:20
	STD 240-122576/13	UXC9613.D	03/14/2014	15:42
	ICV 240-122576/14	UXC9614.D	03/14/2014	16:04
	ICV 240-122576/15	UXC9615.D	03/14/2014	16:27

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 122576

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 11:04 Calibration End Date: 03/14/2014 13:28 Calibration ID: 21124

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-122576/7	UXC9607.D
Level 2	STD8260 240-122576/6	UXC9606.D
Level 3	STD8260 240-122576/5	UXC9605.D
Level 4	STD8260 240-122576/4	UXC9604.D
Level 5	STD8260 240-122576/3	UXC9603.D
Level 6	STD8260 240-122576/2	UXC9602.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.4773 0.5115	0.7658	0.4634	0.4443	0.4859	Qua	0.2605	0.4225	0.0021		0.1000				0.9990		0.9900
Chloromethane	0.4716 0.3803	0.4602	0.4449	0.4113	0.4096	Ave		0.4296			0.1000	8.1		15.0			
Vinyl chloride	0.5053 0.4592	0.5343	0.4526	0.4051	0.4323	Ave		0.4648			0.1000	10.0		15.0			
Bromomethane	0.2273 0.0950	0.2085	0.1751	0.1414	0.1253	Qua	0.1190	0.1466	-0.001		0.0500				0.9990		0.9900
Chloroethane	0.2572 0.1648	0.2749	0.1908	0.1699	0.1733	Lin1	0.1352	0.1629							0.9960		0.9900
Dichlorofluoromethane	0.6050 0.4436	0.5774	0.4696	0.4282	0.4326	Lin1	0.1985	0.4307							0.9990		0.9900
Trichlorofluoromethane	0.3766 0.3271	0.4903	0.3310	0.3101	0.3248	Lin1	0.1298	0.3194			0.1000				0.9940		0.9900
Ethyl ether	0.2261 0.1692	0.2276	0.1828	0.1617	0.1575	Lin1	0.0813	0.1621							0.9970		0.9900
Acrolein	0.0356 0.0298	0.0288	0.0376	0.0369	0.0363	Ave		0.0342				11.0		15.0			
1,1-Dichloroethene	0.3823 0.3842	0.4195	0.3809	0.3551	0.3755	Ave		0.3829			0.1000	5.5		15.0			
1,1,2-Trichlorotrifluoroethane	0.2451 0.2666	0.3453	0.2751	0.2665	0.2791	Ave		0.2796			0.0500	12.0		15.0			
Acetone	0.0851 0.0574	0.0660	0.0899	0.0750	0.0755	Qua	-0.053	0.0923	0		0.0500				0.9980		0.9900
Iodomethane	0.6671 0.6053	0.6377	0.6005	0.5700	0.5935	Ave		0.6123				5.6		15.0			
Carbon disulfide	1.1757 1.2536	1.1841	1.1260	1.1058	1.1926	Ave		1.1730			0.1000	4.5		15.0			
3-Chloro-1-propene	0.2282 0.2300	0.2306	0.2170	0.2173	0.2344	Ave		0.2263				3.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 122576

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 11:04 Calibration End Date: 03/14/2014 13:28 Calibration ID: 21124

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl acetate	0.1679 0.1458	0.1558	0.1869	0.1732	0.1731	Ave		0.1671			0.1000	8.7		15.0			
Methylene Chloride	0.5687 0.3767	0.4596	0.4130	0.3812	0.3849	Lin1	0.1885	0.3718			0.1000				1.0000		0.9900
tert-Butyl alcohol	0.0115 0.0128	0.0135	0.0163	0.0165	0.0165	Ave		0.0145				15.0		15.0			
Acrylonitrile	0.0890 0.0809	0.0784	0.0996	0.0968	0.0978	Ave		0.0904				10.0		15.0			
Methyl tert-butyl ether	0.8073 0.7745	1.1896	0.8125	0.7918	0.8094	Lin1	0.2761	0.7779			0.1000				0.9940		0.9900
trans-1,2-Dichloroethene	0.4413 0.3881	0.4185	0.4142	0.3889	0.3897	Ave		0.4068			0.1000	5.3		15.0			
Hexane	0.1280 0.0849	0.1338	0.0858	0.0840	0.0868	Lin1	0.0569	0.0828							0.9960		0.9900
1,1-Dichloroethane	0.6694 0.5781	0.6765	0.6238	0.5841	0.5817	Ave		0.6189			0.1000	7.3		15.0			
Vinyl acetate	0.2129 0.2147	0.2035	0.2452	0.2356	0.2398	Ave		0.2253				7.6		15.0			
2,2-Dichloropropane	0.3795 0.3935	0.5685	0.3790	0.3710	0.3892	Lin1	0.0873	0.3862							0.9940		0.9900
cis-1,2-Dichloroethene	0.4597 0.3876	0.4507	0.4116	0.3838	0.3920	Ave		0.4142			0.1000	8.0		15.0			
2-Butanone (MEK)	0.0885 0.0686	0.0757	0.0833	0.0871	0.0838	Ave		0.0812			0.0500	9.3		15.0			
Bromochloromethane	0.2066 0.1698	0.1894	0.1796	0.1728	0.1777	Ave		0.1827				7.4		15.0			
Tetrahydrofuran	0.0576 0.0457	0.0475	0.0613	0.0579	0.0588	Ave		0.0548				12.0		15.0			
Chloroform	0.6984 0.6013	0.6882	0.6247	0.5927	0.6032	Ave		0.6347				7.4		15.0			
1,1,1-Trichloroethane	0.4957 0.5200	0.7366	0.4917	0.4958	0.5133	Lin1	0.1001	0.5109			0.1000				0.9940		0.9900
Cyclohexane	0.5477 0.5711	0.8989	0.5525	0.5427	0.5915	Lin1	0.1605	0.5672			0.1000				0.9900		0.9900
1,1-Dichloropropene	0.4575 0.4358	0.4663	0.4305	0.4248	0.4334	Ave		0.4414				3.8		15.0			
Carbon tetrachloride	0.3515 0.4440	0.6060	0.3925	0.4010	0.4307	Lin1	0.0122	0.4338			0.1000				0.9920		0.9900
Isobutyl alcohol	0.0041 0.0042	0.0028	0.0049	0.0052	0.0052	Qua	-0.129	0.0064	0						0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 122576

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 11:04 Calibration End Date: 03/14/2014 13:28 Calibration ID: 21124

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzene	1.6370 1.4190	1.5615	1.4274	1.3651	1.3827	Ave		1.4655			0.5000	7.4		15.0			
1,2-Dichloroethane	0.3726 0.3451	0.3632	0.3603	0.3610	0.3618	Ave		0.3607			0.1000	2.5		15.0			
n-Heptane	0.0871 0.0790	0.1071	0.0772	0.0721	0.0776	Ave		0.0833				15.0		15.0			
Trichloroethene	0.3631 0.3489	0.3736	0.3456	0.3498	0.3526	Ave		0.3556			0.2000	3.0		15.0			
Methylcyclohexane	0.5226 0.6099	0.8593	0.5553	0.5619	0.6103	Lin1	0.0605	0.6010			0.1000				0.9920		0.9900
1,2-Dichloropropane	0.2693 0.2702	0.2974	0.2713	0.2698	0.2695	Ave		0.2746			0.1000	4.1		15.0			
Dibromomethane	0.1611 0.1539	0.1651	0.1672	0.1643	0.1700	Ave		0.1636				3.4		15.0			
1,4-Dioxane	0.0018 0.0024	0.0012	0.0028	0.0029	0.0031	Qua	-0.085	0.0039	0						0.9980		0.9900
Bromodichloromethane	0.3105 0.3612	0.3450	0.3268	0.3405	0.3565	Ave		0.3401			0.1000	5.6		15.0			
2-Chloroethyl vinyl ether	0.0678 0.1008	0.0740	0.0920	0.1080	0.1126	Lin1	-0.089	0.1065							0.9960		0.9900
cis-1,3-Dichloropropene	0.2916 0.3703	0.2999	0.3173	0.3562	0.3670	Ave		0.3337			0.1500	10.0		15.0			
4-Methyl-2-pentanone (MIBK)	0.1091 0.1424	0.1363	0.1528	0.1593	0.1622	Ave		0.1437			0.0500	14.0		15.0			
Toluene	2.0211 2.0435	2.1075	1.9178	1.9152	1.8485	Ave		1.9756			0.4000	4.9		15.0			
trans-1,3-Dichloropropene	0.2989 0.4074	0.3187	0.3307	0.3824	0.3872	Ave		0.3542			0.1000	12.0		15.0			
Ethyl methacrylate	0.2304 0.3397	0.2874	0.3091	0.3355	0.3344	Ave		0.3061				14.0		15.0			
1,1,2-Trichloroethane	0.3536 0.3092	0.3398	0.3132	0.3306	0.3098	Ave		0.3260			0.1000	5.6		15.0			
Tetrachloroethene	0.4026 0.4063	0.4216	0.3937	0.3772	0.3873	Ave		0.3981			0.2000	3.9		15.0			
1,3-Dichloropropane	0.5121 0.5350	0.5378	0.5399	0.5555	0.5282	Ave		0.5348				2.7		15.0			
2-Hexanone	0.0998 0.1137	0.0970	0.1239	0.1326	0.1237	Ave		0.1151			0.0500	12.0		15.0			
Chlorodibromomethane	0.2693 0.3506	0.2876	0.2853	0.3166	0.3221	Ave		0.3052				9.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 122576

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 11:04 Calibration End Date: 03/14/2014 13:28 Calibration ID: 21124

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dibromoethane	0.2756 0.2899	0.2793	0.2836	0.3109	0.2962	Ave		0.2893				4.5		15.0			
Chlorobenzene	1.2599 1.2327	1.3171	1.1646	1.1962	1.1644	Ave		1.2225			0.3000	4.9		15.0			
1,1,1,2-Tetrachloroethane	0.4434 0.4763	0.5836	0.4334	0.4252	0.4346	Ave		0.4661				13.0		15.0			
Ethylbenzene	0.6562 0.7122	0.7475	0.6390	0.6598	0.6525	Ave		0.6779				6.3		15.0			
m-Xylene & p-Xylene	1.5730 1.8086	1.8164	1.5594	1.6546	1.6454	Ave		1.6762				6.7		15.0			
o-Xylene	0.8357 0.9060	1.0781	0.8433	0.8555	0.8350	Ave		0.8923				11.0		15.0			
Styrene	1.0929 1.3289	1.3036	1.1414	1.2453	1.2266	Ave		1.2231			0.3000	7.5		15.0			
Bromoform	0.1573 0.2093	0.1580	0.1730	0.1884	0.2012	Ave		0.1812			0.1000	12.0		15.0			
Isopropylbenzene	1.9805 2.4833	2.8754	2.1839	2.2466	2.2757	Ave		2.3409			0.1000	13.0		15.0			
1,1,2,2-Tetrachloroethane	0.6865 0.7629	0.7635	0.7615	0.7989	0.8592	Ave		0.7721			0.3000	7.3		15.0			
Bromobenzene	0.8376 0.8938	0.8539	0.7861	0.8417	0.9219	Ave		0.8558				5.5		15.0			
1,2,3-Trichloropropane	0.2320 0.2341	0.2164	0.2362	0.2394	0.2588	Ave		0.2361				5.8		15.0			
trans-1,4-Dichloro-2-butene	0.0947 0.1368	0.0883	0.1114	0.1317	0.1544	Lin1	-0.075	0.1430							0.9930		0.9900
N-Propylbenzene	0.7993 1.0811	1.0596	0.8860	0.9603	1.0758	Ave		0.9770				12.0		15.0			
2-Chlorotoluene	0.8034 0.9446	0.9814	0.8558	0.8676	0.9378	Ave		0.8984				7.4		15.0			
1,3,5-Trimethylbenzene	2.4120 3.5309	3.4434	2.8645	3.1184	3.3738	Ave		3.1238				14.0		15.0			
4-Chlorotoluene	2.6665 3.0496	2.9139	2.7212	2.8666	2.9863	Ave		2.8673				5.2		15.0			
tert-Butylbenzene	1.8581 3.1609	2.3746	2.2793	2.5912	2.8978	Lin1	-1.698	3.0577							0.9940		0.9900
1,2,4-Trimethylbenzene	2.6375 3.5724	3.7299	3.0623	3.2382	3.4239	Ave		3.2774				12.0		15.0			
sec-Butylbenzene	2.7869 4.1624	4.2163	3.4099	3.7515	4.0096	Ave		3.7228				15.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 122576

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 11:04 Calibration End Date: 03/14/2014 13:28 Calibration ID: 21124

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	1.7908 1.8092	1.9123	1.7431	1.7533	1.8092	Ave		1.8030			0.6000	3.3		15.0			
4-Isopropyltoluene	2.4928 3.6767	3.8030	3.0961	3.3490	3.5462	Ave		3.3273				14.0		15.0			
1,4-Dichlorobenzene	1.9058 1.7643	1.9688	1.7464	1.7462	1.7474	Ave		1.8132			0.5000	5.4		15.0			
n-Butylbenzene	2.1861 3.2087	3.4365	2.6133	2.8399	3.0794	Lin1	-0.802	3.1445							0.9960		0.9900
1,2-Dichlorobenzene	1.8886 1.7392	2.0572	1.8348	1.7584	1.7586	Ave		1.8395			0.4000	6.6		15.0			
1,2-Dibromo-3-Chloropropane	0.0951 0.1683	0.1223	0.1476	0.1459	0.1799	Lin1	-0.092	0.1720			0.0500				0.9960		0.9900
1,2,4-Trichlorobenzene	1.1548 1.4003	1.3796	1.2047	1.1627	1.3173	Ave		1.2699			0.2000	8.6		15.0			
Hexachlorobutadiene	0.6604 0.7508	0.7339	0.6410	0.6396	0.7313	Ave		0.6928				7.4		15.0			
Naphthalene	1.8062 2.9479	2.3192	2.4211	2.5640	3.0029	Lin1	-1.435	2.9586							0.9970		0.9900
1,2,3-Trichlorobenzene	1.1176 1.2219	1.3021	1.1254	1.1078	1.2489	Ave		1.1873				6.9		15.0			
Dibromofluoromethane (Surr)	0.3467 0.3054	0.3267	0.3061	0.2980	0.3084	Ave		0.3152				5.8		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3396 0.2993	0.3240	0.3127	0.3068	0.3179	Ave		0.3167				4.5		15.0			
Toluene-d8 (Surr)	1.7652 1.7952	1.7554	1.6048	1.6270	1.6117	Ave		1.6932				5.2		15.0			
4-Bromofluorobenzene (Surr)	0.5759 0.5762	0.5942	0.5441	0.5747	0.5632	Ave		0.5714				2.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 122576

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 13:50 Calibration End Date: 03/14/2014 15:42 Calibration ID: 21126

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-122576/13	UXC9613.D
Level 2	STD 240-122576/12	UXC9612.D
Level 3	STD 240-122576/11	UXC9611.D
Level 4	STD 240-122576/10	UXC9610.D
Level 5	STD 240-122576/9	UXC9609.D
Level 6	STD 240-122576/8	UXC9608.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0392 0.0135	0.0293	0.0245	0.0198	0.0203	Qua	0.0698	0.0246	0						0.9940		0.9900
Diisopropyl ether	0.3226 0.3345	0.3115	0.3108	0.3411	0.3536	Ave		0.3290				5.2		15.0			
2-Chloro-1,3-butadiene	0.4753 0.5177	0.4663	0.4928	0.5076	0.5484	Ave		0.5014				6.0		15.0			
Ethyl tert-butyl ether	0.7915 0.8536	0.7475	0.7759	0.8246	0.8847	Ave		0.8130				6.3		15.0			
Ethyl acetate	0.0962 0.0845	0.0899	0.0920	0.0910	0.0946	Ave		0.0914				4.5		15.0			
Propionitrile	0.0278 0.0239	0.0265	0.0303	0.0275	0.0285	Ave		0.0274				7.9		15.0			
Methacrylonitrile	0.1196 0.1068	0.1112	0.1149	0.1115	0.1199	Ave		0.1140				4.5		15.0			
Tert-amyl methyl ether	0.6517 0.7462	0.6844	0.6876	0.7173	0.7774	Ave		0.7108				6.4		15.0			
n-Butanol	0.0034 0.0019	0.0029	0.0030	0.0025	0.0025	Qua	-0.003	0.0030	0						0.9980		0.9900
Ethyl acrylate	0.1200 0.1336	0.1232	0.1303	0.1317	0.1413	Ave		0.1300				5.9		15.0			
Methyl methacrylate	0.1016 0.1108	0.1020	0.1020	0.1112	0.1168	Ave		0.1074				6.0		15.0			
2-Nitropropane	0.0220 0.0244	0.0224	0.0228	0.0242	0.0247	Ave		0.0234				4.9		15.0			
Cyclohexanone	0.0115 0.0069	0.0087	0.0105	0.0092	0.0085	Qua	0.0079	0.0100	0						1.0000		0.9900
1,2,3-Trimethylbenzene	2.8193 3.7535	2.7319	3.1433	3.3326	3.8355	Ave		3.2693				14.0		15.0			
1,3,5-Trichlorobenzene	1.6335 1.4837	1.4317	1.5188	1.5120	1.6136	Ave		1.5322				5.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 122576

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 13:50 Calibration End Date: 03/14/2014 15:42 Calibration ID: 21126

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Methylnaphthalene	1.0007 1.3406	0.8794	1.1471	1.1699	1.4152	Lin1	-1.277	1.3584							0.9960		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab File ID: BFB399A.D BFB Injection Date: 05/06/2014

Instrument ID: A3UX15 BFB Injection Time: 09:12

Analysis Batch No.: 129443

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.0	
75	30.0 - 60.0 % of mass 95	51.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.6	(0.7)1
174	50.0 - 120.00 % of mass 95	84.1	
175	5.0 - 9.0 % of mass 174	6.0	(7.1)1
176	95.0 - 101.0 % of mass 174	83.9	(99.7)1
177	5.0 - 9.0 % of mass 176	5.1	(6.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-129443/2	UXC1239.D	05/06/2014	09:34
	LCS 240-129443/4	UXC1240.D	05/06/2014	09:56
	CCV 240-129443/3	UXC1241.D	05/06/2014	10:19
	MB 240-129443/6	UXC1243.D	05/06/2014	11:05
MSA-DMW-1S-050114	240-36857-1	UXC1263.D	05/06/2014	18:39
MSA-MW-27D-050114	240-36857-2	UXC1264.D	05/06/2014	19:01

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCVIS 240-129443/2 Calibration Date: 05/06/2014 09:34

Instrument ID: A3UX15 Calib Start Date: 03/14/2014 11:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/14/2014 13:28

Lab File ID: UXC1239.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Qua		0.5213	0.1000	0.310	0.0100	11.1	20.0
Chloromethane	Ave	0.4296	0.3757	0.1000	0.300	0.0100	-12.6	20.0
Vinyl chloride	Ave	0.4648	0.4087	0.1000	0.220	0.0100	-12.1	20.0
Bromomethane	Qua		0.1432	0.0500	0.410	0.0100	-1.4	20.0
Chloroethane	Lin1		0.2080	0.0500	0.290	0.0100	19.4	20.0
Dichlorofluoromethane	Lin1		0.4629		0.420	0.0100	2.9	20.0
Trichlorofluoromethane	Lin1		0.5614	0.1000	0.210	0.0100	71.7*	20.0
Ethyl ether	Lin1		0.2493		0.310	0.0100	48.8*	20.0
Acrolein	Ave	0.0342	0.0275		2.20	0.0500	-19.6	20.0
1,1-Dichloroethene	Ave	0.3829	0.3981	0.1000	0.190	0.0100	4.0	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.2796	0.3232	0.0500	0.280	0.0100	15.6	20.0
Acetone	Qua		0.0757	0.0500	1.10	0.0200	-7.2	20.0
Iodomethane	Ave	0.6123	0.6240		0.180	0.0100	1.9	20.0
Carbon disulfide	Ave	1.173	1.100	0.1000	0.130	0.0100	-6.3	20.0
3-Chloro-1-propene	Ave	0.2263	0.2183		0.350	0.0100	-3.5	20.0
Methyl acetate	Ave	0.1671	0.1638	0.1000	0.380	0.0500	-2.0	20.0
Methylene Chloride	Lin1		0.4443	0.1000	0.330	0.0100	14.4	20.0
tert-Butyl alcohol	Ave	0.0145	0.0117		3.90	0.100	-19.1	20.0
Acrylonitrile	Ave	0.0904	0.0843		2.00	0.100	-6.8	20.0
Methyl tert-butyl ether	Lin1		0.8700	0.1000	0.170	0.0100	8.3	20.0
trans-1,2-Dichloroethene	Ave	0.4068	0.4222	0.1000	0.190	0.0100	3.8	20.0
Hexane	Lin1		0.0868		0.260	0.0100	-2.0	20.0
1,1-Dichloroethane	Ave	0.6189	0.6468	0.1000	0.150	0.0100	4.5	20.0
Vinyl acetate	Ave	0.2253	0.2328		0.190	0.00960	3.3	20.0
2,2-Dichloropropane	Lin1		0.3679		0.130	0.0100	-7.0	20.0
cis-1,2-Dichloroethene	Ave	0.4142	0.4361	0.1000	0.170	0.0100	5.3	20.0
2-Butanone (MEK)	Ave	0.0812	0.0807	0.0500	0.570	0.0200	-0.6	20.0
Bromochloromethane	Ave	0.1827	0.2012		0.290	0.0100	10.1	20.0
Tetrahydrofuran	Ave	0.0548	0.0522		0.420	0.0200	-4.8	20.0
Chloroform	Ave	0.6347	0.7293	0.2000	0.160	0.0100	14.9	20.0
1,1,1-Trichloroethane	Lin1		0.5619	0.1000	0.220	0.0100	8.0	20.0
Cyclohexane	Lin1		0.5242	0.1000	0.120	0.0100	-10.4	20.0
1,1-Dichloropropene	Ave	0.4414	0.4946		0.130	0.0100	12.1	20.0
Carbon tetrachloride	Lin1		0.5378	0.1000	0.130	0.0100	23.7*	20.0
Isobutyl alcohol	Qua		0.0041		8.20	0.250	-22.2*	20.0
Benzene	Ave	1.465	1.510	0.5000	0.130	0.0100	3.0	20.0
1,2-Dichloroethane	Ave	0.3607	0.4845	0.1000	0.220	0.0100	34.3*	20.0
n-Heptane	Ave	0.0833	0.0765		0.180	0.0100	-8.3	20.0
Trichloroethene	Ave	0.3556	0.3900	0.2000	0.170	0.0100	9.7	20.0
Methylcyclohexane	Lin1		0.5624	0.1000	0.130	0.0100	-7.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCVIS 240-129443/2 Calibration Date: 05/06/2014 09:34

Instrument ID: A3UX15 Calib Start Date: 03/14/2014 11:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/14/2014 13:28

Lab File ID: UXC1239.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2746	0.2974	0.1000	0.180	0.0100	8.3	20.0
Dibromomethane	Ave	0.1636	0.1845		0.280	0.0100	12.8	20.0
1,4-Dioxane	Qua		0.0018		19.0	0.200	-41.5*	20.0
Bromodichloromethane	Ave	0.3401	0.4323	0.1000	0.150	0.0100	27.1*	20.0
2-Chloroethyl vinyl ether	Lin1		0.1041		0.990	0.0200	2.0	20.0
cis-1,3-Dichloropropene	Ave	0.3337	0.3761	0.1500	0.140	0.0100	12.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1437	0.1535	0.0500	0.320	0.0200	6.8	20.0
Toluene	Ave	1.976	2.172	0.4000	0.130	0.0100	10.0	20.0
trans-1,3-Dichloropropene	Ave	0.3542	0.4457	0.1000	0.190	0.0100	25.8*	20.0
Ethyl methacrylate	Ave	0.3061	0.3727		0.140	0.0100	21.8*	20.0
1,1,2-Trichloroethane	Ave	0.3260	0.3707	0.1000	0.270	0.0100	13.7	20.0
Tetrachloroethene	Ave	0.3981	0.4424	0.2000	0.290	0.0100	11.1	20.0
1,3-Dichloropropane	Ave	0.5348	0.6188		0.160	0.0100	15.7	20.0
2-Hexanone	Ave	0.1151	0.1430	0.0500	0.410	0.0200	24.2*	20.0
Chlorodibromomethane	Ave	0.3052	0.3923		0.180	0.0100	28.5*	20.0
1,2-Dibromoethane	Ave	0.2893	0.3406		0.240	0.0100	17.7	20.0
Chlorobenzene	Ave	1.222	1.320	0.3000	0.150	0.0100	8.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.4661	0.5226		0.230	0.0100	12.1	20.0
Ethylbenzene	Ave	0.6779	0.7234		0.170	0.0100	6.7	20.0
m-Xylene & p-Xylene	Ave	1.676	1.833		0.240	0.0100	9.4	20.0
o-Xylene	Ave	0.8923	0.8772		0.140	0.0100	-1.7	20.0
Styrene	Ave	1.223	1.399	0.3000	0.110	0.0100	14.4	20.0
Bromoform	Ave	0.1812	0.2081	0.1000	0.640	0.0100	14.8	20.0
Isopropylbenzene	Ave	2.341	2.210	0.1000	0.130	0.0100	-5.6	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7721	0.7245	0.3000	0.180	0.0100	-6.2	20.0
Bromobenzene	Ave	0.8558	0.9600		0.130	0.0100	12.2	20.0
1,2,3-Trichloropropane	Ave	0.2361	0.2560		0.430	0.0100	8.4	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.1435		0.150	0.0100	5.5	20.0
N-Propylbenzene	Ave	0.9770	1.024		0.140	0.0100	4.8	20.0
2-Chlorotoluene	Ave	0.8984	0.9121		0.110	0.0100	1.5	20.0
1,3,5-Trimethylbenzene	Ave	3.124	3.092		0.0960	0.0100	-1.0	20.0
4-Chlorotoluene	Ave	2.867	3.145		0.180	0.0100	9.7	20.0
tert-Butylbenzene	Lin1		2.388		0.130	0.0100	-16.4	20.0
1,2,4-Trimethylbenzene	Ave	3.277	3.216		0.120	0.0100	-1.9	20.0
sec-Butylbenzene	Ave	3.723	3.367		0.130	0.0100	-9.5	20.0
1,3-Dichlorobenzene	Ave	1.803	1.794	0.6000	0.140	0.0100	-0.5	20.0
4-Isopropyltoluene	Ave	3.327	3.054		0.0120	0.0100	-8.2	20.0
1,4-Dichlorobenzene	Ave	1.813	1.839	0.5000	0.130	0.0100	1.4	20.0
n-Butylbenzene	Lin1		2.440		0.120	0.0100	-19.9	20.0
1,2-Dichlorobenzene	Ave	1.839	1.783	0.4000	0.130	0.0100	-3.1	20.0
1,2-Dibromo-3-Chloropropane	Lin1		0.1236	0.0500	0.670	0.0100	-22.8*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCVIS 240-129443/2 Calibration Date: 05/06/2014 09:34

Instrument ID: A3UX15 Calib Start Date: 03/14/2014 11:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/14/2014 13:28

Lab File ID: UXC1239.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,4-Trichlorobenzene	Ave	1.270	0.9934	0.2000	0.150	0.0100	-21.8*	20.0
Hexachlorobutadiene	Ave	0.6928	0.5045		0.300	0.0100	-27.2*	20.0
Naphthalene	Lin1		1.909		0.240	0.0100	-30.6*	20.0
1,2,3-Trichlorobenzene	Ave	1.187	0.9222		0.170	0.0100	-22.3*	20.0
Dibromofluoromethane (Surr)	Ave	0.3152	0.3170		0.00895	0.00890	0.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3167	0.3697		0.0104	0.00890	16.7	20.0
Toluene-d8 (Surr)	Ave	1.693	1.696		0.00891	0.00890	0.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5714	0.5406		0.00842	0.00890	-5.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCV 240-129443/3 Calibration Date: 05/06/2014 10:19

Instrument ID: A3UX15 Calib Start Date: 03/14/2014 13:50

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/14/2014 15:42

Lab File ID: UXC1241.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Qua		0.0244		3.50	0.100	10.3	20.0
Diisopropyl ether	Ave	0.3290	0.3118		1.50	0.0100	-5.2	20.0
2-Chloro-1,3-butadiene	Ave	0.5014	0.5055		0.290	0.0100	0.8	20.0
Ethyl tert-butyl ether	Ave	0.8130	0.7677		0.110	0.0100	-5.6	20.0
Ethyl acetate	Ave	0.0914	0.1161		0.500	0.0200	27.0*	20.0
Propionitrile	Ave	0.0274	0.0291		1.20	0.100	6.1	20.0
Methacrylonitrile	Ave	0.1140	0.1388		0.510	0.100	21.8*	20.0
Tert-amyl methyl ether	Ave	0.7108	0.7044		0.0670	0.0100	-0.9	20.0
n-Butanol	Qua		0.0029		7.30	0.250	5.9	20.0
Ethyl acrylate	Ave	0.1300	0.1759		0.250	0.0100	35.3*	20.0
Methyl methacrylate	Ave	0.1074	0.1478		0.490	0.0200	37.6*	20.0
2-Nitropropane	Ave	0.0234	0.0347		0.700	0.0200	48.0*	20.0
Cyclohexanone	Qua		0.0080		5.80	0.100	-14.8	20.0
1,2,3-Trimethylbenzene	Ave	3.269	3.331		0.0102	0.0100	1.9	20.0
1,3,5-Trichlorobenzene	Ave	1.532	1.335		0.110	0.0100	-12.9	20.0
2-Methylnaphthalene	Lin1		0.8553		0.470	0.0200	-32.8*	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab File ID: UXC1243.D Lab Sample ID: MB 240-129443/6

Matrix: Water Heated Purge: (Y/N) N

Instrument ID: A3UX15 Date Analyzed: 05/06/2014 11:05

GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-129443/4	UXC1240.D	05/06/2014 09:56
MSA-DMW-1S-050114	240-36857-1	UXC1263.D	05/06/2014 18:39
MSA-MW-27D-050114	240-36857-2	UXC1264.D	05/06/2014 19:01

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-129443/6

Matrix: Water | Lab File ID: UXC1243.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/06/2014 11:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 129443 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.13	U	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-129443/6

Matrix: Water | Lab File ID: UXC1243.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/06/2014 11:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 129443 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-129443/6

Matrix: Water Lab File ID: UXC1243.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/06/2014 11:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 129443 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	88		74-120
1868-53-7	Dibromofluoromethane (Surr)	100		75-121
460-00-4	4-Bromofluorobenzene (Surr)	84		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	121		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-129443/6

Matrix: Water | Lab File ID: UXC1243.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/06/2014 11:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 129443 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 1.03

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
91-57-6	2-Methylnaphthalene	13.55	1.03	J

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC1240.D

Lab ID: LCS 240-129443/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	9.89	99	72-120	
1,1,1-Trichloroethane	10.0	9.39	94	74-120	
1,1,2,2-Tetrachloroethane	10.0	8.15	82	68-120	
1,1,2-Trichlorotrifluoroethane	10.0	10.2	102	74-151	
1,1-Dichloroethane	10.0	9.53	95	80-120	
1,1-Dichloroethene	10.0	8.65	87	78-131	
1,1-Dichloropropene	10.0	10.6	106	80-120	
1,2,3-Trichlorobenzene	10.0	8.19	82	54-126	
1,2,3-Trichloropropane	10.0	9.41	94	73-129	
1,2,4-Trichlorobenzene	10.0	8.09	81	48-135	
1,2,4-Trimethylbenzene	10.0	8.65	86	76-120	
1,2-Dibromo-3-Chloropropane	10.0	7.20	72	42-136	
1,2-Dichlorobenzene	10.0	9.04	90	80-120	
1,2-Dichloroethane	10.0	12.1	121	71-127	
1,2-Dichloropropane	10.0	9.89	99	80-120	
1,3-Dichlorobenzene	10.0	9.03	90	80-120	
1,3-Dichloropropane	10.0	10.5	105	79-120	
1,4-Dichlorobenzene	10.0	9.35	93	80-120	
2,2-Dichloropropane	10.0	7.64	76	50-129	
2-Butanone (MEK)	20.0	20.1	101	60-126	
2-Chloroethyl vinyl ether	12.0	11.5	96	52-131	
2-Chlorotoluene	10.0	8.73	87	76-120	
2-Hexanone	20.0	22.9	115	55-133	
4-Chlorotoluene	10.0	9.60	96	77-120	
4-Isopropyltoluene	10.0	8.15	81	74-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.7	98	63-128	
Acetone	20.0	18.2	91	43-136	
Benzene	10.0	9.08	91	80-120	
Bromobenzene	10.0	9.81	98	76-120	
Bromoform	10.0	10.8	108	40-131	
Bromomethane	10.0	10.1	101	11-185	
Carbon disulfide	10.0	7.83	78	62-142	
Carbon tetrachloride	10.0	11.0	110	66-128	
Chlorobenzene	10.0	9.95	99	80-120	
Chlorodibromomethane	10.0	11.6	116	64-120	
Chloroethane	10.0	10.2	102	25-153	
Chloroform	10.0	10.3	103	79-120	
Chloromethane	10.0	7.37	74	44-126	
cis-1,2-Dichloroethene	10.0	9.28	93	80-120	
cis-1,3-Dichloropropene	10.0	10.7	107	61-120	
Dibromomethane	10.0	10.8	108	80-120	
Bromochloromethane	10.0	10.0	100	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC1240.D

Lab ID: LCS 240-129443/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	10.0	7.29	73	19-129	
Bromodichloromethane	10.0	11.2	112	72-121	
tert-Butyl alcohol	100	93.2	93	70-130	
Ethylbenzene	10.0	9.71	97	80-120	
Hexachlorobutadiene	10.0	6.99	70	36-134	
Isopropylbenzene	10.0	8.72	87	75-120	
Methyl tert-butyl ether	10.0	9.57	96	52-144	
Methylene Chloride	10.0	9.98	100	66-131	
m-Xylene & p-Xylene	10.0	9.80	98	80-120	
Naphthalene	10.0	7.57	76	32-141	
n-Butylbenzene	10.0	7.46	75	66-125	
N-Propylbenzene	10.0	8.87	89	74-121	
o-Xylene	10.0	9.23	92	80-120	
sec-Butylbenzene	10.0	8.07	81	70-120	
Styrene	10.0	10.4	104	79-120	
Tetrachloroethene	10.0	9.95	100	79-120	
Toluene	10.0	9.82	98	80-120	
trans-1,2-Dichloroethene	10.0	9.28	93	80-120	
trans-1,3-Dichloropropene	10.0	12.4	124	58-120	*
Trichloroethene	10.0	10.0	100	76-120	
Trichlorofluoromethane	10.0	14.1	141	49-157	
Vinyl acetate	8.00	11.5	144	46-161	
Vinyl chloride	10.0	7.48	75	53-127	
Xylenes, Total	20.0	19.0	95	80-120	
tert-Butylbenzene	10.0	7.43	74	71-120	
1,2-Dibromoethane	10.0	11.1	111	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab File ID: U1237589.D Lab Sample ID: MB 240-130437/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 05/13/2014 11:15

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-130437/3	U1237586.D	05/13/2014 10:03
MSA-DMW-6S-050114	240-36857-3	U1237591.D	05/13/2014 12:02

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-130437/6

Matrix: Water | Lab File ID: U1237589.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/13/2014 11:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 130437 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.23	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	0.18	U	1.0	0.18
76-13-1	1,1,2-Trichlorotrifluoroethane	0.28	U	1.0	0.28
75-34-3	1,1-Dichloroethane	0.15	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.13	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.17	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	0.43	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	0.0059	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	0.15	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.12	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	0.67	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	0.13	U	1.0	0.13
107-06-2	1,2-Dichloroethane	0.22	U	1.0	0.22
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	0.14	U	1.0	0.14
142-28-9	1,3-Dichloropropane	0.16	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	0.13	U	1.0	0.13
594-20-7	2,2-Dichloropropane	0.13	U	1.0	0.13
78-93-3	2-Butanone (MEK)	0.57	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	0.99	U	10	0.99
95-49-8	2-Chlorotoluene	0.11	U	1.0	0.11
591-78-6	2-Hexanone	0.41	U	10	0.41
106-43-4	4-Chlorotoluene	0.18	U	1.0	0.18
99-87-6	4-Isopropyltoluene	0.12	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone (MIBK)	0.32	U	10	0.32
67-64-1	Acetone	1.1	U	10	1.1
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.13	U	1.0	0.13
75-25-2	Bromoform	0.64	U	1.0	0.64
74-83-9	Bromomethane	0.41	U	1.0	0.41
75-15-0	Carbon disulfide	0.342	J	1.0	0.13
56-23-5	Carbon tetrachloride	0.13	U	1.0	0.13
108-90-7	Chlorobenzene	0.15	U	1.0	0.15
124-48-1	Chlorodibromomethane	0.18	U	1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-130437/6

Matrix: Water | Lab File ID: U1237589.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/13/2014 11:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 130437 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.17	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.17	U	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-130437/6

Matrix: Water Lab File ID: U1237589.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/13/2014 11:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130437 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		74-120
1868-53-7	Dibromofluoromethane (Surr)	95		75-121
460-00-4	4-Bromofluorobenzene (Surr)	84		66-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-130437/6

Matrix: Water Lab File ID: U1237589.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/13/2014 11:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 130437 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1237586.D

Lab ID: LCS 240-130437/3 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.7	99	72-120	
1,1,1-Trichloroethane	20.0	19.8	99	74-120	
1,1,2,2-Tetrachloroethane	20.0	16.8	84	68-120	
1,1,2-Trichlorotrifluoroethane	20.0	19.6	98	74-151	
1,1-Dichloroethane	20.0	18.5	92	80-120	
1,1-Dichloroethene	20.0	18.9	94	78-131	
1,1-Dichloropropene	20.0	19.7	98	80-120	
1,2,3-Trichlorobenzene	20.0	19.7	99	54-126	
1,2,3-Trichloropropane	20.0	18.0	90	73-129	
1,2,4-Trichlorobenzene	20.0	20.4	102	48-135	
1,2,4-Trimethylbenzene	20.0	15.7	78	76-120	
1,2-Dibromo-3-Chloropropane	20.0	18.9	95	42-136	
1,2-Dichlorobenzene	20.0	19.7	98	80-120	
1,2-Dichloroethane	20.0	17.2	86	71-127	
1,2-Dichloropropane	20.0	18.7	94	80-120	
1,3-Dichlorobenzene	20.0	19.3	96	80-120	
1,3-Dichloropropane	20.0	17.4	87	79-120	
1,4-Dichlorobenzene	20.0	18.7	94	80-120	
2,2-Dichloropropane	20.0	18.8	94	50-129	
2-Butanone (MEK)	40.0	36.7	92	60-126	
2-Chloroethyl vinyl ether	24.0	22.4	93	52-131	
2-Chlorotoluene	20.0	18.8	94	76-120	
2-Hexanone	40.0	36.0	90	55-133	
4-Chlorotoluene	20.0	19.0	95	77-120	
4-Isopropyltoluene	20.0	16.7	84	74-120	
4-Methyl-2-pentanone (MIBK)	40.0	36.9	92	63-128	
Acetone	40.0	33.2	83	43-136	
Benzene	20.0	19.2	96	80-120	
Bromobenzene	20.0	20.5	103	76-120	
Bromoform	20.0	20.2	101	40-131	
Bromomethane	20.0	22.9	115	11-185	
Carbon disulfide	20.0	22.4	112	62-142	
Carbon tetrachloride	20.0	21.4	107	66-128	
Chlorobenzene	20.0	19.8	99	80-120	
Chlorodibromomethane	20.0	19.4	97	64-120	
Chloroethane	20.0	21.1	105	25-153	
Chloroform	20.0	17.2	86	79-120	
Chloromethane	20.0	19.7	98	44-126	
cis-1,2-Dichloroethene	20.0	18.7	94	80-120	
cis-1,3-Dichloropropene	20.0	18.7	94	61-120	
Dibromomethane	20.0	25.2	126	80-120	*
Bromochloromethane	20.0	18.7	93	77-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1237586.D

Lab ID: LCS 240-130437/3 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	14.0	70	19-129	
Bromodichloromethane	20.0	17.7	88	72-121	
tert-Butyl alcohol	200	181	90	70-130	
Ethylbenzene	20.0	19.4	97	80-120	
Hexachlorobutadiene	20.0	17.9	90	36-134	
Isopropylbenzene	20.0	18.0	90	75-120	
Methyl tert-butyl ether	20.0	19.6	98	52-144	
Methylene Chloride	20.0	18.3	91	66-131	
m-Xylene & p-Xylene	20.0	19.0	95	80-120	
Naphthalene	20.0	17.3	87	32-141	
n-Butylbenzene	20.0	14.3	72	66-125	
N-Propylbenzene	20.0	16.7	84	74-121	
o-Xylene	20.0	18.9	95	80-120	
sec-Butylbenzene	20.0	15.6	78	70-120	
Styrene	20.0	18.6	93	79-120	
Tetrachloroethene	20.0	21.6	108	79-120	
Toluene	20.0	18.0	90	80-120	
trans-1,2-Dichloroethene	20.0	18.2	91	80-120	
trans-1,3-Dichloropropene	20.0	18.0	90	58-120	
Trichloroethene	20.0	23.4	117	76-120	
Trichlorofluoromethane	20.0	20.9	105	49-157	
Vinyl acetate	16.0	18.7	117	46-161	
Vinyl chloride	20.0	19.6	98	53-127	
Xylenes, Total	40.0	37.9	95	80-120	
tert-Butylbenzene	20.0	17.3	87	71-120	
1,2-Dibromoethane	20.0	19.9	100	79-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MSA-DMW-1S-050114	240-36857-1	102	125	90	80
MSA-MW-27D-050114	240-36857-2	101	125	85	83
MSA-DMW-6S-050114	240-36857-3	97	81	101	87
	MB 240-129443/6	100	121	88	84
	MB 240-130437/6	95	87	96	84
	LCS 240-129443/4	99	116	93	101
	LCS 240-130437/3	97	83	95	83

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-120
BFB = 4-Bromofluorobenzene (Surr)	66-120

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Sample No.: STD8260 240-123039/5 Date Analyzed: 03/18/2014 18:42

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1236336.D Heated Purge: (Y/N) N

Calibration ID: 21224

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1086536	5.40	799126	8.22	433029	10.61
UPPER LIMIT		2173072	5.90	1598252	8.72	866058	11.11
LOWER LIMIT		543268	4.90	399563	7.72	216515	10.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-123039/9		1055888	5.40	791274	8.22	396841	10.61
ICV 240-123039/19		1016952	5.40	744314	8.22	380732	10.61
STD8260 240-130437/2 CCVIS		1044298	5.40	797506	8.22	445739	10.61

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Sample No.: STD8260 240-130437/2 Date Analyzed: 05/13/2014 09:39

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1237585.D Heated Purge: (Y/N) N

Calibration ID: 21227

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1044298	5.40	797506	8.22	445739	10.61
UPPER LIMIT		2088596	5.90	1595012	8.72	891478	11.11
LOWER LIMIT		522149	4.90	398753	7.72	222870	10.11
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-130437/3		998922	5.40	775622	8.22	422941	10.61
CCV 240-130437/4		1017426	5.40	789582	8.22	411231	10.61
MB 240-130437/6		967930	5.40	760030	8.22	419383	10.61
240-36857-3	MSA-DMW-6S-050114	976650	5.40	725218	8.22	391965	10.61

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Sample No.: STD8260 240-122576/4 Date Analyzed: 03/14/2014 11:49

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXC9604.D Heated Purge: (Y/N) N

Calibration ID: 21124

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1204810	5.21	788452	7.89	486641	10.12
UPPER LIMIT		2409620	5.71	1576904	8.39	973282	10.62
LOWER LIMIT		602405	4.71	394226	7.39	243321	9.62
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-122576/14		1359135	5.21	872825	7.89	575989	10.12
ICV 240-122576/15		1306180	5.21	839410	7.89	544809	10.12
CCVIS 240-129443/2		1173272	5.21	749165	7.89	435721	10.12

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Sample No.: CCVIS 240-129443/2 Date Analyzed: 05/06/2014 09:34

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXC1239.D Heated Purge: (Y/N) N

Calibration ID: 21403

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1173272	5.21	749165	7.89	435721	10.12
UPPER LIMIT		2346544	5.71	1498330	8.39	871442	10.62
LOWER LIMIT		586636	4.71	374583	7.39	217861	9.62
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-129443/4		1154521	5.21	763819	7.89	496500	10.12
CCV 240-129443/3		1150994	5.21	790096	7.89	436524	10.12
MB 240-129443/6		1059080	5.21	736003	7.89	380203	10.12
240-36857-1	MSA-DMW-1S-050114	1101471	5.21	739830	7.89	353980	10.12
240-36857-2	MSA-MW-27D-050114	1068510	5.21	765819	7.89	400114	10.12

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

Method 8270C

Semivolatile Organic Compounds (GC/MS) by Method 8270C

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab File ID: B3.D DFTPP Injection Date: 04/25/2014

Instrument ID: A4AG2 DFTPP Injection Time: 09:46

Analysis Batch No.: 127881

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	36.1	
68	Less than 2.0% of mass 69	0.1	(0.3)1
69	Mass 69 relative abundance	48.0	
70	Less than 2.0% of mass 69	0.1	(0.2)1
127	25.0 - 75.0% of mass 198	56.7	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	24.1	
365	Greater than 0.75% of mass 198	2.6	
441	Present, but less than mass 443	9.6	
442	40.0 - 110.0% of mass 198	64.6	
443	15.0 - 24.0% of mass 442	12.2	(18.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-127881/2	0425002.D	04/25/2014	10:09
	STD8 240-127881/3	0425003.D	04/25/2014	10:33
	STD7 240-127881/4	0425004.D	04/25/2014	10:56
	STD6 240-127881/5	0425005.D	04/25/2014	11:20
	STD5 240-127881/6	0425006.D	04/25/2014	11:43
	STD4 240-127881/7	0425007.D	04/25/2014	12:06
	STD3 240-127881/8	0425008.D	04/25/2014	12:30
	STD2 240-127881/9	0425009.D	04/25/2014	12:53
	STD1 240-127881/10	0425010.D	04/25/2014	13:17
	ICV 240-127881/11	0425011.D	04/25/2014	13:41

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 127881

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/25/2014 10:09 Calibration End Date: 04/25/2014 13:17 Calibration ID: 21916

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-127881/10	0425010.D
Level 2	STD2 240-127881/9	0425009.D
Level 3	STD3 240-127881/8	0425008.D
Level 4	STD4 240-127881/7	0425007.D
Level 5	STD5 240-127881/6	0425006.D
Level 6	STD6 240-127881/5	0425005.D
Level 7	STD7 240-127881/4	0425004.D
Level 8	STD8 240-127881/3	0425003.D
Level 9	STD9 240-127881/2	0425002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.6053	0.6044 0.5896	0.6054 0.5762	0.5856 0.5632	0.5942	Ave		0.5905				2.6		15.0			
N-Nitrosodimethylamine	0.7055	0.3271 0.7714	0.3561 0.7537	0.4320 0.7766	0.6217	Lin1	-35.87	0.7704							0.9960		0.9900
Pyridine	1.4949	1.0565 1.4647	1.2654 1.4562	1.2326 1.4395	1.4209	Ave		1.3538				11.0		15.0			
Benzaldehyde	0.7726	1.0707 0.6454	1.0304 0.6810	0.7339 0.6050	0.7115	Lin1	55.730	0.6435							0.9920		0.9900
Phenol	1.7465	1.3882 1.7457	1.6601 1.7085	1.5858 1.6731	1.7325	Ave		1.6550				7.3		15.0			
Aniline	2.0994	0.9483 2.0928	1.4552 2.0930	1.3956 2.0560	1.8974	Lin1	-71.72	2.1094							0.9990		0.9900
Bis(2-chloroethyl)ether	1.3937	1.2863 1.3771	1.3201 1.3721	1.2886 1.3124	1.3489	Ave		1.3374				3.1		15.0			
2-Chlorophenol	1.4796	1.3766 1.4730	1.4152 1.4319	1.3107 1.4376	1.4024	Ave		1.4159				3.9		15.0			
n-Decane	1.3332	1.4455 1.3349	1.3029 1.3051	1.2730 1.2695	1.3381	Ave		1.3253				4.2		15.0			
1,3-Dichlorobenzene	1.5524	1.6006 1.5303	1.5474 1.4998	1.4777 1.4676	1.5173	Ave		1.5241				2.9		15.0			
1,4-Dichlorobenzene	1.5784	1.5541 1.5614	1.5268 1.5235	1.4592 1.4931	1.5331	Ave		1.5287				2.5		15.0			
Benzyl alcohol	0.9077	0.5988 0.8917	0.7908 0.8918	0.6783 0.8673	0.8323	Ave		0.8073				14.0		15.0			
1,2-Dichlorobenzene	1.5028	1.5466 1.4630	1.4732 1.4504	1.4157 1.4227	1.4630	Ave		1.4672				2.9		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab File ID: 0509001.D DFTPP Injection Date: 05/09/2014

Instrument ID: A4AG2 DFTPP Injection Time: 08:18

Analysis Batch No.: 129945

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	40.8	
68	Less than 2.0% of mass 69	0.8	(1.4)1
69	Mass 69 relative abundance	52.5	
70	Less than 2.0% of mass 69	0.1	(0.2)1
127	25.0 - 75.0% of mass 198	64.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	22.1	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.5	
442	40.0 - 110.0% of mass 198	62.8	
443	15.0 - 24.0% of mass 442	12.1	(19.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-129945/2	0509002.D	05/09/2014	08:35
	MB 240-129223/19-A	0509007.D	05/09/2014	10:32
	LCS 240-129223/20-A	0509008.D	05/09/2014	10:55
MSA-DMW-1S-050114	240-36857-1	0509021.D	05/09/2014	16:00
MSA-MW-27D-050114	240-36857-2	0509022.D	05/09/2014	16:23
MSA-DMW-6S-050114	240-36857-3	0509023.D	05/09/2014	16:47

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: STD6 240-129945/2 Calibration Date: 05/09/2014 08:35

Instrument ID: A4AG2 Calib Start Date: 04/25/2014 10:09

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/25/2014 13:17

Lab File ID: 0509002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5905	0.5763		0.976	1.00	-2.4	50.0
N-Nitrosodimethylamine	Lin1		0.7684		1.04	1.00	4.4	50.0
Pyridine	Ave	1.354	1.427		1.05	1.00	5.4	50.0
Benzaldehyde	Lin1		0.6205		1.84	2.00	-7.9	50.0
Phenol	Ave	1.655	1.758		1.06	1.00	6.2	20.0
Aniline	Lin1		1.812		0.893	1.00	-10.7	50.0
Bis(2-chloroethyl)ether	Ave	1.337	1.374		1.03	1.00	2.8	50.0
2-Chlorophenol	Ave	1.416	1.452		1.03	1.00	2.5	50.0
n-Decane	Ave	1.325	1.227		0.926	1.00	-7.4	50.0
1,3-Dichlorobenzene	Ave	1.524	1.484		0.974	1.00	-2.6	50.0
1,4-Dichlorobenzene	Ave	1.529	1.458		0.954	1.00	-4.6	20.0
Benzyl alcohol	Ave	0.8073	0.8463		1.05	1.00	4.8	50.0
1,2-Dichlorobenzene	Ave	1.467	1.391		0.948	1.00	-5.2	50.0
2-Methylphenol	Ave	1.212	1.254		1.03	1.00	3.4	50.0
bis (2-chloroisopropyl) ether	Ave	1.425	1.330		0.933	1.00	-6.7	50.0
Indene	Ave	2.407	2.439		2.03	2.00	1.3	50.0
3 & 4 Methylphenol	Ave	1.263	1.236		0.979	1.00	-2.1	50.0
N-Nitrosodi-n-propylamine	Ave	1.007	0.8651	0.0500	0.859	1.00	-14.1	50.0
Acetophenone	Ave	1.833	1.837		1.00	1.00	0.2	50.0
Hexachloroethane	Ave	0.6055	0.6157		1.02	1.00	1.7	50.0
Nitrobenzene	Ave	0.3628	0.3598		0.992	1.00	-0.8	50.0
Isophorone	Ave	0.6002	0.4585		0.764	1.00	-23.6	50.0
2-Nitrophenol	Ave	0.1640	0.1732		1.06	1.00	5.6	20.0
2,4-Dimethylphenol	Ave	0.2991	0.2852		0.953	1.00	-4.7	50.0
Benzoic acid	Ave	0.1786	0.1705		1.91	2.00	-4.5	50.0
Bis(2-chloroethoxy)methane	Ave	0.3815	0.3757		0.985	1.00	-1.5	50.0
2,4-Dichlorophenol	Ave	0.2476	0.2277		0.919	1.00	-8.1	20.0
1,2,4-Trichlorobenzene	Ave	0.2900	0.2662		0.918	1.00	-8.2	50.0
Naphthalene	Ave	1.016	0.9760		0.961	1.00	-3.9	50.0
4-Chloroaniline	Qua		0.2524		1.02	1.00	2.4	50.0
Hexachlorobutadiene	Ave	0.1413	0.1257		0.890	1.00	-11.0	20.0
Caprolactam	Ave	0.1016	0.0993		1.95	2.00	-2.3	50.0
4-Chloro-3-methylphenol	Lin1		0.2966		1.09	1.00	9.0	20.0
2-Methylnaphthalene	Ave	0.6782	0.6570		0.969	1.00	-3.1	50.0
1-Methylnaphthalene	Ave	0.6355	0.6178		0.972	1.00	-2.8	50.0
Hexachlorocyclopentadiene	Lin1		0.1130	0.0500	0.432	1.00	-56.8*	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4610	0.4185		0.908	1.00	-9.2	50.0
2,4,6-Trichlorophenol	Ave	0.3214	0.2975		0.926	1.00	-7.4	20.0
2,4,5-Trichlorophenol	Ave	0.3309	0.3170		0.958	1.00	-4.2	50.0
1,1'-Biphenyl	Ave	1.423	1.379		0.969	1.00	-3.1	50.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab File ID: 0509007.D Lab Sample ID: MB 240-129223/19-A

Matrix: Water Date Extracted: 05/05/2014 08:04

Instrument ID: A4AG2 Date Analyzed: 05/09/2014 10:32

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-129223/20-A	0509008.D	05/09/2014 10:55
MSA-DMW-1S-050114	240-36857-1	0509021.D	05/09/2014 16:00
MSA-MW-27D-050114	240-36857-2	0509022.D	05/09/2014 16:23
MSA-DMW-6S-050114	240-36857-3	0509023.D	05/09/2014 16:47

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-129223/19-A

Matrix: Water | Lab File ID: 0509007.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/05/2014 08:04

Sample wt/vol: 250(mL) | Date Analyzed: 05/09/2014 10:32

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 129945 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	83		29-110
367-12-4	2-Fluorophenol (Surr)	73		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	63		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	87		31-110
4165-62-2	Phenol-d5 (Surr)	56		10-110
1718-51-0	Terphenyl-d14 (Surr)	107		31-115

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0509008.D

Lab ID: LCS 240-129223/20-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	40.0	31.9	80	40-160	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
MSA-DMW-1S-050114	240-36857-1	77	79	77	62	62	93
MSA-MW-27D-050114	240-36857-2	78	67	77	65	55	93
MSA-DMW-6S-050114	240-36857-3	51	29	68	62	66	87
	MB 240-129223/19-A	73	56	87	83	63	107
	LCS 240-129223/20-A	89	95	88	79	73	94

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	15-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	31-110
FBP = 2-Fluorobiphenyl (Surr)	29-110
TBP = 2,4,6-Tribromophenol (Surr)	21-128
TPH = Terphenyl-d14 (Surr)	31-115

Column to be used to flag recovery values

FORM II 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Sample No.: STD6 240-127881/5 Date Analyzed: 04/25/2014 11:20

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0425005.D Heated Purge: (Y/N) N

Calibration ID: 21916

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		183825	6.25	755405	7.32	420659	8.80
UPPER LIMIT		367650	6.75	1510810	7.82	841318	9.30
LOWER LIMIT		91913	5.75	377703	6.82	210330	8.30
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-127881/11		185952	6.25	764836	7.32	425664	8.80
STD6 240-129945/2 CCVIS		150885	6.21	613267	7.28	336595	8.76

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Sample No.: STD6 240-127881/5 Date Analyzed: 04/25/2014 11:20

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0425005.D Heated Purge: (Y/N) N

Calibration ID: 21916

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		686989	10.06	669998	12.66	553417	14.77
UPPER LIMIT		1373978	10.56	1339996	13.16	1106834	15.27
LOWER LIMIT		343495	9.56	334999	12.16	276709	14.27
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-127881/11		678521	10.07	648095	12.66	541547	14.77
STD6 240-129945/2 CCVIS		532953	10.02	462802	12.60	406729	14.69

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Sample No.: STD6 240-129945/2 Date Analyzed: 05/09/2014 08:35

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0509002.D Heated Purge: (Y/N) N

Calibration ID: 21939

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		150885	6.21	613267	7.28	336595	8.76
UPPER LIMIT		301770	6.71	1226534	7.78	673190	9.26
LOWER LIMIT		75443	5.71	306634	6.78	168298	8.26
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-129223/19-A		130085	6.21	448785	7.28	287768	8.76
LCS 240-129223/20-A		143866	6.21	601508	7.28	319157	8.76
240-36857-1	MSA-DMW-1S-050114	175975	6.21	701259	7.28	373087	8.76
240-36857-2	MSA-MW-27D-050114	172471	6.21	683285	7.28	372368	8.76
240-36857-3	MSA-DMW-6S-050114	157000	6.21	485781	7.28	368825	8.76

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Sample No.: STD6 240-129945/2 Date Analyzed: 05/09/2014 08:35

Instrument ID: A4AG2 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0509002.D Heated Purge: (Y/N) N

Calibration ID: 21939

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		532953	10.02	462802	12.60	406729	14.69
UPPER LIMIT		1065906	10.52	925604	13.10	813458	15.19
LOWER LIMIT		266477	9.52	231401	12.10	203365	14.19
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-129223/19-A		459596	10.02	410726	12.59	315225	14.68
LCS 240-129223/20-A		501371	10.02	456351	12.59	372290	14.68
240-36857-1	MSA-DMW-1S-050114	587355	10.02	503598	12.59	391850	14.68
240-36857-2	MSA-MW-27D-050114	581133	10.02	503288	12.59	372068	14.68
240-36857-3	MSA-DMW-6S-050114	587755	10.02	512094	12.59	430537	14.68

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

Method 8015B - GRO

Gasoline Range Organics (GC) by Method 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Instrument ID: YPID Start Date: 04/01/2014 13:08

Analysis Batch Number: 124780 End Date: 04/01/2014 17:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-124780/4 IC		04/01/2014 13:08	1	YF040104.D	RTX-VRX 0.45(mm)
STD2 240-124780/5 IC		04/01/2014 13:46	1	YF040105.D	RTX-VRX 0.45(mm)
STD3 240-124780/6 IC		04/01/2014 14:25	1	YF040106.D	RTX-VRX 0.45(mm)
STD4 240-124780/7 ICRT		04/01/2014 15:04	1	YF040107.D	RTX-VRX 0.45(mm)
STD5 240-124780/8 IC		04/01/2014 15:43	1	YF040108.D	RTX-VRX 0.45(mm)
STD6 240-124780/9 IC		04/01/2014 16:22	1	YF040109.D	RTX-VRX 0.45(mm)
ICV 240-124780/10		04/01/2014 17:01	1	YF040110.D	RTX-VRX 0.45(mm)

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Gasoline Range Organics [C6 - C10]	204584 184488	200740 176831	187062	178295	Ave		188666.715				6.1		20.0			
C6-C12	235895 200911	223834 193438	204656	194539	Ave		208878.888				8.2		20.0			
Trifluorotoluene (Surr)	256304 194760	219953 178223	216487	201472	Ave		211199.772				13.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI

GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Gasoline Range Organics [C6 - C10]	11.937	11.937	11.937	11.937	11.937	11.937					5.000 - 18.927	11.937
C6-C12	13.475	13.475	13.475	13.475	13.475	13.475					5.000 - 22.005	13.475
Trifluorotoluene (Surr)	9.775	9.786	9.784	9.782	9.784	9.783					9.532 - 10.032	9.782

FORM VI

GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 124780

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2014 13:08 Calibration End Date: 04/01/2014 16:22 Calibration ID: 21446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-124780/4	YF040104.D
Level 2	STD2 240-124780/5	YF040105.D
Level 3	STD3 240-124780/6	YF040106.D
Level 4	STD4 240-124780/7	YF040107.D
Level 5	STD5 240-124780/8	YF040108.D
Level 6	STD6 240-124780/9	YF040109.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Gasoline Range Organics [C6 - C10]	Ave	20458395 282929804	40148085	74824833	142635995	221385250	100 1600	200	400	800	1200
C6-C12	Ave	23589536 309501068	44766859	81862354	155631080	241092921	100 1600	200	400	800	1200
Trifluorotoluene (Surr)	Ave	256304 8911159	439906	1082433	2014719	3895199	1.00 50.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Instrument ID: YPID Start Date: 05/08/2014 11:51

Analysis Batch Number: 129818 End Date: 05/09/2014 18:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-129818/4		05/08/2014 11:51	1	YF050804.D	RTX-VRX 0.45(mm)
MB 240-129818/5		05/08/2014 12:29	1	YF050805.D	RTX-VRX 0.45(mm)
LCS 240-129818/6		05/08/2014 13:08	1	YF050806.D	RTX-VRX 0.45(mm)
240-36857-1	MSA-DMW-1S-050114	05/08/2014 13:46	1	YF050807.D	RTX-VRX 0.45(mm)
240-36857-1 MS	MSA-DMW-1S-050114 MS	05/08/2014 14:25	1	YF050808.D	RTX-VRX 0.45(mm)
240-36857-1 MSD	MSA-DMW-1S-050114 MSD	05/08/2014 15:04	1	YF050809.D	RTX-VRX 0.45(mm)
240-36857-3	MSA-DMW-6S-050114	05/08/2014 15:43	1	YF050810.D	RTX-VRX 0.45(mm)
ZZZZZ		05/08/2014 16:22	1		RTX-VRX 0.45(mm)
ZZZZZ		05/08/2014 17:01	1		RTX-VRX 0.45(mm)
ZZZZZ		05/08/2014 17:40	1		RTX-VRX 0.45(mm)
ZZZZZ		05/08/2014 18:18	1		RTX-VRX 0.45(mm)
CCV 240-129818/15		05/08/2014 18:57	1	YF050815.D	RTX-VRX 0.45(mm)
ZZZZZ		05/08/2014 19:35	1		RTX-VRX 0.45(mm)
ZZZZZ		05/08/2014 20:14	1		RTX-VRX 0.45(mm)
ZZZZZ		05/08/2014 20:52	1		RTX-VRX 0.45(mm)
ZZZZZ		05/08/2014 21:31	1		RTX-VRX 0.45(mm)
ZZZZZ		05/08/2014 22:09	1		RTX-VRX 0.45(mm)
ZZZZZ		05/08/2014 22:48	1		RTX-VRX 0.45(mm)
ZZZZZ		05/08/2014 23:27	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 00:05	1		RTX-VRX 0.45(mm)
CCV 240-129818/24		05/09/2014 00:44	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 01:23	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 02:01	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 02:41	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 03:20	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 03:59	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 04:37	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 05:16	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 05:55	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 06:34	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 07:13	1		RTX-VRX 0.45(mm)
CCV 240-129818/35		05/09/2014 07:52	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 08:31	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 09:10	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 09:49	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 10:28	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 11:07	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 11:45	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 12:24	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 13:03	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 13:42	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 14:21	1		RTX-VRX 0.45(mm)
CCV 240-129818/46		05/09/2014 15:00	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 15:39	1		RTX-VRX 0.45(mm)
ZZZZZ		05/09/2014 16:18	1		RTX-VRX 0.45(mm)

8015B

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCVRT 240-129818/4 Calibration Date: 05/08/2014 11:51

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF050804.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	191676		813	800	1.6	15.0
C6-C12	Ave	208879	219406		840	800	5.0	15.0
Trifluorotoluene (Surr)	Ave	211200	174176		8.25	10.0	-17.5*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCVRT 240-129818/4 Calibration Date: 05/08/2014 11:51

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF050804.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.02	5.07	18.97
C6-C12	13.55	5.07	22.03
Trifluorotoluene (Surr)	9.81	9.56	10.06

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCV 240-129818/15 Calibration Date: 05/08/2014 18:57

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF050815.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Ave	188667	180616		766	800	-4.3	15.0
C6-C12	Ave	208879	203190		778	800	-2.7	15.0
Trifluorotoluene (Surr)	Ave	211200	177881		8.42	10.0	-15.8*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCV 240-129818/15 Calibration Date: 05/08/2014 18:57

Instrument ID: YPID Calib Start Date: 04/01/2014 13:08

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/01/2014 16:22

Lab File ID: YF050815.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.02	5.07	18.97
C6-C12	13.55	5.07	22.03
Trifluorotoluene (Surr)	9.81	9.56	10.06

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: MB 240-129818/5

Matrix: Water Date Extracted: 05/08/2014 12:29

Lab File ID:(1) YF050805.D Lab File ID:(2)

Date Analyzed:(1) 05/08/2014 12:29 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-129818/6	05/08/2014 13:08	
MSA-DMW-1S-050114	240-36857-1	05/08/2014 13:46	
MSA-DMW-1S-050114 MS	240-36857-1 MS	05/08/2014 14:25	
MSA-DMW-1S-050114 MSD	240-36857-1 MSD	05/08/2014 15:04	
MSA-DMW-6S-050114	240-36857-3	05/08/2014 15:43	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-129818/5

Matrix: Water | Lab File ID: YF050805.D

Analysis Method: 8015B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/08/2014 12:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 129818 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	25.6	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	76		40-133

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF050806.D

Lab ID: LCS 240-129818/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	809	101	67-132	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF050808.D

Lab ID: 240-36857-1 MS Client ID: MSA-DMW-1S-050114 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	36 J	829	99	63-120	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF050809.D

Lab ID: 240-36857-1 MSD Client ID: MSA-DMW-1S-050114 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	866	104	4	11	63-120	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1 #
MSA-DMW-1S-050114	240-36857-1	74
MSA-DMW-6S-050114	240-36857-3	76
	MB 240-129818/5	76
	LCS 240-129818/6	81
MSA-DMW-1S-050114 MS	240-36857-1 MS	80
MSA-DMW-1S-050114 MSD	240-36857-1 MSD	82

	QC LIMITS
TFT = Trifluorotoluene (Surr)	40-133

Column to be used to flag recovery values

FORM II 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Sample No.: STD4 240-124780/7 Date Analyzed: 04/01/2014 15:04

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF040107.D Heated Purge: (Y/N) N

Calibration ID: 21446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
INITIAL CALIBRATION SURROGATE				9.78		
UPPER LIMIT				9.88		
LOWER LIMIT				9.68		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD4 240-124780/7 ICRT		04/01/2014 15:04	YF040107.D	9.78		
ICV 240-124780/10		04/01/2014 17:01	YF040110.D	9.79		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Sample No.: CCVRT 240-129818/4 Date Analyzed: 05/08/2014 11:51

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF050804.D Heated Purge: (Y/N) N

Calibration ID: 21446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
CONTINUING CALIBRATION SURROGATE				9.81		
UPPER LIMIT				9.91		
LOWER LIMIT				9.71		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-129818/4		05/08/2014 11:51	YF050804.D	9.81		
MB 240-129818/5		05/08/2014 12:29	YF050805.D	9.81		
LCS 240-129818/6		05/08/2014 13:08	YF050806.D	9.81		
240-36857-1	MSA-DMW-1S-050114	05/08/2014 13:46	YF050807.D	9.81		
240-36857-1 MS	MSA-DMW-1S-050114 MS	05/08/2014 14:25	YF050808.D	9.81		
240-36857-1 MSD	MSA-DMW-1S-050114 MSD	05/08/2014 15:04	YF050809.D	9.81		
240-36857-3	MSA-DMW-6S-050114	05/08/2014 15:43	YF050810.D	9.80		
CCV 240-129818/15		05/08/2014 18:57	YF050815.D	9.81		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

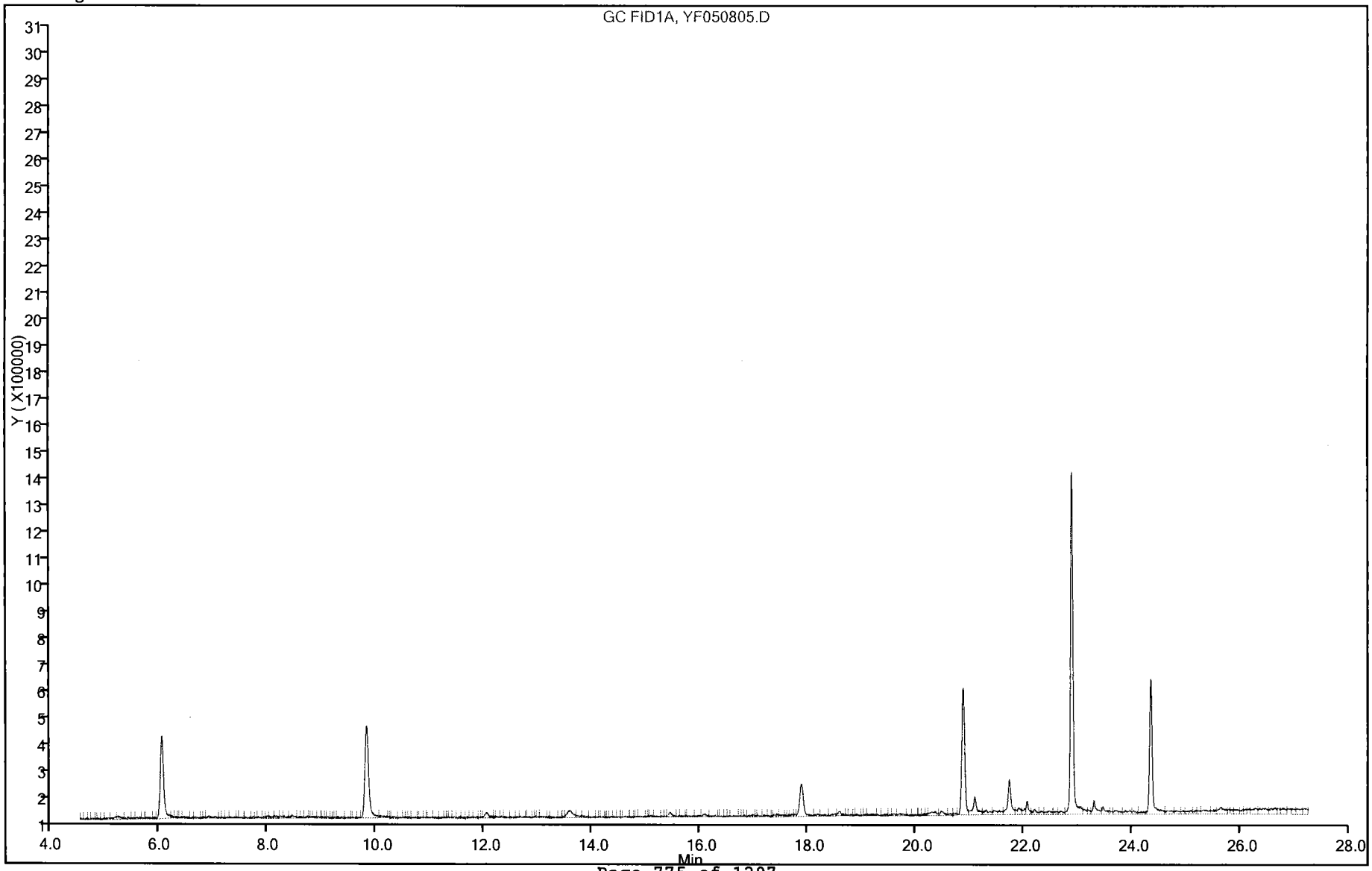
Report Date: 09-May-2014 11:39:11 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File: \\Ncchrom\ChromData\YPID\20140508-30820.b\YF050805.D

Injection Date:	08-May-2014 12:29:57	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	mb			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\YPID\20140508-30820.b\YF050805.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 08-May-2014 12:29:57 ALS Bottle#: 1 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0030820-005
Operator ID: 431523 Instrument ID: YPID

Method: \\Ncchrom\ChromData\YPID\20140508-30820.b\Y80158021.m
Limit Group: GCV 8015B GRO ICAL
Last Update: 09-May-2014 11:39:10 Calib Date: 01-Apr-2014 16:22:10
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\YPID\20140401-29543.b\YF040109.D

Column 1 : Det: GC FID1A
Process Host: XAWRK021

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	9.808	9.813	-0.005	1605930	10.0	7.60	
A 5 C6-C10	12.022	(5.074-18.970)		4838124		25.6	
A 1 C6-C12	13.552	(5.074-22.030)		8417143		40.3	
A 11 GRO	13.854	(4.991-22.717)		20597912		NC	

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\YPID\20140508-30820.b\YF050807.D
Lims ID: 240-36857-E-1 Lab Sample ID: 240-36857-1
Client ID: MSA-DMW-1S-050114
Sample Type: Client
Inject. Date: 08-May-2014 13:46:50 ALS Bottle#: 1 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0030820-007
Operator ID: 431523 Instrument ID: YPID

Method: \\Ncchrom\ChromData\YPID\20140508-30820.b\Y80158021.m
Limit Group: GCV 8015B GRO ICAL
Last Update: 09-May-2014 11:39:10 Calib Date: 01-Apr-2014 16:22:10
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\YPID\20140401-29543.b\YF040109.D

Column 1 : Det: GC FID1A
Process Host: XAWRK021

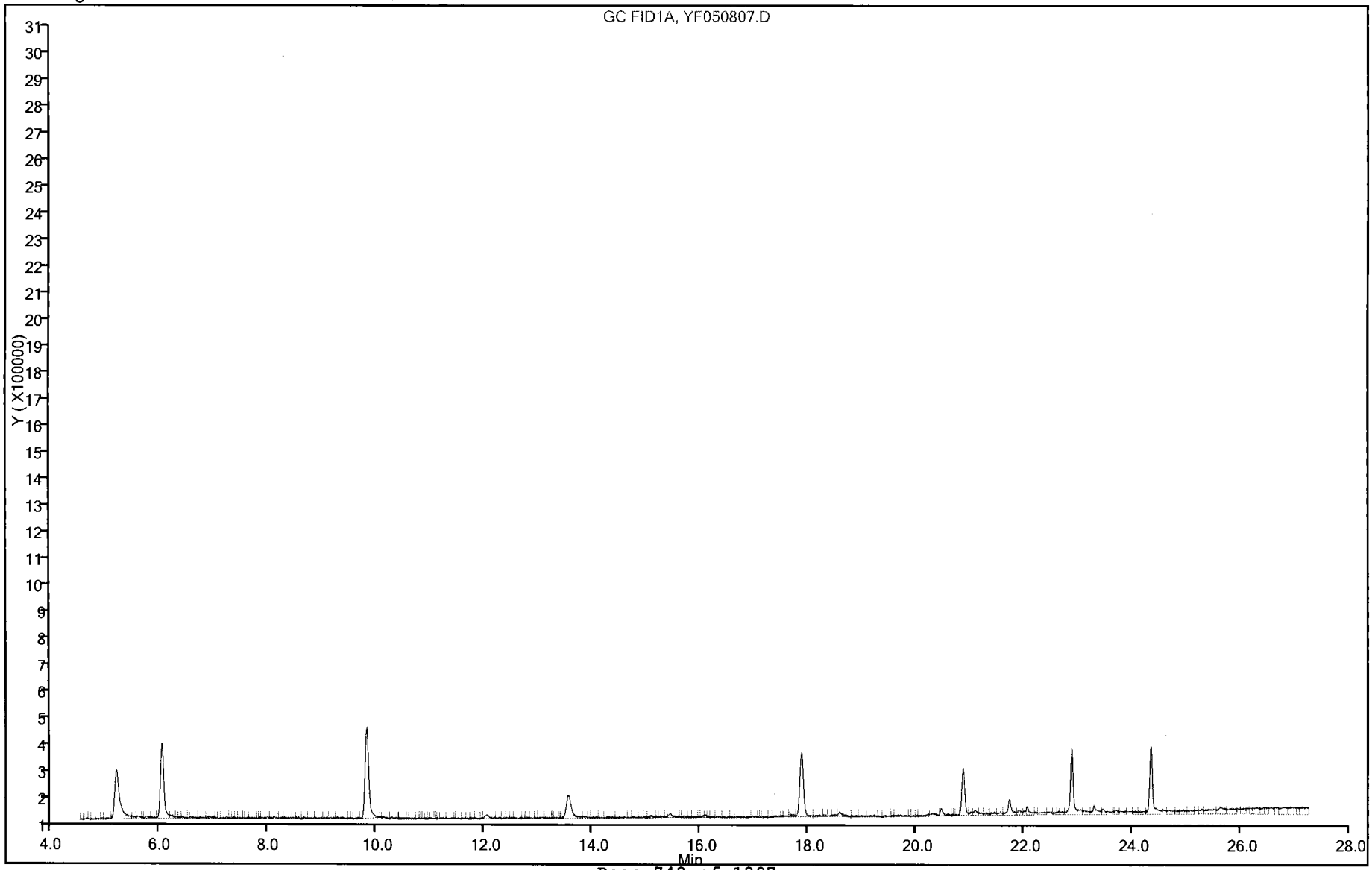
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	9.807	9.813	-0.006	1562999	7.40	
A 5 C6-C10	12.022	(5.074-18.970)		6700019	35.5	
A 1 C6-C12	13.552	(5.074-22.030)		8482973	40.6	
A 11 GRO	13.854	(4.991-22.717)		19494960	NC	

Report Date: 09-May-2014 11:39:12 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File:	\\Ncchrom\ChromData\YPID\20140508-30820.b\YF050807.D				
Injection Date:	08-May-2014 13:46:50	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	240-36857-E-1	Lab Sample ID:	240-36857-1	Worklist Smp#:	7
Client ID:	MSA-DMW-1S-050114				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Canton
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\YPID\20140508-30820.b\YF050810.D
Lims ID: 240-36857-E-3 Lab Sample ID: 240-36857-3
Client ID: MSA-DMW-6S-050114
Sample Type: Client
Inject. Date: 08-May-2014 15:43:46 ALS Bottle#: 1 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0030820-010
Operator ID: 431523 Instrument ID: YPID

Method: \\Ncchrom\ChromData\YPID\20140508-30820.b\Y80158021.m
Limit Group: GCV 8015B GRO ICAL
Last Update: 09-May-2014 11:39:10 Calib Date: 01-Apr-2014 16:22:10
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\YPID\20140401-29543.b\YF040109.D

Column 1 : Det: GC FID1A
Process Host: XAWRK021

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	9.803	9.813	-0.010	1602445	7.59	
A 5 C6-C10	12.022	(5.074-18.970)		6510559	34.5	

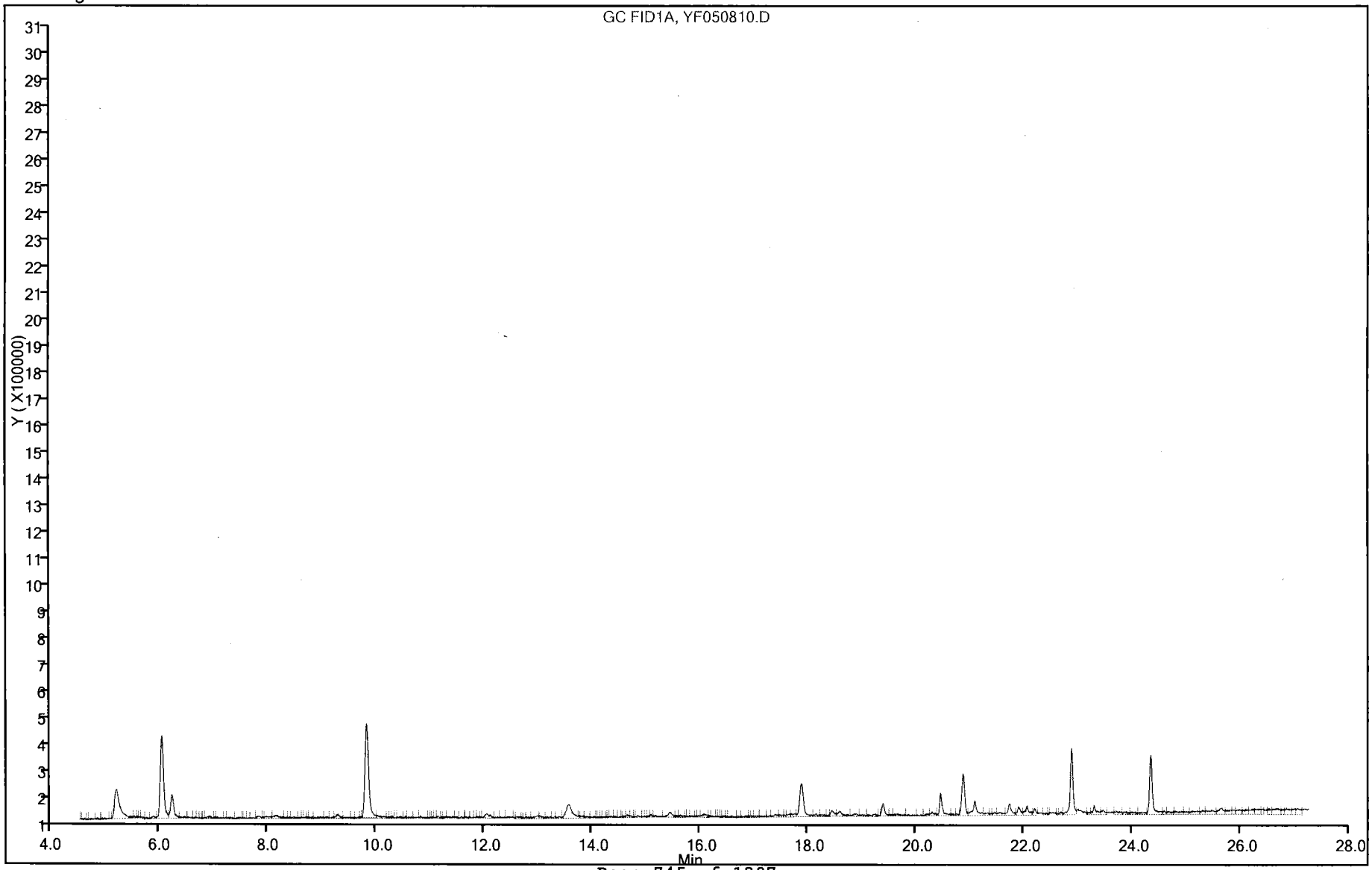
Report Date: 09-May-2014 11:39:13 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton

Data File: \\Ncchrom\ChromData\YPID\20140508-30820.b\YF050810.D

Injection Date:	08-May-2014 15:43:46	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	240-36857-E-3	Lab Sample ID:	240-36857-3	Worklist Smp#:	10
Client ID:	MSA-DMW-6S-050114				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value



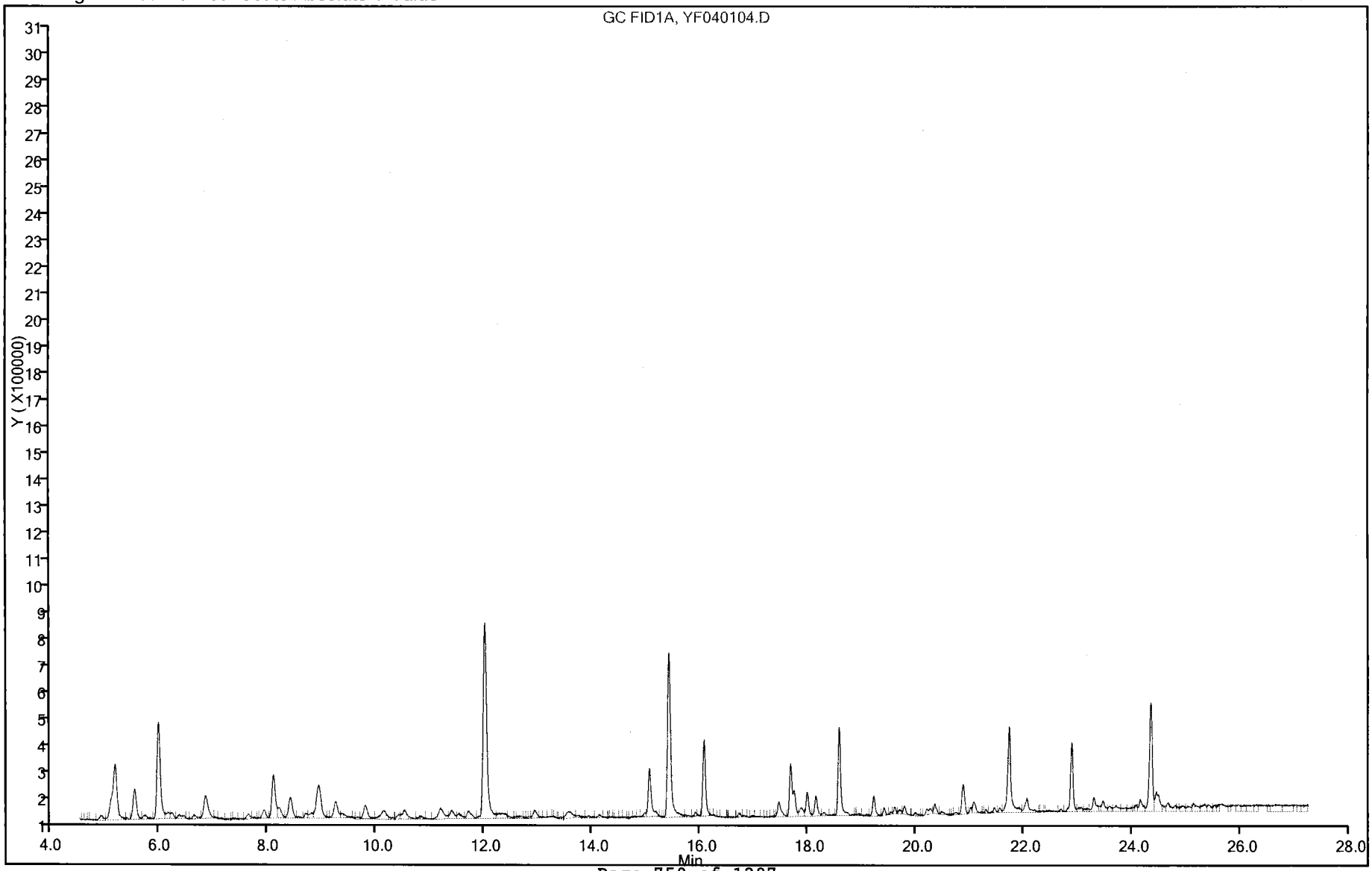
Report Date: 02-Apr-2014 06:46:09 Chrom Revision: 2.2 12-Mar-2014 11:19:24

TestAmerica Canton

Data File: \\Ncchrom\ChromData\YPID\20140401-29543.b\YF040104.D

Injection Date:	01-Apr-2014 13:08:08	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	STD1 GAS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value



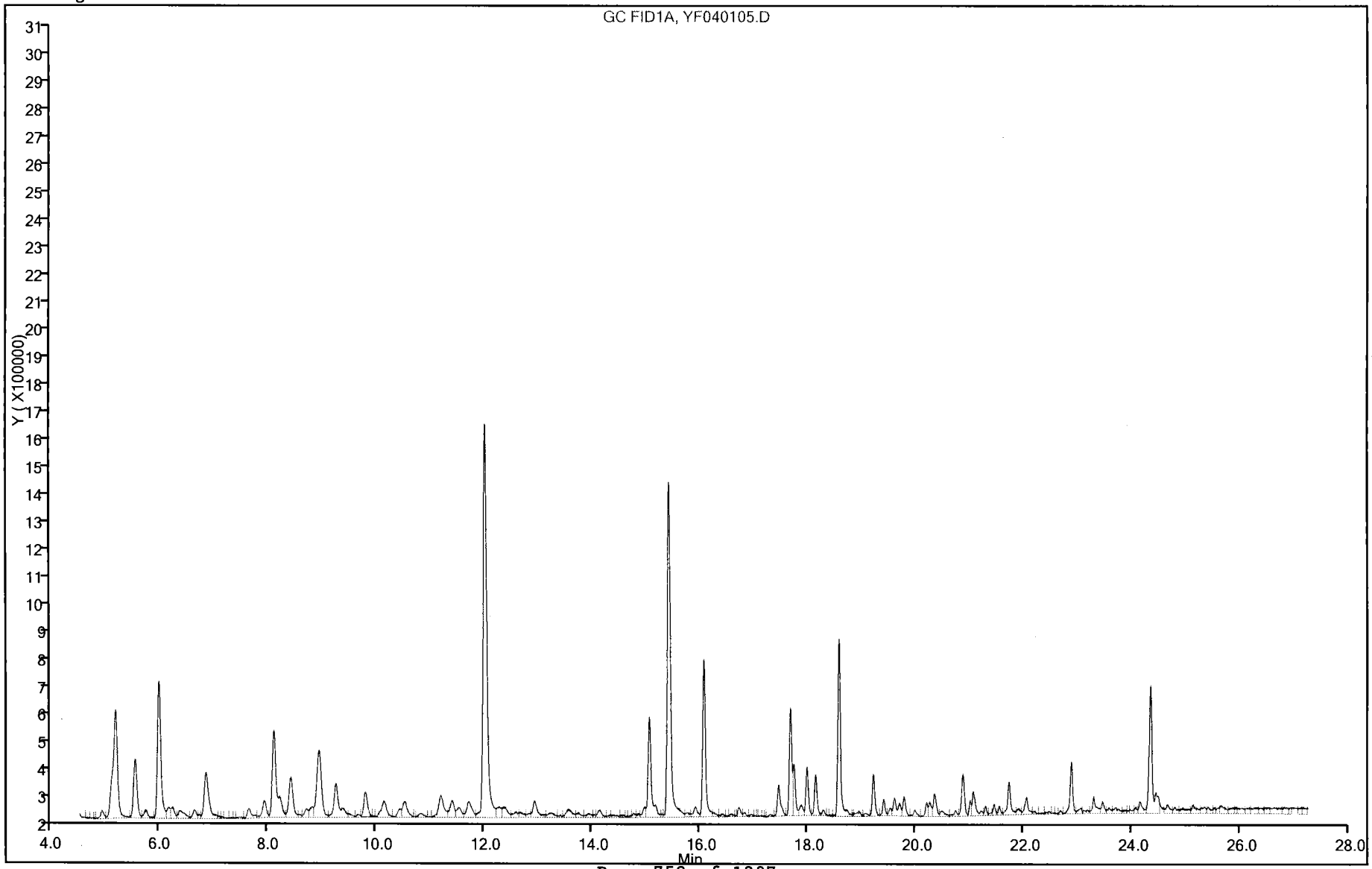
Report Date: 02-Apr-2014 06:46:10 Chrom Revision: 2.2 12-Mar-2014 11:19:24

TestAmerica Canton

Data File: \\Ncchrom\ChromData\YPID\20140401-29543.b\YF040105.D

Injection Date:	01-Apr-2014 13:46:59	Instrument ID:	YPID	Operator ID:	431523
Lims ID:	STD2 GAS			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	Y80158021	Limit Group:	GCV 8015B GRO ICAL		

Y Scaling: Method Defined: Set to Absolute Y Value



Method 8015B - DRO

Diesel Range Organics (DRO) (GC) by Method 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Instrument ID: A2HP14F Start Date: 11/25/2013 18:58

Analysis Batch Number: 111340 End Date: 11/25/2013 22:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-111340/8 IC		11/25/2013 18:58	1	P14F112508.D	RTX-5 0.53(mm)
STD2 240-111340/9 IC		11/25/2013 19:19	1	P14F112509.D	RTX-5 0.53(mm)
STD3 240-111340/10 ICRT		11/25/2013 19:40	1	P14F112510.D	RTX-5 0.53(mm)
STD4 240-111340/11 IC		11/25/2013 20:01	1	P14F112511.D	RTX-5 0.53(mm)
STD5 240-111340/12 IC		11/25/2013 20:22	1	P14F112512.D	RTX-5 0.53(mm)
ICV 240-111340/13		11/25/2013 20:42	1	P14F112513.D	RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:03	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:23	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 21:44	1		RTX-5 0.53(mm)
ZZZZZ		11/25/2013 22:05	1		RTX-5 0.53(mm)
CCV 240-111340/18		11/25/2013 22:25	1		RTX-5 0.53(mm)

FORM VI

DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	501990 429809	458731	454837	433618	Ave		455796.921				6.3		20.0			
o-Terphenyl (Surr)	553837 517394	508292	537146	516618	Ave		526657.319				3.5		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI

DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel Range Organics [C10 - C28]	5.856	5.856	5.856	5.856	5.856						2.980 - 8.732	5.856
o-Terphenyl (Surr)	6.202	6.199	6.197	6.200	6.209						6.102 - 6.302	6.201

FORM VI

DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-36857-1 Analy Batch No.: 111340

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/25/2013 18:58 Calibration End Date: 11/25/2013 20:22 Calibration ID: 19058

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-111340/8	P14F112508.D
Level 2	STD2 240-111340/9	P14F112509.D
Level 3	STD3 240-111340/10	P14F112510.D
Level 4	STD4 240-111340/11	P14F112511.D
Level 5	STD5 240-111340/12	P14F112512.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel Range Organics [C10 - C28]	Ave	10040851	18351136	45488439	86732601	171941310	20.0	40.0	100	200	400
o-Terphenyl (Surr)	Ave	886139	1626533	4297171	8265892	16556593	1.60	3.20	8.00	16.0	32.0

Curve Type Legend:

Ave = Average

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Instrument ID: A2HP14F Start Date: 05/09/2014 13:14

Analysis Batch Number: 130034 End Date: 05/09/2014 20:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-130034/7 CCVRT		05/09/2014 13:14	1	P14F050907.D	RTX-5 0.53(mm)
MB 240-129611/7-A		05/09/2014 13:34	1	P14F050908.D	RTX-5 0.53(mm)
LCS 240-129611/8-A		05/09/2014 13:55	1	P14F050909.D	RTX-5 0.53(mm)
ZZZZZ		05/09/2014 14:16	1		RTX-5 0.53(mm)
240-36857-1	MSA-DMW-1S-050114	05/09/2014 14:37	1	P14F050911.D	RTX-5 0.53(mm)
240-36857-3	MSA-DMW-6S-050114	05/09/2014 14:58	1	P14F050912.D	RTX-5 0.53(mm)
ZZZZZ		05/09/2014 15:19	1		RTX-5 0.53(mm)
ZZZZZ		05/09/2014 15:39	1		RTX-5 0.53(mm)
ZZZZZ		05/09/2014 16:00	1		RTX-5 0.53(mm)
CCV 240-130034/16		05/09/2014 16:21	1	P14F050916.D	RTX-5 0.53(mm)
ZZZZZ		05/09/2014 16:42	1		RTX-5 0.53(mm)
ZZZZZ		05/09/2014 17:03	1		RTX-5 0.53(mm)
ZZZZZ		05/09/2014 17:24	1		RTX-5 0.53(mm)
ZZZZZ		05/09/2014 17:44	1		RTX-5 0.53(mm)
ZZZZZ		05/09/2014 18:05	1		RTX-5 0.53(mm)
ZZZZZ		05/09/2014 18:26	1		RTX-5 0.53(mm)
ZZZZZ		05/09/2014 18:47	1		RTX-5 0.53(mm)
ZZZZZ		05/09/2014 19:08	1		RTX-5 0.53(mm)
ZZZZZ		05/09/2014 19:28	1		RTX-5 0.53(mm)
ZZZZZ		05/09/2014 19:49	1		RTX-5 0.53(mm)
CCV 240-130034/27		05/09/2014 20:10	1		RTX-5 0.53(mm)

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCV 240-130034/7 Calibration Date: 05/09/2014 13:14

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F050907.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	448158		98.3	100	-1.7	
o-Terphenyl (Surr)	Ave	526657	500.2		7600	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCV 240-130034/7 Calibration Date: 05/09/2014 13:14

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F050907.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.83	2.95	8.71
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCV 240-130034/16 Calibration Date: 05/09/2014 16:21

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F050916.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	428655		94.0	100	-6.0	
o-Terphenyl (Surr)	Ave	526657	478.7		7270	8000	-99.9	

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCV 240-130034/16 Calibration Date: 05/09/2014 16:21

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F050916.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	5.83	2.95	8.71
o-Terphenyl (Surr)	6.19	6.09	6.29

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: MB 240-129611/7-A

Matrix: Water Date Extracted: 05/07/2014 08:35

Lab File ID:(1) P14F050908.D Lab File ID:(2)

Date Analyzed:(1) 05/09/2014 13:34 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-129611/8-A	05/09/2014 13:55	
MSA-DMW-1S-050114	240-36857-1	05/09/2014 14:37	
MSA-DMW-6S-050114	240-36857-3	05/09/2014 14:58	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-129611/7-A

Matrix: Water Lab File ID: P14F050908.D

Analysis Method: 8015B Date Collected:

Extraction Method: 3510C Date Extracted: 05/07/2014 08:35

Sample wt/vol: 250(mL) Date Analyzed: 05/09/2014 13:34

Con. Extract Vol.: 5.0(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 130034 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	78		40-160

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P14F050909.D

Lab ID: LCS 240-129611/8-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1930	97	40-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	OTPH1 #
MSA-DMW-1S-050114	240-36857-1	70
MSA-DMW-6S-050114	240-36857-3	61
	MB 240-129611/7-A	78
	LCS 240-129611/8-A	82

	QC LIMITS
OTPH = o-Terphenyl (Surr)	40-160

Column to be used to flag recovery values

FORM II 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Sample No.: CCV 240-130034/7 Date Analyzed: 05/09/2014 13:14

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P14F050907.D Heated Purge: (Y/N) N

Calibration ID: 19058

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				6.19		
UPPER LIMIT						
LOWER LIMIT						
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-130034/7 CCVRT		05/09/2014 13:14	P14F050907.D	6.19		
MB 240-129611/7-A		05/09/2014 13:34	P14F050908.D	6.19		
LCS 240-129611/8-A		05/09/2014 13:55	P14F050909.D	6.19		
240-36857-1	MSA-DMW-1S-050114	05/09/2014 14:37	P14F050911.D	6.20		
240-36857-3	MSA-DMW-6S-050114	05/09/2014 14:58	P14F050912.D	6.19		
CCV 240-130034/16		05/09/2014 16:21	P14F050916.D	6.19		

Column used to flag values outside QC limits

FORM VIII 8015B

6850

Perchlorate by LC/MS or LC/MS/MS

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Instrument ID: A6 Start Date: 05/13/2014 07:49

Analysis Batch Number: 42339 End Date: 05/14/2014 10:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/13/2014 07:49	1		Xterra C18 3.2(mm)
ICB 320-42339/2		05/13/2014 08:03	1	13MAY2014_004.d	Xterra C18 3.2(mm)
STD01 320-42339/3 IC		05/13/2014 08:17	1	13MAY2014_005.d	Xterra C18 3.2(mm)
STD02 320-42339/4 IC		05/13/2014 08:31	1	13MAY2014_006.d	Xterra C18 3.2(mm)
STD03 320-42339/5 IC		05/13/2014 08:45	1	13MAY2014_007.d	Xterra C18 3.2(mm)
STD04 320-42339/6 IC		05/13/2014 08:59	1	13MAY2014_008.d	Xterra C18 3.2(mm)
STD05 320-42339/7 IC		05/13/2014 09:13	1	13MAY2014_009.d	Xterra C18 3.2(mm)
STD06 320-42339/8 IC		05/13/2014 09:27	1	13MAY2014_010.d	Xterra C18 3.2(mm)
STD07 320-42339/9 IC		05/13/2014 09:41	1	13MAY2014_011.d	Xterra C18 3.2(mm)
STD08 320-42339/10 IC		05/13/2014 09:54	1	13MAY2014_012.d	Xterra C18 3.2(mm)
CCB 320-42339/11		05/13/2014 10:08	1		Xterra C18 3.2(mm)
ICV 320-42339/12		05/13/2014 10:22	1	13MAY2014_014.d	Xterra C18 3.2(mm)
CCVL 320-42339/13		05/13/2014 10:36	1		Xterra C18 3.2(mm)
LODV 320-42339/14		05/13/2014 10:50	1		Xterra C18 3.2(mm)
CCB 320-42339/15		05/13/2014 11:04	1		Xterra C18 3.2(mm)
ZZZZZ		05/13/2014 11:18	1		Xterra C18 3.2(mm)
ZZZZZ		05/13/2014 11:32	1		Xterra C18 3.2(mm)
ZZZZZ		05/13/2014 11:46	1		Xterra C18 3.2(mm)
ZZZZZ		05/13/2014 12:00	1		Xterra C18 3.2(mm)
ZZZZZ		05/13/2014 12:14	1		Xterra C18 3.2(mm)
ZZZZZ		05/13/2014 12:27	1		Xterra C18 3.2(mm)
ZZZZZ		05/13/2014 12:41	1		Xterra C18 3.2(mm)
ZZZZZ		05/13/2014 12:55	1		Xterra C18 3.2(mm)
ZZZZZ		05/13/2014 13:09	1		Xterra C18 3.2(mm)
CCV 320-42339/25		05/13/2014 13:23	1	13MAY2014_027.d	Xterra C18 3.2(mm)
CCVL 320-42339/26		05/13/2014 13:37	1	13MAY2014_028.d	Xterra C18 3.2(mm)
LODV 320-42339/52		05/13/2014 13:51	1	13MAY2014_029.d	Xterra C18 3.2(mm)
CCB 320-42339/27		05/13/2014 15:09	1	13MAY2014_030.d	Xterra C18 3.2(mm)
MB 320-41857/1-A		05/13/2014 15:23	1	13MAY2014_031.d	Xterra C18 3.2(mm)
LCS 320-41857/2-A		05/13/2014 15:37	1	13MAY2014_032.d	Xterra C18 3.2(mm)
INF 320-41857/3-A		05/13/2014 15:51	1	13MAY2014_033.d	Xterra C18 3.2(mm)
240-36857-2	MSA-MW-27D-050114	05/13/2014 16:05	1	13MAY2014_034.d	Xterra C18 3.2(mm)
240-36857-2 MS	MSA-MW-27D-050114 MS	05/13/2014 16:19	1	13MAY2014_035.d	Xterra C18 3.2(mm)
240-36857-2 MSD	MSA-MW-27D-050114 MSD	05/13/2014 17:14	1	13MAY2014_036.d	Xterra C18 3.2(mm)
CCV 320-42339/38		05/13/2014 17:28	1	13MAY2014_037.d	Xterra C18 3.2(mm)
CCVL 320-42339/54		05/13/2014 17:42	1	13MAY2014_038.d	Xterra C18 3.2(mm)
CCB 320-42339/53		05/14/2014 07:17	1	13MAY2014_039.d	Xterra C18 3.2(mm)
CCV 320-42339/55		05/14/2014 07:31	1		Xterra C18 3.2(mm)
CCVL 320-42339/56		05/14/2014 07:45	1		Xterra C18 3.2(mm)
ZZZZZ		05/14/2014 07:59	1		Xterra C18 3.2(mm)
ZZZZZ		05/14/2014 08:13	1		Xterra C18 3.2(mm)
INF 320-41806/3-A		05/14/2014 08:27	1		Xterra C18 3.2(mm)
ZZZZZ		05/14/2014 08:41	1		Xterra C18 3.2(mm)
ZZZZZ		05/14/2014 08:55	1		Xterra C18 3.2(mm)

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1 Analy Batch No.: 42339

SDG No.:

Instrument ID: A6 GC Column: Xterra C18 ID: 3.2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2014 08:17 Calibration End Date: 05/13/2014 09:54 Calibration ID: 7306

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-42339/3	13MAY2014_005.d
Level 2	STD02 320-42339/4	13MAY2014_006.d
Level 3	STD03 320-42339/5	13MAY2014_007.d
Level 4	STD04 320-42339/6	13MAY2014_008.d
Level 5	STD05 320-42339/7	13MAY2014_009.d
Level 6	STD06 320-42339/8	13MAY2014_010.d
Level 7	STD07 320-42339/9	13MAY2014_011.d
Level 8	STD08 320-42339/10	13MAY2014_012.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Perchlorate	1.0588 1.1532	1.0060 1.1528	1.0598 1.1661	1.1399	1.1400	Ave		1.1096				5.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI

LCMS INITIAL CALIBRATION DATA

INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1 Analy Batch No.: 42339

SDG No.:

Instrument ID: A6 GC Column: Xterra C18 ID: 3.2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/13/2014 08:17 Calibration End Date: 05/13/2014 09:54 Calibration ID: 7306

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-42339/3	13MAY2014_005.d
Level 2	STD02 320-42339/4	13MAY2014_006.d
Level 3	STD03 320-42339/5	13MAY2014_007.d
Level 4	STD04 320-42339/6	13MAY2014_008.d
Level 5	STD05 320-42339/7	13MAY2014_009.d
Level 6	STD06 320-42339/8	13MAY2014_010.d
Level 7	STD07 320-42339/9	13MAY2014_011.d
Level 8	STD08 320-42339/10	13MAY2014_012.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Perchlorate	18OP	Ave	80479 2240573	149202 3912912	256314 6597578	474693	965788	0.150 5.00	0.300 10.0	0.500 20.0	1.00	2.00

Curve Type Legend:

Ave = Average ISTD

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Lab Sample ID: ICV 320-42339/12 Calibration Date: 05/13/2014 10:22

Instrument ID: A6 Calib Start Date: 05/13/2014 08:17

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 05/13/2014 09:54

Lab File ID: 13MAY2014_014.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.110	1.216		5.48	5.00	9.6	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCV 320-42339/25 Calibration Date: 05/13/2014 13:23

Instrument ID: A6 Calib Start Date: 05/13/2014 08:17

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 05/13/2014 09:54

Lab File ID: 13MAY2014_027.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.110	1.258		1.13	1.00	13.4	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCVL 320-42339/26 Calibration Date: 05/13/2014 13:37

Instrument ID: A6 Calib Start Date: 05/13/2014 08:17

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 05/13/2014 09:54

Lab File ID: 13MAY2014_028.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.110	1.270		0.572	0.500	14.4	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Lab Sample ID: LODV 320-42339/52 Calibration Date: 05/13/2014 13:51

Instrument ID: A6 Calib Start Date: 05/13/2014 08:17

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 05/13/2014 09:54

Lab File ID: 13MAY2014_029.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.110	1.359		0.184	0.150	22.5	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCV 320-42339/38 Calibration Date: 05/13/2014 17:28

Instrument ID: A6 Calib Start Date: 05/13/2014 08:17

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 05/13/2014 09:54

Lab File ID: 13MAY2014_037.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.110	1.269		2.29	2.00	14.3	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCVL 320-42339/54 Calibration Date: 05/13/2014 17:42

Instrument ID: A6 Calib Start Date: 05/13/2014 08:17

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 05/13/2014 09:54

Lab File ID: 13MAY2014_038.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.110	1.226		0.553	0.500	10.5	50.0

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Client Sample ID: Lab Sample ID: ICB 320-42339/2

Matrix: Water Lab File ID: 13MAY2014_004.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: Date Analyzed: 05/13/2014 08:03

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 150(uL) GC Column: Xterra C18 ID: 3.2(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 42339 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-42339/27

Matrix: Water Lab File ID: 13MAY2014_030.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: Date Analyzed: 05/13/2014 15:09

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 150(uL) GC Column: Xterra C18 ID: 3.2(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 42339 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-42339/53

Matrix: Water Lab File ID: 13MAY2014_039.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: Date Analyzed: 05/14/2014 07:17

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: Xterra C18 ID: 3.2(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 42339 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 13MAY2014_033.d

Lab ID: INF 320-41857/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	5.69	114	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Lab File ID: 13MAY2014_031.d Lab Sample ID: MB 320-41857/1-A

Matrix: Water Date Extracted: 05/06/2014 18:16

Instrument ID: A6 Date Analyzed: 05/13/2014 15:23

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-41857/2-A	13MAY2014_032.d	05/13/2014 15:37
MSA-MW-27D-050114	240-36857-2	13MAY2014_034.d	05/13/2014 16:05
MSA-MW-27D-050114 MS	240-36857-2 MS	13MAY2014_035.d	05/13/2014 16:19
MSA-MW-27D-050114 MSD	240-36857-2 MSD	13MAY2014_036.d	05/13/2014 17:14

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-41857/1-A

Matrix: Water Lab File ID: 13MAY2014_031.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 05/06/2014 18:16

Sample wt/vol: 4.00(mL) Date Analyzed: 05/13/2014 15:23

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: Xterra C18 ID: 3.2(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 42339 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 13MAY2014_032.d

Lab ID: LCS 320-41857/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.56	111	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 13MAY2014_035.d

Lab ID: 240-36857-2 MS Client ID: MSA-MW-27D-050114 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	5.00	0.085 J	5.96	117	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-36857-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 13MAY2014_036.d

Lab ID: 240-36857-2 MSD Client ID: MSA-MW-27D-050114 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	5.00	5.84	115	2	15	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-36857-1

SDG No.:

Project: MSA GW 2014

Client Sample ID	Lab Sample ID
MSA-DMW-1S-050114	240-36857-1
MSA-MW-27D-050114	240-36857-2
MSA-DMW-6S-050114	240-36857-3

Comments:

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Instrument ID: H4 Analysis Method: 7470A

Start Date: 05/06/2014 08:59 End Date: 05/06/2014 11:41

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-129263/1-A			08:59	X
IC 240-129263/2-A			09:01	X
IC 240-129263/3-A			09:04	X
IC 240-129263/4-A			09:06	X
IC 240-129263/5-A			09:09	X
IC 240-129263/6-A			09:12	X
ICV 240-129263/7-A	1		09:15	X
ICB 240-129263/8-A	1		09:17	X
CRA 240-129263/9-A	1		09:19	X
CCVL 240-129263/10-A	1		09:25	X
CCB 240-129263/11-A			09:27	
ZZZZZZ			09:29	
ZZZZZZ			09:32	
ZZZZZZ			09:35	
ZZZZZZ			09:37	
ZZZZZZ			09:40	
ZZZZZZ			09:42	
ZZZZZZ			09:44	
ZZZZZZ			09:47	
ZZZZZZ			09:49	
ZZZZZZ			09:52	
CCV 240-129263/12-A			09:55	
CCB 240-129263/11-A			09:57	
ZZZZZZ			10:00	
ZZZZZZ			10:02	
ZZZZZZ			10:04	
ZZZZZZ			10:07	
ZZZZZZ			10:09	
ZZZZZZ			10:11	
ZZZZZZ			10:14	
ZZZZZZ			10:16	
ZZZZZZ			10:19	
ZZZZZZ			10:21	
CCV 240-129263/12-A	1		10:23	X
CCB 240-129263/11-A	1		10:26	X
ZZZZZZ			10:28	
ZZZZZZ			10:31	
ZZZZZZ			10:34	
MB 240-129242/1-A	1	T	10:36	X
LCS 240-129242/2-A	1	T	10:39	X
ZZZZZZ			10:41	
ZZZZZZ			10:44	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Instrument ID: H4 Analysis Method: 7470A

Start Date: 05/06/2014 08:59 End Date: 05/06/2014 11:41

Lab Sample Id	D/F	Type	Time	Analytes																												
				Hg																												
ZZZZZZ			10:46																													
ZZZZZZ			10:49																													
ZZZZZZ			10:52																													
CCV 240-129263/12-A	1		10:54	X																												
CCB 240-129263/11-A	1		10:57	X																												
ZZZZZZ			11:00																													
ZZZZZZ			11:02																													
ZZZZZZ			11:04																													
ZZZZZZ			11:07																													
ZZZZZZ			11:09																													
240-36857-1	1	T	11:12	X																												
240-36857-1	1	D	11:15	X																												
240-36857-2	1	T	11:17	X																												
240-36857-2	1	D	11:20	X																												
240-36857-3	1	T	11:23	X																												
CCV 240-129263/12-A	1		11:25	X																												
CCB 240-129263/11-A	1		11:28	X																												
240-36857-3	1	D	11:30	X																												
ZZZZZZ			11:33																													
ZZZZZZ			11:36																													
CCV 240-129263/12-A	1		11:38	X																												
CCB 240-129263/11-A	1		11:41	X																												

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00628

Analyte	ICV 240-129263/7-A 05/06/2014 09:15				CCVL 240-129263/10-A 05/06/2014 09:25				CCV 240-129263/12-A 05/06/2014 10:23			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.47		2.50	99	5.30		5.00	106	5.33		5.00	107

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

ICV Source: MTHgStd_00010 Concentration Units: ug/L

CCV Source: MTHGCALW_00628

Analyte	CCV 240-129263/12-A 05/06/2014 10:54				CCV 240-129263/12-A 05/06/2014 11:25				CCV 240-129263/12-A 05/06/2014 11:38			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.26		5.00	105	5.32		5.00	106	5.23		5.00	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Method: 7470A Instrument ID: H4

Lab Sample ID: CRA 240-129263/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00628

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.208		104	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-129263/8-A 05/06/2014 09:17		CCB 240-129263/11-A 05/06/2014 10:26		CCB 240-129263/11-A 05/06/2014 10:57		CCB 240-129263/11-A 05/06/2014 11:28	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U	0.12	U	0.12	U	0.12	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-129263/11-A 05/06/2014 11:41							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.12	U						

Italicized analytes were not requested for this sequence.

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-129242/1-A	05/05/2014 14:25	129242		50	50
LCS 240-129242/2-A	05/05/2014 14:25	129242		50	50
240-36857-1	05/05/2014 14:25	129242		50	50
240-36857-1	05/05/2014 14:25	129242		50	50
240-36857-2	05/05/2014 14:25	129242		50	50
240-36857-2	05/05/2014 14:25	129242		50	50
240-36857-3	05/05/2014 14:25	129242		50	50
240-36857-3	05/05/2014 14:25	129242		50	50

FORM XII-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-129242/1-A

Instrument Code: H4 Batch No.: 129528

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.12	U		7470A

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-129242/2-A

Lab Name: TestAmerica Canton Job No.: 240-36857-1

Sample Matrix: Water LCS Source: MTHGCALW_00628

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.61		112	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-36857-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-36857-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A XMDL Date: 02/08/2010 16:06

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36857-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36857-1

SDG Number:

Matrix: Water Instrument ID: H4

Method: 7470A XMDL Date: 02/08/2010 16:06

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.12

FORM IX - IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-36857-1

SDG No.:

Instrument ID: H4 Date: 12/10/2013 15:55

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 05/06/2014 08:59 End Date: 05/06/2014 23:05

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V											
ICIS 240-129585/1			08:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
STD2 240-129585/2 IC	1		09:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
STD3 240-129585/3 IC	1		09:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
STD4 240-129585/4 IC	1		09:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ICV 240-129585/5	1		09:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ICB 240-129585/6	1		09:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CRI 240-129585/7	1		09:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ICSA 240-129585/8	1		09:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ICSAB 240-129585/9	1		09:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCV 240-129585/10			10:03																												
CCB 240-129585/11			10:10																												
ZZZZZZ			10:17																												
ZZZZZZ			10:24																												
ZZZZZZ			10:31																												
ZZZZZZ			10:38																												
ZZZZZZ			10:45																												
ZZZZZZ			10:53																												
ZZZZZZ			11:00																												
ZZZZZZ			11:07																												
CCV 240-129585/20			11:14																												
CCB 240-129585/21			11:21																												
ZZZZZZ			11:28																												
CCV 240-129585/23	1		11:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-129585/24	1		11:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
MB 240-129245/1-A	1	R	11:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
LCS 240-129245/2-A	1	R	11:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ZZZZZZ			12:04																												
ZZZZZZ			12:11																												
ZZZZZZ			12:18																												
ZZZZZZ			12:25																												
ZZZZZZ			12:32																												
ZZZZZZ			12:39																												
ZZZZZZ			12:46																												
ZZZZZZ			12:53																												
CCV 240-129585/35	1		13:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-129585/36	1		13:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ZZZZZZ			13:15																												
ZZZZZZ			13:22																												
ZZZZZZ			13:29																												
ZZZZZZ			13:36																												
ZZZZZZ			13:43																												
240-36857-1	1	R	13:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020

Start Date: 05/06/2014 08:59 End Date: 05/06/2014 23:05

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V											
240-36857-1	1	D	13:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36857-2	1	R	14:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36857-2	1	D	14:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCV 240-129585/46	1		14:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-129585/47	1		14:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-36857-3	1	R	14:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ZZZZZZ			14:40																												
240-36857-3	1	D	14:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ZZZZZZ			14:54																												
ZZZZZZ			15:01																												
ZZZZZZ			15:08																												
ZZZZZZ			15:16																												
ZZZZZZ			15:23																												
CCV 240-129585/56	1		15:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-129585/57	1		15:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ZZZZZZ			15:44																												
ZZZZZZ			15:51																												
ZZZZZZ			15:58																												
ZZZZZZ			16:05																												
ZZZZZZ			16:12																												
ZZZZZZ			16:19																												
ZZZZZZ			16:27																												
ZZZZZZ			16:34																												
ZZZZZZ			16:41																												
ZZZZZZ			16:48																												
CCV 240-129585/68			16:55																												
CCB 240-129585/69			17:02																												
ZZZZZZ			17:09																												
ZZZZZZ			17:16																												
ZZZZZZ			17:23																												
ZZZZZZ			17:30																												
ZZZZZZ			17:38																												
ZZZZZZ			17:45																												
CCV 240-129585/76			17:52																												
CCB 240-129585/77			17:59																												
ZZZZZZ			18:06																												
ZZZZZZ			18:13																												
ZZZZZZ			18:20																												
ZZZZZZ			18:27																												
ZZZZZZ			18:35																												
ZZZZZZ			18:42																												
ZZZZZZ			18:49																												

FORM XIII-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

ICV Source: MTMSICVW_00034 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00090

Analyte	ICV 240-129585/5 05/06/2014 09:27				CCV 240-129585/23 05/06/2014 11:35				CCV 240-129585/35 05/06/2014 13:01			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	39.5		40.0	99	51.4		50.0	103	51.1		50.0	102
Arsenic	38.4		40.0	96	50.6		50.0	101	50.3		50.0	101
Barium	41.7		40.0	104	51.8		50.0	104	51.6		50.0	103
Beryllium	41.0		40.0	102	52.1		50.0	104	51.3		50.0	103
Cadmium	41.3		40.0	103	51.4		50.0	103	50.1		50.0	100
Chromium	40.6		40.0	101	51.0		50.0	102	50.6		50.0	101
Cobalt	40.2		40.0	100	51.2		50.0	102	50.8		50.0	102
Copper	41.6		40.0	104	50.9		50.0	102	51.3		50.0	103
Iron	9860		10000	99	12600		12500	101	12500		12500	100
Lead	42.1		40.0	105	52.3		50.0	105	52.1		50.0	104
Manganese	201		200	101	252		250	101	252		250	101
Molybdenum	41.1		40.0	103	52.1		50.0	104	51.5		50.0	103
Nickel	41.1		40.0	103	51.1		50.0	102	51.5		50.0	103
Selenium	39.6		40.0	99	51.1		50.0	102	50.8		50.0	102
Silver	41.2		40.0	103	51.5		50.0	103	50.8		50.0	102
Thallium	41.8		40.0	105	51.7		50.0	103	52.7		50.0	105
Vanadium	39.8		40.0	100	50.0		50.0	100	50.4		50.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

ICV Source: MTMSICVW_00034 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00090

Analyte	CCV 240-129585/46 05/06/2014 14:19				CCV 240-129585/56 05/06/2014 15:30							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	51.7		50.0	103	51.5		50.0	103				
Arsenic	50.8		50.0	102	51.0		50.0	102				
Barium	52.0		50.0	104	51.9		50.0	104				
Beryllium	50.4		50.0	101	51.4		50.0	103				
Cadmium	51.1		50.0	102	51.6		50.0	103				
Chromium	51.1		50.0	102	50.8		50.0	102				
Cobalt	51.0		50.0	102	51.1		50.0	102				
Copper	51.1		50.0	102	51.4		50.0	103				
Iron	12700		12500	102	12600		12500	100				
Lead	52.4		50.0	105	52.4		50.0	105				
Manganese	247		250	99	256		250	102				
Molybdenum	52.0		50.0	104	52.1		50.0	104				
Nickel	50.9		50.0	102	51.0		50.0	102				
Selenium	51.4		50.0	103	52.1		50.0	104				
Silver	51.8		50.0	104	51.6		50.0	103				
Thallium	52.0		50.0	104	52.4		50.0	105				
Vanadium	50.6		50.0	101	50.3		50.0	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Method: 6020 Instrument ID: I11

Lab Sample ID: CRI 240-129585/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRI6020AW_00011

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.08		104	50-150
Arsenic	5.00	5.03		101	50-150
Barium	5.00	5.33		107	50-150
Beryllium	1.00	1.06		106	50-150
Cadmium	1.00	0.979	J	98	50-150
Chromium	2.00	2.10		105	50-150
Cobalt	1.00	1.07		107	50-150
Copper	2.00	2.11		105	50-150
Molybdenum	10.0	10.0		100	50-150
Iron	100	106		106	50-150
Nickel	2.00	1.98	J	99	50-150
Lead	1.00	1.12		112	50-150
Manganese	5.00	5.07		101	50-150
Selenium	5.00	5.15		103	50-150
Thallium	2.00	2.17		109	50-150
Silver	1.00	1.08		108	50-150
Vanadium	5.00	5.15		103	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-129585/6 05/06/2014 09:34		CCB 240-129585/24 05/06/2014 11:42		CCB 240-129585/36 05/06/2014 13:08		CCB 240-129585/47 05/06/2014 14:26	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.141	J	0.11	U	0.11	U	0.11	U
Arsenic	5.0	0.063	U	0.063	U	0.198	J	0.063	U
Barium	5.0	0.32	U	0.32	U	0.353	J	0.32	U
Beryllium	1.0	0.031	U	0.031	U	0.115	J	0.031	U
Cadmium	1.0	0.0610	J	0.026	U	0.119	J	0.026	U
Chromium	2.0	0.13	U	0.13	U	0.13	U	0.13	U
Cobalt	1.0	0.0550	J	0.020	U	0.133	J	0.020	U
Copper	2.0	0.24	U	0.24	U	0.24	U	0.24	U
Iron	100	12	U	12	U	12	U	12	U
Lead	1.0	0.14	U	0.14	U	0.154	J	0.14	U
Manganese	5.0	0.41	U	0.41	U	0.41	U	0.41	U
Molybdenum	10	0.81	U	0.81	U	0.81	U	0.81	U
Nickel	2.0	0.088	U	0.088	U	0.088	U	0.088	U
Selenium	5.0	0.34	U	0.34	U	0.34	U	0.34	U
Silver	1.0	0.0290	J	0.0083	U	0.0450	J	0.00900	J
Thallium	2.0	0.40	U	0.40	U	0.770	J	0.40	U
Vanadium	5.0	0.15	U	0.15	U	0.15	U	0.15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-129585/57 05/06/2014 15:37							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.11	U						
Arsenic	5.0	0.063	U						
Barium	5.0	0.32	U						
Beryllium	1.0	0.0510	J						
Cadmium	1.0	0.0580	J						
Chromium	2.0	0.13	U						
Cobalt	1.0	0.0530	J						
Copper	2.0	0.24	U						
Iron	100	12	U						
Lead	1.0	0.14	U						
Manganese	5.0	0.41	U						
Molybdenum	10	0.81	U						
Nickel	2.0	0.088	U						
Selenium	5.0	0.34	U						
Silver	1.0	0.0310	J						
Thallium	2.0	0.411	J						
Vanadium	5.0	0.15	U						

Italicized analytes were not requested for this sequence.

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-129245/1-A	05/05/2014 08:41	129245		50	50
LCS 240-129245/2-A	05/05/2014 08:41	129245		50	50
240-36857-1	05/05/2014 08:41	129245		50	50
240-36857-1	05/05/2014 08:41	129245		50	50
240-36857-2	05/05/2014 08:41	129245		50	50
240-36857-2	05/05/2014 08:41	129245		50	50
240-36857-3	05/05/2014 08:41	129245		50	50
240-36857-3	05/05/2014 08:41	129245		50	50

FORM XII-IN

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-129245/1-A

Instrument Code: I11 Batch No.: 129585

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.126	J		6020
7440-38-2	Arsenic	0.0950	J		6020
7440-39-3	Barium	1.44	J		6020
7440-41-7	Beryllium	0.031	U		6020
7440-43-9	Cadmium	0.026	U		6020
7440-47-3	Chromium	0.167	J		6020
7440-48-4	Cobalt	0.020	U		6020
7440-50-8	Copper	0.820	J		6020
7439-98-7	Molybdenum	0.81	U		6020
7439-89-6	Iron	21.5	J		6020
7440-02-0	Nickel	0.224	J		6020
7439-92-1	Lead	0.151	J		6020
7439-96-5	Manganese	0.429	J		6020
7782-49-2	Selenium	0.34	U		6020
7440-28-0	Thallium	0.40	U		6020
7440-22-4	Silver	0.0083	U		6020
7440-62-2	Vanadium	0.15	U		6020

FORM III-IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-129245/2-A

Lab Name: TestAmerica Canton Job No.: 240-36857-1

Sample Matrix: Water LCS Source: MTICPMSB_00017

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	94.4		94	80	120		6020
Arsenic	1000	940		94	80	120		6020
Barium	1000	929		93	80	120		6020
Beryllium	1000	948		95	80	120		6020
Cadmium	1000	951		95	80	120		6020
Chromium	1000	933		93	80	120		6020
Cobalt	1000	921		92	80	120		6020
Copper	1000	962		96	80	120		6020
Molybdenum	100	95.4		95	80	120		6020
Iron	10000	9480		95	80	120		6020
Nickel	1000	963		96	80	120		6020
Lead	1000	966		97	80	120		6020
Manganese	1000	943		94	80	120		6020
Selenium	1000	973		97	80	120		6020
Thallium	250	238		95	80	120		6020
Silver	100	98.1		98	80	120		6020
Vanadium	1000	902		90	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: ICSA 240-129585/8 Instrument ID: I11

Lab File ID: I11050614A.csv ICS Source: MTMSICSAW_00035

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		0.0540	
Arsenic		0.0320	
Barium		0.175	
Beryllium		0.0100	
Cadmium		-0.214	
Chromium		0.732	
Cobalt		0.0660	
Copper		0.355	
Iron	50000	49500	99
Lead		0.148	
Manganese		0.236	
Molybdenum	1000	1012	101
Nickel		0.105	
Selenium		0.0100	
Silver		0.0200	
Thallium		0.0930	
Vanadium		-0.0350	
Aluminum	*50000*	*47660*	*95*
Boron		*0.0590*	
Calcium	*50000*	*50880*	*102*
Magnesium	*50000*	*49030*	*98*
Potassium	*50000*	*50750*	*102*
Sodium	*50000*	*49270*	*99*
Strontium		*0.625*	
Tin		*0.0650*	
Titanium	*1000*	*1019*	*102*
Tungsten		*0.159*	
Zinc		*0.568*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: ICSAB 240-129585/9 Instrument ID: I11

Lab File ID: I11050614A.csv ICS Source: MTMSICSABW_00035

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**100**	**100**
Arsenic	**100**	**99.4**	**99**
Barium	**100**	**103**	**103**
Beryllium	**100**	**101**	**101**
Cadmium	**100**	**99.2**	**99**
Chromium	**100**	**102**	**102**
Cobalt	**100**	**99.1**	**99**
Copper	**100**	**97.2**	**97**
Iron	**50000**	**49750**	**100**
Lead	**100**	**105**	**105**
Manganese	**100**	**96.0**	**96**
Molybdenum	**1100**	**1118**	**102**
Nickel	**100**	**98.0**	**98**
Selenium	**100**	**98.5**	**99**
Silver	**100**	**97.3**	**97**
Thallium	**100**	**103**	**103**
Vanadium	**100**	**100**	**100**
Aluminum	*50000*	*48300*	*97*
Boron	*100*	*101*	*101*
Calcium	*50000*	*50850*	*102*
Magnesium	*50000*	*50240*	*100*
Potassium	*50000*	*50950*	*102*
Sodium	*50000*	*49810*	*100*
Strontium	*100*	*99.5*	*99*
Tin	*100*	*98.1*	*98*
Titanium	*1100*	*1134*	*103*
Tungsten	*100*	*105*	*105*
Zinc	*100*	*101*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 05/06/2014 End Date: 05/06/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
STD2 240-129585/2 IC	09:06	95		97		95		96		97	
STD3 240-129585/3 IC	09:13	89		93		91		90		92	
STD4 240-129585/4 IC	09:20	92		93		93		96		99	
ICV 240-129585/5	09:27	91		94		94		95		97	
ICB 240-129585/6	09:34	94		95		93		96		99	
CRI 240-129585/7	09:41	95		96		93		95		98	
ICSA 240-129585/8	09:49	83		85		83		84		88	
ICSAB 240-129585/9	09:56	77		80		79		81		87	
CCV 240-129585/23	11:35	83		87		90		90		95	
CCB 240-129585/24	11:42	87		89		90		93		98	
MB 240-129245/1-A	11:49	86		85		89		91		96	
LCS 240-129245/2-A	11:57	81		80		86		85		93	
CCV 240-129585/35	13:01	80		86		86		88		93	
CCB 240-129585/36	13:08	84		88		87		90		95	
240-36857-1	13:50	82		83		83		87		91	
240-36857-1	13:57	82		83		84		87		91	
240-36857-2	14:05	82		81		83		87		91	
240-36857-2	14:12	83		83		83		87		90	
CCV 240-129585/46	14:19	83		88		85		86		89	
CCB 240-129585/47	14:26	86		89		87		90		93	
240-36857-3	14:33	73		78		77		77		82	
240-36857-3	14:40	77		78		80		83		88	
240-36857-3	14:47	70		76		78		78		83	
240-36857-3	14:54	78		79		81		83		89	
CCV 240-129585/56	15:30	84		87		85		86		90	
CCB 240-129585/57	15:37	89		88		87		89		93	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 05/06/2014 End Date: 05/06/2014

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD2 240-129585/2 IC	09:06			99							
STD3 240-129585/3 IC	09:13			97							
STD4 240-129585/4 IC	09:20			100							
ICV 240-129585/5	09:27			99							
ICB 240-129585/6	09:34			99							
CRI 240-129585/7	09:41			100							
ICSA 240-129585/8	09:49			93							
ICSAB 240-129585/9	09:56			93							
CCV 240-129585/23	11:35			100							
CCB 240-129585/24	11:42			100							
MB 240-129245/1-A	11:49			101							
LCS 240-129245/2-A	11:57			99							
CCV 240-129585/35	13:01			97							
CCB 240-129585/36	13:08			97							
240-36857-1	13:50			94							
240-36857-1	13:57			95							
240-36857-2	14:05			94							
240-36857-2	14:12			94							
CCV 240-129585/46	14:19			93							
CCB 240-129585/47	14:26			94							
240-36857-3	14:33			89							
240-36857-3	14:40			93							
240-36857-3	14:47			92							
240-36857-3	14:54			94							
CCV 240-129585/56	15:30			94							
CCB 240-129585/57	15:37			94							

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36857-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-36857-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36857-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 MDL Date: 09/13/2013 14:08

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-36857-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020 XMDL Date: 09/13/2013 14:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.11
Arsenic	75.00	5	0.063
Barium	137.00	5	0.32
Beryllium	9.00	1	0.031
Cadmium	111.00	1	0.026
Chromium	52.00	2	0.13
Cobalt	59.00	1	0.02
Copper	65.00	2	0.24
Iron	56.00	100	11.8
Lead	208.00	1	0.14
Manganese	55.00	5	0.41
Molybdenum	95.00	10	0.81
Nickel	60.00	2	0.088
Selenium	78.00	5	0.34
Silver	107.00	1	0.0083
Thallium	205.00	2	0.4
Vanadium	51.00	5	0.15

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-36857-1

SDG No.:

Instrument ID: I11 Date: 03/10/2014 12:42

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		1000	6020
Arsenic		10000	6020
Barium		10000	6020
Beryllium		10000	6020
Cadmium		10000	6020
Chromium		10000	6020
Cobalt		10000	6020
Copper		10000	6020
Molybdenum		2000	6020
Iron		500000	6020
Nickel		10000	6020
Lead		10000	6020
Manganese		10000	6020
Selenium		10000	6020
Thallium		500	6020
Silver		500	6020
Vanadium		10000	6020

SDG 240-36857-1

Water ICP Interference

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interference	Validation Action	Validation Action
	MSA-DMW-6S-050114 diss.			Fe	50000		140000	0.00	na	na
				Fe	50000		140000	0.00	na	na
				Fe	50000		140000	0.00	na	na
Cr		0.4	U	Fe	50000	0.732	140000	2.05	na	na
Co		5		Fe	50000	0.066	140000	0.18	na	na
Cu		0.39	U	Fe	50000	0.355	140000	0.99	na	na
Ni		2.6		Fe	50000	0.105	140000	0.29	J	na
Pb		0.14	U	Fe	50000	0.148	140000	0.41	na	na

Affected Analyte	Sample	Reported Result mg/kg	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interference	Validation Action	Validation Action
	MSA-DMW-6S-050114 / total			Fe	50000		150000	0.00	na	na
				Fe	50000		150000	0.00	na	na
				Fe	50000		150000	0.00	na	na
Cr		1		Fe	50000	0.732	150000	2.20	J	na
Co		5.2		Fe	50000	0.066	150000	0.20	na	na
Cu		2	U	Fe	50000	0.355	150000	1.07	na	na
Ni		38		Fe	50000	0.105	150000	0.32	na	na
Pb		0.58	U	Fe	50000	0.148	150000	0.44	na	na

VOC CALCULATION

	SAMPLE		
	MSA-DMW-6S-050114		
TARGET ANALYTE	**cis-1,2-dichloroethene**		
ANALYTE RESPONSE	63740		
INTERNAL STANDARD	fluorobenzene		
I.S. RESPONSE	976650		
I.S. CONCENTRATION	20	µg/l	
ANALYTE CAL. RF	0.4465		
DILUTION FACTOR (DF)	1		
INITIAL SAMPLE VOLUME - V1	5	ml	
FINAL SAMPLE VOLUME - V2	5	ml	

$$\frac{\text{(ANALYTE RESPONSE) x (I.S. CONCENTRATION) X DF x V2}}{\text{(I.S. RESPONSE) x (CAL. R.F.) x V1}} = \mathbf{2.92}\ \mu g/l$$

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\A3UX12\20140513-30937.b\U1237591.D
Lims ID: 240-36857-C-3 Lab Sample ID: 240-36857-3
Client ID: MSA-DMW-6S-050114
Sample Type: Client
Inject. Date: 13-May-2014 12:02:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0030937-008
Operator ID: 001904 Instrument ID: A3UX12

Method: \\Ncchrom\ChromData\A3UX12\20140513-30937.b\8260_12.m
Limit Group: MSV 8260DOD ICAL
Last Update: 14-May-2014 08:15:20 Calib Date: 18-Mar-2014 23:58:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A3UX12\20140318-29119.b\U1236349.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: quayler Date: 13-May-2014 12:21:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.404	5.404	0.000	99	976650	20.0	
* 2 Chlorobenzene-d5	117	8.221	8.220	0.000	83	725218	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.611	10.611	0.000	92	391965	20.0	
$ 4 Dibromofluoromethane (Surr	113	4.824	4.824	0.000	58	203575	16.1	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.120	5.120	0.000	89	222880	13.4	
$ 6 Toluene-d8 (Surr)	98	6.836	6.836	0.000	92	886250	16.7	
$ 7 4-Bromofluorobenzene (Surr	95	9.404	9.404	0.000	95	315294	14.5	
9 Dichlorodifluoromethane	85		1.641					
10 Chloromethane	50		1.807					
11 Vinyl chloride	62		1.902					
13 Bromomethane	94		2.221					
14 Chloroethane	64		2.316					
16 Trichlorofluoromethane	101		2.517					
21 Acetone	43	2.979	2.967	0.012	98	63442	11.3	
20 1,1,2-Trichloro-1,2,2-trif	101		2.978					
22 1,1-Dichloroethene	61		2.978					
24 Carbon disulfide	76	3.180	3.168	0.012	83	15435	0.2549	
28 Methylene Chloride	49		3.381					
29 2-Methyl-2-propanol	59		3.416					
32 Methyl tert-butyl ether	73		3.570					
31 trans-1,2-Dichloroethene	61	3.582	3.570	0.012	22	3783	0.1601	
34 1,1-Dichloroethane	63		3.925					
35 Vinyl acetate	43		3.949					
36 Isopropyl ether	87		3.973					
38 Tert-butyl ethyl ether	59		4.268					
40 2-Butanone (MEK)	43		4.422					
39 cis-1,2-Dichloroethene	61	4.410	4.422	-0.012	64	63740	2.92	
41 2,2-Dichloropropane	77		4.422					
45 Chlorobromomethane	49		4.623					
47 Chloroform	83		4.682					
48 1,1,1-Trichloroethane	97		4.860					
50 1,1-Dichloropropene	75		4.990					

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-6S-050114 | Lab Sample ID: 240-36857-3

Matrix: Water | Lab File ID: U1237591.D

Analysis Method: 8260C | Date Collected: 05/01/2014 15:17

Sample wt/vol: 5(mL) | Date Analyzed: 05/13/2014 12:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 130437 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.29	U	1.0	0.29
67-66-3	Chloroform	0.16	U	1.0	0.16
74-87-3	Chloromethane	0.30	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	2.9		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	0.14	U	1.0	0.14
74-95-3	Dibromomethane	0.28	U *	1.0	0.28
74-97-5	Bromochloromethane	0.29	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	0.31	U	1.0	0.31
75-27-4	Bromodichloromethane	0.15	U	1.0	0.15
75-65-0	tert-Butyl alcohol	3.9	U	50	3.9
100-41-4	Ethylbenzene	0.17	U	1.0	0.17
87-68-3	Hexachlorobutadiene	0.30	U	1.0	0.30
108-20-3	Diisopropyl ether	1.5	U	10	1.5
98-82-8	Isopropylbenzene	0.13	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	0.17	U	1.0	0.17
75-09-2	Methylene Chloride	0.33	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.24	U	1.0	0.24
104-51-8	n-Butylbenzene	0.12	U	1.0	0.12
103-65-1	N-Propylbenzene	0.14	U	1.0	0.14
95-47-6	o-Xylene	0.14	U	1.0	0.14
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.11	U	1.0	0.11
994-05-8	Tert-amyl methyl ether	0.067	U	5.0	0.067
637-92-3	Ethyl tert-butyl ether	0.11	U	5.0	0.11
127-18-4	Tetrachloroethene	0.29	U	1.0	0.29
108-88-3	Toluene	0.13	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.19	U	1.0	0.19
79-01-6	Trichloroethene	0.58	J	1.0	0.17
75-69-4	Trichlorofluoromethane	0.21	U	1.0	0.21
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.22	U	1.0	0.22
1330-20-7	Xylenes, Total	0.14	U	2.0	0.14
98-06-6	tert-Butylbenzene	0.13	U	1.0	0.13
106-93-4	1,2-Dibromoethane	0.24	U	1.0	0.24

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: STD8260 240-130437/2 Calibration Date: 05/13/2014 09:39

Instrument ID: A3UX12 Calib Start Date: 03/18/2014 17:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/18/2014 19:56

Lab File ID: U1237585.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4988	0.4922	0.1000	0.310	0.0200	-1.3	20.0
Chloromethane	Ave	0.5020	0.5088	0.1000	0.300	0.0200	1.4	20.0
Vinyl chloride	Ave	0.5127	0.5306	0.1000	0.220	0.0200	3.5	20.0
Bromomethane	Ave	0.2464	0.2834	0.0500	0.410	0.0200	15.0	20.0
Chloroethane	Ave	0.3073	0.3232	0.0500	0.290	0.0200	5.2	20.0
Dichlorofluoromethane	Ave	0.6201	0.6069		0.420	0.0200	-2.1	20.0
Trichlorofluoromethane	Lin1		0.5670	0.1000	0.210	0.0200	15.4	20.0
Ethyl ether	Ave	0.2789	0.2627		0.310	0.0200	-5.8	20.0
Acrolein	Ave	0.0458	0.0373		2.20	0.100	-18.5	20.0
Acetone	Lin1		0.0862	0.0500	1.10	0.0400	-14.9	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3282	0.3281	0.0500	0.280	0.0200	-0.0	20.0
1,1-Dichloroethene	Ave	0.6619	0.6066	0.1000	0.190	0.0200	-8.4	20.0
Iodomethane	Ave	0.4775	0.5636		0.180	0.0200	18.0	20.0
Carbon disulfide	Ave	1.240	1.408	0.1000	0.130	0.0200	13.5	20.0
3-Chloro-1-propene	Ave	0.1910	0.3581		0.350	0.0200	87.5*	20.0
Methyl acetate	Ave	0.2571	0.2328	0.1000	0.380	0.100	-9.5	20.0
Methylene Chloride	Ave	0.5455	0.4895	0.1000	0.330	0.0200	-10.3	20.0
tert-Butyl alcohol	Ave	0.0269	0.0259		3.90	0.200	-3.6	20.0
Acrylonitrile	Ave	0.1282	0.1313		2.00	0.200	2.4	20.0
Methyl tert-butyl ether	Ave	0.9500	0.9020	0.1000	0.170	0.0200	-5.0	20.0
trans-1,2-Dichloroethene	Ave	0.4839	0.4226	0.1000	0.190	0.0200	-12.7	20.0
Hexane	Lin1		0.2953		0.260	0.0200	-2.1	20.0
1,1-Dichloroethane	Ave	0.5808	0.4946	0.1000	0.150	0.0200	-14.9	20.0
Vinyl acetate	Ave	0.4223	0.3671		0.190	0.0192	-13.1	20.0
2,2-Dichloropropane	Ave	0.2172	0.2045		0.130	0.0200	-5.9	20.0
2-Butanone (MEK)	Lin1		0.1302	0.0500	0.570	0.0400	-13.8	20.0
cis-1,2-Dichloroethene	Ave	0.4465	0.4027	0.1000	0.170	0.0200	-9.8	20.0
Bromochloromethane	Ave	0.2599	0.2383		0.290	0.0200	-8.3	20.0
Tetrahydrofuran	Lin1		0.0879		0.420	0.0400	-8.8	20.0
Chloroform	Ave	0.5683	0.4822	0.2000	0.160	0.0200	-15.2	20.0
1,1,1-Trichloroethane	Ave	0.3150	0.3052	0.1000	0.220	0.0200	-3.1	20.0
Cyclohexane	Ave	0.4348	0.3065	0.1000	0.120	0.0200	-29.5*	20.0
1,1-Dichloropropene	Ave	0.4041	0.3689		0.130	0.0200	-8.7	20.0
Carbon tetrachloride	Ave	0.2352	0.2529	0.1000	0.130	0.0200	7.5	20.0
Isobutyl alcohol	Ave	0.0052	0.0056		8.20	0.500	8.7	20.0
1,2-Dichloroethane	Ave	0.4374	0.3573	0.1000	0.220	0.0200	-18.3	20.0
Benzene	Ave	1.334	1.244	0.5000	0.130	0.0200	-6.7	20.0
n-Heptane	Lin1		0.0752		0.180	0.0200	-2.0	20.0
Trichloroethene	Ave	0.3128	0.3367	0.2000	0.170	0.0200	7.6	20.0
Methylcyclohexane	Ave	0.3956	0.3207	0.1000	0.130	0.0200	-18.9	20.0

SVOC CALCULATION LIQUIDS

	SAMPLE MSA-DMW-6S-050114		
TARGET ANALYTE	1,4-dioxane		
ANALYTE RESPONSE	6700		
INTERNAL STANDARD	1,4-dichlorobenzene-d4		
I.S. RESPONSE	157000		
I.S. CONCENTRATION	400	ng/ml	
ANALYTE CAL. RELATIVE RESPONSE FACTOR (RRF)	0.5905		
VOLUME OF FINAL EXTRACT - V2	5	ml	
VOLUME OF INITIAL EXTRACT - V1	265	ml	
DILUTION FACTOR (DF)	1		
CONVERSION FACTOR - CF	1		

$$\frac{\text{(ANALYTE RESPONSE) X (I.S. CONCENTRATION) X DF X V2}}{\text{(I.S. RESPONSE) X (CAL. RRF) X (V1) X CF}} = 0.5454 \text{ ng/ml or ug/l}$$

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-6S-050114 | Lab Sample ID: 240-36857-3

Matrix: Water | Lab File ID: 0509023.D

Analysis Method: 8270C | Date Collected: 05/01/2014 15:17

Extract. Method: 3510C | Date Extracted: 05/05/2014 08:04

Sample wt/vol: 265(mL) | Date Analyzed: 05/09/2014 16:47

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 129945 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.55	J	0.94	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	62		29-110
367-12-4	2-Fluorophenol (Surr)	51		15-110
118-79-6	2,4,6-Tribromophenol (Surr)	66		21-128
4165-60-0	Nitrobenzene-d5 (Surr)	68		31-110
4165-62-2	Phenol-d5 (Surr)	29		10-110
1718-51-0	Terphenyl-d14 (Surr)	87		31-115

Report Date: 09-May-2014 17:40:55 Chrom Revision: 2.2 14-Apr-2014 13:40:08

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A4AG2\20140509-30844.b\0509023.D				
Lims ID:	240-36857-G-3-A	Lab Sample ID:	240-36857-3		
Client ID:	MSA-DMW-6S-050114				
Sample Type:	Client				
Inject. Date:	09-May-2014 16:47:30	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	240-0030844-023				
Misc. Info.:	240-36857-G-3-A =240-36857-G-3-A				
Operator ID:		Instrument ID:	A4AG2		
Method:	\\Ncchrom\ChromData\A4AG2\20140509-30844.b\LVI AG2 8270.m				
Limit Group:	MSS 8270C ICAL				
Last Update:	09-May-2014 17:40:33	Calib Date:	28-Apr-2014 11:44:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Ncchrom\ChromData\A4AG2\20140428-30405.b\0428010.D				
Column 1 :	5% phenyl (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK022				
First Level Reviewer: hulat		Date:	09-May-2014 17:40:33		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.207	6.213	-0.006	96	157000	400.0	
* 2 Naphthalene-d8	136	7.277	7.282	-0.005	99	485781	400.0	
* 3 Acenaphthene-d10	164	8.759	8.764	-0.005	91	368825	400.0	
* 4 Phenanthrene-d10	188	10.021	10.021	0.000	97	587755	400.0	
* 5 Chrysene-d12	240	12.594	12.599	-0.005	96	512094	400.0	
* 6 Perylene-d12	264	14.680	14.685	-0.005	95	430537	400.0	
$ 7 2-Fluorophenol	112	5.089	5.095	-0.006	90	531422	1019.0	
$ 8 Phenol-d5	99	5.870	5.876	-0.006	95	362914	581.5	
$ 9 Nitrobenzene-d5	82	6.662	6.667	-0.005	85	609429	1367.5	
$ 10 2-Fluorobiphenyl (Surr)	172	8.176	8.176	0.000	100	1469192	1236.9	
$ 11 2,4,6-Tribromophenol	330	9.427	9.427	0.000	93	200866	1325.6	
$ 12 Terphenyl-d14	244	11.385	11.385	0.000	98	1545594	1743.9	
26 1,4-Dioxane	88	3.373	3.372	0.000	76	6700	28.9	

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: STD6 240-129945/2 Calibration Date: 05/09/2014 08:35

Instrument ID: A4AG2 Calib Start Date: 04/25/2014 10:09

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 04/25/2014 13:17

Lab File ID: 0509002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5905	0.5763		0.976	1.00	-2.4	50.0
N-Nitrosodimethylamine	Lin1		0.7684		1.04	1.00	4.4	50.0
Pyridine	Ave	1.354	1.427		1.05	1.00	5.4	50.0
Benzaldehyde	Lin1		0.6205		1.84	2.00	-7.9	50.0
Phenol	Ave	1.655	1.758		1.06	1.00	6.2	20.0
Aniline	Lin1		1.812		0.893	1.00	-10.7	50.0
Bis(2-chloroethyl)ether	Ave	1.337	1.374		1.03	1.00	2.8	50.0
2-Chlorophenol	Ave	1.416	1.452		1.03	1.00	2.5	50.0
n-Decane	Ave	1.325	1.227		0.926	1.00	-7.4	50.0
1,3-Dichlorobenzene	Ave	1.524	1.484		0.974	1.00	-2.6	50.0
1,4-Dichlorobenzene	Ave	1.529	1.458		0.954	1.00	-4.6	20.0
Benzyl alcohol	Ave	0.8073	0.8463		1.05	1.00	4.8	50.0
1,2-Dichlorobenzene	Ave	1.467	1.391		0.948	1.00	-5.2	50.0
2-Methylphenol	Ave	1.212	1.254		1.03	1.00	3.4	50.0
bis (2-chloroisopropyl) ether	Ave	1.425	1.330		0.933	1.00	-6.7	50.0
Indene	Ave	2.407	2.439		2.03	2.00	1.3	50.0
3 & 4 Methylphenol	Ave	1.263	1.236		0.979	1.00	-2.1	50.0
N-Nitrosodi-n-propylamine	Ave	1.007	0.8651	0.0500	0.859	1.00	-14.1	50.0
Acetophenone	Ave	1.833	1.837		1.00	1.00	0.2	50.0
Hexachloroethane	Ave	0.6055	0.6157		1.02	1.00	1.7	50.0
Nitrobenzene	Ave	0.3628	0.3598		0.992	1.00	-0.8	50.0
Isophorone	Ave	0.6002	0.4585		0.764	1.00	-23.6	50.0
2-Nitrophenol	Ave	0.1640	0.1732		1.06	1.00	5.6	20.0
2,4-Dimethylphenol	Ave	0.2991	0.2852		0.953	1.00	-4.7	50.0
Benzoic acid	Ave	0.1786	0.1705		1.91	2.00	-4.5	50.0
Bis(2-chloroethoxy)methane	Ave	0.3815	0.3757		0.985	1.00	-1.5	50.0
2,4-Dichlorophenol	Ave	0.2476	0.2277		0.919	1.00	-8.1	20.0
1,2,4-Trichlorobenzene	Ave	0.2900	0.2662		0.918	1.00	-8.2	50.0
Naphthalene	Ave	1.016	0.9760		0.961	1.00	-3.9	50.0
4-Chloroaniline	Qua		0.2524		1.02	1.00	2.4	50.0
Hexachlorobutadiene	Ave	0.1413	0.1257		0.890	1.00	-11.0	20.0
Caprolactam	Ave	0.1016	0.0993		1.95	2.00	-2.3	50.0
4-Chloro-3-methylphenol	Lin1		0.2966		1.09	1.00	9.0	20.0
2-Methylnaphthalene	Ave	0.6782	0.6570		0.969	1.00	-3.1	50.0
1-Methylnaphthalene	Ave	0.6355	0.6178		0.972	1.00	-2.8	50.0
Hexachlorocyclopentadiene	Lin1		0.1130	0.0500	0.432	1.00	-56.8*	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4610	0.4185		0.908	1.00	-9.2	50.0
2,4,6-Trichlorophenol	Ave	0.3214	0.2975		0.926	1.00	-7.4	20.0
2,4,5-Trichlorophenol	Ave	0.3309	0.3170		0.958	1.00	-4.2	50.0
1,1'-Biphenyl	Ave	1.423	1.379		0.969	1.00	-3.1	50.0

TPH CALCULATION	SAMPLE MSA-DMW-6S-050114	
TARGET ANALYTE	TPH C10-C32	
ANALYTE RESPONSE	33302487	
ANALYTE AVERAGE RESPONSE	455797	
VOLUME OF FINAL EXTRACT	5	ml
VOLUME OF INITIAL EXTRACT	270	ml
DILUTION FACTOR (DF)	1	
CORRECTION FACTOR - CF1	1000	ml to l

$$\frac{\text{(ANALYTE RESPONSE) X DF X Vol final X CF1}}{\text{(AVERAGE ANALYTE RESPONSE) X (vol. initial)}} = 1353.0425 \text{ ug/l}$$

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-36857-1

SDG No.:

Client Sample ID: MSA-DMW-6S-050114 | Lab Sample ID: 240-36857-3

Matrix: Water | Lab File ID: P14F050912.D

Analysis Method: 8015B | Date Collected: 05/01/2014 15:17

Extraction Method: 3510C | Date Extracted: 05/07/2014 08:35

Sample wt/vol: 270(mL) | Date Analyzed: 05/09/2014 14:58

Con. Extract Vol.: 5.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 130034 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	1400		460	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	61		40-160

TestAmerica Canton
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A2HP14F\20140509-30862.b\P14F050912.D				
Lims ID:	240-36857-F-3-A	Lab Sample ID:	240-36857-3		
Client ID:	MSA-DMW-6S-050114				
Sample Type:	Client				
Inject. Date:	09-May-2014 14:58:10	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:					
Operator ID:	402582	Instrument ID:	A2HP14F		
Method:	\\Ncchrom\ChromData\A2HP14F\20140509-30862.b\TPH14F.m				
Limit Group:	GC TPH DIESEL ICAL				
Last Update:	12-May-2014 07:53:33	Calib Date:	25-Nov-2013 20:22:14		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Ncchrom\ChromData\A2HP14F\20131125-26063.b\P14F112512.D				

Column 1 : Det: GC FID1A
Process Host: XAWRK049

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/ul	Flags
A 15 Diesel					
5.831	(2.948-8.714)		30096817	66.0	
A 17 C10-C32					
6.325	(2.948-9.702)		33302487	73.1	
$ 35 o-Terphenyl					
6.191	6.190	0.001	2562028	4.86	

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-36857-1

SDG No.:

Lab Sample ID: CCV 240-130034/7 Calibration Date: 05/09/2014 13:14

Instrument ID: A2HP14F Calib Start Date: 11/25/2013 18:58

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 11/25/2013 20:22

Lab File ID: P14F050907.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	455797	448158		98.3	100	-1.7	
o-Terphenyl (Surr)	Ave	526657	500.2		7600	8000	-99.9	

TETRA TECH **INTERNAL CORRESPONDENCE**

TO:	**A. APANAVAGE**	**DATE:**	**JULY 8, 2014**
FROM:	**MICHELLE L. ALLEN**	**COPIES:**	**DV FILE**

SUBJECT: **RADIOCHEMISTRY DATA VALIDATION – TOTAL RADIUM (ALPHA)/RADIUM-228**
LOCKHEED MARTIN CORPORATION (LMC)
MARTIN STATE AIRPORT (MSA) – GROUNDWATER
SAMPLE DELIVERY GROUP (SDG) 240-36857-1

SAMPLES: 2/Aqueous/Total Radium (Alpha)/Radium-228

MSA-DMW-6S-050114 MSA-MW-27D-050114

Overview

The sample set for LMC-MSA – Groundwater, SDG 240-36857-1 consists of two (2) aqueous environmental samples. The two (2) samples were analyzed for total radium (alpha) and radium-228. No field duplicate pairs were included within this Sample Delivery Group (SDG).

The samples were collected by Tetra Tech, Inc. May 1, 2014 and analyzed by Test America – Richland. Analyses were conducted using EPA methods 903.0 and 904.0.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, sample preservation and holding times, continuing calibration verification results, background results, laboratory method blank results, laboratory control sample recoveries, laboratory duplicate results, yield recoveries and detection limits.

Areas of concern with respect to data quality are listed below.

Major Problems

No major problems were identified.

Minor Problems

- Activities reported below the Reporting Limit (RL) and above the Method Decision Limit (MDL) were qualified as estimated, (J).

Notes

The uncertainty for the sample results are reported at 2–sigma (95% confidence). The EDD does not contain the uncertainty result.

Total radium (alpha emitting) is a combination of radium-223, radium-224, and radium-226.

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: Activities reported below the RL were qualified as estimated.

The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Allen
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 06183	NSAMPLE	MSA-DMW-6S-050114			MSA-MW-27D-050114		
SDG: 240-36857-1	LAB_ID	9M3QEG10			9M3QEF10		
FRACTION: RAD	SAMP_DATE	5/1/2014			5/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	PCI/L			PCI/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
RADIUM		0.41	J	P	0.0394	U	
RADIUM-228		0.712	J	P	0.217	U	

Appendix B

Results as Reported by the Laboratory

FORM I

SAMPLE RESULTS

Date: 16-Jun-14

Lab Name: TestAmerica Inc **SDG:** 48206 **Collection Date:** 5/1/2014 3:17:00 PM

Lot-Sample No.: J4E130444-2 **Report No. :** 60721 **Received Date:** 5/13/2014 10:10:00 AM

Client Sample ID: MSA-DMW-6S-050114(240-36857-3) **COC No. :** **Matrix:** WATER AQ

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 4135023	EPA 904.0			**Work Order:** M3QEG1AC		**Report DB ID:** 9M3QEG10						
Ra-228	**7.12E-01**	J	2.9E-01	3.1E-01	5.36E-01	pCi/L	79%	*(1.3)*	6/13/14 01:32 p		0.9979	GPC4B
						2.36E-01	1.00E+00	*(4.6)*			L	
Batch: 4135024	EPA 903.0			**Work Order:** M3QEG1AA		**Report DB ID:** 9M3QEG10						
TOTAL ALPHA RA	**4.10E-01**	J	2.5E-01	2.6E-01	3.88E-01	pCi/L	93%	*(1.1)*	6/12/14 03:27 p		0.5014	GPC22B
						1.64E-01	5.00E-01	*(3.1)*			L	

No. of Results: 2 **Comments:**

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 16-Jun-14

Lab Name: TestAmerica Inc **SDG:** 48206 **Collection Date:** 5/1/2014 12:35:00 PM

Lot-Sample No.: J4E130444-1 **Report No. :** 60721 **Received Date:** 5/13/2014 10:10:00 AM

Client Sample ID: MSA-MW-27D-050114(240-36857-2) **COC No. :** **Matrix:** WATER AQ

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 4135023	EPA 904.0			**Work Order:**	M3QEF1AC		**Report DB ID:**	9M3QEF10				
Ra-228	**2.17E-01**	U	2.4E-01	2.4E-01	5.17E-01	pCi/L	78%	*0.42*	6/13/14 01:32 p		1.0045	GPC3D
						2.27E-01	1.00E+00	*(1.8)*			L	
Batch: 4135024	EPA 903.0			**Work Order:**	M3QEF1AA		**Report DB ID:**	9M3QEF10				
TOTAL ALPHA RA	**3.94E-02**	U	1.9E-01	1.9E-01	4.34E-01	pCi/L	82%	*0.09*	6/12/14 03:27 p		0.5077	GPC22A
						1.85E-01	5.00E-01	*0.41*			L	

No. of Results: 2 **Comments:**

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

Appendix C

Support Documentation

LABORATORY DUPLICATE EVALUATION

LMC- MSW GROUNDWATER
SDG 240-36857-1

MEAN DIFFERENCE (MD):

$$\frac{|\text{SAMPLE ACTIVITY - BLANK ACTIVITY}|}{\sqrt{((\text{SAMPLE UNCERTAINTY}/2)^2 + (\text{BLANK UNCERTAINTY}/2)^2)}}$$

UNCERTAINTY = 2δ

PREPARATION BATCH #4122069

ASSOCIATED SAMPLES:
MSA-DMW-6S-050114
MSA-MW-27D-050114

LABORATORY SAMPLE	**MSA-MW-27D-050114**	RADIUM-228	
		2.17E-01 ± 2.40E-01	pCi/L
LABORATORY DUPLICATE SAMPLE		RADIUM-228	
		1.49E-01 ± 2.60E-01	pCi/L
MD =	**0.4**		

PREPARATION BATCH #4122070

ASSOCIATED SAMPLES:
MSA-DMW-6S-050114
MSA-MW-27D-050114

LABORATORY SAMPLE	**MSA-DMW-6S-050114**	TOTAL RADIUM	
		4.10E-01 ± 2.60E-01	pCi/L
LABORATORY DUPLICATE SAMPLE		TOTAL RADIUM	
		2.96E-01 ± 2.60E-01	pCi/L
MD =	**0.6**		

TestAmerica Canton

4101 Shuffel Street, N. W.

North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

4.2

Chain of Custody Record

042345

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Tony Afferonge	Site Contact: Walt Pyle	Date: 5-1-14	COC No:
Company Name: Tetra Tech Inc.	Tel/Fax: 301 528-3021	Lab Contact: Pat O'Meara	Carrier: Fed EX	1 of 1 COCs
Address: 20251 Century Blvd Ste 200	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301 528-3021	TAT if different from Below			Walk-in Client:
Fax: 3000	☐ 2 weeks			Lab Sampling:
Project Name: MSA GW 2014	☐ 1 week 21 day			Job / SDG No.:
Site: MSA	☐ 2 days			
PO# Project # 11285061193	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	Total metals	Diss metals	1,4 Dioxane	TPH-GRO	TPH-DRO	Radium 224,226,228	Perchlorate	Sample Specific Notes:
TB-050114	5-1-14	—	G	GW	2			X								
MSA-DMW-1S-050114	↓	1048	↓	↓	12			X	X	X	X	X	X			
MSA-MW-270-050114	↓	1235	↓	↓	11			X	X	X	X			X	X	
MSA-DMW-6S-050114	↓	1517	↓	↓	16			X	X	X	X	X	X			

1294 of 1297

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____
Relinquished by: Walt Pyle	Company: TT Inc	Date/Time: 5-2-14 1350	Received by:	Company: TestAmerica	Date/Time: 5/2/14 1350
Relinquished by:	Company: TestAmerica	Date/Time: 5/2/14 1555	Received by: Fedex 6670	Company: Test America	Date/Time: 5/3/14 945
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative Login # : 30857
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: Ryan Rood

Cooler Received on 5/3/14 Opened on 5/3/14

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box (Client Cooler) Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF +0 °C)	Observed Cooler Temp. 4.2 °C	Corrected Cooler Temp. 4.2 °C	
~~IR GUN# 4~~	~~(CF -1 °C)~~	~~Observed Cooler Temp. ____ °C~~	~~Corrected Cooler Temp. ____ °C~~	☐ See Multiple
IR GUN# 5	(CF +1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	Cooler Form
IR GUN# 8	(CF +1 °C)	Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were custody seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were custody seals on the bottle(s)?	Yes	(No)
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
~~4. Did custody papers accompany the sample(s)?~~	~~(Yes)~~	~~No~~
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
7. Could all bottle labels be reconciled with the COC?	(Yes)	No
8. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
9. Sufficient quantity received to perform indicated analyses?	(Yes)	No
10. Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC391902
11. Were VOAs on the COC?	(Yes)	No
12. Were air bubbles >6 mm in any VOA vials?	Yes	(No) NA
13. Was a trip blank present in the cooler(s)?	Yes	(No)

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES — Samples processed by: Ryan Rood

TB-050114 2x 40mL vials missing

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-DMW-1S-050114	240-36857-J-1	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-1S-050114	240-36857-K-1	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-27D-050114	240-36857-G-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-27D-050114	240-36857-H-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-27D-050114	240-36857-I-2	Plastic 1 liter - Nitric Acid	<2		
MSA-MW-27D-050114	240-36857-J-2	Plastic 1 liter - Nitric Acid	<2		
MSA-MW-27D-050114	240-36857-K-2	Plastic 1 liter - Nitric Acid	<2		
MSA-DMW-6S-050114	240-36857-J-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-DMW-6S-050114	240-36857-K-3	Plastic 500ml - with Nitric Acid	<2		
MSA-DMW-6S-050114	240-36857-L-3	Plastic 1 liter - Nitric Acid	<2		
MSA-DMW-6S-050114	240-36857-M-3	Plastic 1 liter - Nitric Acid	<2		
MSA-DMW-6S-050114	240-36857-N-3	Plastic 1 liter - Nitric Acid	<2		

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-36857-1

Login Number: 36857
List Number: 321
Creator: Nelson, Kym D

List Source: TestAmerica Sacramento
List Creation: 05/06/14 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Analytical Data Package Prepared For

TestAmerica NORTH CANTON

Radiochemical Analysis By

TestAmerica Inc

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code: TARL

Data Package Contains 176 *Pages*

Report No.: 60721

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
48206		MSA-DMW-6S-050114(240-36857-3)	J4E130444-2	M3QEG1AC	9M3QEG10	4135023
		MSA-DMW-6S-050114(240-36857-3)	J4E130444-2	M3QEG1AA	9M3QEG10	4135024
		MSA-MW-27D-050114(240-36857-2)	J4E130444-1	M3QEF1AC	9M3QEF10	4135023
		MSA-MW-27D-050114(240-36857-2)	J4E130444-1	M3QEF1AA	9M3QEF10	4135024

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

June 16, 2014

TestAmerica Laboratory North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Attention: Nathan Pietras

Date Received at Lab	:	May 13, 2014
Project Name	:	MSA GW 2014
Job Number	:	240-36857-1
Sample Type	:	Two (2) Water
SDG Number	:	48206

CASE NARRATIVE

I. Introduction

On May 13, 2014, two water samples were received at TestAmerica's Richland laboratory for radiochemical analysis. Upon receipt, the samples were assigned the TestAmerica identification number as described on the cover page of the Analytical Data Package report form. The samples were assigned to Lot Number J4E130444.

II. Sample Receipt

The samples were received in good condition, the custody seals were in tact, signed and dated.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information; analytical results and the appropriate associated statistical uncertainties.

The analyses requested were:

Gas Proportional Counting
Radium-228 by method RL-RA-001 (EPA 904.0)
Total Alpha Radium (Ra-226) by method RL-RA-002 (EPA 903.0)

IV. Quality Control

The analytical result for each analysis performed includes a minimum of one laboratory control sample (LCS), and one reagent blank sample analysis. Any exceptions have been noted in the "Comments" section.

V. Comments

Radium-228 Analysis:
The LCS, batch blank, sample and sample duplicate results are within acceptance limits.

Total Alpha Radium (Ra-226) Analysis:
The LCS, batch blank, sample and sample duplicate results are within acceptance limits.

I certify that this Certificate of Analysis is in compliance with the SOW and/or NELAC, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

Robin Ebert Mays
Robin Ebert-Mays
Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**TestAmerica Richland's SOP No.**
EPA 901.1	Cs-134, I-131	RL-GAM-001
EPA 900.0	Alpha & Beta	RL-GPC-001
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002
EPA 903.1	Ra-226	RL-RA-001
EPA 904.0	Ra-228	RL-RA-001
EPA 905.0	Sr-89/90	RL-GPC-003
ASTM D5174	Uranium	RL-KPA-003
EPA 906.0	Tritium	RL-LSC-005

Results in this report relate only to the sample(s) analyzed.

Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/?n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) ***u_c - Combined Uncertainty.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, ***u_c the combined uncertainty***. The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Sample Results Summary

Date: 16-Jun-14

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 60721 **SDG No:** 48206

Batch	Client Id / Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RER2
4135023	**EPA 904.0**								
	MSA-DMW-6S-050114(240-36857-3)								
	M3QEG1AC	Ra-228	7.12E-01 +- 3.1E-01	J	pCi/L	79%	5.36E-01	1.00E+00	
	MSA-MW-27D-050114(240-36857-2)								
	M3QEF1AC	Ra-228	2.17E-01 +- 2.4E-01	U	pCi/L	78%	5.17E-01	1.00E+00	
	M3QEF1AD	Ra-228	1.49E-01 +- 2.6E-01	U	pCi/L	82%	5.75E-01	1.00E+00	0.4
4135024	**EPA 903.0**								
	MSA-DMW-6S-050114(240-36857-3)								
	M3QEG1AA	TOTAL ALPHA RA	4.10E-01 +- 2.6E-01	J	pCi/L	93%	3.88E-01	5.00E-01	
	M3QEG1AD	TOTAL ALPHA RA	2.96E-01 +- 2.6E-01	U	pCi/L	93%	4.40E-01	5.00E-01	0.6
	MSA-MW-27D-050114(240-36857-2)								
	M3QEF1AA	TOTAL ALPHA RA	3.94E-02 +- 1.9E-01	U	pCi/L	82%	4.34E-01	5.00E-01	

No. of Results: 6

QC Results Summary

Date: 16-Jun-14

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 60721 **SDG No.:** 48206

Batch / Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
EPA 904.0								
4135023 BLANK QC,								
M3QWH1AA	Ra-228	5.17E-03 +- 2.9E-01	U	pCi/L	81%			6.80E-01
4135023 LCS,								
M3QWH1AC	Ra-228	4.72E+00 +- 7.4E-01		pCi/L	94%	95%	0.0	4.60E-01
EPA 903.0								
4135024 BLANK QC,								
M3QWL1AA	TOTAL ALPHA RA	1.33E-01 +- 2.2E-01	U	pCi/L	81%			4.47E-01
4135024 LCS,								
M3QWL1AC	TOTAL ALPHA RA	6.07E+00 +- 1.5E+00		pCi/L	77%	96%	0.0	4.79E-01

No. of Results: 4

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-28051.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 240-36857-1
Address: 2800 George Washington Way,	Due Date Requested: 5/14/2014			Preservation Codes:
City: Richland	TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify)
State, Zip: WA, 99352				
Phone: 509-375-3131(Tel) 509-375-5590(Fax)	PO #:			Other:
Email:	WO #:			
Project Name: MSA GW 2014	Project #: 24011891			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Alpha Rad 224, 226 + Radium 228)/ Alpha Rad 224, 226 + Radium 228	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MSA-MW-27D-050114 (240-36857-2) M3QEF	5/1/14	12:35 Eastern		Water			X		Methods 903.0 and 904.0
MSA-DMW-6S-050114 (240-36857-3) M3QEG	5/1/14	15:17 Eastern		Water			X		Methods 903.0 and 904.0

J4E130444
SDG-48206
Due 6-11-14

J4E130444

Page 1129 of 1297

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: Replacement bottle 5-13-14/1010

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	5-5-2014 1200			5-6-14 / 1015	TALK
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 5-13-14 | 1010 Container GM Screen Result: (Airlock) 40 cpm Initials [ ]
Sample GM Screen Result (Sample Receiving) 40 cpm Initials [ ]

Client: STLW SDG #: 48206 SAF #: _____ NA [ ]

Lot Number: 340-30444

Chain of Custody # _____

Shipping Container ID or Air Bill Number : _____ NA [ ]

Samples received inside shipping container/cooler/box Yes [ ] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [ ]
3. Cooler temperature: _____ °C NA [ ]
4. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [ ] No [ ] already have
6. Number of samples received (Each sample may contain multiple bottles): 1
7. Containers received: 1 x 4P
8. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
9. Samples have: _____tape _____hazard labels _____custody seals _____appropriate sample labels
10. Matrix: _____A (FLT, Wipe, Solid, Soil) _____I (Water) _____S (Air, Niosh 7400) _____T (Biological, Ni-63)
11. Samples:
_____are in good condition _____are leaking _____are broken
_____have air bubbles (Only for samples requiring no head space) _____Other _____
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
14. Description of anomalies (include sample numbers): NA [ ] _____
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: WB 5-13-14 replacement bottle

[ ] Client/Courier denied temperature check. [ ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: _____ Date: 5-13-14

Client Notification needed? Yes [ ] No [ ] Date: _____
By: _____
Person contacted: _____

[ ] No action necessary, process as is

Project Manager _____ Date 5/13/14 5/14/14 5/14/14

LS-023 Rev. 17, 05/13

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 5-6-14/1015 Container GM Screen Result: (Airlock) 40 & 1015 5-6-14 cpm Initials[ ]
Sample GM Screen Result (Sample Receiving) 100 cpm Initials[ ]

Client: STLN SDG #: 49206 SAF #: NA [ ]

Lot Number: 340130444

Chain of Custody # _____

Shipping Container ID or Air Bill Number : Fed Ex - 1 cooler NA [ ]

Samples received inside shipping container/cooler/box Yes [ ] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [ ]
3. Cooler temperature: _____ °C NA [ ]
4. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [ ] See # 16

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [ ] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 2
7. Containers received: 1 ox 4p (1 empty)
8. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
9. Samples have: ____tape ____hazard labels ____custody seals ____appropriate sample labels
10. Matrix: ____A (FLT, Wipe, Solid, Soil) ____I (Water) ____S (Air, Niosh 7400) ____T (Biological, Ni-63)
11. Samples:
____are in good condition ____are leaking ____are broken 1 missing lid and sample
____have air bubbles (Only for samples requiring no head space) ____Other _____
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
14. Description of anomalies (include sample numbers): NA [ ] _____
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: We received sample MSA-DMW-65-050114 (1 bottle) empty. Lid was not on bottle

[ ] Client/Courier denied temperature check. [ ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: _____ Date: 5/14/14 5/14/14 5/13/14 was date all samples logged in to complete lot

Client Notification needed? Yes [ ] No [ ] Date: need replacement bottle
By: _____
Person contacted: _____

[ ] No action necessary; process as is

Project Manager _____ Date 5/14/14

LS-023 Rev. 17, 05/13

FORM II

BLANK RESULTS

Date: 16-Jun-14

Lab Name: TestAmerica Inc **SDG:** 48206

Matrix: WATER **Report No. :** 60721

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 4135024	EPA 903.0			**Work Order:**	M3QWL1AA		**Report DB ID:**	M3QWL1AB				
TOTAL ALPHA RA	1.33E-01	U	2.2E-01	2.2E-01	4.47E-01	pCi/L	81%	0.3	6/12/14 03:27 p		0.501	GPC22D
					1.90E-01	5.00E-01		(1.2)			L	
Batch: 4135023	EPA 904.0			**Work Order:**	M3QWH1AA		**Report DB ID:**	M3QWH1AB				
Ra-228	5.17E-03	U	5.6E-02	2.9E-01	6.80E-01	pCi/L	81%	0.01	6/13/14 01:32 p		1.0009	GPC4C
					3.10E-01	1.00E+00		0.04			L	

No. of Results: 2 **Comments:**

TestAmerica Inc
rptSTLRchBlank
V5.3.2 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

Date: 16-Jun-14

LCS RESULTS

Lab Name: TestAmerica Inc **SDG:** 48206

Matrix: WATER **Report No. :** 60721

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 4135024	EPA 903.0			**Work Order:**	M3QWL1AC		**Report DB ID:**	M3QWL1CS					
TOTAL ALPHA RA	6.07E+00		8.0E-01	1.5E+00	4.79E-01	pCi/L	77%	6.33E+00	6.55E-02	96%	6/12/14 03:27 p	0.5007	GPC23A
							Rec Limits:	75	125	0.0		L	
Batch: 4135023	EPA 904.0			**Work Order:**	M3QWH1AC		**Report DB ID:**	M3QWH1CS					
Ra-228	4.72E+00		5.0E-01	7.4E-01	4.60E-01	pCi/L	94%	4.97E+00	5.73E-02	95%	6/13/14 01:32 p	1.0023	GPC4D
							Rec Limits:	75	125	0.0		L	

No. of Results: 2 **Comments:**

TestAmerica Inc **Bias** - (Result/Expected)-1 as defined by ANSI N13.30.

rptSTLRchLcs
V5.3.2 A2002

FORM II

Date: 16-Jun-14

DUPLICATE RESULTS

Lab Name: TestAmerica Inc **SDG:** 48206 **Collection Date:** 5/1/2014 3:17:00 PM

Lot-Sample No.: J4E130444-2 **Report No. :** 60721 **Received Date:** 5/13/2014 10:10:00 AM

Client Sample ID: MSA-DMW-6S-050114(240-36857-3) **COC No. :** **Matrix:** WATER AQ

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 4135024	EPA 903.0			**Work Order:** M3QEG1AD		**Report DB ID:** M3QEG1DR			**Orig Sa DB ID:** 9M3QEG10			
TOTAL ALPHA RA	2.96E-01	U	2.5E-01	2.6E-01	4.40E-01	pCi/L	93%	0.67	6/12/14 03:27 p		0.5068	GPC22C
	4.10E-01	J	**RER2 0.6**			5.00E-01		(2.3)			L	

No. of Results: 1 **Comments:**

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

Date: 16-Jun-14

DUPLICATE RESULTS

Lab Name: TestAmerica Inc **SDG:** 48206 **Collection Date:** 5/1/2014 12:35:00 PM

Lot-Sample No.: J4E130444-1 **Report No. :** 60721 **Received Date:** 5/13/2014 10:10:00 AM

Client Sample ID: MSA-MW-27D-050114(240-36857-2) **COC No. :** **Matrix:** WATER AQ

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 4135023	EPA 904.0			**Work Order:** M3QEF1AD		**Report DB ID:** M3QEF1DR			**Orig Sa DB ID:** 9M3QEF10			
Ra-228	1.49E-01	U	2.5E-01	2.6E-01	5.75E-01	pCi/L	82%	0.26	6/13/14 01:32 p		0.9946	GPC4A
	2.17E-01	U	**RER2 0.4**			1.00E+00		(1.2)			L	

No. of Results: 1 **Comments:**

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

Alpha Beta, Ra-228 by GPC , Calculated Results

Detailed Report

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
1	Calc	TF	WATER	*STLE	Ra228WoBS	M3QEF1AC	pCi/L		05/01/14 12:35	06/13/14 13:32	06/09/14 15:00	RATA54649	1	g	
240,MSA-MW-27D-050114(240-36857-2)						,J4E130444-1	WATER			31.2	06/13/14 08:05	RATA54649 Alq	86%	1004.50 g	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Trc Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	06/13/14 11:46	Ra-228	24	108	GPC3D	1	N	N	4.7163E-01	1.0000E+00	N	78%	N		1.4483E+00	4.5045E+02	1.0130E+00	
			50	300			Y		(1.204E-02)	(0.000E+00)		6%			(0.000E+00)	0.000996		
1	06/13/14 12:41	Ra-228	19	108	GPC3D	1	N	N	4.7163E-01	1.0000E+00	N	78%	N		1.6072E+00	4.5045E+02	1.0130E+00	
			50	300			Y		(1.204E-02)	(0.000E+00)		6%			(0.000E+00)	0.000996		
2	06/13/14 13:32	Ra-228	27	108	GPC3D	1	N	N	4.7163E-01	1.0000E+00	N	78%	N		1.7668E+00	4.5045E+02	1.0130E+00	
			50	300			Y		(1.204E-02)	(0.000E+00)		6%			(0.000E+00)	0.000996		

Sq	CalcDate,TrcAct	Parameter	Avg	Sa Act, Total U	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	TrcYld,EnFct	LCSYld,EFctU	IDC/ILcC	BlkLcC/MDC	StdDvMdC/LcC
	06/15/14	Ra-228	R	**0.215708**		1.20000E-01	0.474858	0.474858	1.0045 L	78%		0.806684		
				(0.187994)		(1.0392E-01)	(0.413168)	(0.413168)	(0.173205)			0.354839		
	06/15/14	Ra-228	R	**0.039896**		2.00000E-02	0.087828	0.087828	1.0045 L	78%		0.895207		
				(0.187171)		(9.3808E-02)	(0.412015)	(0.412015)	(0.173205)			0.393778		
	06/15/14	Ra-228	R	**0.394721**		1.80000E-01	0.868938	0.868938	1.0045 L	78%		0.984096		
				(0.243297)		(1.0954E-01)	(0.533829)	(0.533829)	(0.173205)			0.432878		
	06/15/14	Ra-228	A	**0.216775**		1.06667E-01	0.477208	0.477208	1.0045 L	78%		0.516919		
				(0.119985)		(5.9255E-02)	(0.263615)	(0.263615)	(0.10)			0.227379		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
2	Calc	TF	WATER	*STLE	Ra228WoBS	M3QEF1AD	pCi/L	R	05/01/14 12:35	06/13/14 13:32	06/09/14 15:00	RATA54650	1	g	
240,MSA-MW-27D-050114(240-36857-2) DUP						,J4E130444-	WATER			32.0	06/13/14 08:05	RATA54650 Alq	88%	994.60 g	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Trc Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	06/13/14 11:42	Ra-228	30	148	GPC4A	1	N	N	4.6415E-01	1.0000E+00	N	82%	N		1.4357E+00	4.5045E+02	1.0130E+00	
			50	300			Y		(1.447E-02)	(0.000E+00)		7%			(0.000E+00)	0.001005		
1	06/13/14 12:37	Ra-228	30	148	GPC4A	1	N	N	4.6415E-01	1.0000E+00	N	82%	N		1.5933E+00	4.5045E+02	1.0130E+00	
			50	300			Y		(1.447E-02)	(0.000E+00)		7%			(0.000E+00)	0.001005		
2	06/13/14 13:32	Ra-228	26	148	GPC4A	1	N	N	4.6415E-01	1.0000E+00	N	82%	N		1.7681E+00	4.5045E+02	1.0130E+00	
			50	300			Y		(1.447E-02)	(0.000E+00)		7%			(0.000E+00)	0.001005		

Sq	CalcDate,TrcAct	Parameter	Avg	Sa Act, Total U	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	TrcYld,EnFct	LCSYld,EFctU	IDC/ILcC	BlkLcC/MDC	StdDvMdC/LcC
	06/15/14	Ra-228	R	**0.184703**		1.06667E-01	0.402596	0.402596	0.9946 L	82%		0.893654		
				(0.203096)		(1.1681E-01)	(0.442232)	(0.442232)	(0.173205)			0.400139		
	06/15/14	Ra-228	R	**0.204971**		1.06667E-01	0.446776	0.446776	0.9946 L	82%		0.991721		
				(0.225384)		(1.1681E-01)	(0.490761)	(0.490761)	(0.173205)			0.444048		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

MSA-DMW-6S-050114

Batch Nbr: 4135023 — Alpha Beta, Ra-228 by GPC , Calculated Results — 6/15/2014 6:51:25 PM

06/15/14	Ra-228	R	**0.056866**	2.66667E-02	0.123951	0.123951	0.9946 L	82%		1.100549	
			(0.234101)	(1.0975E-01)	(0.510234)	(0.510234)	(0.173205)			0.492777	
06/15/14	Ra-228	A	**0.148847**	8.00000E-02	0.324441	0.324441	0.9946 L	82%		0.574641	
			(0.127736)	(6.6109E-02)	(0.278239)	(0.278239)	(0.10)			0.257299	

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
3	Calc	TF	WATER	*STLE	Ra228WoBS	**M3QEG1AC**	**pCi/L**		05/01/14 15:17	06/13/14 13:32	06/09/14 15:00	RATA54651	1	g	
240,MSA-DMW-6S-050114(240-36857-3)						,J4E130444-2	WATER			31.4	06/13/14 08:05	RATA54651 Alq	87%	997.90 g	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Trc Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	06/13/14 11:42	Ra-228	36	112	GPC4B	1	N	N	4.5389E-01	1.0000E+00	N	79%	N		1.4357E+00	4.5045E+02	1.0130E+00	
			50	300			Y		(1.577E-02)	(0.000E+00)		6%			(0.000E+00)	0.001002		
1	06/13/14 12:37	Ra-228	42	112	GPC4B	1	N	N	4.5389E-01	1.0000E+00	N	79%	N		1.5933E+00	4.5045E+02	1.0130E+00	
			50	300			Y		(1.577E-02)	(0.000E+00)		6%			(0.000E+00)	0.001002		
2	06/13/14 13:32	Ra-228	31	112	GPC4B	1	N	N	4.5389E-01	1.0000E+00	N	79%	N		1.7681E+00	4.5045E+02	1.0130E+00	
			50	300			Y		(1.577E-02)	(0.000E+00)		6%			(0.000E+00)	0.001002		

Sq	CalcDate,TrcAct	Parameter	Avg	Sa Act, Total U	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	TrcYld,EnFct	LCSYld,EFctU	IDC/ILcC	BlkLcC/MDC	StdDvMdC/LcC
	06/15/14	Ra-228	R	**0.633779**		3.46667E-01	1.386083	1.386083	0.9979 L	79%		0.833673		
				(0.237379)		(1.2508E-01)	(0.514505)	(0.514505)	(0.173205)			0.367511		
	06/15/14	Ra-228	R	**0.946787**		4.66667E-01	2.070637	2.070637	0.9979 L	79%		0.925158		
				(0.288675)		(1.3433E-01)	(0.62279)	(0.62279)	(0.173205)			0.40784		
	06/15/14	Ra-228	R	**0.555362**		2.46667E-01	1.214584	1.214584	0.9979 L	79%		1.026682		
				(0.268854)		(1.1681E-01)	(0.584842)	(0.584842)	(0.173205)			0.452595		
	06/15/14	Ra-228	A	**0.711976**		3.53333E-01	1.557101	1.557101	0.9979 L	79%		0.536072		
				(0.153465)		(7.2521E-02)	(0.332436)	(0.332436)	(0.10)			0.236318		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
4	Calc	TF	WATER	*STLE	Ra228WoBS	**M3QWH1AA**	**pCi/L**	**B**	05/01/14 12:35	06/13/14 13:32	06/09/14 15:00	RATA54652	1	g	
0,INTRA-LAB BLANK						,J4E150000-23 v4.8.69	WATER			31.2	06/13/14 08:05	RATA54652 Alq	89%	1000.90 g	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Trc Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	06/13/14 11:42	Ra-228	23	208	GPC4C	1	N	N	4.6048E-01	1.0000E+00	N	81%	N		1.4357E+00	4.5045E+02	1.0130E+00	
			50	300			Y		(1.377E-02)	(0.000E+00)		6%			(0.000E+00)	0.000999		
1	06/13/14 12:37	Ra-228	33	208	GPC4C	1	N	N	4.6048E-01	1.0000E+00	N	81%	N		1.5933E+00	4.5045E+02	1.0130E+00	
			50	300			Y		(1.377E-02)	(0.000E+00)		6%			(0.000E+00)	0.000999		
2	06/13/14 13:32	Ra-228	46	208	GPC4C	1	N	N	4.6048E-01	1.0000E+00	N	81%	N		1.7681E+00	4.5045E+02	1.0130E+00	
			50	300			Y		(1.377E-02)	(0.000E+00)		6%			(0.000E+00)	0.000999		

Sq	CalcDate,TrcAct	Parameter	Avg	Sa Act, Total U	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	TrcYld,EnFct	LCSYld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	06/15/14	Ra-228	R	**-0.410232**		-2.33333E-01	-0.899846	-0.899846	1.0009 L	81%		1.057991		
				(0.19295)		(1.0729E-01)	(0.420839)	(0.420839)	(0.173205)			0.481636		
	06/15/14	Ra-228	R	**-0.065036**		-3.33333E-02	-0.142656	-0.142656	1.0009 L	81%		1.174092		
				(0.243078)		(1.2454E-01)	(0.533146)	(0.533146)	(0.173205)			0.534489		
	06/15/14	Ra-228	R	**0.490772**		2.26667E-01	1.076512	1.076512	1.0009 L	81%		1.302933		
				(0.31536)		(1.4391E-01)	(0.689648)	(0.689648)	(0.173205)			0.593143		
	06/15/14	Ra-228	A	**0.005168**		-1.33333E-02	0.011337	0.011337	1.0009 L	81%		0.680314		
				(0.147486)		(7.2827E-02)	(0.322656)	(0.322656)	(0.10)			0.309704		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
5	Calc	TF	WATER	*STLE	Ra228WoBS	**M3QWH1AC**	**pCi/L**	**S**	05/01/14 12:35	06/13/14 13:32	06/09/14 15:00	RASF5057	1	9	
0,INTRA-LAB CHECK					,J4E150000-23 v4.8.69		WATER			32.2	06/13/14 08:05	RASF5057 Alq	100%	1002.30 g	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Trc Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	06/13/14 11:42	Ra-228	174	114	GPC4D	1	N	N	4.4869E-01	1.0000E+00	N	94%	N		1.4357E+00	4.5045E+02	1.0130E+00	
			50	300			Y		(1.266E-02)	(0.000E+00)		7%			(0.000E+00)	0.000998		
1	06/13/14 12:37	Ra-228	154	114	GPC4D	1	N	N	4.4869E-01	1.0000E+00	N	94%	N		1.5933E+00	4.5045E+02	1.0130E+00	
			50	300			Y		(1.266E-02)	(0.000E+00)		7%			(0.000E+00)	0.000998		
	06/13/14 13:32	Ra-228	141	114	GPC4D	1	N	N	4.4869E-01	1.0000E+00	N	94%	N		1.7681E+00	4.5045E+02	1.0130E+00	
			50	300			Y		(1.266E-02)	(0.000E+00)		7%			(0.000E+00)	0.000998		

Sq	CalcDate,TrcAct	Parameter	Avg	Sa Act, Total U	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	TrcYld,EnFct	LCSYld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	06/15/14	Ra-228	R	**4.824339**		3.10000E+00	10.597026	10.597026	1.0023 L	94%	97%	0.715212		
				(0.630312)		(2.6621E-01)	(1.27913)	(1.27913)	(0.173205)			0.315619		
	06/15/14	Ra-228	R	**4.66294**		2.70000E+00	10.242502	10.242502	1.0023 L	94%	94%	0.793697		
				(0.631127)		(2.5073E-01)	(1.288256)	(1.288256)	(0.173205)			0.350255		
	06/15/14	Ra-228	R	**4.676338**		2.44000E+00	10.271931	10.271931	1.0023 L	94%	94%	0.880795		
				(0.651034)		(2.4014E-01)	(1.334633)	(1.334633)	(0.173205)			0.38869		
	06/15/14	Ra-228	A	**4.721206**		2.74667E+00	10.370486	10.370486	1.0023 L	94%	95%	0.459899		
				(0.368097)		(1.4583E-01)	(0.751075)	(0.751075)	(0.10)			0.202951		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:5 RADCALC v4.8.69 TestAmerica

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 • U.S.A.
Phone (404) 352-8677
Fax (404) 352-2837

RA22804A000
5756
Rec: 7/21/2004

#5756 Recd 7/21/04 vs

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

68824-310

Ra-228 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Ra-228
ACTIVITY (dps):	2.456 E4
HALF-LIFE:	5.75 years
CALIBRATION DATE:	July 19, 2004 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.3%

Impurities: γ-impurities (other than decay products) <0.1%

5.00328 grams 0.1M HCl solution with 25 µg/g Ba carrier.

P O NUMBER 2063352/300260, Item 1

SOURCE PREPARED BY: M Tarkaeva for
M. D. Currie, Radiochemist

Q A APPROVED: M. Mty 7-20-04

Quality Assurance Report. Generated 16-JUN-2014 16:27:28.52

QA Filename : RDND07$DKA100:[QUAD4.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : quad 4a 1" beta %eff
Parameter Units : percent Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 41.497238 Upper Bound : 45.865349

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 42.474815 Std Deviation : 3.788449

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-MAY-2014 06:32	CHK		43.6000	| | |
14-MAY-2014 06:24	CHK		43.6000	| | |
15-MAY-2014 06:25	CHK		42.7000	| | |
19-MAY-2014 06:07	CHK		43.6000	| | |
20-MAY-2014 06:15	CHK		43.9000	| | |
21-MAY-2014 06:15	CHK		43.7000	| | |
22-MAY-2014 06:15	CHK		44.8000	| | |
23-MAY-2014 07:37	CHK		44.1000	| | |
27-MAY-2014 06:08	CHK		44.4000	| | |
28-MAY-2014 06:28	CHK		43.4000	| | |
29-MAY-2014 06:22	CHK		43.2000	| | |
30-MAY-2014 06:16	CHK		44.3000	| | |
2-JUN-2014 06:19	CHK		44.3000	| | |
3-JUN-2014 06:33	CHK		44.0000	| | |
4-JUN-2014 06:33	CHK		43.3000	| | |
5-JUN-2014 06:28	CHK		44.0000	| | |
6-JUN-2014 06:09	CHK		44.0000	| | |
9-JUN-2014 06:17	CHK		44.5000	| | |
10-JUN-2014 06:20	CHK		43.7000	| | |
11-JUN-2014 06:12	CHK		44.4000	| | |
12-JUN-2014 06:20	CHK		43.9000	| | |
13-JUN-2014 06:41	CHK		43.4000	| | |

-- Multi-Test Full Report --

Description : quad 4b 1" beta %eff
Parameter Units : percent Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 39.321072 Upper Bound : 43.460129

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 41.380741 Std Deviation : 3.671116

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-MAY-2014 06:32	CHK		42.6000	| | |
14-MAY-2014 06:24	CHK		42.7000	| | |
15-MAY-2014 06:25	CHK		41.2000	| | |
19-MAY-2014 06:07	CHK		41.8000	| | |
20-MAY-2014 06:15	CHK		41.2000	| | |
21-MAY-2014 06:15	CHK		41.0000	| | |
22-MAY-2014 06:15	CHK		41.5000	| | |
23-MAY-2014 07:37	CHK		41.2000	| | |
27-MAY-2014 06:08	CHK		41.6000	| | |
28-MAY-2014 06:28	CHK		42.1000	| | |
29-MAY-2014 06:22	CHK		42.3000	| | |
30-MAY-2014 06:16	CHK		41.4000	| | |
2-JUN-2014 06:19	CHK		41.5000	| | |
3-JUN-2014 06:33	CHK		41.5000	| | |
4-JUN-2014 06:33	CHK		42.2000	| | |
5-JUN-2014 06:28	CHK		41.4000	| | |
6-JUN-2014 06:09	CHK		42.2000	| | |
9-JUN-2014 06:17	CHK		41.8000	| | |
10-JUN-2014 06:20	CHK		42.0000	| | |
11-JUN-2014 06:12	CHK		41.7000	| | |
12-JUN-2014 06:20	CHK		41.9000	| | |
13-JUN-2014 06:41	CHK		41.3000	| | |

-- Multi-Test Full Report --

Description : quad 4c 1" beta %eff
Parameter Units : percent Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 40.572128 Upper Bound : 44.842880

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 41.872593 Std Deviation : 3.823405

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-MAY-2014 06:32	CHK		42.8000	| | |
14-MAY-2014 06:24	CHK		43.4000	| | |
15-MAY-2014 06:25	CHK		43.4000	| | |
19-MAY-2014 06:07	CHK		43.8000	| | |

20-MAY-2014 06:15	CHK	44.1000	| |	|
21-MAY-2014 06:15	CHK	44.0000	| |	|
22-MAY-2014 06:15	CHK	43.9000	| |	|
23-MAY-2014 07:37	CHK	44.2000	| |	|
27-MAY-2014 06:08	CHK	42.9000	| |	|
28-MAY-2014 06:28	CHK	41.9000	| |	|
29-MAY-2014 06:22	CHK	42.7000	| |	|
30-MAY-2014 06:16	CHK	42.7000	| |	|
2-JUN-2014 06:19	CHK	42.4000	| |	|
3-JUN-2014 06:33	CHK	42.8000	| |	|
4-JUN-2014 06:33	CHK	42.0000	| |	|
5-JUN-2014 06:28	CHK	41.5000	| |	|

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
6-JUN-2014 06:09	CHK		42.5000	| | |
9-JUN-2014 06:17	CHK		41.3000	| | |
10-JUN-2014 06:20	CHK		42.3000	| | |
11-JUN-2014 06:12	CHK		41.7000	| | |
12-JUN-2014 06:20	CHK		41.5000	| | |
13-JUN-2014 06:41	CHK		41.5000	| | |

-- Multi-Test Full Report --

Description : quad 4d 1" beta %eff
Parameter Units : percent Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 39.354610 Upper Bound : 43.497200

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 40.273335 Std Deviation : 4.991638

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-MAY-2014 06:32	CHK		40.0000	| | |
14-MAY-2014 06:24	CHK		40.2000	| | |
15-MAY-2014 06:25	CHK		40.4000	| | |
19-MAY-2014 06:07	CHK		40.3000	| | |
20-MAY-2014 06:15	CHK		40.8000	| | |
21-MAY-2014 06:15	CHK		40.4000	| | |
22-MAY-2014 06:15	CHK		40.0000	| | |
23-MAY-2014 07:37	CHK		40.3000	| | |
27-MAY-2014 06:08	CHK		40.4000	| | |
28-MAY-2014 06:28	CHK		40.0000	| | |
29-MAY-2014 06:22	CHK		40.2000	| | |
30-MAY-2014 06:16	CHK		40.3000	| | |
2-JUN-2014 06:19	CHK		40.6000	| | |
3-JUN-2014 06:33	CHK		40.5000	| | |
4-JUN-2014 06:33	CHK		40.3000	| | |

5-JUN-2014 06:28	CHK	40.9000	| |	|
6-JUN-2014 06:09	CHK	40.2000	| |	|
9-JUN-2014 06:17	CHK	40.6000	| |	|
10-JUN-2014 06:20	CHK	40.7000	| |	|
11-JUN-2014 06:12	CHK	40.5000	| |	|
12-JUN-2014 06:20	CHK	40.8000	| |	|
13-JUN-2014 06:41	CHK	41.0000	| |	|

Quality Assurance Report. Generated 16-JUN-2014 16:27:28.97

QA Filename : RDND07$DKA100:[QUAD4.QA]BKG_1.QAF;3

-- Multi-Test Full Report --

Description : quad 4a 1" beta bkg, cpm
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 0.443041 Std Deviation : 0.055312

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
10-MAY-2014 17:40	BKG		0.3500	| | |
11-MAY-2014 00:23	BKG		0.4800	| | |
13-MAY-2014 02:08	BKG		0.4900	| | |
14-MAY-2014 00:21	BKG		0.4700	| | |
15-MAY-2014 00:46	BKG		0.5100	| | |
16-MAY-2014 00:44	BKG		0.4500	| | |
17-MAY-2014 01:26	BKG		0.4800	| | |
18-MAY-2014 12:09	BKG		0.4700	| | |
20-MAY-2014 01:46	BKG		0.4600	| | |
21-MAY-2014 01:07	BKG		0.4600	| | |
22-MAY-2014 02:03	BKG		0.4600	| | |
23-MAY-2014 00:36	BKG		0.4000	| | |
24-MAY-2014 02:04	BKG		0.4400	| | |
25-MAY-2014 12:03	BKG		0.4200	| | |
28-MAY-2014 04:24	BKG		0.3900	| | |
29-MAY-2014 04:37	BKG		0.5000	| | |
30-MAY-2014 04:45	BKG		0.5400	| | |
1-JUN-2014 02:34	BKG		0.5000	| | |
3-JUN-2014 05:58	BKG		0.4700	| | |
4-JUN-2014 06:10	BKG		0.4000	| | |
5-JUN-2014 04:49	BKG		0.4200	| | |
6-JUN-2014 05:03	BKG		0.4500	| | |
8-JUN-2014 01:55	BKG		0.4600	| | |
10-JUN-2014 04:41	BKG		0.4700	| | |
11-JUN-2014 04:13	BKG		0.4400	| | |
12-JUN-2014 01:47	BKG		0.4800	| | |
13-JUN-2014 02:23	BKG		0.4900	| | |

-- Multi-Test Full Report --

Description : quad 4b 1" beta bkg, cpm
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 0.393311 Std Deviation : 0.046267

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
10-MAY-2014 17:40	BKG		0.3700	| | |
11-MAY-2014 00:23	BKG		0.3900	| | |
13-MAY-2014 02:08	BKG		0.4300	| | |
14-MAY-2014 00:21	BKG		0.4000	| | |
15-MAY-2014 00:46	BKG		0.4100	| | |
16-MAY-2014 00:44	BKG		0.4400	| | |
17-MAY-2014 01:26	BKG		0.4100	| | |
18-MAY-2014 12:09	BKG		0.4500	| | |
20-MAY-2014 01:46	BKG		0.4700	| | |
21-MAY-2014 01:07	BKG		0.4200	| | |
22-MAY-2014 02:03	BKG		0.4600	| | |
23-MAY-2014 00:36	BKG		0.3700	| | |
24-MAY-2014 02:04	BKG		0.4100	| | |
25-MAY-2014 12:03	BKG		0.4800	| | |
28-MAY-2014 04:24	BKG		0.3300	| | |
29-MAY-2014 04:37	BKG		0.3400	| | |
30-MAY-2014 04:45	BKG		0.3800	| | |
1-JUN-2014 02:34	BKG		0.2900	|In| |
3-JUN-2014 05:58	BKG		0.3800	| | |
4-JUN-2014 06:10	BKG		0.3800	| | |
5-JUN-2014 04:49	BKG		0.4200	| | |
6-JUN-2014 05:03	BKG		0.4000	| | |
8-JUN-2014 01:55	BKG		0.2800	|In| |
10-JUN-2014 04:41	BKG		0.4300	| | |
11-JUN-2014 04:13	BKG		0.4000	| | |
12-JUN-2014 01:47	BKG		0.4400	| | |
13-JUN-2014 02:23	BKG		0.3700	| | |

-- Multi-Test Full Report --

Description : quad 4c 1" beta bkg, cpm
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00

Mean : 0.721351 Std Deviation : 0.108876

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
10-MAY-2014 17:40	BKG		0.6900	| | |
11-MAY-2014 00:23	BKG		0.7200	| | |
13-MAY-2014 02:08	BKG		0.6300	| | |
14-MAY-2014 00:21	BKG		0.7200	| | |
15-MAY-2014 00:46	BKG		0.7700	| | |
16-MAY-2014 00:44	BKG		0.7300	| | |
17-MAY-2014 01:26	BKG		0.6300	| | |
18-MAY-2014 12:09	BKG		0.6600	| | |
20-MAY-2014 01:46	BKG		0.7600	| | |
21-MAY-2014 01:07	BKG		0.7100	| | |
22-MAY-2014 02:03	BKG		0.6800	| | |
23-MAY-2014 00:36	BKG		0.8000	| | |
24-MAY-2014 02:04	BKG		0.7600	| | |
25-MAY-2014 12:03	BKG		0.7400	| | |

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
28-MAY-2014 04:24	BKG		0.6400	| | |
29-MAY-2014 04:37	BKG		0.6600	| | |
30-MAY-2014 04:45	BKG		0.8000	| | |
1-JUN-2014 02:34	BKG		0.6500	| | |
3-JUN-2014 05:58	BKG		0.7100	| | |
4-JUN-2014 06:10	BKG		0.6700	| | |
5-JUN-2014 04:49	BKG		0.7100	| | |
6-JUN-2014 05:03	BKG		0.7900	| | |
8-JUN-2014 01:55	BKG		0.6900	| | |
10-JUN-2014 04:41	BKG		0.7500	| | |
11-JUN-2014 04:13	BKG		0.7400	| | |
12-JUN-2014 01:47	BKG		0.5600	| | |
13-JUN-2014 02:23	BKG		0.6900	| | |

-- Multi-Test Full Report --

Description : quad 4d 1" beta bkg, cpm
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 0.416554 Std Deviation : 0.050057

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
10-MAY-2014 17:40	BKG		0.4300	| | |
11-MAY-2014 00:23	BKG		0.4500	| | |
13-MAY-2014 02:08	BKG		0.4000	| | |
14-MAY-2014 00:21	BKG		0.3700	| | |
15-MAY-2014 00:46	BKG		0.4200	| | |

16-MAY-2014 00:44	BKG	0.4900		
17-MAY-2014 01:26	BKG	0.4700		
18-MAY-2014 12:09	BKG	0.5000		
20-MAY-2014 01:46	BKG	0.4200		
21-MAY-2014 01:07	BKG	0.5100		
22-MAY-2014 02:03	BKG	0.4600		
23-MAY-2014 00:36	BKG	0.5300	In	
24-MAY-2014 02:04	BKG	0.5000		
25-MAY-2014 12:03	BKG	0.4700		
28-MAY-2014 04:24	BKG	0.4500		
29-MAY-2014 04:37	BKG	0.4000		
30-MAY-2014 04:45	BKG	0.4400		
1-JUN-2014 02:34	BKG	0.4500		
3-JUN-2014 05:58	BKG	0.4400		
4-JUN-2014 06:10	BKG	0.4400		
5-JUN-2014 04:49	BKG	0.4300		
6-JUN-2014 05:03	BKG	0.5000		
8-JUN-2014 01:55	BKG	0.4200		
10-JUN-2014 04:41	BKG	0.4700		
11-JUN-2014 04:13	BKG	0.4300		
12-JUN-2014 01:47	BKG	0.3600		
✓13-JUN-2014 02:23	BKG	0.3800		

Quality Assurance Report. Generated 16-JUN-2014 16:26:47.02

QA Filename : RDND07$DKA100:[QUAD3.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : quad 3a 1" beta %eff
Parameter Units : percent Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 40.624569 Upper Bound : 44.900841

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 42.788147 Std Deviation : 3.600457

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-MAY-2014 06:32	CHK		42.5000	| | |
14-MAY-2014 06:24	CHK		42.0000	| | |
15-MAY-2014 06:21	CHK		42.1000	| | |
19-MAY-2014 06:12	CHK		41.8000	| | |
20-MAY-2014 06:15	CHK		42.2000	| | |
21-MAY-2014 06:20	CHK		42.2000	| | |
22-MAY-2014 06:15	CHK		42.4000	| | |
23-MAY-2014 07:37	CHK		42.4000	| | |
27-MAY-2014 06:08	CHK		42.6000	| | |
28-MAY-2014 06:23	CHK		42.7000	| | |
29-MAY-2014 06:22	CHK		42.3000	| | |
30-MAY-2014 06:16	CHK		42.2000	| | |
2-JUN-2014 06:19	CHK		42.2000	| | |
3-JUN-2014 06:33	CHK		42.7000	| | |
4-JUN-2014 06:33	CHK		42.7000	| | |
5-JUN-2014 06:28	CHK		43.4000	| | |
6-JUN-2014 06:14	CHK		43.3000	| | |
9-JUN-2014 06:17	CHK		44.1000	| | |
10-JUN-2014 06:19	CHK		43.7000	| | |
11-JUN-2014 06:17	CHK		42.5000	| | |
12-JUN-2014 06:20	CHK		43.2000	| | |
13-JUN-2014 06:40	CHK		43.4000	| | |

-- Multi-Test Full Report --

Description : quad 3b 1" beta %eff
Parameter Units : percent Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 42.270061 Upper Bound : 46.719540

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 44.265926 Std Deviation : 2.088031

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-MAY-2014 06:32	CHK		43.7000	| | |
14-MAY-2014 06:24	CHK		42.9000	| | |
15-MAY-2014 06:21	CHK		43.5000	| | |
19-MAY-2014 06:12	CHK		43.8000	| | |
20-MAY-2014 06:15	CHK		43.5000	| | |
21-MAY-2014 06:20	CHK		43.9000	| | |
22-MAY-2014 06:15	CHK		44.0000	| | |
23-MAY-2014 07:37	CHK		44.0000	| | |
27-MAY-2014 06:08	CHK		43.8000	| | |
28-MAY-2014 06:23	CHK		44.1000	| | |
29-MAY-2014 06:22	CHK		44.0000	| | |
30-MAY-2014 06:16	CHK		43.6000	| | |
2-JUN-2014 06:19	CHK		43.9000	| | |
3-JUN-2014 06:33	CHK		44.3000	| | |
4-JUN-2014 06:33	CHK		43.7000	| | |
5-JUN-2014 06:28	CHK		43.7000	| | |
6-JUN-2014 06:14	CHK		44.6000	| | |
9-JUN-2014 06:17	CHK		43.9000	| | |
10-JUN-2014 06:19	CHK		43.7000	| | |
11-JUN-2014 06:17	CHK		43.5000	| | |
12-JUN-2014 06:20	CHK		43.8000	| | |
13-JUN-2014 06:40	CHK		43.9000	| | |

-- Multi-Test Full Report --

Description : quad 3c 1" beta %eff
Parameter Units : percent Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 42.345211 Upper Bound : 46.802601

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 44.052593 Std Deviation : 3.673358

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-MAY-2014 06:32	CHK		43.8000	| | |
14-MAY-2014 06:24	CHK		43.3000	| | |
15-MAY-2014 06:21	CHK		43.7000	| | |
19-MAY-2014 06:12	CHK		43.7000	| | |

20-MAY-2014 06:15	CHK	44.3000	| |	|
21-MAY-2014 06:20	CHK	44.2000	| |	|
22-MAY-2014 06:15	CHK	44.0000	| |	|
23-MAY-2014 07:37	CHK	43.5000	| |	|
27-MAY-2014 06:08	CHK	43.5000	| |	|
28-MAY-2014 06:23	CHK	44.3000	| |	|
29-MAY-2014 06:22	CHK	43.9000	| |	|
30-MAY-2014 06:16	CHK	43.3000	| |	|
2-JUN-2014 06:19	CHK	43.7000	| |	|
3-JUN-2014 06:33	CHK	43.7000	| |	|
4-JUN-2014 06:33	CHK	44.0000	| |	|
5-JUN-2014 06:28	CHK	43.4000	| |	|

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
6-JUN-2014 06:14	CHK		43.4000	| | |
9-JUN-2014 06:17	CHK		43.5000	| | |
10-JUN-2014 06:19	CHK		44.0000	| | |
11-JUN-2014 06:17	CHK		43.9000	| | |
12-JUN-2014 06:20	CHK		44.1000	| | |
13-JUN-2014 06:40	CHK		43.4000	| | |

-- Multi-Test Full Report --

Description : quad 3d 1" beta %eff
Parameter Units : percent Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 41.807129 Upper Bound : 46.207878

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 43.562962 Std Deviation : 3.698118

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-MAY-2014 06:32	CHK		43.3000	| | |
14-MAY-2014 06:24	CHK		43.1000	| | |
15-MAY-2014 06:21	CHK		43.7000	| | |
19-MAY-2014 06:12	CHK		43.4000	| | |
20-MAY-2014 06:15	CHK		43.6000	| | |
21-MAY-2014 06:20	CHK		42.8000	| | |
22-MAY-2014 06:15	CHK		43.5000	| | |
23-MAY-2014 07:37	CHK		43.9000	| | |
27-MAY-2014 06:08	CHK		43.6000	| | |
28-MAY-2014 06:23	CHK		43.8000	| | |
29-MAY-2014 06:22	CHK		43.5000	| | |
30-MAY-2014 06:16	CHK		43.1000	| | |
2-JUN-2014 06:19	CHK		43.5000	| | |
3-JUN-2014 06:33	CHK		43.6000	| | |
4-JUN-2014 06:33	CHK		43.4000	| | |

5-JUN-2014 06:28	CHK	43.2000	| |	|
6-JUN-2014 06:14	CHK	43.3000	| |	|
9-JUN-2014 06:17	CHK	43.9000	| |	|
10-JUN-2014 06:19	CHK	43.1000	| |	|
11-JUN-2014 06:17	CHK	43.4000	| |	|
12-JUN-2014 06:20	CHK	43.7000	| |	|
13-JUN-2014 06:40	CHK	44.0000	| |	|

Quality Assurance Report. Generated 16-JUN-2014 16:26:47.49

QA Filename : RDND07$DKA100:[QUAD3.QA]BKG_1.QAF;3

-- Multi-Test Full Report --

Description : quad 3a 1" beta bkg, cpm
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 0.324392 Std Deviation : 0.042510

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
10-MAY-2014 17:40	BKG		0.3100	| | |
11-MAY-2014 00:23	BKG		0.3500	| | |
13-MAY-2014 02:08	BKG		0.2900	| | |
14-MAY-2014 00:21	BKG		0.3500	| | |
15-MAY-2014 00:45	BKG		0.3300	| | |
16-MAY-2014 00:44	BKG		0.3100	| | |
17-MAY-2014 01:26	BKG		0.3700	| | |
18-MAY-2014 12:08	BKG		0.2900	| | |
20-MAY-2014 01:46	BKG		0.3800	| | |
21-MAY-2014 01:07	BKG		0.3000	| | |
22-MAY-2014 02:03	BKG		0.2600	| | |
23-MAY-2014 00:36	BKG		0.2700	| | |
24-MAY-2014 02:04	BKG		0.3200	| | |
25-MAY-2014 12:02	BKG		0.2800	| | |
28-MAY-2014 04:24	BKG		0.2900	| | |
29-MAY-2014 04:37	BKG		0.2800	| | |
30-MAY-2014 04:44	BKG		0.3400	| | |
1-JUN-2014 02:34	BKG		0.2800	| | |
3-JUN-2014 05:58	BKG		0.3100	| | |
4-JUN-2014 06:10	BKG		0.3800	| | |
5-JUN-2014 04:54	BKG		0.3400	| | |
6-JUN-2014 05:08	BKG		0.3100	| | |
8-JUN-2014 01:55	BKG		0.3200	| | |
10-JUN-2014 04:41	BKG		0.2900	| | |
11-JUN-2014 04:13	BKG		0.5100	|Ac| |
12-JUN-2014 01:47	BKG		0.4800	|Ac| |
13-JUN-2014 02:22	BKG		0.5100	|Ac| |

-- Multi-Test Full Report --

Description : quad 3b 1" beta bkg, cpm
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 0.375541 Std Deviation : 0.045540

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
10-MAY-2014 17:40	BKG		0.3500	| | |
11-MAY-2014 00:23	BKG		0.4000	| | |
13-MAY-2014 02:08	BKG		0.3200	| | |
14-MAY-2014 00:21	BKG		0.4000	| | |
15-MAY-2014 00:45	BKG		0.3000	| | |
16-MAY-2014 00:44	BKG		0.3800	| | |
17-MAY-2014 01:26	BKG		0.4100	| | |
18-MAY-2014 12:08	BKG		0.3800	| | |
20-MAY-2014 01:46	BKG		0.3600	| | |
21-MAY-2014 01:07	BKG		0.3500	| | |
22-MAY-2014 02:03	BKG		0.3300	| | |
23-MAY-2014 00:36	BKG		0.3600	| | |
24-MAY-2014 02:04	BKG		0.3200	| | |
25-MAY-2014 12:02	BKG		0.4100	| | |
28-MAY-2014 04:24	BKG		0.3500	| | |
29-MAY-2014 04:37	BKG		0.4100	| | |
30-MAY-2014 04:44	BKG		0.3500	| | |
1-JUN-2014 02:34	BKG		0.3200	| | |
3-JUN-2014 05:58	BKG		0.3600	| | |
4-JUN-2014 06:10	BKG		0.3200	| | |
5-JUN-2014 04:54	BKG		0.4100	| | |
6-JUN-2014 05:08	BKG		0.3800	| | |
8-JUN-2014 01:55	BKG		0.3400	| | |
10-JUN-2014 04:41	BKG		0.4400	| | |
11-JUN-2014 04:13	BKG		0.4400	| | |
12-JUN-2014 01:47	BKG		0.3400	| | |
13-JUN-2014 02:22	BKG		0.3400	| | |

-- Multi-Test Full Report --

Description : quad 3c 1" beta bkg, cpm
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00

Mean : 0.346757 Std Deviation : 0.042638

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
10-MAY-2014 17:40	BKG		0.3700	| | |
11-MAY-2014 00:23	BKG		0.3600	| | |
13-MAY-2014 02:08	BKG		0.3500	| | |
14-MAY-2014 00:21	BKG		0.2800	| | |
15-MAY-2014 00:45	BKG		0.3100	| | |
16-MAY-2014 00:44	BKG		0.3700	| | |
17-MAY-2014 01:26	BKG		0.2900	| | |
18-MAY-2014 12:08	BKG		0.3100	| | |
20-MAY-2014 01:46	BKG		0.3100	| | |
21-MAY-2014 01:07	BKG		0.3300	| | |
22-MAY-2014 02:03	BKG		0.3300	| | |
23-MAY-2014 00:36	BKG		0.3900	| | |
24-MAY-2014 02:04	BKG		0.2800	| | |
25-MAY-2014 12:02	BKG		0.3300	| | |

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
28-MAY-2014 04:24	BKG		0.3200	| | |
29-MAY-2014 04:37	BKG		0.3500	| | |
30-MAY-2014 04:44	BKG		0.3000	| | |
1-JUN-2014 02:34	BKG		0.3800	| | |
3-JUN-2014 05:58	BKG		0.3700	| | |
4-JUN-2014 06:10	BKG		0.4100	| | |
5-JUN-2014 04:54	BKG		0.3400	| | |
6-JUN-2014 05:08	BKG		0.3600	| | |
8-JUN-2014 01:55	BKG		0.2700	| | |
10-JUN-2014 04:41	BKG		0.3300	| | |
11-JUN-2014 04:13	BKG		0.4200	| | |
12-JUN-2014 01:47	BKG		0.3400	| | |
13-JUN-2014 02:22	BKG		0.2900	| | |

-- Multi-Test Full Report --

Description : quad 3d 1" beta bkg, cpm
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 0.338243 Std Deviation : 0.043530

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
10-MAY-2014 17:40	BKG		0.3300	| | |
11-MAY-2014 00:23	BKG		0.3400	| | |
13-MAY-2014 02:08	BKG		0.2800	| | |
14-MAY-2014 00:21	BKG		0.2900	| | |
15-MAY-2014 00:45	BKG		0.2800	| | |

16-MAY-2014 00:44	BKG	0.3100		
17-MAY-2014 01:26	BKG	0.3200		
18-MAY-2014 12:08	BKG	0.3200		
20-MAY-2014 01:46	BKG	0.3800		
21-MAY-2014 01:07	BKG	0.3400		
22-MAY-2014 02:03	BKG	0.3300		
23-MAY-2014 00:36	BKG	0.3000		
24-MAY-2014 02:04	BKG	0.3500		
25-MAY-2014 12:02	BKG	0.2900		
28-MAY-2014 04:24	BKG	0.3000		
29-MAY-2014 04:37	BKG	0.2900		
30-MAY-2014 04:44	BKG	0.2800		
1-JUN-2014 02:34	BKG	0.2900		
3-JUN-2014 05:58	BKG	0.3500		
4-JUN-2014 06:10	BKG	0.3200		
5-JUN-2014 04:54	BKG	0.3300		
6-JUN-2014 05:08	BKG	0.3400		
8-JUN-2014 01:55	BKG	0.3500		
10-JUN-2014 04:41	BKG	0.4400	In	
11-JUN-2014 04:13	BKG	0.3900		
12-JUN-2014 01:47	BKG	0.2800		
13-JUN-2014 02:22	BKG	0.3600		

Batch Nbr: 4135024 Alpha Beta, RaTot by GPC , Results 6/13/2014 8:29:00 AM

Summary Report

Status	Meth	Matrix	Wrk Ord	Parameter	Sa Act	*Uncert	Q	Units	Av	ILcC	`IDC	QC	Trc Yld	LCS Yld
RaTot by GPC				Richland Standard Total Radium Wo Blk Subt. *CntU: 0+1, + *SystU, `MDCConst:2.71										
Calc	TD	WATER	**M3QEF1AA**	Ra	**3.94E-02**	**(9.70E-02)**	**U4**	pCi/L	R	1.85E-01	4.34E-01		82%	
Calc	TD	WATER	**M3QEG1AA**	Ra	**4.10E-01**	**(1.32E-01)**		pCi/L	R	1.64E-01	3.88E-01		93%	
Calc	TD	WATER	**M3QEG1AD**	Ra	**2.96E-01**	**(1.28E-01)**		pCi/L	R	1.91E-01	4.40E-01	**R**	93%	
Calc	TD	WATER	**M3QWL1AA**	Ra	**1.33E-01**	**(1.11E-01)**	**U4**	pCi/L	R	1.90E-01	4.47E-01	**B**	81%	
Calc	TD	WATER	**M3QWL1AC**	Ra	**6.07E+00**	**(7.47E-01)**		pCi/L	R	2.06E-01	4.79E-01	**S**	77%	96%

Below crit

6/16/14

() - (1s Uncertainities)
IDC - Instrument Detection Level in Conc Units
MLcC- Method Decision Level In Conc Units
MDC - Minimum Detectable Concentration
*Std - Lc, MDC using StdDev for Set of Blanks

Q - Qualifier, U is Less Than Lc = 1.645*TPU
All Results Displayed to Three Digits Reguardless of Significants
Date/Time - mm/dd/yy hh:mm:ss 24hr Time

RecCnt:5
RADCALC v4.8.69
TestAmerica

MSA-DMW-6S-050114

Batch Nbr: 4135024 — Alpha Beta, RaTot by GPC , Calculated Results — 6/13/2014 8:29:01 AM

Detailed Report

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
1	Calc	TD	WATER	*STLE	TotalRAWoBS	M3QEF1AA	pCi/L		05/01/14 12:35	06/12/14 15:27	06/10/14 13:55	RATC22271	1	g	
240,MSA-MW-27D-050114(240-36857-2)						,J4E130444-1	WATER			13.9		RATC22271 Alq		507.70 g	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Trc Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	06/12/14 16:17	Ra	13	34	GPC22A	1.5	N	N	2.3685E-01	1.0000E+00	N	82%	N		5.1643E-01	4.5045E+02	1.0000E+00	
			100	300			Y		(9.666E-03)	(0.000E+00)		7%			(0.000E+00)	0.00197		

Sq	CalcDate,TrcAct	Parameter	Avg	Sa Act, Total U	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	TrcYld,EnFct	LCSYld,EFctU	IDC/ILcC	BlkLcC/MDC	StdDvMdC/LcC
	06/13/14	Ra	R	**0.039433**		1.66667E-02	0.044444	0.044444	0.5077 L	82%		0.434492		
				(0.096996)		(4.0961E-02)	(0.109301)	(0.109301)	(0.173205)			0.185297		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
2	Calc	TD	WATER	*STLE	TotalRAWoBS	M3QEG1AA	pCi/L		05/01/14 15:17	06/12/14 15:27	06/10/14 13:55	RATC22272	1	g	
240,MSA-DMW-6S-050114(240-36857-3)						,J4E130444-2	WATER			15.8		RATC22272 Alq		501.40 g	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Trc Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	06/12/14 16:17	Ra	29	31	GPC22B	1.5	N	N	2.2745E-01	1.0000E+00	N	93%	N		5.1643E-01	4.5045E+02	1.0000E+00	
			100	300			Y		(7.972E-03)	(0.000E+00)		7%			(0.000E+00)	0.001994		

Sq	CalcDate,TrcAct	Parameter	Avg	Sa Act, Total U	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	TrcYld,EnFct	LCSYld,EFctU	IDC/ILcC	BlkLcC/MDC	StdDvMdC/LcC
	06/13/14	Ra	R	**0.409678**		1.86667E-01	0.456016	0.456016	0.5014 L	93%		0.387533		
				(0.131634)		(5.6960E-02)	(0.144738)	(0.144738)	(0.173205)			0.164126		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
3	Calc	TD	WATER	*STLE	TotalRAWoBS	M3QEG1AD	pCi/L	R	05/01/14 15:17	06/12/14 15:27	06/10/14 13:55	RATC22273	1	g	
240,MSA-DMW-6S-050114(240-36857-3) DUP						,J4E130444-	WATER			15.8		RATC22273 Alq		506.80 g	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Trc Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	06/12/14 16:17	Ra	28	43	GPC22C	1.5	N	N	2.2817E-01	1.0000E+00	N	93%	N		5.1643E-01	4.5045E+02	1.0000E+00	
			100	300			Y		(1.221E-02)	(0.000E+00)		7%			(0.000E+00)	0.001973		

Sq	CalcDate,TrcAct	Parameter	Avg	Sa Act, Total U	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	TrcYld,EnFct	LCSYld,EFctU	IDC/ILcC	BlkLcC/MDC	StdDvMdC/LcC
	06/13/14	Ra	R	**0.295814**		1.36667E-01	0.33282	0.33282	0.5068 L	93%		0.439709		
				(0.128008)		(5.7252E-02)	(0.143057)	(0.143057)	(0.173205)			0.190639		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
4	Calc	TD	WATER	*STLE	TotalRAWoBS	M3QWL1AA	pCi/L	B	05/01/14 12:35	06/12/14 15:27	06/10/14 13:55	RATC22274	1	g	
0,INTRA-LAB BLANK						,J4E150000-24 v4.8.69	WATER			13.8		RATC22274 Alq		501.00 g	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Trc Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	06/12/14 16:17	Ra	16	32	GPC22D	1.5	N	N	2.2915E-01	1.0000E+00	N	81%	N		5.1643E-01	4.5045E+02	1.0000E+00	
			100	300			Y		(8.811E-03)	(0.000E+00)		6%			(0.000E+00)	0.001996		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:4 RADCALC v4.8.69 TestAmerica

Batch Nbr: 4135024 Alpha Beta, RaTot by GPC , Calculated Results 6/13/2014 8:29:01 AM

Sq	CalcDate,TrcAct	Parameter	Avg	Sa Act, Total U	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	TrcYld,EnFct	LCSYld,EFctU	IDC/ILcC	BlkLcC/MDC	StdDvMdC/LcC
	06/13/14	Ra	R	**0.133128**		5.33333E-02	0.148068	0.148068	0.501 L	81%		0.446732		
				(0.111214)		(4.4222E-02)	(0.123473)	(0.123473)	(0.173205)			0.189656		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
5	Calc	TD	WATER	*STLE	TotalRAWoBS	**M3QWL1AC**	**pCi/L**	**S**	05/01/14 12:35	06/12/14 15:27	06/10/14 13:55	RTSA3850	1	g	
0,INTRA-LAB CHECK					,J4E150000-24 v4.8.69		WATER			13.1		RTSA3850 Alq		500.70 g	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Trc Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	06/12/14 16:17	Ra	257	38	GPC23A	1.5	N	N	2.4262E-01	1.0000E+00	N	77%	N		5.1643E-01	4.5045E+02	1.0000E+00	
			100	300			Y		(1.051E-02)	(0.000E+00)		6%			(0.000E+00)	0.001997		

Sq	CalcDate,TrcAct	Parameter	Avg	Sa Act, Total U	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	TrcYld,EnFct	LCSYld,EFctU	IDC/ILcC	BlkLcC/MDC	StdDvMdC/LcC
	06/13/14	Ra	R	**6.071703**		2.44333E+00	6.749026	6.749026	0.5007 L	77%	96%	0.478599		
				(0.747397)		(1.6162E-01)	(0.759147)	(0.759147)	(0.173205)			0.20575		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:5
RADCALC v4.8.69
TestAmerica

Eckert & Ziegler
Isotope Products

24937 Avenue Tibbitts
Valencia, California 91355

Tel 661•309•1010
Fax 661•257•8303

RA22609A000
6505
Rec: 10/20/2009

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide:	Ra-226	**Customer:**	TEST AMERICA
Half-life:	1600 ± 7 years	**P.O. No.:**	2328217
Catalog No.:	7226	**Reference Date:**	1-Nov-09 12:00 PST
Source No.:	1388-74	**Contained Radioactivity: (Ra-226 only)**	1.001 µCi 37.04 kBq

Physical Description:

A. Mass of solution:	5.15872 g in 5 mL flame-sealed ampoule
B. Chemical form:	$Ra(NO_3)_2$ in 1M HNO_3
C. Carrier content:	10 µg Ba/mL of solution
D. Density:	1.0318 g/mL @ 20°C

Radioimpurities:

None detected (daughters not in equilibrium as of 14-Oct-09)

Radionuclide Concentration: 0.1940 µCi/g, 7.178 kBq/g

Method of Calibration:

This source was prepared from a weighed aliquot of solution whose activity in µCi/g was determined using gamma ray spectrometry.

Peak energy used for integration:	186.0 keV
Branching ratio used:	0.0351 gammas per decay

Uncertainty of Measurement:

A. Type A (random) uncertainty:	± 0.5 %
B. Type B (systematic) uncertainty:	± 3.0 %
C. Uncertainty in aliquot weighing:	± 0.0 %
D. Total uncertainty at the 99% confidence level:	± 3.0 %

Notes:

- See reverse side for leak test(s) performed on this source.
- EZIP participates in a NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (as in NRC Regulatory Guide 4.15).
- Nuclear data was taken from NCRP Report No. 58, 1985.
- This solution has a working life of 5 years.

Daniel James Van Dalsem
Quality Control

15-OCT-09
Date

EZIP Ref. No.: 1388-74

Quality Assurance Report. Generated 13-JUN-2014 14:47:58.52

QA Filename : RDND07$DKA100:[QUAD23.QA]CHK.QAF;3

-- Multi-Test Full Report --

Description : Quad 23a Alpha %Eff
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 33.703186 Std Deviation : 1.036539

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 06:13	CHK		33.1000	| | |
2-MAY-2014 06:10	CHK		33.2000	| | |
3-MAY-2014 18:17	CHK		33.5000	| | |
5-MAY-2014 09:36	CHK		33.7000	| | |
6-MAY-2014 06:24	CHK		34.2000	| | |
7-MAY-2014 06:58	CHK		33.4000	| | |
8-MAY-2014 06:46	CHK		33.6000	| | |
9-MAY-2014 06:15	CHK		33.3000	| | |
12-MAY-2014 06:27	CHK		33.8000	| | |
12-MAY-2014 20:46	CHK		0.0000	|Ac| |
13-MAY-2014 06:05	CHK		33.7000	| | |
14-MAY-2014 06:19	CHK		33.2000	| | |
15-MAY-2014 06:19	CHK		33.2000	| | |
16-MAY-2014 06:15	CHK		33.7000	| | |
17-MAY-2014 07:37	CHK		34.1000	| | |
19-MAY-2014 06:17	CHK		33.2000	| | |
20-MAY-2014 06:11	CHK		33.4000	| | |
21-MAY-2014 06:17	CHK		33.6000	| | |
22-MAY-2014 06:09	CHK		33.5000	| | |
23-MAY-2014 07:29	CHK		33.9000	| | |
24-MAY-2014 07:28	CHK		33.5000	| | |
27-MAY-2014 06:16	CHK		33.3000	| | |
28-MAY-2014 06:28	CHK		33.5000	| | |
29-MAY-2014 06:20	CHK		33.6000	| | |
30-MAY-2014 06:13	CHK		33.5000	| | |
31-MAY-2014 14:42	CHK		33.5000	| | |
2-JUN-2014 06:19	CHK		33.9000	| | |
3-JUN-2014 06:17	CHK		33.5000	| | |
4-JUN-2014 06:06	CHK		34.0000	| | |
5-JUN-2014 06:30	CHK		34.0000	| | |
6-JUN-2014 06:11	CHK		33.8000	| | |
7-JUN-2014 07:57	CHK		33.6000	| | |
9-JUN-2014 06:16	CHK		33.0000	| | |
10-JUN-2014 06:15	CHK		33.8000	| | |
11-JUN-2014 06:07	CHK		33.8000	| | |

12-JUN-2014 06:17 CHK 33.4000 | | |
13-JUN-2014 06:38 CHK 33.8000 | | |

-- Multi-Test Full Report --

Description : Quad 238 Alpha %Eff
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 32.729935 Std Deviation : 0.353456

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 06:13	CHK		32.1000	| | |
2-MAY-2014 06:10	CHK		33.0000	| | |
3-MAY-2014 18:17	CHK		32.6000	| | |
5-MAY-2014 09:36	CHK		32.1000	| | |
6-MAY-2014 06:24	CHK		32.4000	| | |
7-MAY-2014 06:58	CHK		32.1000	| | |
8-MAY-2014 06:46	CHK		32.5000	| | |
9-MAY-2014 06:15	CHK		32.1000	| | |
12-MAY-2014 06:27	CHK		32.4000	| | |
12-MAY-2014 20:46	CHK		0.0000	|Ac| |
13-MAY-2014 06:05	CHK		32.4000	| | |
14-MAY-2014 06:19	CHK		32.5000	| | |
15-MAY-2014 06:19	CHK		32.7000	| | |
16-MAY-2014 06:15	CHK		32.3000	| | |
17-MAY-2014 07:37	CHK		33.0000	| | |
19-MAY-2014 06:17	CHK		32.4000	| | |
20-MAY-2014 06:11	CHK		32.7000	| | |
21-MAY-2014 06:17	CHK		32.7000	| | |
22-MAY-2014 06:09	CHK		32.2000	| | |
23-MAY-2014 07:29	CHK		32.1000	| | |
24-MAY-2014 07:28	CHK		31.9000	|In| |
27-MAY-2014 06:16	CHK		31.9000	|In| |
28-MAY-2014 06:28	CHK		32.7000	| | |
29-MAY-2014 06:20	CHK		32.8000	| | |
30-MAY-2014 06:13	CHK		32.3000	| | |
31-MAY-2014 14:42	CHK		32.9000	| | |
2-JUN-2014 06:19	CHK		32.1000	| | |
3-JUN-2014 06:17	CHK		32.9000	| | |
4-JUN-2014 06:06	CHK		32.9000	| | |
5-JUN-2014 06:30	CHK		32.9000	| | |
6-JUN-2014 06:11	CHK		32.1000	| | |
7-JUN-2014 07:57	CHK		32.7000	| | |
9-JUN-2014 06:16	CHK		32.8000	| | |
10-JUN-2014 06:15	CHK		33.0000	| | |

11-JUN-2014 06:07	CHK	33.0000	| | |
12-JUN-2014 06:17	CHK	32.2000	| | |
13-JUN-2014 06:38	CHK	32.7000	| | |

-- Multi-Test Full Report --

Description : Quad 23c Alpha %Eff
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 35.036304 Std Deviation : 0.287597

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 06:13	CHK		34.4000	|In| |
2-MAY-2014 06:10	CHK		34.5000	| | |
3-MAY-2014 18:17	CHK		34.7000	| | |
5-MAY-2014 09:36	CHK		34.4000	|In| |

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
6-MAY-2014 06:24	CHK		35.1000	| | |
7-MAY-2014 06:58	CHK		34.6000	| | |
8-MAY-2014 06:46	CHK		34.4000	|In| |
9-MAY-2014 06:15	CHK		34.4000	|In| |
12-MAY-2014 06:27	CHK		34.6000	| | |
12-MAY-2014 20:46	CHK		0.0000	|Ac| |
13-MAY-2014 06:05	CHK		34.9000	| | |
14-MAY-2014 06:19	CHK		35.0000	| | |
15-MAY-2014 06:19	CHK		34.4000	|In| |
16-MAY-2014 06:15	CHK		35.0000	| | |
17-MAY-2014 07:37	CHK		34.9000	| | |
19-MAY-2014 06:17	CHK		34.7000	| | |
20-MAY-2014 06:11	CHK		34.7000	| | |
21-MAY-2014 06:17	CHK		34.8000	| | |
22-MAY-2014 06:09	CHK		35.1000	| | |
23-MAY-2014 07:29	CHK		35.0000	| | |
24-MAY-2014 07:28	CHK		34.5000	| | |
27-MAY-2014 06:16	CHK		35.0000	| | |
28-MAY-2014 06:28	CHK		34.8000	| | |
29-MAY-2014 06:20	CHK		34.7000	| | |
30-MAY-2014 06:13	CHK		35.1000	| | |
31-MAY-2014 14:42	CHK		35.1000	| | |
2-JUN-2014 06:19	CHK		34.8000	| | |
3-JUN-2014 06:17	CHK		34.9000	| | |
4-JUN-2014 06:06	CHK		35.2000	| | |
5-JUN-2014 06:30	CHK		35.0000	| | |
6-JUN-2014 06:11	CHK		34.8000	| | |
7-JUN-2014 07:57	CHK		35.3000	| | |
9-JUN-2014 06:16	CHK		35.2000	| | |

10-JUN-2014 06:15	CHK	35.2000	| | |
11-JUN-2014 06:07	CHK	35.5000	| | |
12-JUN-2014 06:17	CHK	34.7000	| | |
13-JUN-2014 06:38	CHK	34.8000	| | |

-- Multi-Test Full Report --

Description : Quad 23d Alpha %Eff
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 33.421795 Std Deviation : 0.790124

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 06:13	CHK		33.5000	| | |
2-MAY-2014 06:10	CHK		33.5000	| | |
3-MAY-2014 18:17	CHK		33.4000	| | |
5-MAY-2014 09:36	CHK		32.9000	| | |
6-MAY-2014 06:24	CHK		33.5000	| | |
7-MAY-2014 06:58	CHK		33.3000	| | |
8-MAY-2014 06:46	CHK		33.4000	| | |
9-MAY-2014 06:15	CHK		33.4000	| | |

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-MAY-2014 06:27	CHK		33.2000	| | |
12-MAY-2014 20:46	CHK		0.0000	|Ac| |
13-MAY-2014 06:05	CHK		33.4000	| | |
14-MAY-2014 06:19	CHK		33.1000	| | |
15-MAY-2014 06:19	CHK		33.3000	| | |
16-MAY-2014 06:15	CHK		33.6000	| | |
17-MAY-2014 07:37	CHK		33.4000	| | |
19-MAY-2014 06:17	CHK		33.2000	| | |
20-MAY-2014 06:11	CHK		33.3000	| | |
21-MAY-2014 06:17	CHK		33.4000	| | |
22-MAY-2014 06:09	CHK		33.7000	| | |
23-MAY-2014 07:29	CHK		33.2000	| | |
24-MAY-2014 07:28	CHK		32.8000	| | |
27-MAY-2014 06:16	CHK		33.2000	| | |
28-MAY-2014 06:28	CHK		33.2000	| | |
29-MAY-2014 06:20	CHK		33.5000	| | |
30-MAY-2014 06:13	CHK		33.4000	| | |
31-MAY-2014 14:42	CHK		33.8000	| | |
2-JUN-2014 06:19	CHK		33.2000	| | |
3-JUN-2014 06:17	CHK		33.4000	| | |
4-JUN-2014 06:06	CHK		33.5000	| | |
5-JUN-2014 06:30	CHK		33.7000	| | |
6-JUN-2014 06:11	CHK		33.6000	| | |
7-JUN-2014 07:57	CHK		33.5000	| | |

9-JUN-2014 06:16	CHK	33.4000	| |	
10-JUN-2014 06:15	CHK	33.5000	| |	
11-JUN-2014 06:07	CHK	33.5000	| |	
12-JUN-2014 06:17	CHK	33.4000	| |	
13-JUN-2014 06:38	CHK	33.9000	| |	

Quality Assurance Report. Generated 13-JUN-2014 14:47:59.02

QA Filename : RDND07$DKA100:[QUAD23.QA]BKG_15.QAF;3

-- Multi-Test Full Report --

Description : Quad 23a Alpha Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 0.128455 Std Deviation : 0.025331

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 04:32	BKG		0.1000	| | |
2-MAY-2014 04:01	BKG		0.1100	| | |
3-MAY-2014 01:55	BKG		0.1200	| | |
4-MAY-2014 14:03	BKG		0.1100	| | |
6-MAY-2014 04:21	BKG		0.1500	| | |
7-MAY-2014 04:11	BKG		0.1100	| | |
8-MAY-2014 04:28	BKG		0.0900	| | |
9-MAY-2014 03:52	BKG		0.1700	| | |
10-MAY-2014 01:44	BKG		0.1300	| | |
11-MAY-2014 00:19	BKG		0.1300	| | |
13-MAY-2014 01:46	BKG		0.1300	| | |
14-MAY-2014 00:15	BKG		0.1100	| | |
15-MAY-2014 00:35	BKG		0.0900	| | |
16-MAY-2014 00:35	BKG		0.0900	| | |
17-MAY-2014 01:19	BKG		0.1000	| | |
18-MAY-2014 11:47	BKG		0.1200	| | |
20-MAY-2014 01:39	BKG		0.1000	| | |
21-MAY-2014 00:46	BKG		0.1500	| | |
22-MAY-2014 02:11	BKG		0.1100	| | |
23-MAY-2014 00:18	BKG		0.0900	| | |
24-MAY-2014 01:57	BKG		0.0800	| | |
25-MAY-2014 11:38	BKG		0.0900	| | |
28-MAY-2014 04:30	BKG		0.1000	| | |
29-MAY-2014 04:36	BKG		0.1200	| | |
30-MAY-2014 04:46	BKG		0.1100	| | |
31-MAY-2014 04:53	BKG		0.1300	| | |
1-JUN-2014 01:53	BKG		0.0900	| | |
3-JUN-2014 05:52	BKG		0.0900	| | |
4-JUN-2014 04:30	BKG		0.1000	| | |
5-JUN-2014 04:28	BKG		0.1100	| | |

6-JUN-2014 05:08	BKG	0.1300	| | |
7-JUN-2014 04:24	BKG	0.0700	|In| |
8-JUN-2014 02:12	BKG	0.0600	|In| |
10-JUN-2014 04:20	BKG	0.0900	| | |
11-JUN-2014 04:34	BKG	0.1200	| | |
12-JUN-2014 01:43	BKG	0.1300	| | |
13-JUN-2014 02:02	BKG	0.1000	| | |

-- Multi-Test Full Report --

Description : Quad 23b Alpha Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 0.117724 Std Deviation : 0.024619

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 04:32	BKG		0.1500	| | |
2-MAY-2014 04:01	BKG		0.1200	| | |
3-MAY-2014 01:55	BKG		0.1200	| | |
4-MAY-2014 14:03	BKG		0.1000	| | |
6-MAY-2014 04:21	BKG		0.1300	| | |
7-MAY-2014 04:11	BKG		0.1100	| | |
8-MAY-2014 04:28	BKG		0.0700	| | |
9-MAY-2014 03:52	BKG		0.1400	| | |
10-MAY-2014 01:44	BKG		0.1400	| | |
11-MAY-2014 00:19	BKG		0.1000	| | |
13-MAY-2014 01:46	BKG		0.1200	| | |
14-MAY-2014 00:15	BKG		0.1400	| | |
15-MAY-2014 00:35	BKG		0.1200	| | |
16-MAY-2014 00:35	BKG		0.0900	| | |
17-MAY-2014 01:19	BKG		0.1100	| | |
18-MAY-2014 11:47	BKG		0.1200	| | |
20-MAY-2014 01:39	BKG		0.1100	| | |
21-MAY-2014 00:46	BKG		0.1000	| | |
22-MAY-2014 02:11	BKG		0.1000	| | |
23-MAY-2014 00:18	BKG		0.0900	| | |
24-MAY-2014 01:57	BKG		0.1100	| | |
25-MAY-2014 11:38	BKG		0.1000	| | |
28-MAY-2014 04:30	BKG		0.1200	| | |
29-MAY-2014 04:36	BKG		0.1100	| | |
30-MAY-2014 04:46	BKG		0.1100	| | |
31-MAY-2014 04:53	BKG		0.1100	| | |
1-JUN-2014 01:53	BKG		0.0900	| | |
3-JUN-2014 05:52	BKG		0.1300	| | |
4-JUN-2014 04:30	BKG		0.0800	| | |

5-JUN-2014 04:28	BKG	0.1200	| |	
6-JUN-2014 05:08	BKG	0.1100	| |	
7-JUN-2014 04:24	BKG	0.1000	| |	
8-JUN-2014 02:12	BKG	0.1200	| |	
10-JUN-2014 04:20	BKG	0.1000	| |	
11-JUN-2014 04:34	BKG	0.1200	| |	
12-JUN-2014 01:43	BKG	0.1200	| |	
13-JUN-2014 02:02	BKG	0.1000	| |	

-- Multi-Test Full Report --

Description : Quad 23c Alpha Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 0.097337 Std Deviation : 0.021247

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 04:32	BKG		0.1100	| | |
2-MAY-2014 04:01	BKG		0.1000	| | |
3-MAY-2014 01:55	BKG		0.1100	| | |
4-MAY-2014 14:03	BKG		0.1100	| | |

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
6-MAY-2014 04:21	BKG		0.1200	| | |
7-MAY-2014 04:11	BKG		0.0900	| | |
8-MAY-2014 04:28	BKG		0.1000	| | |
9-MAY-2014 03:52	BKG		0.1300	| | |
10-MAY-2014 01:44	BKG		0.1000	| | |
11-MAY-2014 00:19	BKG		0.1100	| | |
13-MAY-2014 01:46	BKG		0.0800	| | |
14-MAY-2014 00:15	BKG		0.1100	| | |
15-MAY-2014 00:35	BKG		0.0600	| | |
16-MAY-2014 00:35	BKG		0.1000	| | |
17-MAY-2014 01:19	BKG		0.0600	| | |
18-MAY-2014 11:47	BKG		0.1100	| | |
20-MAY-2014 01:39	BKG		0.0800	| | |
21-MAY-2014 00:46	BKG		0.1100	| | |
22-MAY-2014 02:11	BKG		0.0700	| | |
23-MAY-2014 00:18	BKG		0.0800	| | |
24-MAY-2014 01:57	BKG		0.1200	| | |
25-MAY-2014 11:38	BKG		0.1100	| | |
28-MAY-2014 04:30	BKG		0.0800	| | |
29-MAY-2014 04:36	BKG		0.0700	| | |
30-MAY-2014 04:46	BKG		0.0700	| | |
31-MAY-2014 04:53	BKG		0.0700	| | |
1-JUN-2014 01:53	BKG		0.0600	| | |
3-JUN-2014 05:52	BKG		0.0600	| | |

4-JUN-2014 04:30	BKG	0.0700	| |	
5-JUN-2014 04:28	BKG	0.0800	| |	
6-JUN-2014 05:08	BKG	0.0900	| |	
7-JUN-2014 04:24	BKG	0.1000	| |	
8-JUN-2014 02:12	BKG	0.1000	| |	
10-JUN-2014 04:20	BKG	0.0700	| |	
11-JUN-2014 04:34	BKG	0.0900	| |	
12-JUN-2014 01:43	BKG	0.0700	| |	
13-JUN-2014 02:02	BKG	0.0700	| |	

-- Multi-Test Full Report --

Description : Quad 23d Alpha Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 0.109126 Std Deviation : 0.023726

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 04:32	BKG		0.1100	| | |
2-MAY-2014 04:01	BKG		0.1300	| | |
3-MAY-2014 01:55	BKG		0.1000	| | |
4-MAY-2014 14:03	BKG		0.1000	| | |
6-MAY-2014 04:21	BKG		0.1000	| | |
7-MAY-2014 04:11	BKG		0.1100	| | |
8-MAY-2014 04:28	BKG		0.1100	| | |
9-MAY-2014 03:52	BKG		0.1200	| | |

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
10-MAY-2014 01:44	BKG		0.1000	| | |
11-MAY-2014 00:19	BKG		0.1100	| | |
13-MAY-2014 01:46	BKG		0.1600	|In| |
14-MAY-2014 00:15	BKG		0.1300	| | |
15-MAY-2014 00:35	BKG		0.1000	| | |
16-MAY-2014 00:35	BKG		0.1100	| | |
17-MAY-2014 01:19	BKG		0.1000	| | |
18-MAY-2014 11:47	BKG		0.1100	| | |
20-MAY-2014 01:39	BKG		0.1000	| | |
21-MAY-2014 00:46	BKG		0.1100	| | |
22-MAY-2014 02:11	BKG		0.0900	| | |
23-MAY-2014 00:18	BKG		0.0900	| | |
24-MAY-2014 01:57	BKG		0.1300	| | |
25-MAY-2014 11:38	BKG		0.1100	| | |
28-MAY-2014 04:30	BKG		0.0900	| | |
29-MAY-2014 04:36	BKG		0.0900	| | |
30-MAY-2014 04:46	BKG		0.0800	| | |
31-MAY-2014 04:53	BKG		0.0900	| | |
1-JUN-2014 01:53	BKG		0.0900	| | |

3-JUN-2014 05:52	BKG	0.1100	|	|
4-JUN-2014 04:30	BKG	0.1200	|	|
5-JUN-2014 04:28	BKG	0.0800	|	|
6-JUN-2014 05:08	BKG	0.1000	|	|
7-JUN-2014 04:24	BKG	0.1000	|	|
8-JUN-2014 02:12	BKG	0.1000	|	|
10-JUN-2014 04:20	BKG	0.1000	|	|
11-JUN-2014 04:34	BKG	0.1000	|	|
12-JUN-2014 01:43	BKG	0.1000	|	|
13-JUN-2014 02:02	BKG	0.1300	|	|

Quality Assurance Report. Generated 13-JUN-2014 14:47:44.38

QA Filename : RDND07$DKA100:[QUAD22.QA]CHK.QAF;3

-- Multi-Test Full Report --

Description : Quad 22a Alpha %Eff
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 32.270000 Std Deviation : 0.947874

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 06:07	CHK		31.9000	| | |
2-MAY-2014 06:02	CHK		32.8000	| | |
3-MAY-2014 18:11	CHK		32.9000	| | |
5-MAY-2014 08:48	CHK		32.6000	| | |
6-MAY-2014 06:15	CHK		32.4000	| | |
7-MAY-2014 06:51	CHK		32.2000	| | |
8-MAY-2014 06:41	CHK		31.8000	| | |
9-MAY-2014 06:06	CHK		32.4000	| | |
10-MAY-2014 11:56	CHK		32.6000	| | |
12-MAY-2014 06:21	CHK		32.6000	| | |
12-MAY-2014 20:46	CHK		0.0000	|Ac| |
13-MAY-2014 05:57	CHK		32.7000	| | |
14-MAY-2014 06:12	CHK		32.0000	| | |
15-MAY-2014 06:12	CHK		32.1000	| | |
16-MAY-2014 06:09	CHK		32.7000	| | |
17-MAY-2014 07:28	CHK		32.3000	| | |
19-MAY-2014 06:11	CHK		32.5000	| | |
20-MAY-2014 06:04	CHK		32.3000	| | |
21-MAY-2014 06:10	CHK		32.4000	| | |
22-MAY-2014 06:04	CHK		32.1000	| | |
23-MAY-2014 07:24	CHK		32.6000	| | |
24-MAY-2014 07:22	CHK		32.2000	| | |
27-MAY-2014 06:03	CHK		32.1000	| | |
28-MAY-2014 06:16	CHK		32.4000	| | |
29-MAY-2014 06:11	CHK		32.3000	| | |
30-MAY-2014 06:03	CHK		32.3000	| | |
31-MAY-2014 14:30	CHK		31.8000	| | |
2-JUN-2014 06:13	CHK		32.3000	| | |
3-JUN-2014 06:09	CHK		31.5000	| | |
4-JUN-2014 05:58	CHK		32.3000	| | |
5-JUN-2014 06:18	CHK		32.5000	| | |
6-JUN-2014 06:04	CHK		32.4000	| | |
7-JUN-2014 07:51	CHK		32.3000	| | |
9-JUN-2014 06:09	CHK		31.7000	| | |
10-JUN-2014 06:10	CHK		32.5000	| | |

11-JUN-2014 06:02	CHK	32.3000	| |	|
12-JUN-2014 06:10	CHK	32.6000	| |	|
13-JUN-2014 06:30	CHK	32.3000	| |	|

-- Multi-Test Full Report --

Description : Quad 22b Alpha %Eff
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 30.270000 Std Deviation : 0.508889

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 06:07	CHK		30.2000	| | |
2-MAY-2014 06:02	CHK		30.9000	| | |
3-MAY-2014 18:11	CHK		30.7000	| | |
5-MAY-2014 08:48	CHK		29.8000	| | |
6-MAY-2014 06:15	CHK		29.5000	| | |
7-MAY-2014 06:51	CHK		30.1000	| | |
8-MAY-2014 06:41	CHK		29.7000	| | |
9-MAY-2014 06:06	CHK		29.6000	| | |
10-MAY-2014 11:56	CHK		30.1000	| | |
12-MAY-2014 06:21	CHK		30.1000	| | |
12-MAY-2014 20:46	CHK		0.0000	|Ac| |
13-MAY-2014 05:57	CHK		30.4000	| | |
14-MAY-2014 06:12	CHK		30.0000	| | |
15-MAY-2014 06:12	CHK		30.2000	| | |
16-MAY-2014 06:09	CHK		29.8000	| | |
17-MAY-2014 07:28	CHK		30.2000	| | |
19-MAY-2014 06:11	CHK		30.2000	| | |
20-MAY-2014 06:04	CHK		30.5000	| | |
21-MAY-2014 06:10	CHK		31.0000	| | |
22-MAY-2014 06:04	CHK		29.8000	| | |
23-MAY-2014 07:24	CHK		29.6000	| | |
24-MAY-2014 07:22	CHK		29.3000	| | |
27-MAY-2014 06:03	CHK		29.3000	| | |
28-MAY-2014 06:16	CHK		30.2000	| | |
29-MAY-2014 06:11	CHK		30.6000	| | |
30-MAY-2014 06:03	CHK		29.5000	| | |
31-MAY-2014 14:30	CHK		30.2000	| | |
2-JUN-2014 06:13	CHK		29.7000	| | |
3-JUN-2014 06:09	CHK		30.6000	| | |
4-JUN-2014 05:58	CHK		30.2000	| | |
5-JUN-2014 06:18	CHK		30.7000	| | |
6-JUN-2014 06:04	CHK		30.3000	| | |
7-JUN-2014 07:51	CHK		30.0000	| | |

9-JUN-2014 06:09	CHK	30.9000	| |	|
10-JUN-2014 06:10	CHK	30.8000	| |	|
11-JUN-2014 06:02	CHK	30.5000	| |	|
12-JUN-2014 06:10	CHK	30.0000	| |	|
13-JUN-2014 06:30	CHK	30.2000	| |	|

-- Multi-Test Full Report --

Description : Quad 22c Alpha %Eff
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 32.110001 Std Deviation : 0.331036

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 06:07	CHK		32.1000	| | | |
2-MAY-2014 06:02	CHK		32.1000	| | | |
3-MAY-2014 18:11	CHK		31.8000	| | | |

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
5-MAY-2014 08:48	CHK		32.1000	| | | |
6-MAY-2014 06:15	CHK		32.1000	| | | |
7-MAY-2014 06:51	CHK		31.8000	| | | |
8-MAY-2014 06:41	CHK		32.0000	| | | |
9-MAY-2014 06:06	CHK		31.9000	| | | |
10-MAY-2014 11:56	CHK		31.8000	| | | |
12-MAY-2014 06:21	CHK		32.1000	| | | |
12-MAY-2014 20:46	CHK		0.0000	|Ac| | |
13-MAY-2014 05:57	CHK		32.5000	| | | |
14-MAY-2014 06:12	CHK		32.4000	| | | |
15-MAY-2014 06:12	CHK		32.1000	| | | |
16-MAY-2014 06:09	CHK		32.4000	| | | |
17-MAY-2014 07:28	CHK		31.8000	| | | |
19-MAY-2014 06:11	CHK		31.7000	| | | |
20-MAY-2014 06:04	CHK		32.0000	| | | |
21-MAY-2014 06:10	CHK		31.6000	| | | |
22-MAY-2014 06:04	CHK		31.7000	| | | |
23-MAY-2014 07:24	CHK		32.1000	| | | |
24-MAY-2014 07:22	CHK		30.9000	|Ac| | |
27-MAY-2014 06:03	CHK		31.9000	| | | |
28-MAY-2014 06:16	CHK		32.3000	| | | |
29-MAY-2014 06:11	CHK		32.0000	| | | |
30-MAY-2014 06:03	CHK		32.3000	| | | |
31-MAY-2014 14:30	CHK		31.7000	| | | |
2-JUN-2014 06:13	CHK		32.1000	| | | |
3-JUN-2014 06:09	CHK		32.1000	| | | |
4-JUN-2014 05:58	CHK		31.9000	| | | |
5-JUN-2014 06:18	CHK		32.1000	| | | |

6-JUN-2014 06:04	CHK	31.9000	| |	|
7-JUN-2014 07:51	CHK	32.1000	| |	|
9-JUN-2014 06:09	CHK	32.0000	| |	|
10-JUN-2014 06:10	CHK	32.3000	| |	|
11-JUN-2014 06:02	CHK	31.9000	| |	|
12-JUN-2014 06:10	CHK	32.0000	| |	|
13-JUN-2014 06:30	CHK	31.6000	| |	|

-- Multi-Test Full Report --

Description : Quad 22d Alpha %Eff
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 31.080000 Std Deviation : 0.834688

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 06:07	CHK		31.8000	| | |
2-MAY-2014 06:02	CHK		31.2000	| | |
3-MAY-2014 18:11	CHK		31.2000	| | |
5-MAY-2014 08:48	CHK		30.1000	| | |
6-MAY-2014 06:15	CHK		31.1000	| | |
7-MAY-2014 06:51	CHK		30.7000	| | |

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-MAY-2014 06:41	CHK		31.8000	| | |
9-MAY-2014 06:06	CHK		31.5000	| | |
10-MAY-2014 11:56	CHK		31.8000	| | |
12-MAY-2014 06:21	CHK		30.6000	| | |
12-MAY-2014 20:46	CHK		0.0000	|Ac| |
13-MAY-2014 05:57	CHK		31.8000	| | |
14-MAY-2014 06:12	CHK		30.6000	| | |
15-MAY-2014 06:12	CHK		31.1000	| | |
16-MAY-2014 06:09	CHK		31.2000	| | |
17-MAY-2014 07:28	CHK		30.8000	| | |
19-MAY-2014 06:11	CHK		30.7000	| | |
20-MAY-2014 06:04	CHK		30.7000	| | |
21-MAY-2014 06:10	CHK		31.3000	| | |
22-MAY-2014 06:04	CHK		31.7000	| | |
23-MAY-2014 07:24	CHK		30.4000	| | |
24-MAY-2014 07:22	CHK		30.7000	| | |
27-MAY-2014 06:03	CHK		31.3000	| | |
28-MAY-2014 06:16	CHK		30.3000	| | |
29-MAY-2014 06:11	CHK		31.4000	| | |
30-MAY-2014 06:03	CHK		30.6000	| | |
31-MAY-2014 14:30	CHK		30.6000	| | |
2-JUN-2014 06:13	CHK		30.3000	| | |
3-JUN-2014 06:09	CHK		31.4000	| | |

4-JUN-2014 05:58	CHK	30.6000	| |	|
5-JUN-2014 06:18	CHK	30.9000	| |	|
6-JUN-2014 06:04	CHK	30.7000	| |	|
7-JUN-2014 07:51	CHK	31.1000	| |	|
9-JUN-2014 06:09	CHK	31.5000	| |	|
10-JUN-2014 06:10	CHK	30.9000	| |	|
11-JUN-2014 06:02	CHK	30.9000	| |	|
12-JUN-2014 06:10	CHK	31.6000	| |	|
13-JUN-2014 06:30	CHK	30.9000	| |	|

Quality Assurance Report. Generated 13-JUN-2014 14:47:44.87

QA Filename : RDND07$DKA100:[QUAD22.QA]BKG_15.QAF;3

-- Multi-Test Full Report --

Description : Quad 22a Alpha Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 0.130848 Std Deviation : 0.027924

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 04:32	BKG		0.1000	| | |
2-MAY-2014 04:01	BKG		0.1100	| | |
3-MAY-2014 01:55	BKG		0.0800	| | |
4-MAY-2014 14:03	BKG		0.1400	| | |
6-MAY-2014 04:21	BKG		0.0900	| | |
7-MAY-2014 04:11	BKG		0.1000	| | |
8-MAY-2014 04:29	BKG		0.1000	| | |
9-MAY-2014 03:52	BKG		0.1400	| | |
10-MAY-2014 01:44	BKG		0.1300	| | |
11-MAY-2014 00:19	BKG		0.1200	| | |
13-MAY-2014 01:47	BKG		0.1100	| | |
14-MAY-2014 00:15	BKG		0.1200	| | |
15-MAY-2014 00:35	BKG		0.1100	| | |
16-MAY-2014 00:35	BKG		0.0800	| | |
17-MAY-2014 01:19	BKG		0.0900	| | |
18-MAY-2014 11:47	BKG		0.0600	|In| |
20-MAY-2014 01:39	BKG		0.1000	| | |
21-MAY-2014 00:46	BKG		0.1000	| | |
22-MAY-2014 02:11	BKG		0.0700	|In| |
23-MAY-2014 00:17	BKG		0.0900	| | |
24-MAY-2014 01:57	BKG		0.1100	| | |
25-MAY-2014 11:38	BKG		0.1100	| | |
28-MAY-2014 04:30	BKG		0.1200	| | |
29-MAY-2014 04:36	BKG		0.1000	| | |
30-MAY-2014 04:46	BKG		0.1000	| | |
31-MAY-2014 04:53	BKG		0.1200	| | |

1-JUN-2014 01:53	BKG	0.1000		
3-JUN-2014 05:52	BKG	0.1000		
4-JUN-2014 04:30	BKG	0.1400		
5-JUN-2014 04:28	BKG	0.1000		
6-JUN-2014 05:08	BKG	0.1100		
7-JUN-2014 04:24	BKG	0.1100		
8-JUN-2014 02:12	BKG	0.1000		
10-JUN-2014 04:20	BKG	0.1300		
11-JUN-2014 04:34	BKG	0.1300		
12-JUN-2014 01:43	BKG	0.1100		
13-JUN-2014 02:02	BKG	0.0900		

-- Multi-Test Full Report --

Description : Quad 22b Alpha Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 0.128222 Std Deviation : 0.025067

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 04:32	BKG		0.1500	| | |
2-MAY-2014 04:01	BKG		0.1400	| | |
3-MAY-2014 01:55	BKG		0.6500	|Ac| |
4-MAY-2014 14:03	BKG		0.1300	| | |
6-MAY-2014 04:21	BKG		0.1600	| | |
7-MAY-2014 04:11	BKG		0.1300	| | |
8-MAY-2014 04:29	BKG		0.1100	| | |
9-MAY-2014 03:52	BKG		0.1200	| | |
10-MAY-2014 01:44	BKG		0.1000	| | |
11-MAY-2014 00:19	BKG		0.0900	| | |
13-MAY-2014 01:47	BKG		0.1200	| | |
14-MAY-2014 00:15	BKG		0.1500	| | |
15-MAY-2014 00:35	BKG		0.1400	| | |
16-MAY-2014 00:35	BKG		0.1100	| | |
17-MAY-2014 01:19	BKG		0.1300	| | |
18-MAY-2014 11:47	BKG		0.1300	| | |
20-MAY-2014 01:39	BKG		0.0800	| | |
21-MAY-2014 00:46	BKG		0.1300	| | |
22-MAY-2014 02:11	BKG		0.0800	| | |
23-MAY-2014 00:17	BKG		0.1400	| | |
24-MAY-2014 01:57	BKG		0.1000	| | |
25-MAY-2014 11:38	BKG		0.1600	| | |
28-MAY-2014 04:30	BKG		0.1000	| | |
29-MAY-2014 04:36	BKG		0.0900	| | |
30-MAY-2014 04:46	BKG		0.1000	| | |

31-MAY-2014 04:53	BKG	0.1400	| | |
1-JUN-2014 01:53	BKG	0.1100	| | |
3-JUN-2014 05:52	BKG	0.0900	| | |
4-JUN-2014 04:30	BKG	0.1400	| | |
5-JUN-2014 04:28	BKG	0.1500	| | |
6-JUN-2014 05:08	BKG	0.1000	| | |
7-JUN-2014 04:24	BKG	0.1000	| | |
8-JUN-2014 02:12	BKG	0.1500	| | |
10-JUN-2014 04:20	BKG	0.1100	| | |
11-JUN-2014 04:34	BKG	0.1400	| | |
12-JUN-2014 01:43	BKG	0.1000	| | |
13-JUN-2014 02:02	BKG	0.1000	| | |

-- Multi-Test Full Report --

Description : Quad 22c Alpha Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 0.133253 Std Deviation : 0.025117

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 04:32	BKG		0.1400	| | |
2-MAY-2014 04:01	BKG		0.2000	|In| |
3-MAY-2014 01:55	BKG		0.1900	|In| |
4-MAY-2014 14:03	BKG		0.1600	| | |

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
6-MAY-2014 04:21	BKG		0.1900	|In| |
7-MAY-2014 04:11	BKG		0.1400	| | |
8-MAY-2014 04:29	BKG		0.1200	| | |
9-MAY-2014 03:52	BKG		0.1200	| | |
10-MAY-2014 01:44	BKG		0.1300	| | |
11-MAY-2014 00:19	BKG		0.1300	| | |
13-MAY-2014 01:47	BKG		0.1200	| | |
14-MAY-2014 00:15	BKG		0.1300	| | |
15-MAY-2014 00:35	BKG		0.1500	| | |
16-MAY-2014 00:35	BKG		0.1400	| | |
17-MAY-2014 01:19	BKG		0.1500	| | |
18-MAY-2014 11:47	BKG		0.1400	| | |
20-MAY-2014 01:39	BKG		0.1200	| | |
21-MAY-2014 00:46	BKG		0.1800	| | |
22-MAY-2014 02:11	BKG		0.1200	| | |
23-MAY-2014 00:17	BKG		0.1300	| | |
24-MAY-2014 01:57	BKG		0.1300	| | |
25-MAY-2014 11:38	BKG		0.1600	| | |
28-MAY-2014 04:30	BKG		0.1000	| | |
29-MAY-2014 04:36	BKG		0.1400	| | |

30-MAY-2014 04:46	BKG		0.1100	| | |
31-MAY-2014 04:53	BKG		0.1300	| | |
1-JUN-2014 01:53	BKG		0.1100	| | |
3-JUN-2014 05:52	BKG		0.1100	| | |
4-JUN-2014 04:30	BKG		0.1200	| | |
5-JUN-2014 04:28	BKG		0.1100	| | |
6-JUN-2014 05:08	BKG		0.1500	| | |
7-JUN-2014 04:24	BKG		0.1400	| | |
8-JUN-2014 02:12	BKG		0.1200	| | |
10-JUN-2014 04:20	BKG		0.1300	| | |
11-JUN-2014 04:34	BKG		0.1400	| | |
12-JUN-2014 01:43	BKG		0.1400	| | |
13-JUN-2014 02:02	BKG		0.1100	| | |

-- Multi-Test Full Report --

Description : Quad 22d Alpha Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2013 00:00 End Date : 1-JAN-2014 00:00
Mean : 0.110141 Std Deviation : 0.022543

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-MAY-2014 04:32	BKG		0.1200	| | |
2-MAY-2014 04:01	BKG		0.1300	| | |
3-MAY-2014 01:55	BKG		0.1000	| | |
4-MAY-2014 14:03	BKG		0.1100	| | |
6-MAY-2014 04:21	BKG		0.1000	| | |
7-MAY-2014 04:11	BKG		0.1000	| | |
8-MAY-2014 04:29	BKG		0.1400	| | |
9-MAY-2014 03:52	BKG		0.1200	| | |

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
10-MAY-2014 01:44	BKG		0.1200	| | |
11-MAY-2014 00:19	BKG		0.1600	|In| |
13-MAY-2014 01:47	BKG		0.1300	| | |
14-MAY-2014 00:15	BKG		0.1200	| | |
15-MAY-2014 00:35	BKG		0.1200	| | |
16-MAY-2014 00:35	BKG		0.1200	| | |
17-MAY-2014 01:19	BKG		0.1100	| | |
18-MAY-2014 11:47	BKG		0.1100	| | |
20-MAY-2014 01:39	BKG		0.0900	| | |
21-MAY-2014 00:46	BKG		0.1200	| | |
22-MAY-2014 02:11	BKG		0.1100	| | |
23-MAY-2014 00:17	BKG		0.1400	| | |
24-MAY-2014 01:57	BKG		0.1200	| | |
25-MAY-2014 11:38	BKG		0.1400	| | |
28-MAY-2014 04:30	BKG		0.1100	| | |

29-MAY-2014 04:36	BKG	0.0800	|	|
30-MAY-2014 04:46	BKG	0.1200	|	|
31-MAY-2014 04:53	BKG	0.1100	|	|
1-JUN-2014 01:53	BKG	0.1300	|	|
3-JUN-2014 05:52	BKG	0.1100	|	|
4-JUN-2014 04:30	BKG	0.1500	|	|
5-JUN-2014 04:28	BKG	0.1400	|	|
6-JUN-2014 05:08	BKG	0.1100	|	|
7-JUN-2014 04:24	BKG	0.1000	|	|
8-JUN-2014 02:12	BKG	0.0900	|	|
10-JUN-2014 04:20	BKG	0.1300	|	|
11-JUN-2014 04:34	BKG	0.0900	|	|
12-JUN-2014 01:43	BKG	0.1100	|	|
13-JUN-2014 02:02	BKG	0.0800	|	|

TETRA TECH **INTERNAL CORRESPONDENCE**

TO:	**T. APANAVAGE**	**DATE:**	**JULY 24, 2014**
FROM:	**EDWARD SEDLMYER**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – DISSOLVED HEXAVALENT CHROMIUM**
MARTIN STATE AIRPORT (MSA)
SAMPLE DELIVERY GROUP (SDG) R1403920

SAMPLES: 3 / Aqueous / Dissolved Hexavalent Chromium

MSA-MW-29D-052714 MSA-MW-30D-052714 MSA-MW-31D-052714

Overview

The sample set for Lockheed – MSA, SDG R1403920 consists of three (3) aqueous environmental samples. All samples were analyzed for dissolved hexavalent chromium.

The samples were collected by Tetra Tech on May 27, 2014 and analyzed by ALS Group. All analyses were conducted in accordance with EPA Method 218.6 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibrations, laboratory method blank results, laboratory control sample results, chromatographic resolution, analyte quantitation, and detection limits. Areas of concern are listed below. Areas of concern are listed below.

Major

- No concerns were noted.

Minor

- Sample MSA-MW-30D-052714 was analyzed approximately two hours outside the 24 hour holding time. The detected result reported for hexavalent chromium was qualified as estimated, (J).

Executive Summary

Laboratory Performance: One sample result was qualified due to a hold time noncompliance.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to USEPA National Functional Guidelines for Inorganic Data Validation (January 2010). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Edward Sedlmyer
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 06183	NSAMPLE	MSA-MW-29D-052714			MSA-MW-30D-052714			MSA-MW-31D-052714		
SDG: R1403920	LAB_ID	R1403920-003			R1403920-001			R1403920-002		
FRACTION: MISC	SAMP_DATE	5/27/2014			5/27/2014			5/27/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.097			0.753	J	H	0.081		

Appendix B

Results as Reported by the Laboratory

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183
Sample Matrix: Water

Service Request: R1403920
Date Collected: 5/27/14 1640
Date Received: 5/28/14

Sample Name: MSA-MW-29D-052714
Lab Code: R1403920-003

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.097		µg/L	0.020	0.014	1	NA	5/28/14 13:56	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1403920
Project:	MSA Groundwater/112IC06183	**Date Collected:**	5/27/14 1123
Sample Matrix:	Water	**Date Received:**	5/28/14
Sample Name:	MSA-MW-30D-052714		
Lab Code:	R1403920-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.753		µg/L	0.020	0.014	1	NA	5/28/14 13:40	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1403920
Project:	MSA Groundwater/112IC06183	**Date Collected:**	5/27/14 1503
Sample Matrix:	Water	**Date Received:**	5/28/14
Sample Name:	MSA-MW-31D-052714		
Lab Code:	R1403920-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	**0.081**		µg/L	0.020	0.014	1	NA	5/28/14 13:48	

Appendix C

Support Documentation

HOLDTIME

SDG R1403920

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MSA-MW-31D-052714	R1403920-002	NM	05/27/2014	05/28/2014	05/28/2014	1	0	1
CR6	UG/L	MSA-MW-30D-052714	R1403920-001	NM	05/27/2014	05/28/2014	05/28/2014	1	0	1
CR6	UG/L	MSA-MW-29D-052714	R1403920-003	NM	05/27/2014	05/28/2014	05/28/2014	1	0	1

May 30, 2014

Service Request No: R1403920

Ms. Samantha Brenner
Tetra Tech NUS,Inc.
20251 Century Blvd. Ste. 200
Germantown, MD 20874-7114

Laboratory Results for: MSA Groundwater/112IC06183

Dear Ms. Brenner:

Enclosed are the results of the sample(s) submitted to our laboratory on May 28, 2014. For your reference, these analyses have been assigned our service request number **R1403920**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7473. You may also contact me via email at Deb.Patton@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Deb Patton
Project Manager

CC: Amy Thomson

ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623 PHONE 585-288-5380 | FAX 585-288-8475
ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

Environmental www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

CASE NARRATIVE

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1403920
Project:	MSA Ground Water	**Project Number:**	112IC06183
Sample Matrix:	Water	**Date Received:**	5/28/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 5/27/14 and received at ALS in good condition at a cooler temperature of 0.0°C as noted on the cooler receipt and preservation check form. The sample preservation was checked upon receipt and samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CLP Batching sheets for a cross-reference between Client ID and ALS Job # and analyses requested. Sample ID were changed per client request to match bottle ID's.

Hexavalent Chromium Analysis – 218.6

Three water samples were analyzed for Dissolved CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

Note: Sample MSA-MW-30D-052714 (R1403920-001) was analyzed outside of the client requested 24 hours holding time but within method specified holding time of 28 days. All samples were analyzed on the same day they were received.

All the initial and continuing calibration criteria of 95 – 105 % were met.

The Blank Spike (LCS) recovery was within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 112IC06183	Batch Complete: Yes	Date Revised:
Submission: R1403920	Diskette Requested: No	Date Due: 6/18/14
Client: Tetra Tech NUS, Inc.	Date: 5/30/14	Protocol: MCAWW
Client Rep: DPATTON	Custody Seal: Present/Absent:	Shipping No.:
Project: MSA Groundwater	Chain of Custody: Present/Absent:	SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1403920-001	MSA-MW-30D-052714	Water	218.6 LL	5/27/14	5/28/14			
R1403920-002	MSA-MW-31D-052714	Water	218.6 LL	5/27/14	5/28/14			
R1403920-003	MSA-MW-29D-052714	Water	218.6 LL	5/27/14	5/28/14			

00003

Folder Comments:

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 15146

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: MSA GW 2014	Project Number: 112IC06183
Project Manager: Tony Aparavage	Report CC:
Company/Address: Tetra Tech Inc 20251 Century Blvd STE 200 Germantown, MD 20874	
Phone #: 301 528-3021	Email:
Sampler's Signature: Walt Payun	Sampler's Printed Name: Walt Payun

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Hex Chrom 218.6												REMARKS/ ALTERNATE DESCRIPTION
MSA-MW-30D-052714		5-27-14	1123	GW	1								X												
MSA-MW-31D-052714		"	1503	"	1								X												
MSA-MW-29D-052714		"	1640	"	1								X												

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals
* 24 TAT *

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____ Yes ____ No

INVOICE INFORMATION
PO #
BILL TO:

STATE WHERE SAMPLES WERE COLLECTED Maryland

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Walt Pa	Signature: Lacey Gaston	Signature:	Signature:	Signature:	Signature:
Printed Name: Walt Payun	Printed Name: Lacey Gaston	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: TT Inc	Firm: ALS	Firm:	Firm:	Firm:	Firm:
Date/Time: 5-27-14 1	Date/Time: 5/28/14 1000	Date/Time:	Date/Time:	Date/Time:	Date/Time:

R1403920 5
Tetra Tech NUS, Inc.
MSA Groundwater

Distribution: White - Lab Copy; Yellow - Return to Originator

© 2012 by ALS Group

Cooler Receipt and Preservation Check Form

Project/Client Tetra Tech Folder Number 14-3920

Cooler received on 5/28/14 by: (R)

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y (N)
2	Custody papers properly completed (ink, signed)?	(Y) N
3	Did all bottles arrive in good condition (unbroken)?	(Y) N
4	Circle: (Wet Ice) Dry Ice Gel packs present?	Y N

5a	Perchlorate samples have required headspace?	Y N (NA)
5b	Did VOA vials, Alk,or Sulfide have sig* bubbles?	Y N (NA)
6	Where did the bottles originate?	(ALS/ROC) CLIENT
7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 5/28/14 Time: 1002 ID: IR#3 (IR#4) From: (Temp Blank) Sample Bottle

Observed Temp (°C)	0.00						
Correction Factor (°C)	—						
Corrected Temp (°C)	0.00						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by (R) on 5/28/14 at 1010

5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: _____

Cooler Breakdown: Date: 5/29/14 Time: 1334 by: JFS

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN (1) Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: dw

Other Comments:

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1403920
Project:	MSA Groundwater/112IC06183	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1403920-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.020	U	µg/L	0.020	0.014	1	NA	5/28/14 12:48	

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183
Sample Matrix: Water

Service Request: R1403920
Date Analyzed: 5/28/14

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1403920-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.201	0.200	100	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/1121C06183

Service Request: R1403920

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: ppb

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	394478	RQ1405724-03	5/28/14 12:41	0.500	0.519	104	95 - 105
CCV2	394478	RQ1405724-04	5/28/14 14:51	0.500	0.490	98	95 - 105
CCV3	394478	RQ1405724-05	5/28/14 15:28	0.500	0.500	100	95 - 105

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183

Service Request: R1403920

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	394478	RQ1405724-06	5/28/14 12:48	0.014	0.020	0.020	U
CCB2	394478	RQ1405724-07	5/28/14 15:00	0.014	0.020	0.020	U
CCB3	394478	RQ1405724-08	5/28/14 15:36	0.014	0.020	0.020	U

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
5/21/14	3790-003	7199 ~~218.6 RL~~ 218.6 LL 218.7	(Water) Drinking Water	5/19/14 0840	Yes (No) Field	—	—	8.36	9.35	dlh 5/21/14 2147	Buffer	WC1261856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
5/23/14	KH-5084-001	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	5/20/14 1657	Yes (No) Field	—	—	8.73	9.38	dlh 5/23/14 1455	Buffer	WC1261856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	04-5084-004	7199 ~~218.6 RL~~ ~~218.6 LL~~ 218.7	Water Drinking Water	5/20/14 1634	Yes (No) Field	—	—	9.13	9.35	dlh 5/23/14 1957	Buffer	WC1261856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	5817-001	7199 ~~218.6 RL~~ 218.6 LL 218.7	Water Drinking Water	5/20/14 1472	Yes (No) Field	—	—	8.46	9.34	dlh 5/23/14 2005	Buffer	WC1261856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	5858-001	7199 ~~218.6 RL~~ 218.6 LL 218.7	Water Drinking Water	5/19/14 1500	Yes (No) Field	—	—	8.30	9.38	dlh 5/23/14 2010	Buffer	WC1261856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
5/28/14 1000	MW-30D	7199 ~~218.6 RL~~ 218.6 LL 218.7	(Water) Drinking Water	5/27/14 1123	Yes No (Field)	—	—	8.784	9.313	JD 5/28/14 1120	(Buffer)	WC1261856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	MW-31D	7199 ~~218.6 RL~~ 218.6 LL 218.7	(Water) Drinking Water	5/27/14 1503	Yes No (Field)	—	—	8.847	9.328	JD 5/28/14 1123	(Buffer)	WC1261856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	MW-29D	7199 ~~218.6 RL~~ 218.6 LL 218.7	(Water) Drinking Water	5/27/14 1640	Yes No (Field)	—	—	8.924	9.340	JD 5/28/14 1127	(Buffer)	WC1261856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

00021

Tetra Tech **INTERNAL CORRESPONDENCE**

TO:	**T. APANAVAGE**	**DATE:**	**APRIL 24, 2014**
FROM:	**A. COGNETTI**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION- HEXAVALENT CHROMIUM**
LCOKHEED- MSA
SAMPLE DELIVERY GROUPS (SDG) – R1402294 and R1402229

SAMPLES: 5/Aqueous/ Hexavalent Chromium

MSA-MW15D-033114	MSA-MW33I-033114	MSA-MW46D-040214
MSA-MW46I-040214	MSA-MW46S-040214	

Overview

The sample set for Lockheed- MSA, SDGs R1402294 and R1402229, consists of five (5) aqueous environmental samples analyzed for hexavalent chromium. No field duplicate pairs were included within this SDG.

The samples were collected on March 31, 2014 and April 2, 2014 and analyzed by ALS Environmental. Analyses followed EPA 218.6 analytical and reporting protocols.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, laboratory control sample recoveries, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Minor

- The 24 hour hold time was exceeded for samples MSA-MW33I-033114, MSA-MW46D-040214, MSA-MW46I-040214 and MSA-MW46S-040214. The detected and nondetected hexavalent chromium results were qualified as estimated (J-) and (UJ), respectively.

Notes

The samples were preserved upon receipt at the laboratory to a pH of 9.3-9.7 and stored in a refrigerator at 1-6° C.

Executive Summary

Laboratory Performance: Hold time was exceeded in the analyses of several samples.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to USEPA National Functional Guidelines for Inorganic Data Validation (January 2010). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Ann Cognetti
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 06183	NSAMPLE	MSA-MW46D-040214			MSA-MW46I-040214			MSA-MW46S-040214		
SDG: R1402294	LAB_ID	R1402294-003			R1402294-002			R1402294-001		
FRACTION: MISC	SAMP_DATE	4/2/2014			4/2/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.04	UJ	H	0.04	UJ	H	0.04	UJ	H

PROJ_NO: 06183	NSAMPLE	MSA-MW15D-033114			MSA-MW33I-033114		
SDG: R1402229	LAB_ID	R1402229-002			R1402229-001		
FRACTION: MISC	SAMP_DATE	3/31/2014			3/31/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.097			0.25	J-	H

Appendix B

Results as Reported by the Laboratory

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/1121C04793 - 02
Sample Matrix: Water

Service Request: R1402229
Date Collected: 3/31/14 1547
Date Received: 4/ 1/14

Sample Name: MSA-MW15D-033114
Lab Code: R1402229-002

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	**0.097**		µg/L	0.040	0.020	2	NA	4/1/14 13:29	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402229
Project:	MSA Groundwater/112IC04793 - 02	**Date Collected:**	3/31/14 1200
Sample Matrix:	Water	**Date Received:**	4/ 1/14
Sample Name:	MSA-MW33I-033114		
Lab Code:	R1402229-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	**0.250**		µg/L	0.040	0.020	2	NA	4/1/14 13:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402294
Project:	MSA Groundwater/112IC04793 - 02	**Date Collected:**	4/ 2/14 1440
Sample Matrix:	Water	**Date Received:**	4/ 3/14
Sample Name:	MSA-MW46D-040214		
Lab Code:	R1402294-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	4/3/14 17:17	

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/1121C04793 - 02
Sample Matrix: Water

Service Request: R1402294
Date Collected: 4/ 2/14 1350
Date Received: 4/ 3/14

Sample Name: MSA-MW46I-040214
Lab Code: R1402294-002

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	4/3/14 17:08	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402294
Project:	MSA Groundwater/1121C04793 - 02	**Date Collected:**	4/ 2/14 1210
Sample Matrix:	Water	**Date Received:**	4/ 3/14
Sample Name:	MSA-MW46S-040214		
Lab Code:	R1402294-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	4/3/14 16:59	

Appendix C

Support Documentation

HOLDTIME

SDG R1402294

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MSA-MW46S-040214	R1402294-001	NM	04/02/2014	04/03/2014	04/03/2014	1	0	1
CR6	UG/L	MSA-MW46I-040214	R1402294-002	NM	04/02/2014	04/03/2014	04/03/2014	1	0	1
CR6	UG/L	MSA-MW46D-040214	R1402294-003	NM	04/02/2014	04/03/2014	04/03/2014	1	0	1

HOLDTIME

SDG R1402229

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MSA-MW33I-033114	R1402229-001	NM	03/31/2014	04/01/2014	04/01/2014	1	0	1
CR6	UG/L	MSA-MW15D-033114	R1402229-002	NM	03/31/2014	04/01/2014	04/01/2014	1	0	1

CASE NARRATIVE

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1402294
Project:	MSA Ground Water	**Project Number:**	112IC06183
Sample Matrix:	Water	**Date Received:**	4/3/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/3/14 and received at ALS in good condition at a cooler temperature of 2.3 °C as noted on the cooler receipt and preservation check form. The samples were immediately preserved to a pH of 9.3 – 9.7 and stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CLP Batching sheets for a cross-reference between Client ID and ALS Job # and analyses requested. All samples were lab filtered.

Hexavalent Chromium Analysis – 218.6

Three water samples were analyzed for Dissolved CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

Note: Samples were analyzed several hours outside of the client requested 24 hours holding time. Samples were analyzed the same day as sample receipt and within the method specified holding time.

All the initial and continuing calibration criteria of 95 – 105 % were met.

The Blank Spike (LCS) recovery was within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature._____

Rochester

1565 Jefferson Road, Building 300, Suite 360
Rochester, NY 14623
Phone: +1 585 288 5380 Fax: +1 585 288 8475

Chain of Custody Record

ALS Environmental

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 4/2/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact:	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			112IC08183
(301) 528-3021 Phone	TAT if different from Below: 1 DAY			
(301) 528-3000 FAX	☐ 2 weeks			SDG No.
Project Name: MSA Groundwater Sampling	☐ 1 week			
Site: MSA, Middle River Complex	☐ 2 days			
P O #	☐ 1 day			Sampler:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Hexavalent Chromium	Sample Specific Notes:
MSA-MW46S-040214	4/2/14	1210	GW	Water	1	N	x	
MSA-MW46I-040214	4/2/14	1350	GW	Water	1	N	x	
MSA-MW46D-040214	4/2/14	1440	GW	Water	1	N	x	

R1402294 5
Tetra Tech NUS, Inc.
MSA Groundwater

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B ☐ Unknown ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: Samples must be analyzed within 24 hours of sample time.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	4-2-14/1630		ALS	4/3/14 0815
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Cooler Receipt and Preservation Check Form

Project/Client _____ Folder Number R14-2294

Cooler received on 4/3/14 by: JKS **COURIER:** ALS UPS (FEDEX) VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO (N/A)
5.	Were **Ice** or **Ice packs** present?	(YES)	NO
6.	Where did the bottles originate?	ALS/ROC, (CLIENT)	
7.	Soil VOA samples received as:	Bulk Jar	Encore / TerraCore / Lab5035set (N/A)
8.	Temperature of cooler(s) upon receipt:	2.3	

Is the temperature within 0° - 6° C?: (Y) N Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: 4/3/14 0818

Thermometer ID: ~~IR GUN#3~~ / IR GUN#4 Reading From: Temp Blank / ~~Sample Bottle~~

If out of Temperature, note packing/ice condition &Client Approval to Run Samples: _____

All Samples held in storage location Rack by JKS on 4/3/14 at 0818

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: _____

Cooler Breakdown: Date: 4/3/14 Time: 0855 by: AD

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact	Canisters Pressurized	Tedlar® Bags Inflated (N/A)

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp
≥12	NaOH				
≤2	HNO_3				
≤2	H_2SO_4				
<4	$NaHSO_4$				
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)	
	$Na_2S_2O_3$	-	-		
	Zn Aceta	-	-		
	HCl	*	*		

Sample ID	Vol. Added	Lot Added	Final pH

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: Client covered, BDB24135A

Other Comments:

* samples filtered and adjusted by SMO

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

04-03-14 IC#8 218.6LL Analyst: AWoods Pipets: Barney Feb 01 Blue

Injection Number	Injection Name	Type	Level	Processing Method	Inject Time	Dilution	Comment
1	STANDARD 1	Calibration Standard	01	8-040314LL	03/04/14 15:23	1.0	218.6 LL
2	STANDARD 2	Calibration Standard	02	8-040314LL	03/04/14 15:32	1.0	218.6 LL
3	STANDARD 3	Calibration Standard	03	8-040314LL	03/04/14 15:40	1.0	218.6 LL
4	STANDARD 4	Calibration Standard	04	8-040314LL	03/04/14 15:49	1.0	218.6 LL
5	STANDARD 5	Calibration Standard	05	8-040314LL	03/04/14 15:57	1.0	218.6 LL
6	STANDARD 6	Calibration Standard	06	8-040314LL	03/04/14 16:06	1.0	218.6 LL
7	STANDARD 7	Calibration Standard	07	8-040314LL	03/04/14 16:14	1.0	218.6 LL
8	ICV	Unknown		8-040314LL	03/04/14 16:23	1.0	218.6 LL
9	ICB	Unknown		8-040314LL	03/04/14 16:32	1.0	218.6 LL
10	LCS	Unknown		8-040314LL	03/04/14 16:41	1.0	218.6 LL
11	00432-4B	Unknown		8-040314LL	03/04/14 16:51	1.0	218.6 LL
12	R1402294-001	Unknown		8-040314LL	03/04/14 16:59	2.0	218.6 LL
13	R1402294-002	Unknown		8-040314LL	03/04/14 17:08	2.0	218.6 LL
14	R1402294-003	Unknown		8-040314LL	03/04/14 17:17	2.0	218.6 LL
15	FILTER BLANK	Unknown		8-040314LL	03/04/14 17:25	1.0	218.6 LL
16	K1403115-009	Unknown		8-040314LL	03/04/14 17:34	1.0	218.6 LL
17	K1403115-009 MS	Unknown		8-040314LL	03/04/14 17:42	1.0	218.6 LL
18	K1403115-009 MSD	Unknown		8-040314LL	03/04/14 17:51	1.0	218.6 LL
19	CCV	Unknown		8-040314LL	03/04/14 17:58	1.0	218.6 LL
20	CCB	Unknown		8-040314LL	03/04/14 18:07	1.0	218.6 LL

R2294
1 copy

Reviewed & Approved
By: CB
Date: 4/4/14

00019

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 386740 **Method/Testcode:** 218.6 LL/Cr6 D LL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1403190-01	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.498 ppb	1					4/3/14 16:23:00	N	II
RQ1403190-03	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/3/14 16:32:00	N	II
RQ1403190-05	Chromium, Hexavalent, Dissolved	MB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/3/14 16:32:00	N	II
RQ1403190-06	Chromium, Hexavalent, Dissolved	LCS		Water	0.09 ppb	10 mL	0.0942 µg/L	1	0.010	0.020	94		4/3/14 16:41:00	N	II
R1402336-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.17 ppb	10 mL	0.170 µg/L	1	0.010	0.020			4/3/14 16:51:00	N	II
R1402294-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			4/3/14 16:59:00	N	IV
R1402294-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			4/3/14 17:08:00	N	IV
R1402294-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			4/3/14 17:17:00	N	IV
RQ1403190-02	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.500 ppb	1					4/3/14 17:58:00	N	II
RQ1403190-04	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/3/14 18:07:00	N	II

00108

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402294
Project:	MSA Groundwater/1121C04793 - 02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1402294-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.020	U	µg/L	0.020	0.010	1	NA	4/3/14 16:32	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04793 - 02
Sample Matrix: Water

Service Request: R1402294
Date Analyzed: 4/ 3/14

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1402294-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.0942	0.100	94	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04793 - 02

Service Request: R1402294

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: ppb

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	386740	RQ1403190-01	4/3/14 16:23	0.500	0.498	100	95 - 105
CCV2	386740	RQ1403190-02	4/3/14 17:58	0.500	0.500	100	95 - 105

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04793 - 02

Service Request: R1402294

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	386740	RQ1403190-03	4/3/14 16:32	0.010	0.020	0.020	U
CCB2	386740	RQ1403190-04	4/3/14 18:07	0.010	0.020	0.020	U

CASE NARRATIVE

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1402229
Project:	MSA Ground Water	**Project Number:**	112IC06183
Sample Matrix:	Water	**Date Received:**	4/1/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/1/14 and received at ALS in good condition at a cooler temperature of 2.0 °C as noted on the cooler receipt and preservation check form. The samples were immediately preserved to a pH of 9.3 – 9.7 and stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. Sample MSA-MW33I-033114 (R1402229-001) was received at a pH>9.7. See the CLP Batching sheets for a cross-reference between Client ID and ALS Job # and analyses requested. All samples were lab filtered.

Hexavalent Chromium Analysis – 218.6

Two water samples were analyzed for Dissolved CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

Note: Sample MSA-MW33I-033114 (R1402229-001) was analyzed several hours outside of the client requested 24 hours holding time. Samples were analyzed the same day as sample receipt and within the method specified holding time.

All the initial and continuing calibration criteria of 95 – 105 % were met.

The Blank Spike (LCS) recovery was within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature._____

Rochester

1565 Jefferson Road, Building 300, Suite 360
Rochester, NY 14623
Phone: +1 585 288 5380 Fax: +1 585 288 8475

Chain of Custody Record

ALS Environmental

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 3/31/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact:	Carrier: Fedex	_____ of _____ COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No. 112IC06183
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			
(301) 528-3021 Phone	TAT if different from Below: 1 DAY			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Groundwater Sampling	☐ 1 week			
Site: MSA, Middle River Complex	☐ 2 days			Sampler:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Hexavalent Chromium	Sample Specific Notes:
MSA-MW33I-033114	3/31/14	1200	GW	Water	1	N	x	
MSA-MW15D-033114	3/31/14	1547	GW	Water	1	N	x	

R1402229 5
Tetra Tech NUS, Inc.
MSA Groundwater

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments: Samples must be analyzed within 24 hours of sample time.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TT INC	3-31-14/1800	[signature]	ALS	4/1/14 1005
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Cooler Receipt and Preservation Check Form

Project/Client Intertech Folder Number _____.

Cooler received on 4/1/14 by: AD **COURIER:** ALS UPS (FEDEX) VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO (N/A)
5.	Were **Ice** or **Ice packs** present?	(YES)	NO
6.	Where did the bottles originate?	(ALS/ROC)	CLIENT

7.	Soil VOA samples received as:	Bulk Jar	Encore	TerraCore	Lab5035set	(N/A)
8.	Temperature of cooler(s) upon receipt:	2.0°	____	____	____	____
	Is the temperature within 0° - 6° C?:	(Y) N	Y N	Y N	Y N	Y N

If No, Explain Below Date/Time Temperatures Taken: 4/1/14 1017

Thermometer ID: (IR GUN#3) / IR GUN#4 Reading From: (Temp Blank) / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples: _____

All Samples held in storage location R-002 by AD on 4/1/14 at 1018

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: _____

Cooler Breakdown: Date: _____ Time: _____ by: _____

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	YES	NO
2.	Did all bottle labels and tags agree with custody papers?	YES	NO
3.	Were correct containers used for the tests indicated?	YES	NO

4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp
≥12	NaOH				
≤2	HNO_3				
≤2	H_2SO_4				
<4	$NaHSO_4$				
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)	
	$Na_2S_2O_3$	-	-		
	Zn Aceta	-	---		
	HCl	*	*		

Sample ID	Vol. Added	Lot Added	Final pH

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: _____

Other Comments:

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 386383 **Method/Testcode:** 218.6 LL/Cr6 D LL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1403078-03	Chromium, Hexavalent, Dissolved	CCV		Water	0.48 ppb	10 mL	0.475 ppb	1					4/1/14 12:48:00	N	IV
RQ1403078-05	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/1/14 12:56:00	N	IV
RQ1403078-07	Chromium, Hexavalent, Dissolved	MB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/1/14 12:56:00	N	IV
RQ1403078-08	Chromium, Hexavalent, Dissolved	LCS		Water	0.19 ppb	10 mL	0.187 µg/L	1	0.010	0.020	94		4/1/14 13:05:00	N	IV
R1402229-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.13 ppb	10 mL	0.250 µg/L	2	0.020	0.040			4/1/14 13:20:00	N	IV
R1402229-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.05 ppb	10 mL	0.097 µg/L	2	0.020	0.040			4/1/14 13:29:00	N	IV
RQ1403078-01	Chromium, Hexavalent, Dissolved	MS	R1402229-002	Water	0.23 ppb	10 mL	0.458 µg/L	2	0.020	0.040	90		4/1/14 13:37:00	N	IV
RQ1403078-02	Chromium, Hexavalent, Dissolved	DMS	R1402229-002	Water	0.24 ppb	10 mL	0.470 µg/L	2	0.020	0.040	93	3	4/1/14 13:46:00	N	IV
RQ1403078-04	Chromium, Hexavalent, Dissolved	CCV		Water	0.49 ppb	10 mL	0.487 ppb	1					4/1/14 14:02:00	N	IV
RQ1403078-06	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/1/14 14:10:00	N	IV

RQ1403078

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

04-01-14 218.6 LL IC#8 Analyst: CWoods Pipets: Barney Ferg

Injection Number	Injection Name	Type	Level	Processing Method	Inject Time	Dilution	Comment
1	STANDARD 1	Calibration Standard	01	8-032814LL	28/03/14 09:48	1.0	218.6 LL
2	STANDARD 2	Calibration Standard	02	8-032814LL	28/03/14 09:56	1.0	218.6 LL
3	STANDARD 3	Calibration Standard	03	8-032814LL	28/03/14 10:05	1.0	218.6 LL
4	STANDARD 4	Calibration Standard	04	8-032814LL	28/03/14 10:13	1.0	218.6 LL
5	STANDARD 5	Calibration Standard	05	8-032814LL	28/03/14 10:22	1.0	218.6 LL
6	STANDARD 6	Calibration Standard	06	8-032814LL	28/03/14 10:30	1.0	218.6 LL
7	STANDARD 7	Calibration Standard	07	8-032814LL	28/03/14 10:39	1.0	218.6 LL
8	CCV	Unknown		8-032814LL	01/04/14 12:48	1.0	218.6 LL
9	CCB	Unknown		8-032814LL	01/04/14 12:56	1.0	218.6 LL
10	LCS	Unknown		8-032814LL	01/04/14 13:05	1.0	218.6 LL
11	R1402229-001	Unknown		8-032814LL	01/04/14 13:20	2.0	218.6 LL
12	R1402229-002	Unknown		8-032814LL	01/04/14 13:29	2.0	218.6 LL
13	R1402229-002 MS	Unknown		8-032814LL	01/04/14 13:37	2.0	218.6 LL
14	R1402229-002 MSD	Unknown		8-032814LL	01/04/14 13:46	2.0	218.6 LL
15	FILTER BLANK	Unknown		8-032814LL	01/04/14 13:53	1.0	218.6 LL
16	CCV	Unknown		8-032814LL	01/04/14 14:02	1.0	218.6 LL
17	CCB	Unknown		8-032814LL	01/04/14 14:10	1.0	218.6 LL

R2229
1 copy

00018

Reviewed & Approved
By: CK
Date: 4/2/14

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402229
Project:	MSA Groundwater/112IC04793 - 02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1402229-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.020	U	µg/L	0.020	0.010	1	NA	4/1/14 12:56	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/1121C04793 - 02
Sample Matrix: Water

Service Request: R1402229
Date Analyzed: 4/ 1/14

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1402229-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.187	0.200	94	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04793 - 02

Service Request: R1402229

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: ppb

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	386383	RQ1403078-03	4/1/14 12:48	0.500	0.475	95	95 - 105
CCV2	386383	RQ1403078-04	4/1/14 14:02	0.500	0.487	97	95 - 105

Client: Tetra Tech NUS, Inc. **Service Request:** R1402229
Project: MSA Groundwater/112IC04793 - 02

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL **Units:** µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	386383	RQ1403078-05	4/1/14 12:56	0.010	0.020	0.020	U
CCB2	386383	RQ1403078-06	4/1/14 14:10	0.010	0.020	0.020	U

Tetra Tech **INTERNAL CORRESPONDENCE**

TO:	**T. APANAVAGE**	**DATE:**	**APRIL 24, 2014**
FROM:	**A. COGNETTI**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION- HEXAVALENT CHROMIUM**
LCOKHEED- MSA
SAMPLE DELIVERY GROUPS (SDG) – R1402294 and R1402229

SAMPLES: 5/Aqueous/ Hexavalent Chromium

MSA-MW15D-033114	MSA-MW33I-033114	MSA-MW46D-040214
MSA-MW46I-040214	MSA-MW46S-040214	

Overview

The sample set for Lockheed- MSA, SDGs R1402294 and R1402229, consists of five (5) aqueous environmental samples analyzed for hexavalent chromium. No field duplicate pairs were included within this SDG.

The samples were collected on March 31, 2014 and April 2, 2014 and analyzed by ALS Environmental. Analyses followed EPA 218.6 analytical and reporting protocols.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, laboratory control sample recoveries, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Minor

- The 24 hour hold time was exceeded for samples MSA-MW33I-033114, MSA-MW46D-040214, MSA-MW46I-040214 and MSA-MW46S-040214. The detected and nondetected hexavalent chromium results were qualified as estimated (J-) and (UJ), respectively.

Notes

The samples were preserved upon receipt at the laboratory to a pH of 9.3-9.7 and stored in a refrigerator at 1-6° C.

Executive Summary

Laboratory Performance: Hold time was exceeded in the analyses of several samples.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to USEPA National Functional Guidelines for Inorganic Data Validation (January 2010). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Ann Cognetti
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 06183	NSAMPLE	MSA-MW46D-040214			MSA-MW46I-040214			MSA-MW46S-040214		
SDG: R1402294	LAB_ID	R1402294-003			R1402294-002			R1402294-001		
FRACTION: MISC	SAMP_DATE	4/2/2014			4/2/2014			4/2/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.04	UJ	H	0.04	UJ	H	0.04	UJ	H

PROJ_NO: 06183	NSAMPLE	MSA-MW15D-033114			MSA-MW33I-033114		
SDG: R1402229	LAB_ID	R1402229-002			R1402229-001		
FRACTION: MISC	SAMP_DATE	3/31/2014			3/31/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.097			0.25	J-	H

Appendix B

Results as Reported by the Laboratory

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/1121C04793 - 02
Sample Matrix: Water

Service Request: R1402229
Date Collected: 3/31/14 1547
Date Received: 4/ 1/14

Sample Name: MSA-MW15D-033114
Lab Code: R1402229-002

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	**0.097**		µg/L	0.040	0.020	2	NA	4/1/14 13:29	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402229
Project:	MSA Groundwater/112IC04793 - 02	**Date Collected:**	3/31/14 1200
Sample Matrix:	Water	**Date Received:**	4/ 1/14
Sample Name:	MSA-MW33I-033114		
Lab Code:	R1402229-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	**0.250**		µg/L	0.040	0.020	2	NA	4/1/14 13:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402294
Project:	MSA Groundwater/112IC04793 - 02	**Date Collected:**	4/ 2/14 1440
Sample Matrix:	Water	**Date Received:**	4/ 3/14
Sample Name:	MSA-MW46D-040214		
Lab Code:	R1402294-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	4/3/14 17:17	

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/1121C04793 - 02
Sample Matrix: Water

Service Request: R1402294
Date Collected: 4/ 2/14 1350
Date Received: 4/ 3/14

Sample Name: MSA-MW46I-040214
Lab Code: R1402294-002

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	4/3/14 17:08	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402294
Project:	MSA Groundwater/1121C04793 - 02	**Date Collected:**	4/ 2/14 1210
Sample Matrix:	Water	**Date Received:**	4/ 3/14
Sample Name:	MSA-MW46S-040214		
Lab Code:	R1402294-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	4/3/14 16:59	

Appendix C

Support Documentation

HOLDTIME

SDG R1402294

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MSA-MW46S-040214	R1402294-001	NM	04/02/2014	04/03/2014	04/03/2014	1	0	1
CR6	UG/L	MSA-MW46I-040214	R1402294-002	NM	04/02/2014	04/03/2014	04/03/2014	1	0	1
CR6	UG/L	MSA-MW46D-040214	R1402294-003	NM	04/02/2014	04/03/2014	04/03/2014	1	0	1

HOLDTIME

SDG R1402229

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MSA-MW33I-033114	R1402229-001	NM	03/31/2014	04/01/2014	04/01/2014	1	0	1
CR6	UG/L	MSA-MW15D-033114	R1402229-002	NM	03/31/2014	04/01/2014	04/01/2014	1	0	1

CASE NARRATIVE

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1402294
Project:	MSA Ground Water	**Project Number:**	112IC06183
Sample Matrix:	Water	**Date Received:**	4/3/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/3/14 and received at ALS in good condition at a cooler temperature of 2.3 °C as noted on the cooler receipt and preservation check form. The samples were immediately preserved to a pH of 9.3 – 9.7 and stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CLP Batching sheets for a cross-reference between Client ID and ALS Job # and analyses requested. All samples were lab filtered.

Hexavalent Chromium Analysis – 218.6

Three water samples were analyzed for Dissolved CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

Note: Samples were analyzed several hours outside of the client requested 24 hours holding time. Samples were analyzed the same day as sample receipt and within the method specified holding time.

All the initial and continuing calibration criteria of 95 – 105 % were met.

The Blank Spike (LCS) recovery was within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature._____

Rochester

1565 Jefferson Road, Building 300, Suite 360
Rochester, NY 14623
Phone: +1 585 288 5380 Fax: +1 585 288 8475

Chain of Custody Record

ALS Environmental

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 4/2/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact:	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			112IC08183
(301) 528-3021 Phone	TAT if different from Below: 1 DAY			
(301) 528-3000 FAX	☐ 2 weeks			SDG No.
Project Name: MSA Groundwater Sampling	☐ 1 week			
Site: MSA, Middle River Complex	☐ 2 days			
P O #	☐ 1 day			Sampler:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Hexavalent Chromium	Sample Specific Notes:
MSA-MW46S-040214	4/2/14	1210	GW	Water	1	N	x	
MSA-MW46I-040214	4/2/14	1350	GW	Water	1	N	x	
MSA-MW46D-040214	4/2/14	1440	GW	Water	1	N	x	

R1402294 5
Tetra Tech NUS, Inc.
MSA Groundwater

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B ☐ Unknown ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: Samples must be analyzed within 24 hours of sample time.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	4-2-14/1630		ALS	4/3/14 0815
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Cooler Receipt and Preservation Check Form

Project/Client _____ Folder Number R14-2294

Cooler received on 4/3/14 by: JKS **COURIER:** ALS UPS (FEDEX) VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO (N/A)
5.	Were **Ice** or **Ice packs** present?	(YES)	NO
6.	Where did the bottles originate?	ALS/ROC, (CLIENT)	
7.	Soil VOA samples received as:	Bulk Jar	Encore / TerraCore / Lab5035set (N/A)
8.	Temperature of cooler(s) upon receipt:	2.3	

Is the temperature within 0° - 6° C?: (Y) N Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: 4/3/14 0818

Thermometer ID: ~~IR GUN#3~~ / IR GUN#4 Reading From: Temp Blank / ~~Sample Bottle~~

If out of Temperature, note packing/ice condition &Client Approval to Run Samples: _____

All Samples held in storage location Rack by JKS on 4/3/14 at 0818

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: _____

Cooler Breakdown: Date: 4/3/14 Time: 0855 by: AD

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact	Canisters Pressurized	Tedlar® Bags Inflated (N/A)

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp
≥12	NaOH				
≤2	HNO_3				
≤2	H_2SO_4				
<4	$NaHSO_4$				
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)	
	$Na_2S_2O_3$	-	-		
	Zn Aceta	-	-		
	HCl	*	*		

Sample ID	Vol. Added	Lot Added	Final pH

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: Client covered, BDB24135A

Other Comments:

* samples filtered and adjusted by SMO

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

04-03-14 IC#8 218.6LL Analyst: AWoods Pipets: Barney Feb 01 Blue

Injection Number	Injection Name	Type	Level	Processing Method	Inject Time	Dilution	Comment
1	STANDARD 1	Calibration Standard	01	8-040314LL	03/04/14 15:23	1.0	218.6 LL
2	STANDARD 2	Calibration Standard	02	8-040314LL	03/04/14 15:32	1.0	218.6 LL
3	STANDARD 3	Calibration Standard	03	8-040314LL	03/04/14 15:40	1.0	218.6 LL
4	STANDARD 4	Calibration Standard	04	8-040314LL	03/04/14 15:49	1.0	218.6 LL
5	STANDARD 5	Calibration Standard	05	8-040314LL	03/04/14 15:57	1.0	218.6 LL
6	STANDARD 6	Calibration Standard	06	8-040314LL	03/04/14 16:06	1.0	218.6 LL
7	STANDARD 7	Calibration Standard	07	8-040314LL	03/04/14 16:14	1.0	218.6 LL
8	ICV	Unknown		8-040314LL	03/04/14 16:23	1.0	218.6 LL
9	ICB	Unknown		8-040314LL	03/04/14 16:32	1.0	218.6 LL
10	LCS	Unknown		8-040314LL	03/04/14 16:41	1.0	218.6 LL
11	00432-4B	Unknown		8-040314LL	03/04/14 16:51	1.0	218.6 LL
12	R1402294-001	Unknown		8-040314LL	03/04/14 16:59	2.0	218.6 LL
13	R1402294-002	Unknown		8-040314LL	03/04/14 17:08	2.0	218.6 LL
14	R1402294-003	Unknown		8-040314LL	03/04/14 17:17	2.0	218.6 LL
15	FILTER BLANK	Unknown		8-040314LL	03/04/14 17:25	1.0	218.6 LL
16	K1403115-009	Unknown		8-040314LL	03/04/14 17:34	1.0	218.6 LL
17	K1403115-009 MS	Unknown		8-040314LL	03/04/14 17:42	1.0	218.6 LL
18	K1403115-009 MSD	Unknown		8-040314LL	03/04/14 17:51	1.0	218.6 LL
19	CCV	Unknown		8-040314LL	03/04/14 17:58	1.0	218.6 LL
20	CCB	Unknown		8-040314LL	03/04/14 18:07	1.0	218.6 LL

R2294
1 copy

Reviewed & Approved
By: CB
Date: 4/4/14

00019

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 386740 **Method/Testcode:** 218.6 LL/Cr6 D LL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1403190-01	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.498 ppb	1					4/3/14 16:23:00	N	II
RQ1403190-03	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/3/14 16:32:00	N	II
RQ1403190-05	Chromium, Hexavalent, Dissolved	MB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/3/14 16:32:00	N	II
RQ1403190-06	Chromium, Hexavalent, Dissolved	LCS		Water	0.09 ppb	10 mL	0.0942 µg/L	1	0.010	0.020	94		4/3/14 16:41:00	N	II
R1402336-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.17 ppb	10 mL	0.170 µg/L	1	0.010	0.020			4/3/14 16:51:00	N	II
R1402294-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			4/3/14 16:59:00	N	IV
R1402294-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			4/3/14 17:08:00	N	IV
R1402294-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			4/3/14 17:17:00	N	IV
RQ1403190-02	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.500 ppb	1					4/3/14 17:58:00	N	II
RQ1403190-04	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/3/14 18:07:00	N	II

00108

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402294
Project:	MSA Groundwater/1121C04793 - 02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1402294-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.020	U	µg/L	0.020	0.010	1	NA	4/3/14 16:32	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04793 - 02
Sample Matrix: Water

Service Request: R1402294
Date Analyzed: 4/ 3/14

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1402294-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.0942	0.100	94	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04793 - 02

Service Request: R1402294

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: ppb

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	386740	RQ1403190-01	4/3/14 16:23	0.500	0.498	100	95 - 105
CCV2	386740	RQ1403190-02	4/3/14 17:58	0.500	0.500	100	95 - 105

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04793 - 02

Service Request: R1402294

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	386740	RQ1403190-03	4/3/14 16:32	0.010	0.020	0.020	U
CCB2	386740	RQ1403190-04	4/3/14 18:07	0.010	0.020	0.020	U

CASE NARRATIVE

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1402229
Project:	MSA Ground Water	**Project Number:**	112IC06183
Sample Matrix:	Water	**Date Received:**	4/1/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/1/14 and received at ALS in good condition at a cooler temperature of 2.0 °C as noted on the cooler receipt and preservation check form. The samples were immediately preserved to a pH of 9.3 – 9.7 and stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. Sample MSA-MW33I-033114 (R1402229-001) was received at a pH>9.7. See the CLP Batching sheets for a cross-reference between Client ID and ALS Job # and analyses requested. All samples were lab filtered.

Hexavalent Chromium Analysis – 218.6

Two water samples were analyzed for Dissolved CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

Note: Sample MSA-MW33I-033114 (R1402229-001) was analyzed several hours outside of the client requested 24 hours holding time. Samples were analyzed the same day as sample receipt and within the method specified holding time.

All the initial and continuing calibration criteria of 95 – 105 % were met.

The Blank Spike (LCS) recovery was within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature._____

Rochester

1565 Jefferson Road, Building 300, Suite 360
Rochester, NY 14623
Phone: +1 585 288 5380 Fax: +1 585 288 8475

Chain of Custody Record

ALS Environmental

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 3/31/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact:	Carrier: Fedex	_____ of _____ COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No. 112IC06183
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			
(301) 528-3021 Phone	TAT if different from Below: 1 DAY			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Groundwater Sampling	☐ 1 week			
Site: MSA, Middle River Complex	☐ 2 days			Sampler:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Hexavalent Chromium	Sample Specific Notes:
MSA-MW33I-033114	3/31/14	1200	GW	Water	1	N	x	
MSA-MW15D-033114	3/31/14	1547	GW	Water	1	N	x	

R1402229 5
Tetra Tech NUS, Inc.
MSA Groundwater

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments: Samples must be analyzed within 24 hours of sample time.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TT INC	3-31-14/1800	[signature]	ALS	4/1/14 1005
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Cooler Receipt and Preservation Check Form

Project/Client Intertech Folder Number _____.

Cooler received on 4/1/14 by: AD **COURIER:** ALS UPS (FEDEX) VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO (N/A)
5.	Were **Ice** or **Ice packs** present?	(YES)	NO
6.	Where did the bottles originate?	(ALS/ROC)	CLIENT

7.	Soil VOA samples received as:	Bulk Jar	Encore	TerraCore	Lab5035set	(N/A)
8.	Temperature of cooler(s) upon receipt:	2.0°	____	____	____	____
	Is the temperature within 0° - 6° C?:	(Y) N	Y N	Y N	Y N	Y N

If No, Explain Below Date/Time Temperatures Taken: 4/1/14 1017

Thermometer ID: (IR GUN#3) / IR GUN#4 Reading From: (Temp Blank) / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples: _____

All Samples held in storage location R-002 by AD on 4/1/14 at 1018

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: _____

Cooler Breakdown: Date: _____ Time: _____ by: _____

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	YES	NO
2.	Did all bottle labels and tags agree with custody papers?	YES	NO
3.	Were correct containers used for the tests indicated?	YES	NO

4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp
≥12	NaOH				
≤2	HNO_3				
≤2	H_2SO_4				
<4	$NaHSO_4$				
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)	
	$Na_2S_2O_3$	-	-		
	Zn Aceta	-	---		
	HCl	*	*		

Sample ID	Vol. Added	Lot Added	Final pH

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: _____

Other Comments:

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 386383 **Method/Testcode:** 218.6 LL/Cr6 D LL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1403078-03	Chromium, Hexavalent, Dissolved	CCV		Water	0.48 ppb	10 mL	0.475 ppb	1					4/1/14 12:48:00	N	IV
RQ1403078-05	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/1/14 12:56:00	N	IV
RQ1403078-07	Chromium, Hexavalent, Dissolved	MB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/1/14 12:56:00	N	IV
RQ1403078-08	Chromium, Hexavalent, Dissolved	LCS		Water	0.19 ppb	10 mL	0.187 µg/L	1	0.010	0.020	94		4/1/14 13:05:00	N	IV
R1402229-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.13 ppb	10 mL	0.250 µg/L	2	0.020	0.040			4/1/14 13:20:00	N	IV
R1402229-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.05 ppb	10 mL	0.097 µg/L	2	0.020	0.040			4/1/14 13:29:00	N	IV
RQ1403078-01	Chromium, Hexavalent, Dissolved	MS	R1402229-002	Water	0.23 ppb	10 mL	0.458 µg/L	2	0.020	0.040	90		4/1/14 13:37:00	N	IV
RQ1403078-02	Chromium, Hexavalent, Dissolved	DMS	R1402229-002	Water	0.24 ppb	10 mL	0.470 µg/L	2	0.020	0.040	93	3	4/1/14 13:46:00	N	IV
RQ1403078-04	Chromium, Hexavalent, Dissolved	CCV		Water	0.49 ppb	10 mL	0.487 ppb	1					4/1/14 14:02:00	N	IV
RQ1403078-06	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/1/14 14:10:00	N	IV

RQ1403078

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

04-01-14 218.6 LL IC#8 Analyst: CWoods Pipets: Barney Ferg

Injection Number	Injection Name	Type	Level	Processing Method	Inject Time	Dilution	Comment
1	STANDARD 1	Calibration Standard	01	8-032814LL	28/03/14 09:48	1.0	218.6 LL
2	STANDARD 2	Calibration Standard	02	8-032814LL	28/03/14 09:56	1.0	218.6 LL
3	STANDARD 3	Calibration Standard	03	8-032814LL	28/03/14 10:05	1.0	218.6 LL
4	STANDARD 4	Calibration Standard	04	8-032814LL	28/03/14 10:13	1.0	218.6 LL
5	STANDARD 5	Calibration Standard	05	8-032814LL	28/03/14 10:22	1.0	218.6 LL
6	STANDARD 6	Calibration Standard	06	8-032814LL	28/03/14 10:30	1.0	218.6 LL
7	STANDARD 7	Calibration Standard	07	8-032814LL	28/03/14 10:39	1.0	218.6 LL
8	CCV	Unknown		8-032814LL	01/04/14 12:48	1.0	218.6 LL
9	CCB	Unknown		8-032814LL	01/04/14 12:56	1.0	218.6 LL
10	LCS	Unknown		8-032814LL	01/04/14 13:05	1.0	218.6 LL
11	R1402229-001	Unknown		8-032814LL	01/04/14 13:20	2.0	218.6 LL
12	R1402229-002	Unknown		8-032814LL	01/04/14 13:29	2.0	218.6 LL
13	R1402229-002 MS	Unknown		8-032814LL	01/04/14 13:37	2.0	218.6 LL
14	R1402229-002 MSD	Unknown		8-032814LL	01/04/14 13:46	2.0	218.6 LL
15	FILTER BLANK	Unknown		8-032814LL	01/04/14 13:53	1.0	218.6 LL
16	CCV	Unknown		8-032814LL	01/04/14 14:02	1.0	218.6 LL
17	CCB	Unknown		8-032814LL	01/04/14 14:10	1.0	218.6 LL

R2229
1 copy

00018

Reviewed & Approved
By: CK
Date: 4/2/14

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402229
Project:	MSA Groundwater/112IC04793 - 02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1402229-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.020	U	µg/L	0.020	0.010	1	NA	4/1/14 12:56	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/1121C04793 - 02
Sample Matrix: Water

Service Request: R1402229
Date Analyzed: 4/ 1/14

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1402229-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.187	0.200	94	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04793 - 02

Service Request: R1402229

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: ppb

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	386383	RQ1403078-03	4/1/14 12:48	0.500	0.475	95	95 - 105
CCV2	386383	RQ1403078-04	4/1/14 14:02	0.500	0.487	97	95 - 105

Client: Tetra Tech NUS, Inc. **Service Request:** R1402229
Project: MSA Groundwater/112IC04793 - 02

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL **Units:** µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	386383	RQ1403078-05	4/1/14 12:56	0.010	0.020	0.020	U
CCB2	386383	RQ1403078-06	4/1/14 14:10	0.010	0.020	0.020	U

Tetra Tech **INTERNAL CORRESPONDENCE**

TO:	**T. APANAVAGE**	**DATE:**	**APRIL 29, 2014**
FROM:	**A. COGNETTI**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION- HEXAVALENT CHROMIUM**
LCOKHEED- MSA
SAMPLE DELIVERY GROUPS (SDG) – R1402349 and R1402465

SAMPLES: 4/Aqueous/ Hexavalent Chromium

MSA-MW17D-040814 MSA-MW47D-040814 MSA-MW47I-040314
MSA-MW47S-040314

Overview

The sample set for Lockheed- MSA, SDGs R1402349 and R1402465, consists of four (4) aqueous environmental samples analyzed for hexavalent chromium. No field duplicate pairs were included within this SDG.

The samples were collected on April 3 and 8, 2014 and analyzed by ALS Environmental. Analyses followed EPA 218.6 analytical and reporting protocols.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, laboratory control sample recoveries, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Minor

- The 24 hour hold time was exceeded for samples MSA-MW17D-040814 (1 hour) and MSA-MW47S-040314 (half hour). The nondetected hexavalent chromium results were qualified as estimated (UJ).

Notes

Nondetected results were reported to the reporting limit.

Executive Summary

Laboratory Performance: Hold time was exceeded in the analyses of samples MSA-MW17D-040814 and MSA-MW47S-040314.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to USEPA National Functional Guidelines for Inorganic Data Validation (January 2010). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Ann Cognetti
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 06183	NSAMPLE	MSA-MW47I-040314			MSA-MW47S-040314		
SDG: R1402349	LAB_ID	R1402349-002			R1402349-001		
FRACTION: MISC	SAMP_DATE	4/3/2014			4/3/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.04	U		0.04	UJ	H

PROJ_NO: 06183	NSAMPLE	MSA-MW17D-040814			MSA-MW47D-040814		
SDG: R1402465	LAB_ID	R1402465-001			R1402465-002		
FRACTION: MISC	SAMP_DATE	4/8/2014			4/8/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.04	UJ	H	0.04	U	

Appendix B

Results as Reported by the Laboratory

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183
Sample Matrix: Water

Service Request: R1402465
Date Collected: 4/ 8/14 1225
Date Received: 4/ 9/14

Sample Name: MSA-MW17D-040814
Lab Code: R1402465-001

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	4/9/14 13:39	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183
Sample Matrix: Water

Service Request: R1402465
Date Collected: 4/ 8/14 1415
Date Received: 4/ 9/14

Sample Name: MSA-MW47D-040814
Lab Code: R1402465-002

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	4/9/14 14:03	

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183
Sample Matrix: Water

Service Request: R1402349
Date Collected: 4/ 3/14 1410
Date Received: 4/ 4/14

Sample Name: MSA-MW47I-040314
Lab Code: R1402349-002

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	4/4/14 12:44	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402349
Project:	MSA Groundwater/112IC06183	**Date Collected:**	4/ 3/14 1205
Sample Matrix:	Water	**Date Received:**	4/ 4/14
Sample Name:	MSA-MW47S-040314		
Lab Code:	R1402349-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	4/4/14 12:35	

Appendix C

Support Documentation

CASE NARRATIVE

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1402349
Project:	MSA Ground Water	**Project Number:**	112IC06183
Sample Matrix:	Water	**Date Received:**	4/4/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/3/14 and received at ALS in good condition at a cooler temperature of 2.7 °C as noted on the cooler receipt and preservation check form. The sample preservation was checked upon receipt and samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CLP Batching sheets for a cross-reference between Client ID and ALS Job # and analyses requested. Sample ID were changed per client request to match bottle ID's.

Hexavalent Chromium Analysis – 218.6

Two water samples were analyzed for Dissolved CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

Note: Sample MSA-MW47S-040314 (R1402349-001) was analyzed thirty minutes outside of the client requested 24 hours holding time. Samples were analyzed the same day as sample receipt and within the method specified holding time.

All the initial and continuing calibration criteria of 95 – 105 % were met.

The Blank Spike (LCS) recovery was within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature. _____

Rochester

1565 Jefferson Road, Building 300, Suite 360
Rochester, NY 14623
Phone: +1 585 288 5380 Fax: +1 585 288 8475

Chain of Custody Record

ALS Environmental

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 4/3/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact:	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No. 112IC06183
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: 1 DAY			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Groundwater Sampling	☐ 1 week			Sampler:
Site: MSA, Middle River Complex	☐ 2 days			
P.O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y/N)	Hexavalent Chromium	Sample Specific Notes:
MSA-MW46S-040314	4/3/14	1205	GW	Water	1	N	x	
MSA-MW46I-040314	4/3/14	1410	GW	Water	1	N	x	
Sample ID Changed to MW47 Per Cameron Stuart 4/7/14 via phone AP								

R1402349 5
Tetra Tech NUS,Inc.
MSA Groundwater

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments: Samples must be analyzed within 24 hours of sample time.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
1	Tetra Tech	4-3-14/1600		ALS	4/4/14 0920
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
2					
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
3					

Cooler Receipt and Preservation Check Form

Project/Client Tetra Tech Folder Number MW-2349.

Cooler received on 4/4/14 by: [illegible] COURIER: ALS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
5. Were **Ice** or **Ice packs** present? YES NO
6. Where did the bottles originate? ALS/ROC CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
8. Temperature of cooler(s) upon receipt: 2.7° ____ ____ ____ ____

Is the temperature within 0° - 6° C?: Y N Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: 4/4/14 0927

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples:

All Samples held in storage location	R-002	by	[illegible]	on 4/4/14	at	0927
5035 samples placed in storage location		by		on	at	

PC Secondary Review:

Cooler Breakdown: Date: 4/4/14 Time: 1201 by: JES

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? [illegible] 4/4/14 ~~YES~~ ~~NO~~ **
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: ____

Bottle lot numbers: [illegible]

Other Comments: ** Bottles are labelled as MW47S and MW47I; however, the CoC have the IDs as MW46S, MW46I, labelled as per CoC.

* Samples already have preservative in them ∴ can't filter in-lab!

PC Secondary Review: [illegible]

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

G:\SMODOCS\Cooler Receipt 6.doc 11/6/12

HOLDTIME

SDG R1402349

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MSA-MW47S-040314	R1402349-001	NM	04/03/2014	04/04/2014	04/04/2014	1	0	1
CR6	UG/L	MSA-MW47I-040314	R1402349-002	NM	04/03/2014	04/04/2014	04/04/2014	1	0	1

04-04-14 IC#8 218.6LL Analyst: CWoods Pipets: 01Blue Barney FEB3

Injection Number	Injection Name	Type	Level	Processing Method	Inject Time	Dilution	Comment
1	STANDARD 1	Calibration Standard	01	8-040314LL	03/04/14 15:23	1.0	218.6 LL
2	STANDARD 2	Calibration Standard	02	8-040314LL	03/04/14 15:32	1.0	218.6 LL
3	STANDARD 3	Calibration Standard	03	8-040314LL	03/04/14 15:40	1.0	218.6 LL
4	STANDARD 4	Calibration Standard	04	8-040314LL	03/04/14 15:49	1.0	218.6 LL
5	STANDARD 5	Calibration Standard	05	8-040314LL	03/04/14 15:57	1.0	218.6 LL
6	STANDARD 6	Calibration Standard	06	8-040314LL	03/04/14 16:06	1.0	218.6 LL
7	STANDARD 7	Calibration Standard	07	8-040314LL	03/04/14 16:14	1.0	218.6 LL
8	CCV	Unknown		8-040314LL	04/04/14 10:09	1.0	218.6 LL
9	CCB	Unknown		8-040314LL	04/04/14 10:44	1.0	218.6 LL
10	LCS	Unknown		8-040314LL	04/04/14 10:53	1.0	218.6 LL
11	R1402349-001	Unknown		8-040314LL	04/04/14 11:19	1.0	218.6 LL
12	R1402349-002	Unknown		8-040314LL	04/04/14 11:28	1.0	218.6 LL
13	K1403167-009	Unknown		8-040314LL	04/04/14 11:36	1.0	218.6 LL
14	K1403167-012	Unknown		8-040314LL	04/04/14 11:45	1.0	218.6 LL
15	K1403115-009	Unknown		8-040314LL	04/04/14 11:53	2.0	218.6 LL
16	K1403115-009 MS	Unknown		8-040314LL	04/04/14 12:02	2.0	218.6 LL
17	K1403115-009 MSD	Unknown		8-040314LL	04/04/14 12:10	2.0	218.6 LL
18	R1402349-001	Unknown		8-040314LL	04/04/14 12:35	2.0	218.6 LL
19	R1402349-002	Unknown		8-040314LL	04/04/14 12:44	2.0	218.6 LL
20	CCV	Unknown		8-040314LL	04/04/14 12:52	1.0	218.6 LL
21	CCB	Unknown		8-040314LL	04/04/14 13:01	1.0	218.6 LL

K3167
K3115
R2349
3copies

Reviewed & Approved
By: CK
Date: 4/7/14

81008

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 386791 **Method/Testcode:** 218.6 LL/Cr6 D LL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1403203-03	Chromium, Hexavalent, Dissolved	CCV		Water	0.49 ppb	10 mL	0.491 ppb	1					4/4/14 10:09:00	N	IV
RQ1403203-05	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/4/14 10:44:00	N	IV
RQ1403203-07	Chromium, Hexavalent, Dissolved	MB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/4/14 10:44:00	N	IV
RQ1403203-08	Chromium, Hexavalent, Dissolved	LCS		Water	0.20 ppb	10 mL	0.204 µg/L	1	0.010	0.020	102		4/4/14 10:53:00	N	IV
K1403167-009	Chromium, Hexavalent, Dissolved	N/A		Water	0.12 ppb	10 mL	0.122 µg/L	1	0.010	0.020			4/4/14 11:36:00	N	IV
K1403167-012	Chromium, Hexavalent, Dissolved	N/A		Water	0.77 ppb	10 mL	0.765 µg/L	1	0.010	0.020			4/4/14 11:45:00	N	IV
K1403115-009	Chromium, Hexavalent, Dissolved	N/A		Water	0.50 ppb	10 mL	1.00 µg/L	2	0.020	0.040			4/4/14 11:53:00	N	IV
RQ1403203-01	Chromium, Hexavalent, Dissolved	MS	K1403115-009	Water	0.69 ppb	10 mL	1.39 µg/L	2	0.020	0.040	96		4/4/14 12:02:00	N	IV
RQ1403203-02	Chromium, Hexavalent, Dissolved	DMS	K1403115-009	Water	0.70 ppb	10 mL	1.39 µg/L	2	0.020	0.040	98	<1	4/4/14 12:10:00	N	IV
R1402349-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			4/4/14 12:35:00	N	IV
R1402349-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			4/4/14 12:44:00	N	IV
RQ1403203-04	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.499 ppb	1					4/4/14 12:52:00	N	IV
RQ1403203-06	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/4/14 13:01:00	N	IV

00017

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/1121C06183

Service Request: R1402349

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: ppb

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	386791	RQ1403203-03	4/4/14 10:09	0.500	0.491	98	95 - 105
CCV2	386791	RQ1403203-04	4/4/14 12:52	0.500	0.499	100	95 - 105

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183

Service Request: R1402349

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	386791	RQ1403203-05	4/4/14 10:44	0.010	0.020	0.020	U
CCB2	386791	RQ1403203-06	4/4/14 13:01	0.010	0.020	0.020	U

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402349
Project:	MSA Groundwater/112IC06183	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1402349-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.020	U	µg/L	0.020	0.010	1	NA	4/4/14 10:44	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183
Sample Matrix: Water

Service Request: R1402349
Date Analyzed: 4/ 4/14

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1402349-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.204	0.200	102	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

CASE NARRATIVE

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1402465
Project:	MSA Ground Water	**Project Number:**	112IC06183
Sample Matrix:	Water	**Date Received:**	4/9/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/8/14 and received at ALS in good condition at a cooler temperature of 4.1 °C as noted on the cooler receipt and preservation check form. The sample preservation was checked upon receipt and samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CLP Batching sheets for a cross-reference between Client ID and ALS Job # and analyses requested. Sample ID were changed per client request to match bottle ID's.

Hexavalent Chromium Analysis – 218.6

Two water samples were analyzed for Dissolved CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

Note: Sample MSA-MW17D-040814 (R1402465-001) was analyzed just over one hour outside of the client requested 24 hours holding time. Samples were analyzed the same day as sample receipt and within the method specified holding time.

All the initial and continuing calibration criteria of 95 – 105 % were met.

The Blank Spike (LCS) recovery was within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature._____

Rochester

1565 Jefferson Road, Building 300, Suite 360
Rochester, NY 14623
Phone: +1 585 288 5380 Fax: +1 585 288 8475

Chain of Custody Record

ALS Environmental

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 4/8/2014	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact:	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No. 112IC06183
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: 1 DAY			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Groundwater Sampling	☐ 1 week			
Site: MSA, Middle River Complex	☐ 2 days			Sampler:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y/N)	Hexavalent Chromium	Sample Specific Notes:
MSA-MW17D-040814	4/8/14	1225	GW	Water	3	N	x	MS/MSD
MSA-MW47D-040814	4/8/14	1415	GW	Water	1	N	x	

R1402465 5
Tetra Tech NUS,Inc.
MSA Groundwater

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B ☐ Unknown ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: Samples must be analyzed within 24 hours of sample time.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
☐	Tetra Tech	4-8-14/1600		ALS	4-9-14 @ 07:40
Relinquished by: ☐	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Cooler Receipt and Preservation Check Form

Project/Client TetraTech Folder Number R14-2465

Cooler received on 4-9-14 by: KE COURIER: ALS UPS FEDEX VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)*	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO (N/A)
5.	Were Ice or Ice packs present?	(YES)	NO
6.	Where did the bottles originate?	(ALS/ROC)	CLIENT
7.	Soil VOA samples received as:	Bulk Jar	Encore / TerraCore / Lab5035set (N/A)
8.	Temperature of cooler(s) upon receipt:	4.1°	

Is the temperature within 0° - 6° C?: (Y) N Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: _____

Thermometer ID: IR GUN#3 / ~~IR GUN#4~~ Reading From: (Temp Blank) / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples: _____

All Samples held in storage location R-002 by KE on 4-9-14 at 07:53

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: _____

Cooler Breakdown: Date: 4/9/14 Time: 1215 by: KE

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact	Canisters Pressurized	Tedlar® Bags Inflated (N/A)

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: Client covenant

Other Comments:

*Custody seal placed on back of cooler lid (not the end that opens)
KE 4-9-14

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

HOLDTIME

SDG R1402465

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MSA-MW47D-040814	R1402465-002	NM	04/08/2014	04/09/2014	04/09/2014	1	0	1
CR6	UG/L	MSA-MW17D-040814	R1402465-001	NM	04/08/2014	04/09/2014	04/09/2014	1	0	1

04-09-14 IC#8 218.6LL Analyst: OWoods Pipets: Barney FerB

Injection Number	Injection Name	Type	Level	Processing Method	Inject Time	Dilution	Comment
1	STANDARD 1	Calibration Standard	01	8-040314LL	03/04/14 15:23	1.0	218.6 LL
2	STANDARD 2	Calibration Standard	02	8-040314LL	03/04/14 15:32	1.0	218.6 LL
3	STANDARD 3	Calibration Standard	03	8-040314LL	03/04/14 15:40	1.0	218.6 LL
4	STANDARD 4	Calibration Standard	04	8-040314LL	03/04/14 15:49	1.0	218.6 LL
5	STANDARD 5	Calibration Standard	05	8-040314LL	03/04/14 15:57	1.0	218.6 LL
6	STANDARD 6	Calibration Standard	06	8-040314LL	03/04/14 16:06	1.0	218.6 LL
7	STANDARD 7	Calibration Standard	07	8-040314LL	03/04/14 16:14	1.0	218.6 LL
8	CCV	Unknown		8-040314LL	09/04/14 13:01	1.0	218.6 LL
9	CCB	Unknown		8-040314LL	09/04/14 13:10	1.0	218.6 LL
10	LCS	Unknown		8-040314LL	09/04/14 13:18	1.0	218.6 LL
11	R1402465-001	Unknown		8-040314LL	09/04/14 13:39	2.0	218.6 LL
12	R1402465-001 MS	Unknown		8-040314LL	09/04/14 13:47	2.0	218.6 LL
13	R1402465-001 MSD	Unknown		8-040314LL	09/04/14 13:56	2.0	218.6 LL
14	R1402465-002	Unknown		8-040314LL	09/04/14 14:03	2.0	218.6 LL
15	FILTER BLANK	Unknown		8-040314LL	09/04/14 14:12	1.0	218.6 LL
16	R1402465-001 MS REPEAT	Unknown		8-040314LL	09/04/14 14:40	2.0	218.6 LL
17	R1402465-001 MSD REPE/	Unknown		8-040314LL	09/04/14 14:48	2.0	218.6 LL
18	CCV	Unknown		8-040314LL	09/04/14 14:56	1.0	218.6 LL
19	CCB	Unknown		8-040314LL	09/04/14 15:05	1.0	218.6 LL

CK 4/10/14 BK R2465 1 copy

Reviewed & Approved
By: CK
Date: 4/10/14

00018

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 387538 **Method/Testcode:** 218.6 LL/Cr6 D LL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1403412-03	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.503 ppb	1					4/9/14 13:01:00	N	IV
RQ1403412-05	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/9/14 13:10:00	N	IV
RQ1403412-07	Chromium, Hexavalent, Dissolved	MB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/9/14 13:10:00	N	IV
RQ1403412-08	Chromium, Hexavalent, Dissolved	LCS		Water	0.20 ppb	10 mL	0.198 µg/L	1	0.010	0.020	99		4/9/14 13:18:00	N	IV
R1402465-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			4/9/14 13:39:00	N	IV
R1402465-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			4/9/14 14:03:00	N	IV
RQ1403412-01	Chromium, Hexavalent, Dissolved	MS	R1402465-001	Water	0.22 ppb	10 mL	0.435 µg/L	2	0.020	0.040	109		4/9/14 14:40:00	N	IV
RQ1403412-02	Chromium, Hexavalent, Dissolved	DMS	R1402465-001	Water	0.20 ppb	10 mL	0.400 µg/L	2	0.020	0.040	100	9	4/9/14 14:48:00	N	IV
RQ1403412-04	Chromium, Hexavalent, Dissolved	CCV		Water	0.52 ppb	10 mL	0.518 ppb	1					4/9/14 14:56:00	N	IV
RQ1403412-06	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/9/14 15:05:00	N	IV

00017

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183

Service Request: R1402465

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: ppb

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	387538	RQ1403412-03	4/9/14 13:01	0.500	0.503	101	95 - 105
CCV2	387538	RQ1403412-04	4/9/14 14:56	0.500	0.518	104	95 - 105

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183

Service Request: R1402465

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	387538	RQ1403412-05	4/9/14 13:10	0.010	0.020	0.020	U
CCB2	387538	RQ1403412-06	4/9/14 15:05	0.010	0.020	0.020	U

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402465
Project:	MSA Groundwater/112IC06183	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1402465-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.020	U	µg/L	0.020	0.010	1	NA	4/9/14 13:10	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183
Sample Matrix: Water

Service Request: R1402465
Date Analyzed: 4/9/14

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1402465-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.198	0.200	99	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Tetra Tech, Inc. **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE:** **JULY 8, 2014**

FROM: **MICHELLE L. ALLEN** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
SDGs R1402523, R1402603, & R1402679

SAMPLES: 9/Aqueous/Hexavalent Chromium

SDG R1402523

MSA-MW-14D-040914	MSA-MW-48D-040914	MSA-MW-48I-040914

SDG R1402603

MSA-DMW-IA-041014	MSA-MW-48S-041014	MSA-MW-49I-041014
MSA-MW-49S-041014		

SDG R1402679

MSA-MW-50I-041414	MSA-MW-50S-041414

Overview

The sample set for LMC – MSA, SDGs R1402523, R1402603, & R1402679 consisted of nine (9) aqueous environmental samples. All nine (9) aqueous samples were analyzed for hexavalent chromium. No field duplicate pair was included in the sample delivery group (SDG).

The samples were collected by Tetra Tech, Inc. on April 9, 10, and 14, 2014 and analyzed by ALS Environmental. All analyses were conducted in accordance with EPA Method 218.6 analytical and reporting protocols.

The data contained in these SDGs were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibrations, laboratory method blank results, laboratory control sample results, chromatographic resolution, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were noted.

Minor

- All of the samples with the exception of sample MSA-MW-50I-041414 and MSA-MW-48D-040914 were analyzed outside the 24 hour holding time but analyzed the samples within 30 hours of sample collection. The detected and non-detected results reported for hexavalent chromium in the affected samples were qualified as estimated, (J) and (UJ), respectively.

Notes

The Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses performed on sample MSA-MW-48S-041014 from SDG R102603 had a Percent Recovery (%R) for hexavalent chromium above the 110% quality control limit. No action was taken in the associated samples because the MS %R and Laboratory Control Sample (LCS) %R were acceptable.

All samples were preserved to a pH of 9.1-9.6 within 24 hours.

All samples were analyzed at a 2X dilution with the exception of samples, MSA-MW-48D-040914 and MSA-MW-48I-040914, which were analyzed at a 50X dilution.

Executive Summary

Laboratory Performance: The 24 hour holding time specified in EPA Method 218.6 was exceeded for all but one sample.

Other Factors Affecting Data Quality: The MSD %R was slightly high.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Review" (January 2010) and EPA Method 218.6. The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Allen
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 06183	NSAMPLE	MSA-MW-14D-040914			MSA-MW-48D-040914			MSA-MW-48I-040914		
SDG: R1402523	LAB_ID	R1402523-001			R1402523-003			R1402523-002		
FRACTION: MISC	SAMP_DATE	4/9/2014			4/9/2014			4/9/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.028	J	HP	1	UJ	H	1	UJ	H

PROJ_NO: 06183	NSAMPLE	MSA-DMW-IA-041014			MSA-MW-48S-041014			MSA-MW-49I-041014			MSA-MW-49S-041014		
SDG: R1402603	LAB_ID	R1402603-004			R1402603-001			R1402603-003			R1402603-002		
FRACTION: MISC	SAMP_DATE	4/10/2014			4/10/2014			4/10/2014			4/10/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.076	J	H	0.04	UJ-	H	0.04	UJ	H	0.04	UJ	H

PROJ_NO: 06183	NSAMPLE	MSA-MW-50I-041414			MSA-MW-50S-041414		
SDG: R1402679	LAB_ID	R1402679-002			R1402679-001		
FRACTION: MISC	SAMP_DATE	4/14/2014			4/14/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.04	U		0.04	UJ	H

Appendix B

Results as Reported by the Laboratory

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402523
Project:	MSA Groundwater/112IC06183	**Date Collected:**	4/ 9/14 1200
Sample Matrix:	Water	**Date Received:**	4/10/14
Sample Name:	MSA-MW-14D-040914		
Lab Code:	R1402523-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	**0.028**	J	µg/L	0.040	0.020	2	NA	4/10/14 12:59	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402523
Project:	MSA Groundwater/112IC06183	**Date Collected:**	4/ 9/14 1600
Sample Matrix:	Water	**Date Received:**	4/10/14
Sample Name:	MSA-MW-48D-040914		
Lab Code:	R1402523-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	1.0	U	µg/L	1.0	0.5	50	NA	4/10/14 15:44	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402523
Project:	MSA Groundwater/112IC06183	**Date Collected:**	4/ 9/14 1440
Sample Matrix:	Water	**Date Received:**	4/10/14
Sample Name:	MSA-MW-48I-040914		
Lab Code:	R1402523-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	1.0	U	µg/L	1.0	0.5	50	NA	4/10/14 15:27	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402603
Project:	MSA Groundwater/112IC06183	**Date Collected:**	4/10/14 1245
Sample Matrix:	Water	**Date Received:**	4/11/14
Sample Name:	MSA-DMW-IA-041014		
Lab Code:	R1402603-004	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	**0.076**		µg/L	0.040	0.020	2	NA	4/11/14 17:54	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402603
Project:	MSA Groundwater/112IC06183	**Date Collected:**	4/10/14 1205
Sample Matrix:	Water	**Date Received:**	4/11/14
Sample Name:	MSA-MW-48S-041014		
Lab Code:	R1402603-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	4/11/14 17:28	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402603
Project:	MSA Groundwater/112IC06183	**Date Collected:**	4/10/14 1540
Sample Matrix:	Water	**Date Received:**	4/11/14
Sample Name:	MSA-MW-49I-041014		
Lab Code:	R1402603-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	4/11/14 17:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402603
Project:	MSA Groundwater/112IC06183	**Date Collected:**	4/10/14 1435
Sample Matrix:	Water	**Date Received:**	4/11/14
Sample Name:	MSA-MW-49S-041014		
Lab Code:	R1402603-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	4/11/14 17:36	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402679
Project:	MSA Groundwater/112IC06183	**Date Collected:**	4/14/14 1611
Sample Matrix:	Water	**Date Received:**	4/15/14
Sample Name:	MSA-MW-50I-041414		
Lab Code:	R1402679-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	4/15/14 15:46	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402679
Project:	MSA Groundwater/112IC06183	**Date Collected:**	4/14/14 1157
Sample Matrix:	Water	**Date Received:**	4/15/14
Sample Name:	MSA-MW-50S-041414		
Lab Code:	R1402679-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	4/15/14 15:37	

Appendix C

Support Documentation

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 3511 | PAGE 1 OF 1

PROJECT NO: 117IC06183	FACILITY: MSA	PROJECT MANAGER Tony Annarone	PHONE NUMBER 301-528-3000	LABORATORY NAME AND CONTACT: QLS Environmental
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER Josh Mullis	PHONE NUMBER 410-271-5641	ADDRESS 1565 Jefferson Rd Bldg. 300 Ste. 360
		CARRIER/WAYBILL NUMBER		CITY, STATE Rochester, NY 14623

STANDARD TAT ☐
RUSH TAT ☐
☒ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE (YEAR 2014)	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G): P = Plastic	PRESERVATIVE USED: "Buffer"	TYPE OF ANALYSIS: Hexavalent Chromium	COMMENTS
4/9	1200	MSA-MW-14D-040914	MSA	/	/	Aq	G	1	P	K		
4/9	1440	MSA-MW-48I-040914	MSA	/	/	↓	↓	1	P	K		
4/9	1600	MSA-MW-48D-040914	MSA	/	/	↓	↓	1	P	K		
												24 Hour TAT

R1402523 5
Tetra Tech NUS, Inc.
MSA Groundwater

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	4/9/14	1775	1. RECEIVED BY MS	4/10/14 0805		
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

Cooler Receipt and Preservation Check Form

Project/Client Tetra Tech Folder Number R14-2523

Cooler received on 4/10 by: JS COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO (N/A)
5.	Were **Ice** or **Ice packs** present?	(YES)	NO
6.	Where did the bottles originate?	ALS/ROC, (CLIENT)	
7.	Soil VOA samples received as:	Bulk Jar	Encore / TerraCore / Lab5035set (N/A)
8.	Temperature of cooler(s) upon receipt:	1.3	

Is the temperature within 0° - 6° C?:	(Y)	N	Y	N	Y	N	Y	N	Y N
If No, Explain Below Date/Time Temperatures Taken:	4/10/14	0815							

Thermometer ID: IR GUN#3 / ~~IR GUN#4~~ Reading From: (Temp Blank) / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples: _____

All Samples held in storage location nor by JFS on 4/10/14 at 0815

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: (N)

Cooler Breakdown: Date: 4/10/14 Time: 1130 by: (JD)

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact	Canisters Pressurized	Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: Client covered

Other Comments:

PC Secondary Review: (N)

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

CASE NARRATIVE

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1402523
Project:	MSA Ground Water	**Project Number:**	112IC06183
Sample Matrix:	Water	**Date Received:**	4/10/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/9/14 and received at ALS in good condition at a cooler temperature of 1.3 °C as noted on the cooler receipt and preservation check form. The sample preservation was checked upon receipt and samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CLP Batching sheets for a cross-reference between Client ID and ALS Job # and analyses requested. Sample ID were changed per client request to match bottle ID's.

Hexavalent Chromium Analysis – 218.6

Three water samples were analyzed for Dissolved CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

Note: Samples were analyzed outside of the client requested 24 hours holding time. Samples were analyzed the same day as sample receipt and within the method specified holding time.

All the initial and continuing calibration criteria of 95 – 105 % were met.

The Blank Spike (LCS) recovery was within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature. _____

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 112IC06183	Batch Complete: Yes		Date Revised:
Submission: R1402523	Diskette Requested: No		Date Due: 5/1/14
Client: Tetra Tech NUS, Inc.	Date: 4/14/14		Protocol: MCAWW
Client Rep: DPATTON	Custody Seal: Present/Absent:		Shipping No.:
Project: MSA Groundwater	Chain of Custody: Present/Absent:		SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1402523-001	MSA-MW-14D-040914	Water	218.6 LL	4/9/14	4/10/14			
R1402523-002	MSA-MW-48I-040914	Water	218.6 LL	4/9/14	4/10/14			
R1402523-003	MSA-MW-48D-040914	Water	218.6 LL	4/9/14	4/10/14			

Folder Comments:

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
	FILTER BLANK	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	—	(Yes) No Field	target lot 453968	—	6.877	9.460	4/9/14 0828	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXI261858
4/9/14 0740	R1402465 -001 17D	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/8/14 1225	(Yes) No Field	↓	—	5.243	9.610	4/9/14 0830	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXI261858
↓	R1402465 -002 47D	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/8/14 1415	(Yes) No Field	↓	—	5.714	9.543	4/9/14 0832	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXI261858
4/9/14 1000	HS1404024-01	7199 ~~218.6 RL~~ ~~218.6 LL~~ 218.7	(Water) Drinking Water	—	(Yes) No Field	—	—	8.716	9.336	4/9/14 1210	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXI261866
4/10/14 0805	R1402523 -001 14D	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/9/14 1200	Yes No (Field)	—	—	9.612	—	4/10/14 0827	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	
↓	R1402523 -002 48I	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/9/14 1440	Yes No (Field)	—	—	9.1004	9.393	4/10/14 0830	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXI261858
↓	R1402523 -003 48D	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/9/14 1600	Yes No (Field)	—	—	9.137	9.440	4/10/14 0833	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXI261858
4/10/14 0930	wR2 R1402552 -001	(7199) 218.6 RL 218.6 LL 218.7	(Water) Drinking Water	4/9/14 1300	Yes (No) Field	—	—	5.89	9.39	4/10/14 1230	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WCI261856

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

00021

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402523
Project:	MSA Groundwater/112IC06183	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1402523-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.020	U	µg/L	0.020	0.010	1	NA	4/10/14 11:29	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183
Sample Matrix: Water

Service Request: R1402523
Date Analyzed: 4/10/14

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1402523-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.194	0.200	97	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

04-04-14 4/10/14 4/11/14 IC#8 218.6LL/7199LL Analyst: AWoods Pipets: 01Blue Barney Fork

Injection Number	Injection Name	Type	Level	Processing Method	Inject Time	Dilution	Comment
1	STANDARD 1	Calibration Standard	01	8-040314LL	03/04/14 15:23	1.0	218.6 LL
2	STANDARD 2	Calibration Standard	02	8-040314LL	03/04/14 15:32	1.0	218.6 LL
3	STANDARD 3	Calibration Standard	03	8-040314LL	03/04/14 15:40	1.0	218.6 LL
4	STANDARD 4	Calibration Standard	04	8-040314LL	03/04/14 15:49	1.0	218.6 LL
5	STANDARD 5	Calibration Standard	05	8-040314LL	03/04/14 15:57	1.0	218.6 LL
6	STANDARD 6	Calibration Standard	06	8-040314LL	03/04/14 16:06	1.0	218.6 LL
7	STANDARD 7	Calibration Standard	07	8-040314LL	03/04/14 16:14	1.0	218.6 LL
8	CCV	Unknown		8-040314LL	10/04/14 11:20	1.0	218.6 LL
9	CCB	Unknown		8-040314LL	10/04/14 11:29	1.0	218.6 LL
10	LCS	Unknown		8-040314LL	10/04/14 12:04	1.0	218.6 LL
11	R1402523-001	Unknown		8-040314LL	10/04/14 12:13	2.0	218.6 LL
12	R1402523-002	Unknown		8-040314LL	10/04/14 12:22	2.0	218.6 LL
13	R1402523-003	Unknown		8-040314LL	10/04/14 12:31	2.0	218.6 LL
14	R1402552-001	Unknown		8-040314LL	10/04/14 12:40	1.0	7199
15	R1402552-001	Unknown		8-040314LL	10/04/14 12:50	100.0	7199
16	R1402523-001	Unknown		8-040314LL	10/04/14 12:59	2.0	218.6 LL
17	R1402523-002	Unknown		8-040314LL	10/04/14 13:08	10.0	218.6 LL
18	R1402523-003	Unknown		8-040314LL	10/04/14 13:17	10.0	218.6 LL
19	R1402523-001 MS	Unknown		8-040314LL	10/04/14 13:25	2.0	218.6 LL
20	CCV	Unknown		8-040314LL	10/04/14 13:34	1.0	218.6 LL
21	CCB	Unknown		8-040314LL	10/04/14 13:43	1.0	218.6 LL
22	R1402523-001 MSD	Unknown		8-040314LL	10/04/14 13:51	2.0	218.6 LL
23	R1402523-002 MS	Unknown		8-040314LL	10/04/14 14:01	10.0	218.6 LL
24	R1402523-003 MS	Unknown		8-040314LL	10/04/14 14:09	10.0	218.6 LL
25	R1402552-001	Unknown		8-040314LL	10/04/14 14:18	100.0	7199 REPLICATE
26	R1402552-001 MS	Unknown		8-040314LL	10/04/14 14:26	100.0	7199
27	R1402552-001 MS	Unknown		8-040314LL	10/04/14 14:35	100.0	7199
28	R1402552-001 MSD	Unknown		8-040314LL	10/04/14 14:42	100.0	218.6 LL
29	R1402552-001 MSD	Unknown		8-040314LL	10/04/14 14:51	100.0	7199 REPLICATE
30	LCS	Unknown		8-040314LL	10/04/14 14:59	1.0	218.6 LL
31	CCV	Unknown		8-040314LL	10/04/14 15:08	1.0	218.6 LL
32	CCB	Unknown		8-040314LL	10/04/14 15:17	1.0	218.6 LL
33	R1402523-002	Unknown		8-040314LL	10/04/14 15:27	50.0	218.6 LL
34	R1402523-002	Unknown		8-040314LL	10/04/14 15:35	100.0	218.6 LL
35	R1402523-003	Unknown		8-040314LL	10/04/14 15:44	50.0	218.6 LL

61000

1-Copy R2523

Reviewed & Approved

By: _____

Date: 4/14/14

36	CCV	Unknown	8-040314LL	10/04/14 15:52	1.0	218.6 LL
37	CCB	Unknown	8-040314LL	10/04/14 16:01	1.0	218.6 LL

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc. **Service Request:** R1402523

Project: MSA Groundwater/112IC06183

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL **Units:** ppb

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	387817	RQ1403493-03	4/10/14 11:20	0.500	0.509	102	95 - 105
CCV2	387817	RQ1403493-04	4/10/14 13:34	0.500	0.495	99	95 - 105
CCV3	387817	RQ1403493-05	4/10/14 15:08	0.500	0.509	102	95 - 105
CCV4	387817	RQ1403493-06	4/10/14 15:52	0.500	0.509	102	95 - 105

Client: Tetra Tech NUS, Inc. **Service Request:** R1402523
Project: MSA Groundwater/112IC06183

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL **Units:** µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	387817	RQ1403493-07	4/10/14 11:29	0.010	0.020	0.020	U
CCB2	387817	RQ1403493-08	4/10/14 13:43	0.010	0.020	0.020	U
CCB3	387817	RQ1403493-09	4/10/14 15:17	0.010	0.020	0.020	U
CCB4	387817	RQ1403493-10	4/10/14 16:01	0.010	0.020	0.020	U

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 387817 **Method/Testcode:** 218.6 LL/Cr6 D LL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1403493-03	Chromium, Hexavalent, Dissolved	CCV		Water	0.51 ppb	10 mL	0.509 ppb	1					4/10/14 11:20:00	N	IV
RQ1403493-07	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/10/14 11:29:00	N	IV
RQ1403493-11	Chromium, Hexavalent, Dissolved	MB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/10/14 11:29:00	N	IV
RQ1403493-12	Chromium, Hexavalent, Dissolved	LCS		Water	0.19 ppb	10 mL	0.194 µg/L	1	0.010	0.020	97		4/10/14 12:04:00	N	IV
R1402523-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 ppb	10 mL	0.028 µg/L J	2	0.020	0.040			4/10/14 12:59:00	N	IV
RQ1403493-01	Chromium, Hexavalent, Dissolved	MS	R1402523-001	Water	0.23 ppb	10 mL	0.451 µg/L	2	0.020	0.040	106		4/10/14 13:25:00	N	IV
RQ1403493-04	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.495 ppb	1					4/10/14 13:34:00	N	IV
RQ1403493-08	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/10/14 13:43:00	N	IV
RQ1403493-02	Chromium, Hexavalent, Dissolved	DMS	R1402523-001	Water	0.21 ppb	10 mL	0.422 µg/L	2	0.020	0.040	98	7	4/10/14 13:51:00	N	IV
RQ1403493-05	Chromium, Hexavalent, Dissolved	CCV		Water	0.51 ppb	10 mL	0.509 ppb	1					4/10/14 15:08:00	N	IV
RQ1403493-09	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/10/14 15:17:00	N	IV
R1402523-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	1.0 µg/L U	50	0.5	1.0			4/10/14 15:27:00	N	IV
R1402523-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	1.0 µg/L U	50	0.5	1.0			4/10/14 15:44:00	N	IV
RQ1403493-06	Chromium, Hexavalent, Dissolved	CCV		Water	0.51 ppb	10 mL	0.509 ppb	1					4/10/14 15:52:00	N	IV
RQ1403493-10	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/10/14 16:01:00	N	IV

00001

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

TestAmerica Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
Phone: 330.497.9396 Fax: 330.497.0772

Chain of Custody Record

042318

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Tony Apanavage	Site Contact: Josh Mullis	Date: 4/10/14	COC No:
Company Name:	Tetra Tech	Tel/Fax: 301-528-3000	Lab Contact:	Carrier: Fed Ex	1 of 1 COCs
Address:	20251 Century Blvd. Ste. 200	Analysis Turnaround Time			Sampler:
City/State/Zip:	Germantown, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	301-528-3000	TAT if different from Below _____			Walk-in Client:
Fax:		☐ 2 weeks			Lab Sampling:
Project Name:	MSA GW 2014	☐ 1 week			
Site:	MSA	☐ 2 days			Job / SDG No.:
PO #	112IC06183	☒ 1 day 24 hour			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Hexavalent Chromium	Sample Specific Notes:
MSA-MW-48S-041014	4/10/14	1205	G	Aq	1			X	
MSA-MW-49S-041014	4/10/14	1435	G	Aq	1			X	
MSA-MW-49I-041014	4/10/14	1540	G	Aq	1			X	
~~[illegible]~~									
MSA-DMW-1A-041014	4-10-14	1245	G	Aq	1			X	

R1402603 5
Tetra Tech NUS, Inc.
MSA Groundwater

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: 24 hour TAT

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	4/10/14 1730	[signature]	ALS	4/11/14 0800
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Cooler Receipt and Preservation Check Form

Project/Client Tetra Tech Folder Number 414-2603

Cooler received on 4/11/14 by: JFS COURIER: ALS UPS FEDEX VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	YES	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	YES	NO
3.	Did all bottles arrive in good condition (unbroken)?	YES	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO N/A
5.	Were **Ice** or **Ice packs** present?	YES	NO
6.	Where did the bottles originate?	ALS/ROC, CLIENT	
7.	Soil VOA samples received as:	Bulk Jar	Encore TerraCore Lab5035set N/A
8.	Temperature of cooler(s) upon receipt:	3.0	

Is the temperature within 0° - 6° C?: Y N Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: 4/11/14 0816

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples:

All Samples held in storage location ner by JFS on 4/11 at 0816

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: NA

Cooler Breakdown: Date: 4/11/14 Time: 1246 by: JFS

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	YES	NO
2.	Did all bottle labels and tags agree with custody papers?	YES	NO
3.	Were correct containers used for the tests indicated?	YES	NO
4.	Air Samples: Cassettes / Tubes Intact	Canisters Pressurized	Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 112612-2VV

Other Comments:

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

CASE NARRATIVE

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1402603
Project:	MSA Ground Water	**Project Number:**	112IC06183
Sample Matrix:	Water	**Date Received:**	4/11/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/10/14 and received at ALS in good condition at a cooler temperature of 3.0 °C as noted on the cooler receipt and preservation check form. The sample preservation was checked upon receipt and samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CLP Batching sheets for a cross-reference between Client ID and ALS Job # and analyses requested. Sample ID were changed per client request to match bottle ID's.

Hexavalent Chromium Analysis – 218.6

Four water samples were analyzed for Dissolved CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

Note: Samples were analyzed outside of the client requested 24 hours holding time. Samples were analyzed the same day as sample receipt and within the method specified holding time.

All the initial and continuing calibration criteria of 95 – 105 % were met.

The Blank Spike (LCS) recovery was within QC limits.

Site QC was not requested but was analyzed on sample MSA-MW-48S-041014 (R1402603-001). The Duplicate Matrix Spike was outside of the control limits high and has been flagged with a "+".

The Laboratory Blank associated with these samples was free of contamination.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature._____

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #:	112IC06183	Batch Complete:	Yes	Date Revised:	
Submission:	R1402603	Diskette Requested:	No	Date Due:	5/2/14
Client:	Tetra Tech NUS, Inc.	Date:	4/15/14	Protocol:	MCAWW
Client Rep:	DPATTON	Custody Seal: Present/Absent:		Shipping No.:	
Project:	MSA Groundwater	Chain of Custody: Present/Absent:		SDG #:	

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1402603-001	MSA-MW-48S-041014	Water	218.6 LL	4/10/14	4/11/14			
R1402603-002	MSA-MW-49S-041014	Water	218.6 LL	4/10/14	4/11/14			
R1402603-003	MSA-MW-49I-041014	Water	218.6 LL	4/10/14	4/11/14			
R1402603-004	MSA-DMW-IA-041014	Water	218.6 LL	4/10/14	4/11/14			

3000

Folder Comments:

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads -

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
4/11/14 0800	2603-002 49S	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/10/14 1435	Yes No (Field)	–	–	7.193	9.331	(JD) 4/11/14 0841	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXC126185G
	2603-003 49I	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/10/14 1540	Yes No (Field)	–	–	6.302	9.319	(JD) 4/11/14 0843	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXC126185G
	2603-001 48S	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/10/14 1205	Yes No (Field)	–	–	7.644	9.316	(JD) 4/11/14 0845	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXC126185G
	2603-004 1A	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/10/14 1245	Yes No (Field)	–	–	7.594	9.318	(JD) 4/11/14 0848	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXC126185G
	water spigot WS14AR209	7199 ~~218.6 RL~~ ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/9/14 0730	Yes No (Field)	–	–	0.964			Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	
		7199 218.6 RL 218.6 LL 218.7	Water Drinking Water		Yes No Field			1			Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	
		7199 218.6 RL 218.6 LL 218.7	Water Drinking Water		Yes No Field						Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	
		7199 218.6 RL 218.6 LL 218.7	Water Drinking Water		Yes No Field						Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

0022

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402603
Project:	MSA Groundwater/112IC06183	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1402603-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.020	U	µg/L	0.020	0.010	1	NA	4/11/14 16:38	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183
Sample Matrix: Water

Service Request: R1402603
Date Analyzed: 4/11/14

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1402603-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.201	0.200	100	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183
Sample Matrix: Water

Service Request: R1402603
Date Collected: 4/10/14
Date Received: 4/11/14
Date Analyzed: 4/11/14

Matrix Spike Summary
General Chemistry Parameters

Sample Name: MSA-MW-48S-041014
Lab Code: R1402603-001

Units: µg/L
Basis: NA

Analytical Method: 218.6 LL

		MSA-MW-48S-041014MS Matrix Spike R1402603-001MS			MSA-MW-48S-041014DMS Duplicate Matrix Spike R1402603-001DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Chromium, Hexavalent, Dissolved	ND	0.441	0.400	110	0.444	0.400	111 *	90 - 110	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

04-11-14 IC#8 218.6 LL Analyst: AWoods Pipets: Barney Fees

Injection Number	Injection Name	Type	Level	Processing Method	Inject Time	Dilution	Comment
1	STANDARD 1	Calibration Standard	01	8-040314LL	03/04/14 15:23	1.0	218.6 LL
2	STANDARD 2	Calibration Standard	02	8-040314LL	03/04/14 15:32	1.0	218.6 LL
3	STANDARD 3	Calibration Standard	03	8-040314LL	03/04/14 15:40	1.0	218.6 LL
4	STANDARD 4	Calibration Standard	04	8-040314LL	03/04/14 15:49	1.0	218.6 LL
5	STANDARD 5	Calibration Standard	05	8-040314LL	03/04/14 15:57	1.0	218.6 LL
6	STANDARD 6	Calibration Standard	06	8-040314LL	03/04/14 16:06	1.0	218.6 LL
7	STANDARD 7	Calibration Standard	07	8-040314LL	03/04/14 16:14	1.0	218.6 LL
8	CCV	Unknown		8-040314LL	11/04/14 16:29	1.0	218.6 LL
9	CCB	Unknown		8-040314LL	11/04/14 16:38	1.0	218.6 LL
10	LCS	Unknown		8-040314LL	11/04/14 16:47	1.0	218.6 LL
11	R K1402603-001	Unknown		8-040314LL	11/04/14 17:28	2.0	218.6 LL
12	K1402603-002	Unknown		8-040314LL	11/04/14 17:36	2.0	218.6 LL
13	K1402603-003	Unknown		8-040314LL	11/04/14 17:45	2.0	218.6 LL
14	K1402603-004	Unknown		8-040314LL	11/04/14 17:54	2.0	218.6 LL
15	K1402603-001 MS	Unknown		8-040314LL	11/04/14 18:03	2.0	218.6 LL
16	K1402603-001 MSD	Unknown		8-040314LL	11/04/14 18:12	2.0	218.6 LL
17	CCV	Unknown		8-040314LL	11/04/14 18:24	1.0	218.6 LL
18	CCB	Unknown		8-040314LL	11/04/14 18:33	1.0	218.6 LL

LR 4/14/14

1 copy

R1402603

T2000

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183

Service Request: R1402603

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: ppb

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	387983	RQ1403537-03	4/11/14 16:29	0.500	0.515	103	95 - 105
CCV2	387983	RQ1403537-04	4/11/14 18:24	0.500	0.522	104	95 - 105

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183

Service Request: R1402603

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	387983	RQ1403537-05	4/11/14 16:38	0.010	0.020	0.020	U
CCB2	387983	RQ1403537-06	4/11/14 18:33	0.010	0.020	0.020	U

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 387983 **Method/Testcode:** 218.6 LL/Cr6 D LL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1403537-03	Chromium, Hexavalent, Dissolved	CCV		Water	0.51 ppb	10 mL	0.515 ppb	1					4/11/14 16:29:00	N	IV
RQ1403537-05	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/11/14 16:38:00	N	IV
RQ1403537-07	Chromium, Hexavalent, Dissolved	MB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/11/14 16:38:00	N	IV
RQ1403537-08	Chromium, Hexavalent, Dissolved	LCS		Water	0.20 ppb	10 mL	0.201 µg/L	1	0.010	0.020	100		4/11/14 16:47:00	N	IV
R1402603-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			4/11/14 17:28:00	N	IV
R1402603-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			4/11/14 17:36:00	N	IV
R1402603-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			4/11/14 17:45:00	N	IV
R1402603-004	Chromium, Hexavalent, Dissolved	N/A		Water	0.04 ppb	10 mL	0.076 µg/L	2	0.020	0.040			4/11/14 17:54:00	N	IV
RQ1403537-01	Chromium, Hexavalent, Dissolved	MS	R1402603-001	Water	0.22 ppb	10 mL	0.441 µg/L	2	0.020	0.040	110		4/11/14 18:03:00	N	IV
RQ1403537-02	Chromium, Hexavalent, Dissolved	DMS	R1402603-001	Water	0.22 ppb	10 mL	0.444 µg/L	2	0.020	0.040	111*	<1	4/11/14 18:12:00	N	IV
RQ1403537-04	Chromium, Hexavalent, Dissolved	CCV		Water	0.52 ppb	10 mL	0.522 ppb	1					4/11/14 18:24:00	N	IV
RQ1403537-06	Chromium, Hexavalent, Dissolved.	CCB		Water	0.01 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/11/14 18:33:00	N	IV

Reviewed & Approved
By: [signature]
Date: 4/14/14

00020

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 3512 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112IC06183	MSA	Tony Apanavage	301-528-3000	ALS Environmental
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
[signature] Bence MW-50S MW-50I Hex Chrom		Walt Pryor	301-528-3000	1565 Jefferson Rd. Bldg. 300 Ste. 360
		CARRIER/WAYBILL NUMBER		CITY, STATE
				Rochester, NY, 14623

STANDARD TAT ☐
RUSH TAT ☐
☒ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): P

PRESERVATIVE USED

TYPE OF ANALYSIS: Hexavalent chromium

DATE YEAR 2014	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	Hexavalent chromium								COMMENTS
4-14	1157	MSA-MW-50S-041414				GW	G	1	X								
↓	1611	MSA-MW-50I-041414				↓	↓	1	X								

R1402679 5
Tetra Tech NUS, Inc.
MSA Groundwater

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: Walt Pr [signature]	4-14-14	1800	1. RECEIVED BY: [signature]	4-15-14	0935
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

Cooler Receipt and Preservation Check Form

Project/Client TetraTech Folder Number 14-2675

Cooler received on 4-15-14 by: KE COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO (N/A)
5.	Were **Ice** or **Ice packs** present?	(YES)	NO
6.	Where did the bottles originate?	(ALS/ROC), CLIENT	
7.	Soil VOA samples received as:	Bulk Jar	Encore TerraCore Lab5035set (N/A)
8.	Temperature of cooler(s) upon receipt:	2.0	

Is the temperature within 0° - 6° C?:	(Y)	N	Y	N	Y	N	Y	N	Y N

If No, Explain Below Date/Time Temperatures Taken: 4-15-14 @ 10:02

Thermometer ID: IR GUN#3 (IR GUN#4) Reading From: Temp Blank (Sample Bottle)

If out of Temperature, note packing/ice condition &Client Approval to Run Samples:

All Samples held in storage location SMO by KE on 4-15-14 at 10:05

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: [illegible]

Cooler Breakdown: Date: 4/15/14 Time: 1205 by: KS

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact	Canisters Pressurized	Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp
≥12	NaOH				
≤2	HNO_3				
≤2	H_2SO_4				
<4	$NaHSO_4$				
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)	
	$Na_2S_2O_3$	-	-		
	Zn Aceta	-	-		
	HCl	*	*		

Sample ID	Vol. Added	Lot Added	Final pH

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: client

Other Comments:

PC Secondary Review: [illegible]

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

CASE NARRATIVE

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1402679
Project:	MSA Ground Water	**Project Number:**	112IC06183
Sample Matrix:	Water	**Date Received:**	4/15/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/14/14 and received at ALS in good condition at a cooler temperature of 3.2 °C as noted on the cooler receipt and preservation check form. The sample preservation was checked upon receipt and samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CLP Batching sheets for a cross-reference between Client ID and ALS Job # and analyses requested. Sample ID were changed per client request to match bottle ID's.

Hexavalent Chromium Analysis – 218.6

Two water samples were analyzed for Dissolved CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

Note: Sample MSA-MW-50S-041414 (R1402679-001) was analyzed outside of the client requested 24 hours holding time. Samples were analyzed the same day as sample receipt and within the method specified holding time.

All the initial and continuing calibration criteria of 95 – 105 % were met.

The Blank Spike (LCS) recovery was within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature. Nath

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 112IC06183	Batch Complete: Yes		Date Revised:
Submission: R1402679	Diskette Requested: No		Date Due: 5/6/14
Client: Tetra Tech NUS, Inc.	Date: 4/16/14		Protocol: MCAWW
Client Rep: DPATTON	Custody Seal: Present/Absent:		Shipping No.:
Project: MSA Groundwater	Chain of Custody: Present/Absent:		SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1402679-001	MSA-MW-50S-041414	Water	218.6 LL	4/14/14	4/15/14			
R1402679-002	MSA-MW-50I-041414	Water	218.6 LL	4/14/14	4/15/14			

Folder Comments:

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads -

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
4/11/14 0800	2603-002 49S	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/10/14 1435	Yes No (Field)	—	—	7.193	9.331	(AW) 4/11/14 0841	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXC126185G
	2603-003 49I	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/10/14 1540	Yes No (Field)	—	—	6.302	9.319	(AW) 4/11/14 0843	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXC126185G
	2603-001 48S	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/10/14 1205	Yes No (Field)	—	—	7.644	9.316	(AW) 4/11/14 0845	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXC126185G
	2603-004 1A	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/10/14 1245	Yes No (Field)	—	—	7.594	9.318	(AW) 4/11/14 0848	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXC126185G
	water spigot WS14APR09	7199 ~~218.6 RL~~ ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/09/14 0730	Yes No (Field)	—	—	0.964			Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	
4/15/14 0935	2679-001 50S	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	4/14/14 1157	Yes No (Field)	—	—	8.466	9.399	(AW) 4/15/14 1150	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXC126185G
	2679-002 50I	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	4/14/14 1611	Yes No (Field)	—	—	8.637	9.350	(AW) 4/15/14 1154	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXC126185G
	HS/140424/1-02	~~7199~~ ~~218.6 RL~~ 218.6 LL 218.7	(Water) Drinking Water	4/5/14 1415	Yes No (Field)	—	—	8.379	9.315	(AW) 4/15/14 1159	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WXC126185G

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

67008

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402679
Project:	MSA Groundwater/112IC06183	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1402679-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.020	U	µg/L	0.020	0.010	1	NA	4/15/14 15:17	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183
Sample Matrix: Water

Service Request: R1402679
Date Analyzed: 4/15/14

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1402679-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.195	0.200	98	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

04-15-14 IC#8 ~~7199~~ 218.6LL Analyst: CWoods
4/16/14 Pipets: Barney, FerB

Injection Number	Injection Name	Type	Level	Processing Method	Inject Time	Dilution	Comment
1	STANDARD 1	Calibration Standard	01	8-040314LL	03/04/14 15:23	1.0	218.6 LL
2	STANDARD 2	Calibration Standard	02	8-040314LL	03/04/14 15:32	1.0	218.6 LL
3	STANDARD 3	Calibration Standard	03	8-040314LL	03/04/14 15:40	1.0	218.6 LL
4	STANDARD 4	Calibration Standard	04	8-040314LL	03/04/14 15:49	1.0	218.6 LL
5	STANDARD 5	Calibration Standard	05	8-040314LL	03/04/14 15:57	1.0	218.6 LL
6	STANDARD 6	Calibration Standard	06	8-040314LL	03/04/14 16:06	1.0	218.6 LL
7	STANDARD 7	Calibration Standard	07	8-040314LL	03/04/14 16:14	1.0	218.6 LL
8	CCV	Unknown		8-040314LL	15/04/14 15:08	1.0	218.6 LL
9	CCB	Unknown		8-040314LL	15/04/14 15:17	1.0	218.6 LL
10	LCS	Unknown		8-040314LL	15/04/14 15:26	1.0	218.6 LL
11	R1402679-001	Unknown		8-040314LL	15/04/14 15:37	2.0	218.6 LL
12	R1402679-002	Unknown		8-040314LL	15/04/14 15:46	2.0	218.6 LL
13	R1402679-002 MS	Unknown		8-040314LL	15/04/14 15:55	2.0	218.6 LL
14	R1402679-002 MSD	Unknown		8-040314LL	15/04/14 16:03	2.0	218.6 LL
15	CCV	Unknown		8-040314LL	15/04/14 16:11	1.0	218.6 LL
16	CCB	Unknown		8-040314LL	15/04/14 16:20	1.0	218.6 LL

1- Copy
R-2679

Reviewed & Approved
By:
Date: 4/16/14

00018

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183

Service Request: R1402679

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: ppb

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	388405	RQ1403677-03	4/15/14 15:08	0.500	0.504	101	95 - 105
CCV2	388405	RQ1403677-04	4/15/14 16:11	0.500	0.487	97	95 - 105

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183

Service Request: R1402679

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	388405	RQ1403677-05	4/15/14 15:17	0.010	0.020	0.020	U
CCB2	388405	RQ1403677-06	4/15/14 16:20	0.010	0.020	0.020	U

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 388405 **Method/Testcode:** 218.6 LL/Cr6 D LL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	POL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1403677-03	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.504 ppb	1					4/15/14 15:08:00	N	IV
RQ1403677-05	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/15/14 15:17:00	N	IV
RQ1403677-07	Chromium, Hexavalent, Dissolved	MB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/15/14 15:17:00	N	IV
RQ1403677-08	Chromium, Hexavalent, Dissolved	LCS		Water	0.20 ppb	10 mL	0.195 µg/L	1	0.010	0.020	98		4/15/14 15:26:00	N	IV
R1402679-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			4/15/14 15:37:00	N	IV
R1402679-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			4/15/14 15:46:00	N	IV
RQ1403677-01	Chromium, Hexavalent, Dissolved	MS	R1402679-002	Water	0.19 ppb	10 mL	0.376 µg/L	2	0.020	0.040	94		4/15/14 15:55:00	N	IV
RQ1403677-02	Chromium, Hexavalent, Dissolved	DMS	R1402679-002	Water	0.18 ppb	10 mL	0.364 µg/L	2	0.020	0.040	91	3	4/15/14 16:03:00	N	IV
RQ1403677-04	Chromium, Hexavalent, Dissolved	CCV		Water	0.49 ppb	10 mL	0.487 ppb	1					4/15/14 16:11:00	N	IV
RQ1403677-06	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.010	0.020			4/15/14 16:20:00	N	IV

RQ1403677

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

TETRA TECH **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE:** **JULY 8, 2014**

FROM: **MICHELLE L. ALLEN** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
SDGs R1402731, R1402789, R1402881, & R1403172

SAMPLES: 10/Aqueous/Hexavalent Chromium

SDG R1402731

MSA-DMW-8I-041614 MSA-MW-50D-041614 MSA-MW-51I-041614
MSA-MW-51S-041614

SDG R1402789

MSA-MW-49D-041714 MSA-MW-51D-041714

SDG R1402881

MSA-DMW-3S

SDG R1403172

MSA-DMW-1S-050114 MSA-DMW-6S-050114 MSA-MW-27S-050114

Overview

The sample set for LMC – MSA, SDGs R1402731, R1402789, R1402881, & R1403172 consisted of ten (10) aqueous environmental samples. All ten (10) aqueous samples were analyzed for hexavalent chromium. No field duplicate pair was included in the sample delivery group (SDG).

The samples were collected by Tetra Tech, Inc. on April 16, 17, 22, and May 1, 2014 and analyzed by ALS Environmental. All analyses were conducted in accordance with EPA Method 218.6 analytical and reporting protocols.

The data contained in these SDGs were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibrations, laboratory method blank results, laboratory control sample results, chromatographic resolution, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

- The 24 hour holding time for samples MSA-DMW-8I-041614, MSA-MW-50D-041614, MSA-MW-51I-041614, MSA-MW-51S-041614, MSA-MW-49D-041714, MSA-MW-51D-041714, and MSA-DMW-3S (SDGs R1402731, R1402789, & R1402881) were exceeded. The samples were collected on 04/16, 17, and 22/2014 but were not analyzed until 05/02/2014. The laboratory properly preserved the samples upon receipt and used the wastewater 28 day holding time. However, it is the opinion of the data validator that these groundwater samples are not wastewater; therefore, the 28 holding time does not apply. The detected and non-detected results reported for hexavalent chromium in the aforementioned samples were qualified as estimated, biased low, (J-), and rejected, (UR), respectively.

Minor

- The samples contained in SDG R1403172 (MSA-DMW-1S-050114, MSA-DMW-6S-050114, and MSA-MW-27S-050114) were analyzed outside the 24 hour holding time but the laboratory analyzed the samples within 30 hours of sample collection. The detected results reported for hexavalent chromium were qualified as estimated, biased low, (J). The non-detected results were qualified as estimated, (UJ).

Notes

All samples were preserved to a pH of 9.1-9.6 within 24 hours, with the exception of sample MSA-DMW-3S which was preserved approximately 32 hours after sample collection. No action was taken.

All samples were analyzed at a 2X dilution with the exception of sample, MSA-MW-51S-041614, which was analyzed at a 20X dilution.

Executive Summary

Laboratory Performance: The 24 hour holding time specified in EPA Method 218.6 was exceeded for all samples.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Review" (January 2010) and EPA Method 218.6. The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Allen
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 06183	NSAMPLE	MSA-DMW-1S-050114			MSA-DMW-6S-050114			MSA-MW-27S-050114		
SDG: R1403172	LAB_ID	R1403172-001			R1403172-003			R1403172-002		
FRACTION: MISC	SAMP_DATE	5/1/2014			5/1/2014			5/1/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.125	J	H	0.04	UJ	H	0.04	UJ	H

PROJ_NO: 06183	NSAMPLE	MSA-DMW-8I-041614			MSA-MW-50D-041614			MSA-MW-51I-041614			MSA-MW-51S-041614		
SDG: R1402731	LAB_ID	R1402731-001			R1402731-002			R1402731-003			R1402731-004		
FRACTION: MISC	SAMP_DATE	4/16/2014			4/16/2014			4/16/2014			4/16/2014		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.04	UR	H	0.224	J-	H	0.04	UR	H	0.4	UR	H

PROJ_NO: 06183	NSAMPLE	MSA-MW-49D-041714			MSA-MW-51D-041714		
SDG: R1402789	LAB_ID	R1402789-002			R1402789-001		
FRACTION: MISC	SAMP_DATE	4/17/2014			4/17/2014		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.04	UR	H	0.04	UR	H

PROJ_NO: 06183	NSAMPLE	MSA-DMW-3S		
SDG: R1402881	LAB_ID	R1402881-001		
FRACTION: MISC	SAMP_DATE	4/22/2014		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.04	UR	H

Appendix B

Results as Reported by the Laboratory

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402731
Project:	MSA Groundwater/112IC06183	**Date Collected:**	4/16/14 1218
Sample Matrix:	Water	**Date Received:**	4/17/14
Sample Name:	MSA-DMW-8I-041614		
Lab Code:	R1402731-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	5/2/14 17:07	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402731
Project:	MSA Groundwater/112IC06183	**Date Collected:**	4/16/14 1020
Sample Matrix:	Water	**Date Received:**	4/17/14
Sample Name:	MSA-MW-50D-041614		
Lab Code:	R1402731-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.224		µg/L	0.040	0.020	2	NA	5/2/14 17:15	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402731
Project:	MSA Groundwater/112IC06183	**Date Collected:**	4/16/14 1200
Sample Matrix:	Water	**Date Received:**	4/17/14
Sample Name:	MSA-MW-51I-041614		
Lab Code:	R1402731-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.020	2	NA	5/2/14 17:24	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402731
Project:	MSA Groundwater/112IC06183	**Date Collected:**	4/16/14 1548
Sample Matrix:	Water	**Date Received:**	4/17/14
Sample Name:	MSA-MW-51S-041614		
Lab Code:	R1402731-004	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.40	U	µg/L	0.40	0.20	20	NA	5/2/14 19:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402789
Project:	MSA Groundwater/112IC04793 - 02	**Date Collected:**	4/17/14 1540
Sample Matrix:	Water	**Date Received:**	4/18/14
Sample Name:	MSA-MW-49D-041714		
Lab Code:	R1402789-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.028	2	NA	5/2/14 18:50	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402789
Project:	MSA Groundwater/112IC04793 - 02	**Date Collected:**	4/17/14 1142
Sample Matrix:	Water	**Date Received:**	4/18/14
Sample Name:	MSA-MW-51D-041714		
Lab Code:	R1402789-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.028	2	NA	5/2/14 18:07	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402881
Project:	MSA Groundwater/112IC06183	**Date Collected:**	4/22/14 1200
Sample Matrix:	Water	**Date Received:**	4/23/14
Sample Name:	MSA-DMW-3S		
Lab Code:	R1402881-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.028	2	NA	5/2/14 18:59	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1403172
Project:	MSA Groundwater/112IC06183	**Date Collected:**	5/ 1/14 1048
Sample Matrix:	Water	**Date Received:**	5/ 2/14
Sample Name:	MSA-DMW-1S-050114		
Lab Code:	R1403172-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.125		µg/L	0.040	0.028	2	NA	5/2/14 17:58	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1403172
Project:	MSA Groundwater/112IC06183	**Date Collected:**	5/ 1/14 1517
Sample Matrix:	Water	**Date Received:**	5/ 2/14
Sample Name:	MSA-DMW-6S-050114		
Lab Code:	R1403172-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.028	2	NA	5/2/14 17:41	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1403172
Project:	MSA Groundwater/112IC06183	**Date Collected:**	5/ 1/14 1235
Sample Matrix:	Water	**Date Received:**	5/ 2/14
Sample Name:	MSA-MW-27S-050114		
Lab Code:	R1403172-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.040	U	µg/L	0.040	0.028	2	NA	5/2/14 17:50	

Appendix C

Support Documentation

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

14719

ALS Environmental

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: MSA GW 2014	Project Number: 112IL06183
Project Manager: Tony Athanasiou	Report CC:
Company/Address: Tetra Tech INC. 20251 Century Blvd STE 200 Germantown MD, 20874	
Phone #: 301 528-3021	Email:
Sampler's Signature: Walt Payne	Sampler's Printed Name: Walt Payne

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GCMS VOAs ○ 8260 ○ 624 ○ CLP	GCMS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Hex Chrom								REMARKS/ ALTERNATE DESCRIPTION
MSA-DMW-8I-041614		4-16-14	1218	GW	1								X								
MSA-MW-5D-041614		4/16/14	1020	GW	1								X								
MSA-MW-5I-041614		4/16/14	1205	GW	1								X								
MSA-MW-5I2-041614		4/16/14	1548	GW	1								X								

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

24 TAT

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____ Yes ____ No

INVOICE INFORMATION
PO #
BILL TO:

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Walt Payne	Signature:	Signature	Signature	Signature	Signature
Printed Name: Walt Payne	Printed Name: J. Searcy	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TT-INC	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 4-16-14	Date/Time: 4/17/14 0920	Date/Time	Date/Time	Date/Time	Date/Time

R1402731 5
Tetra Tech NUS, Inc.
MSA Groundwater

Distribution: White - Lab Copy; Yellow - Return to Originator

© 2012 by ALS Group

Cooler Receipt and Preservation Check Form

Project/Client _____ Folder Number R14-2731

Cooler received on 4/9/14 by: JFS **COURIER:** ALS UPS (FEDEX) VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO (N/A)
5.	Were **Ice** or **Ice packs** present?	(YES)	NO
6.	Where did the bottles originate?	(ALS/ROC), CLIENT	
7.	Soil VOA samples received as:	Bulk Jar	Encore TerraCore Lab5035set (N/A)
8.	Temperature of cooler(s) upon receipt:	0.0	

Is the temperature within 0° - 6° C?: (Y) N Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: 4/17/14 0945

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: (Temp Blank) / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples: _____

All Samples held in storage location 1002 by JH on 4/17 at 0945

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: _____

Cooler Breakdown: Date: 4/17/14 Time: 1153 by: _____

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact	Canisters Pressurized	Tedlar® Bags Inflated (N/A)

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 112612-2VV

Other Comments:

Cr^{+6} Buffer: WC126185G Exp 3/15

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

CASE NARRATIVE

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1402731
Project:	MSA Ground Water	**Project Number:**	112IC06183
Sample Matrix:	Water	**Date Received:**	4/17/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/16/14 and received at ALS in good condition at a cooler temperature of 0.0°C as noted on the cooler receipt and preservation check form. The sample preservation was checked upon receipt and samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CLP Batching sheets for a cross-reference between Client ID and ALS Job # and analyses requested. Sample ID were changed per client request to match bottle ID's.

Hexavalent Chromium Analysis – 218.6

Four water samples were analyzed for Dissolved CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

Note: Samples were analyzed outside of the client requested 24 hours holding time but within method specified holding time of 28 days.

All the initial and continuing calibration criteria of 95 – 105 % were met.

The Blank Spike (LCS) recovery was within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature._____

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #:	112IC06183	Batch Complete:	Yes	Date Revised:	
Submission:	R1402731	Diskette Requested:	No	Date Due:	5/8/14
Client:	Tetra Tech NUS, Inc.	Date:	4/17/14	Protocol:	MCAWW
Client Rep:	DPATTON	Custody Seal: Present/Absent:		Shipping No.:	
Project:	MSA Groundwater	Chain of Custody: Present/Absent:		SDG #:	

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1402731-001	MSA-DMW-8I-041614	Water	218.6 LL	4/16/14	4/17/14			
R1402731-002	MSA-MW-50D-041614	Water	218.6 LL	4/16/14	4/17/14			
R1402731-003	MSA-MW-51I-041614	Water	218.6 LL	4/16/14	4/17/14			
R1402731-004	MSA-MW-51S-041614	Water	218.6 LL	4/16/14	4/17/14			

3000

Folder Comments:

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402731
Project:	MSA Groundwater/112IC06183	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1402731-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.020	U	µg/L	0.020	0.010	1	NA	5/2/14 16:38	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183
Sample Matrix: Water

Service Request: R1402731
Date Analyzed: 5/2/14

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1402731-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.202	0.200	101	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

05-02-14 IC#8 218.6LL Analyst: CWoods Pipets: Barney Fears

Injection Number	Injection Name	Type	Level	Processing Method	Inject Time	Dilution	Comment
1	STANDARD 1	Calibration Standard	01	8-040314LL	02/05/14 15:27	1.0	218.6 LL
2	STANDARD 2	Calibration Standard	02	8-040314LL	02/05/14 15:38	1.0	218.6 LL
3	STANDARD 3	Calibration Standard	03	8-040314LL	02/05/14 15:47	1.0	218.6 LL
4	STANDARD 4	Calibration Standard	04	8-040314LL	02/05/14 15:55	1.0	218.6 LL
5	STANDARD 5	Calibration Standard	05	8-040314LL	02/05/14 16:04	1.0	218.6 LL
6	STANDARD 6	Calibration Standard	06	8-040314LL	02/05/14 16:13	1.0	218.6 LL
7	STANDARD 7	Calibration Standard	07	8-040314LL	02/05/14 16:21	1.0	218.6 LL
8	ICV	Unknown		8-040314LL	02/05/14 16:30	1.0	218.6 LL
9	ICB	Unknown		8-040314LL	02/05/14 16:38	1.0	218.6 LL
10	LCS	Unknown		8-040314LL	02/05/14 16:47	1.0	218.6 LL
11	R1402731-001	Unknown		8-040314LL	02/05/14 17:07	2.0	218.6 LL
12	R1402731-002	Unknown		8-040314LL	02/05/14 17:15	2.0	218.6 LL
13	R1402731-003	Unknown		8-040314LL	02/05/14 17:24	2.0	218.6 LL
14	R1402731-004	Unknown		8-040314LL	02/05/14 17:33	2.0	218.6 LL
15	R1403172-003	Unknown		8-040314LL	02/05/14 17:41	2.0	218.6 LL
16	R1403172-002	Unknown		8-040314LL	02/05/14 17:50	2.0	218.6 LL
17	R1403172-001	Unknown		8-040314LL	02/05/14 17:58	2.0	218.6 LL
18	R1402789-001	Unknown		8-040314LL	02/05/14 18:07	2.0	218.6 LL
19	R1402789-001 MS	Unknown		8-040314LL	02/05/14 18:15	2.0	218.6 LL
20	CCV	Unknown		8-040314LL	02/05/14 18:24	1.0	218.6 LL
21	CCB	Unknown		8-040314LL	02/05/14 18:33	1.0	218.6 LL
22	R1402789-001 MSD	Unknown		8-040314LL	02/05/14 18:41	2.0	218.6 LL
23	R1402789-002	Unknown		8-040314LL	02/05/14 18:50	2.0	218.6 LL
24	R1402881-001	Unknown		8-040314LL	02/05/14 18:59	2.0	218.6 LL
25	R1402731-004	Unknown		8-040314LL	02/05/14 19:08	4.0	218.6 LL
26	R1402731-004	Unknown		8-040314LL	02/05/14 19:16	10.0	218.6 LL
27	R1402731-004	Unknown		8-040314LL	02/05/14 19:25	20.0	218.6 LL
28	CCV	Unknown		8-040314LL	02/05/14 19:34	1.0	218.6 LL
29	CCB	Unknown		8-040314LL	02/05/14 19:43	1.0	218.6 LL

R2731
R3172
R2789
R2881
4 total

Reviewed & Approved
By: CK
Date: 5/5/14

02000

Client: Tetra Tech NUS, Inc. **Service Request:** R1402731
Project: MSA Groundwater/112IC06183

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL **Units:** ppb

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	391057	RQ1404599-03	5/2/14 16:30	0.500	0.500	100	95 - 105
CCV2	391057	RQ1404599-04	5/2/14 18:24	0.500	0.500	100	95 - 105
CCV3	391057	RQ1404599-05	5/2/14 19:34	0.500	0.502	100	95 - 105

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183

Service Request: R1402731

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	391057	RQ1404599-06	5/2/14 16:38	0.010	0.020	0.020	U
CCB2	391057	RQ1404599-07	5/2/14 18:33	0.010	0.020	0.020	U
CCB3	391057	RQ1404599-08	5/2/14 19:43	0.010	0.020	0.020	U

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
4/15/14 0935	~~2679~~ 2685-002 HS1404024I-03	7199 (218.6 RL) 218.6 LL 218.7	(Water) Drinking Water	4/7/14 1410	Yes No (Field)	—	—	8.387	9.360	4/15/14 1201	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
↓	~~2679~~ 2685-003 HS1404024I-05	7199 (218.6 RL) 218.6 LL 218.7	Water Drinking Water	4/7/14 1400	Yes No (Field)	—	—	7.742	9.340	4/15/14 1205	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
4/16/14	EB01 2698-006	(7199) 218.6 RL 218.6 LL 218.7	(Water) Drinking Water	4/15/14 1406	Yes (No) Field	—	—	7.63	9.38	4/16/14 1230	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
4/17/14 0920	2731-002 MW50D	7199 218.6 RL (218.6 LL) 218.7	(Water) Drinking Water	4/16/14 1020	Yes No (Field)	—	—	9.426	—	4/17/14 0952	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
↓	2731-001 DMW-8I	7199 218.6 RL (218.6 LL) 218.7	(Water) Drinking Water	4/16/14 1218	Yes No (Field)	—	—	6.841	9.330	4/17/14 0954	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
↓	2731-003 MW-51I	7199 218.6 RL (218.6 LL) 218.7	(Water) Drinking Water	4/16/14 1200	Yes No (Field)	—	—	6.842	9.374	4/17/14 0956	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
↓	2731-004 MW-51S	7199 218.6 RL (218.6 LL) 218.7	(Water) Drinking Water	4/16/14 1545	Yes No (Field)	—	—	7.851	9.332	4/17/14 0958	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
4/16/14 0945	2789-001 (QC) MW-51D	7199 218.6 RL (218.6 LL) 218.7	(Water) Drinking Water	4/17/14 1142	Yes No (Field)	—	—	8.381	9.349	4/18/14 1022	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

000021

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 391057 **Method/Testcode:** 218.6 LL/Cr6 D LL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1404599-03	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.500 ppb	1					5/2/14 16:30:00	N	IV
RQ1404599-06	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 16:38:00	N	IV
RQ1404599-09	Chromium, Hexavalent, Dissolved	MB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 16:38:00	N	IV
RQ1404599-10	Chromium, Hexavalent, Dissolved	LCS		Water	0.20 ppb	10 mL	0.202 µg/L	1	0.014	0.020	101		5/2/14 16:47:00	N	IV
R1402731-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			5/2/14 17:07:00	N	IV
R1402731-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.11 ppb	10 mL	0.224 µg/L	2	0.020	0.040			5/2/14 17:15:00	N	IV
R1402731-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			5/2/14 17:24:00	N	IV
R1403172-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 17:41:00	N	IV
R1403172-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 17:50:00	N	IV
R1403172-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.06 ppb	10 mL	0.125 µg/L	2	0.028	0.040			5/2/14 17:58:00	N	IV
R1402789-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 18:07:00	Y	IV
RQ1404599-01	Chromium, Hexavalent, Dissolved	MS	R1402789-001	Water	0.22 ppb	10 mL	0.430 µg/L	2	0.028	0.040	108		5/2/14 18:15:00	N	IV
RQ1404599-04	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.500 ppb	1					5/2/14 18:24:00	N	IV
RQ1404599-07	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 18:33:00	N	IV
RQ1404599-02	Chromium, Hexavalent, Dissolved	DMS	R1402789-001	Water	0.19 ppb	10 mL	0.386 µg/L	2	0.028	0.040	96	11	5/2/14 18:41:00	N	IV
R1402789-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 18:50:00	N	IV
R1402881-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 18:59:00	N	IV
R1402731-004	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.40 µg/L U	20	0.20	0.40			5/2/14 19:25:00	N	IV
RQ1404599-05	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.502 ppb	1					5/2/14 19:34:00	N	IV
RQ1404599-08	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 19:43:00	N	IV

61009

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 14718

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: Martin State Airport	Project Number: 112IC06183
Project Manager: Tony Apanavage	Report CC:
Company/Address: 20251 Century Blvd. Germantown, MD 20874	
Phone #: 301-528-3021	Email:
Sampler's Signature:	Sampler's Printed Name: S. Patrick Pence

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs • 8260 • 624 • CLP	GC/MS SVOAs • 8270 • 625	GC VOAs • 8021 • 601/602	PESTICIDES • 8081 • 608	PCBs • 8082 • 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Hexavalent Chrome							REMARKS/ ALTERNATE DESCRIPTION
MSA-MW-51D-041714		4/17/14	1142	GW	1								X							MS/MSD
MSA-MW-49D-041714		4/17/14	1540	GW	1								X							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals
24 hrs. TAT

See QAPP ☐

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data
Edata _____ Yes _____ No

INVOICE INFORMATION
PO #
BILL TO:

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: S. Patrick Pence	Signature: J. Seward	Signature	Signature	Signature	Signature
Printed Name: S. Patrick Pence	Printed Name: J. Seward	Printed Name	Printed Name	Printed Name	
Firm: TetraTech	Firm: ALS	Firm	Firm	Firm	
Date/Time: 4/17/14 1945	Date/Time: 4/18/14 0945	Date/Time	Date/Time	Date/Time	

Distribution: White - Lab Copy; Yellow - Return to Originator

R1402789 5
Tetra Tech NUS, Inc.
MSA Groundwater

© 2012 by ALS Group

Cooler Receipt and Preservation Check Form

Project/Client _____ Folder Number 14-2789

Cooler received on 4/16/14 by: SS COURIER: ALS UPS FEDEX VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	YES	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	YES	NO
3.	Did all bottles arrive in good condition (unbroken)?	YES	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO N/A
5.	Were **Ice** or **Ice packs** present?	YES	NO
6.	Where did the bottles originate?	ALS/ROC, CLIENT	

7.	Soil VOA samples received as:	Bulk Jar	Encore	TerraCore	Lab5035set	N/A
8.	Temperature of cooler(s) upon receipt:	1.4	1.8	3.2	1.2	____
	Is the temperature within 0° - 6° C?:	Y N	Y N	Y N	Y N	Y N

If No, Explain Below Date/Time Temperatures Taken: 4/18/14 1013

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples: _____

All Samples held in storage location room by JCS on 4/18 at 1013

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: _____

Cooler Breakdown: Date: 4/18/14 Time: 1440 by: JCS

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	YES	NO
2.	Did all bottle labels and tags agree with custody papers?	YES	NO
3.	Were correct containers used for the tests indicated?	YES	NO
4.	Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated		N/A

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: _____

Other Comments:

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

CASE NARRATIVE

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1402789
Project:	MSA Ground Water	**Project Number:**	112IC04793
Sample Matrix:	Water	**Date Received:**	4/18/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/17/14 and received at ALS in good condition at a cooler temperatures between 1.2-3.2°C as noted on the cooler receipt and preservation check form. The sample preservation was checked upon receipt and samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CLP Batching sheets for a cross-reference between Client ID and ALS Job # and analyses requested. Sample ID were changed per client request to match bottle ID's.

Hexavalent Chromium Analysis – 218.6

Two water samples were analyzed for Dissolved CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

Note: Samples were analyzed outside of the client requested 24 hours holding time but within method specified holding time of 28 days.

All the initial and continuing calibration criteria of 95 – 105 % were met.

The Blank Spike (LCS) recovery was within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature._____

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #:	112IC04793 - 02	Batch Complete:	Yes	Date Revised:	
Submission:	R1402789	Diskette Requested:	No	Date Due:	5/9/14
Client:	Tetra Tech NUS, Inc.	Date:	4/22/14	Protocol:	MCAWW
Client Rep:	DPATTON	Custody Seal: Present/Absent:		Shipping No.:	
Project:	MSA Groundwater	Chain of Custody: Present/Absent:		SDG #:	

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1402789-001QC	MSA-MW-51D-041714	Water	218.6 LL	4/17/14	4/18/14			
R1402789-002	MSA-MW-49D-041714	Water	218.6 LL	4/17/14	4/18/14			

Folder Comments:

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402789
Project:	MSA Groundwater/112IC04793 - 02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1402789-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.020	U	µg/L	0.020	0.014	1	NA	5/2/14 16:38	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04793 - 02
Sample Matrix: Water

Service Request: R1402789
Date Collected: 4/17/14
Date Received: 4/18/14
Date Analyzed: 5/ 2/14

Matrix Spike Summary
General Chemistry Parameters

Sample Name: MSA-MW-51D-041714
Lab Code: R1402789-001

Units: µg/L
Basis: NA

Analytical Method: 218.6 LL

Analyte Name	Sample Result	MSA-MW-51D-041714MS Matrix Spike R1402789-001MS Result	Spike Amount	% Rec	MSA-MW-51D-041714DMS Duplicate Matrix Spike R1402789-001DMS Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Chromium, Hexavalent, Dissolved	ND	0.430	0.400	108	0.386	0.400	96	90 - 110	11	20

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC04793 - 02
Sample Matrix: Water

Service Request: R1402789
Date Analyzed: 5/ 2/14

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1402789-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.202	0.200	101	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

05-02-14 IC#8 218.6LL Analyst: CWoods Pfeets: Barney Fears

Injection Number	Injection Name	Type	Level	Processing Method	Inject Time	Dilution	Comment
1	STANDARD 1	Calibration Standard	01	8-040314LL	02/05/14 15:27	1.0	218.6 LL
2	STANDARD 2	Calibration Standard	02	8-040314LL	02/05/14 15:38	1.0	218.6 LL
3	STANDARD 3	Calibration Standard	03	8-040314LL	02/05/14 15:47	1.0	218.6 LL
4	STANDARD 4	Calibration Standard	04	8-040314LL	02/05/14 15:55	1.0	218.6 LL
5	STANDARD 5	Calibration Standard	05	8-040314LL	02/05/14 16:04	1.0	218.6 LL
6	STANDARD 6	Calibration Standard	06	8-040314LL	02/05/14 16:13	1.0	218.6 LL
7	STANDARD 7	Calibration Standard	07	8-040314LL	02/05/14 16:21	1.0	218.6 LL
8	ICV	Unknown		8-040314LL	02/05/14 16:30	1.0	218.6 LL
9	ICB	Unknown		8-040314LL	02/05/14 16:38	1.0	218.6 LL
10	LCS	Unknown		8-040314LL	02/05/14 16:47	1.0	218.6 LL
11	R1402731-001	Unknown		8-040314LL	02/05/14 17:07	2.0	218.6 LL
12	R1402731-002	Unknown		8-040314LL	02/05/14 17:15	2.0	218.6 LL
13	R1402731-003	Unknown		8-040314LL	02/05/14 17:24	2.0	218.6 LL
14	R1402731-004	Unknown		8-040314LL	02/05/14 17:33	2.0	218.6 LL
15	R1403172-003	Unknown		8-040314LL	02/05/14 17:41	2.0	218.6 LL
16	R1403172-002	Unknown		8-040314LL	02/05/14 17:50	2.0	218.6 LL
17	R1403172-001	Unknown		8-040314LL	02/05/14 17:58	2.0	218.6 LL
18	R1402789-001	Unknown		8-040314LL	02/05/14 18:07	2.0	218.6 LL
19	R1402789-001 MS	Unknown		8-040314LL	02/05/14 18:15	2.0	218.6 LL
20	CCV	Unknown		8-040314LL	02/05/14 18:24	1.0	218.6 LL
21	CCB	Unknown		8-040314LL	02/05/14 18:33	1.0	218.6 LL
22	R1402789-001 MSD	Unknown		8-040314LL	02/05/14 18:41	2.0	218.6 LL
23	R1402789-002	Unknown		8-040314LL	02/05/14 18:50	2.0	218.6 LL
24	R1402881-001	Unknown		8-040314LL	02/05/14 18:59	2.0	218.6 LL
25	R1402731-004	Unknown		8-040314LL	02/05/14 19:08	4.0	218.6 LL
26	R1402731-004	Unknown		8-040314LL	02/05/14 19:16	10.0	218.6 LL
27	R1402731-004	Unknown		8-040314LL	02/05/14 19:25	20.0	218.6 LL
28	CCV	Unknown		8-040314LL	02/05/14 19:34	1.0	218.6 LL
29	CCB	Unknown		8-040314LL	02/05/14 19:43	1.0	218.6 LL

R2731
R3172
R2789
R2881
4 total

Reviewed & Approved
By: CK
Date: 5/5/14

61000

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc. **Service Request:** R1402789

Project: MSA Groundwater/112IC04793 - 02

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL **Units:** ppb

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	391057	RQ1404599-03	5/2/14 16:30	0.500	0.500	100	95 - 105
CCV2	391057	RQ1404599-04	5/2/14 18:24	0.500	0.500	100	95 - 105
CCV3	391057	RQ1404599-05	5/2/14 19:34	0.500	0.502	100	95 - 105

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/1121C04793 - 02

Service Request: R1402789

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	391057	RQ1404599-06	5/2/14 16:38	0.014	0.020	0.020	U
CCB2	391057	RQ1404599-07	5/2/14 18:33	0.014	0.020	0.020	U
CCB3	391057	RQ1404599-08	5/2/14 19:43	0.014	0.020	0.020	U

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
4/15/14 0935	~~2679~~ 2685-002 HS1404024I-03	7199 (218.6 RL) 218.6 LL 218.7	(Water) Drinking Water	4/7/14 1410	Yes No (Field)	—	—	8.387	9.360	4/15/14 1201	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
↓	~~2679~~ 2685-003 HS1404024I-05	7199 (218.6 RL) 218.6 LL 218.7	Water Drinking Water	4/7/14 1400	Yes No (Field)	—	—	7.742	9.340	4/15/14 1205	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
4/16/14	EB01 2698-000	7199 218.6 RL 218.6 LL 218.7	(Water) Drinking Water	4/15/14 1406	Yes (No) Field	—	—	7.63	9.38	4/16/14 1230	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
4/17/14 0920	2731-002 MW250D	7199 218.6 RL (218.6 LL) 218.7	(Water) Drinking Water	4/16/14 1020	Yes No (Field)	—	—	9.426	—	4/17/14 0952	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
↓	2731-001 DMW-8I	7199 218.6 RL (218.6 LL) 218.7	(Water) Drinking Water	4/16/14 1218	Yes No (Field)	—	—	6.841	9.330	4/17/14 0954	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
	2731-003 MW-51I	7199 218.6 RL (218.6 LL) 218.7	(Water) Drinking Water	4/16/14 1200	Yes No (Field)	—	—	6.842	9.374	4/17/14 0956	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
↓	2731-004 MW-51S	7199 218.6 RL (218.6 LL) 218.7	(Water) Drinking Water	4/16/14 1545	Yes No (Field)	—	—	7.851	9.332	4/17/14 0958	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
4/18/14 0945	2789-001 (QC) MW-51D	7199 218.6 RL (218.6 LL) 218.7	(Water) Drinking Water	4/17/14 1142	Yes No (Field)	—	—	8.381	9.349	4/15/14 1022	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

00020

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
4/18/14 0945	2789-002 MW-49D	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/17/14 1540	Yes No Field	—	—	6.697	9.386	4/18/14 1025	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
4/23/14 0920	2881-001 MSA-OMW-3S	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/22 1200	Yes No Field	-	-	9.43	-	dlw 4/23/14 7032	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	
	MW002	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water		Yes No Field	—	-	9.39	-	CMW 4/24/14 1002	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	
	MW003	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water		Yes No Field	—	-	9.51	-	CMW 4/24/14 1004	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	
	MW001	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water		Yes No Field	—	-	9.58	-	CMW 4/24/14 1005	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	
4/25/14 0940	2990-001	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	3/3/14 0800	Yes* No Field	—	-	5.66	9.43	CMW 4/25/14 1723	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
4/25/14 0940	2988-001	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/16/14 1430	Yes* No Field	—	-	8.22	9.51	CMW 4/25/14 1724	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G
↓	2988-002	7199 218.6 RL 218.6 LL 218.7	Water Drinking Water	4/16/14 1500	Yes* No Field	—	-	8.23	9.37	CMW 4/25/14 1725	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC126185G

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

00021

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
5/1/14 0930	R14-3141-002	7199 ~~218.6 RL~~ 218.6 LL 218.7	Water Drinking Water	4/28/14 0530	Yes No Field	—	—	8.47	9.31	DMW 5/1/14 2055	Buffer	WC16856
	R14-3141-003	7199 ~~218.6 RL~~ ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/14 0506	Yes No Field	—	—	8.49	9.38	DMW 5/1/14 2103	Buffer	WC16856
	R14-3141-004	7199 ~~218.6 RL~~ ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/14 0500	Yes No Field	—	—	8.34	9.33	DMW 5/1/14 2106	Buffer	WC16856
5/2/14 0752 ~~0900~~	3172-001 DMW-15	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	5/1/14 1048	Yes No Field?	—	—	9.258	9.355	@ 5/2/14 1035	Buffer	WC16856
	3172-002 MW-27D	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	5/1/14 1035	Yes No Field?	—	—	9.220	9.357	@ 5/2/14 1037	Buffer	WC16856
	3172-003 DMW-60	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	5/1/14 1517	Yes No Field?	—	—	6.253	9.352	@ 5/2/14 1041	Buffer	WC16856
5/2/14 0950	MW-20	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	5/1/14 1016	Yes No Field	—	—	9.631	—	@ 5/2/14 1042	Buffer	WC16856
		7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	5/1/14 0251	Yes No Field	—	—	9.582	—	@ 5/2/14 1043	Buffer	WC16856

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

00022

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 391057 **Method/Testcode:** 218.6 LL/Cr6 D LL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1404599-03	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.500 ppb	1					5/2/14 16:30:00	N	IV
RQ1404599-06	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 16:38:00	N	IV
RQ1404599-09	Chromium, Hexavalent, Dissolved	MB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 16:38:00	N	IV
RQ1404599-10	Chromium, Hexavalent, Dissolved	LCS		Water	0.20 ppb	10 mL	0.202 µg/L	1	0.014	0.020	101		5/2/14 16:47:00	N	IV
R1402731-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			5/2/14 17:07:00	N	IV
R1402731-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.11 ppb	10 mL	0.224 µg/L	2	0.020	0.040			5/2/14 17:15:00	N	IV
R1402731-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			5/2/14 17:24:00	N	IV
R1403172-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 17:41:00	N	IV
R1403172-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 17:50:00	N	IV
R1403172-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.06 ppb	10 mL	0.125 µg/L	2	0.028	0.040			5/2/14 17:58:00	N	IV
R1402789-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 18:07:00	Y	IV
RQ1404599-01	Chromium, Hexavalent, Dissolved	MS	R1402789-001	Water	0.22 ppb	10 mL	0.430 µg/L	2	0.028	0.040	108		5/2/14 18:15:00	N	IV
RQ1404599-04	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.500 ppb	1					5/2/14 18:24:00	N	IV
RQ1404599-07	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 18:33:00	N	IV
RQ1404599-02	Chromium, Hexavalent, Dissolved	DMS	R1402789-001	Water	0.19 ppb	10 mL	0.386 µg/L	2	0.028	0.040	96	11	5/2/14 18:41:00	N	IV
R1402789-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 18:50:00	N	IV
R1402881-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 18:59:00	N	IV
R1402731-004	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.40 µg/L U	20	0.20	0.40			5/2/14 19:25:00	N	IV
RQ1404599-05	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.502 ppb	1					5/2/14 19:34:00	N	IV
RQ1404599-08	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 19:43:00	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

12724

ALS Environmental

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: MSA GW 2014	Project Number: 112IC06193
Project Manager: TONY Aparavage	Report CC:
Company/Address: Tetra Tech INC. 2025 Century Blvd STE 200 Germantown, MD 20874	
Phone #: 301 528-3021	Email:
Sampler's Signature:	Sampler's Printed Name: Walt Payne

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Hex Chrom							
MSA-DMW-35		4-22-14	1200	GW	1								X							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals 24 hr TAT

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data

Edata _____Yes _____No

INVOICE INFORMATION
PO # _____
BILL TO: _____

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	Signature:	Signature:	Signature:	Signature:	
Printed Name: Walt Payne	Printed Name: Gregory O. Emerian	Printed Name:	Printed Name:	Printed Name:	
Firm: TT INC	Firm: ALS	Firm:	Firm:	Firm:	
Date/Time: 4-22-14	Date/Time: 4-23-14 9:20	Date/Time:	Date/Time:	Date/Time:	

R1402881 5
Tetra Tech NUS,Inc.
MSA Groundwater

Distribution: White - Lab Copy; Yellow - Return to Originator

© 2012 by ALS Group

Cooler Receipt and Preservation Check Form

Project/Client Tetra Tech Folder Number R14-2881

Cooler received on 4-23-14 by: KE COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES (NO)
2. Were custody papers properly filled out (ink, signed, etc.)? (YES) NO
3. Did all bottles arrive in good condition (unbroken)? (YES) NO
4. Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO (N/A)
5. Were **Ice** or **Ice packs** present? (YES) NO
6. Where did the bottles originate? (ALS/ROC) CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set (N/A)
8. Temperature of cooler(s) upon receipt: 2-3°

Is the temperature within 0° - 6° C?: (Y) N Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: 4-23-14 @ 09:28

Thermometer ID: IR GUN#3 / (IR GUN#4) Reading From: (Temp Blank) / Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location SMO by KE on 4-23-14 at 09:30

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: [signature]

Cooler Breakdown: Date: 4/24/14 Time: 1115 by: [signature]

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated ~~N/A~~

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	---						
	HCl	*	*						

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 112612-2VV

Other Comments:

Cr+6 Buffer: WC1261856 Exp. 3/15

PC Secondary Review: [signature]

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

CASE NARRATIVE

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1402881
Project:	MSA Ground Water	**Project Number:**	112IC06183
Sample Matrix:	Water	**Date Received:**	4/23/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 4/22/14 and received at ALS in good condition at a cooler temperature of 2.3°C as noted on the cooler receipt and preservation check form. The sample preservation was checked upon receipt and samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CLP Batching sheets for a cross-reference between Client ID and ALS Job # and analyses requested. Sample ID were changed per client request to match bottle ID's.

Hexavalent Chromium Analysis – 218.6

One water sample was analyzed for Dissolved CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

Note: The sample was analyzed outside of the client requested 24 hours holding time but within method specified holding time of 28 days.

All the initial and continuing calibration criteria of 95 – 105 % were met.

The Blank Spike (LCS) recovery was within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature._____

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #:	112IC06183	Batch Complete:	Yes	Date Revised:	
Submission:	R1402881	Diskette Requested:	No	Date Due:	5/14/14
Client:	Tetra Tech NUS, Inc.	Date:	4/28/14	Protocol:	MCAWW
Client Rep:	DPATTON	Custody Seal: Present/Absent:		Shipping No.:	
Project:	MSA Groundwater	Chain of Custody: Present/Absent:		SDG #:	

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1402881-001	MSA-DMW-3S	Water	218.6 LL	4/22/14	4/23/14			

E0003

Folder Comments:

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to
http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1402881
Project:	MSA Groundwater/112IC06183	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1402881-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.020	U	µg/L	0.020	0.014	1	NA	5/2/14 16:38	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183
Sample Matrix: Water

Service Request: R1402881
Date Analyzed: 5/ 2/14

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1402881-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.202	0.200	101	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

05-02-14 IC#8 218.6LL Analyst: CWoods Pipets: Barney Fears

Injection Number	Injection Name	Type	Level	Processing Method	Inject Time	Dilution	Comment
1	STANDARD 1	Calibration Standard	01	8-040314LL	02/05/14 15:27	1.0	218.6 LL
2	STANDARD 2	Calibration Standard	02	8-040314LL	02/05/14 15:38	1.0	218.6 LL
3	STANDARD 3	Calibration Standard	03	8-040314LL	02/05/14 15:47	1.0	218.6 LL
4	STANDARD 4	Calibration Standard	04	8-040314LL	02/05/14 15:55	1.0	218.6 LL
5	STANDARD 5	Calibration Standard	05	8-040314LL	02/05/14 16:04	1.0	218.6 LL
6	STANDARD 6	Calibration Standard	06	8-040314LL	02/05/14 16:13	1.0	218.6 LL
7	STANDARD 7	Calibration Standard	07	8-040314LL	02/05/14 16:21	1.0	218.6 LL
8	ICV	Unknown		8-040314LL	02/05/14 16:30	1.0	218.6 LL
9	ICB	Unknown		8-040314LL	02/05/14 16:38	1.0	218.6 LL
10	LCS	Unknown		8-040314LL	02/05/14 16:47	1.0	218.6 LL
11	R1402731-001	Unknown		8-040314LL	02/05/14 17:07	2.0	218.6 LL
12	R1402731-002	Unknown		8-040314LL	02/05/14 17:15	2.0	218.6 LL
13	R1402731-003	Unknown		8-040314LL	02/05/14 17:24	2.0	218.6 LL
14	R1402731-004	Unknown		8-040314LL	02/05/14 17:33	2.0	218.6 LL
15	R1403172-003	Unknown		8-040314LL	02/05/14 17:41	2.0	218.6 LL
16	R1403172-002	Unknown		8-040314LL	02/05/14 17:50	2.0	218.6 LL
17	R1403172-001	Unknown		8-040314LL	02/05/14 17:58	2.0	218.6 LL
18	R1402789-001	Unknown		8-040314LL	02/05/14 18:07	2.0	218.6 LL
19	R1402789-001 MS	Unknown		8-040314LL	02/05/14 18:15	2.0	218.6 LL
20	CCV	Unknown		8-040314LL	02/05/14 18:24	1.0	218.6 LL
21	CCB	Unknown		8-040314LL	02/05/14 18:33	1.0	218.6 LL
22	R1402789-001 MSD	Unknown		8-040314LL	02/05/14 18:41	2.0	218.6 LL
23	R1402789-002	Unknown		8-040314LL	02/05/14 18:50	2.0	218.6 LL
24	R1402881-001	Unknown		8-040314LL	02/05/14 18:59	2.0	218.6 LL
25	R1402731-004	Unknown		8-040314LL	02/05/14 19:08	4.0	218.6 LL
26	R1402731-004	Unknown		8-040314LL	02/05/14 19:16	10.0	218.6 LL
27	R1402731-004	Unknown		8-040314LL	02/05/14 19:25	20.0	218.6 LL
28	CCV	Unknown		8-040314LL	02/05/14 19:34	1.0	218.6 LL
29	CCB	Unknown		8-040314LL	02/05/14 19:43	1.0	218.6 LL

R2731
R3172
R2789
R2881
4 total

Reviewed & Approved
By: CK
Date: 5/5/14

00017

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183

Service Request: R1402881

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: ppb

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	391057	RQ1404599-03	5/2/14 16:30	0.500	0.500	100	95 - 105
CCV2	391057	RQ1404599-04	5/2/14 18:24	0.500	0.500	100	95 - 105
CCV3	391057	RQ1404599-05	5/2/14 19:34	0.500	0.502	100	95 - 105

Client: Tetra Tech NUS, Inc. **Service Request:** R1402881
Project: MSA Groundwater/112IC06183

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL **Units:** µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	391057	RQ1404599-06	5/2/14 16:38	0.014	0.020	0.020	U
CCB2	391057	RQ1404599-07	5/2/14 18:33	0.014	0.020	0.020	U
CCB3	391057	RQ1404599-08	5/2/14 19:43	0.014	0.020	0.020	U

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
4/18/14 0945	2789-002 MW-49D	7199 218.6 RL (218.6 LL) 218.7	(Water) Drinking Water	4/17/14 1540	Yes No (Field)	—	—	6.697	9.386	4/18/14 1025	(Buffer)	WC126185G
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
4/23/14 0930	2881-001 MSA DMW-35	7199 (218.6 RL) (218.6 LL) 218.7	(Water) Drinking Water	4/22 1200	Yes (No) Field	-	-	9.43	-	DLW 4/23/14 1032	Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	MW002	7199 218.6 RL (218.6 LL) 218.7	(Water) Drinking Water		Yes No (Field)	—	—	9.39	—	CMW 4/24/14 1002	Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	MW003	7199 218.6 RL (218.6 LL) 218.7	(Water) Drinking Water		Yes No (Field)	—	-	9.51	—	CMW 4/24/14 1004	Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	MW001	7199 218.6 RL (218.6 LL) 218.7	(Water) Drinking Water		Yes No (Field)	—	—	9.58	—	CMW 4/24/14 1005	Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
4/25/14 0940	2990-001	7199 (218.6 RL) 218.6 LL 218.7	(Water) Drinking Water	3/31/14 0800	Yes* (No) Field	—	—	5.66	9.43	CMW 4/25/14 1723	Buffer	WC126185G
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
4/25/14 0940	2988-001	7199 (218.6 RL) 218.6 LL 218.7	(Water) Drinking Water	4/16/14 1430	Yes* (No) Field	—	—	8.22	9.51	CMW 4/25/14 1724	Buffer	WC126185G
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
↓	2988-002	7199 (218.6 RL) 218.6 LL 218.7	(Water) Drinking Water	4/16/14 1500	Yes* (No) Field	—	—	8.23	9.37	CMW 4/25/14 1725	Buffer	WC126185G
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 391057 **Method/Testcode:** 218.6 LL/Cr6 D LL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1404599-03	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.500 ppb	1					5/2/14 16:30:00	N	IV
RQ1404599-06	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 16:38:00	N	IV
RQ1404599-09	Chromium, Hexavalent, Dissolved	MB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 16:38:00	N	IV
RQ1404599-10	Chromium, Hexavalent, Dissolved	LCS		Water	0.20 ppb	10 mL	0.202 µg/L	1	0.014	0.020	101		5/2/14 16:47:00	N	IV
R1402731-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			5/2/14 17:07:00	N	IV
R1402731-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.11 ppb	10 mL	0.224 µg/L	2	0.020	0.040			5/2/14 17:15:00	N	IV
R1402731-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			5/2/14 17:24:00	N	IV
R1403172-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 17:41:00	N	IV
R1403172-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 17:50:00	N	IV
R1403172-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.06 ppb	10 mL	0.125 µg/L	2	0.028	0.040			5/2/14 17:58:00	N	IV
R1402789-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 18:07:00	Y	IV
RQ1404599-01	Chromium, Hexavalent, Dissolved	MS	R1402789-001	Water	0.22 ppb	10 mL	0.430 µg/L	2	0.028	0.040	108		5/2/14 18:15:00	N	IV
RQ1404599-04	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.500 ppb	1					5/2/14 18:24:00	N	IV
RQ1404599-07	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 18:33:00	N	IV
RQ1404599-02	Chromium, Hexavalent, Dissolved	DMS	R1402789-001	Water	0.19 ppb	10 mL	0.386 µg/L	2	0.028	0.040	96	11	5/2/14 18:41:00	N	IV
R1402789-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 18:50:00	N	IV
R1402881-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 18:59:00	N	IV
R1402731-004	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.40 µg/L U	20	0.20	0.40			5/2/14 19:25:00	N	IV
RQ1404599-05	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.502 ppb	1					5/2/14 19:34:00	N	IV
RQ1404599-08	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 19:43:00	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 12723

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: MSA - GW 2014	Project Number: 112IC06183
Project Manager: Tony Apanavage	Report CC:
Company/Address: Tetra Tech INC, 20251 Century Blvd STE 200, Germantown, MD 20874	
Phone #: 301 528-3021	Email:
Sampler's Signature: Walt P	Sampler's Printed Name: Walt Pagan

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Hex chrom							REMARKS/ ALTERNATE DESCRIPTION
MSA-DMW-1s-050114		5-1-14	1048	GW	1								X							
MSA-MW-27s-050114		↓	1285	↓	1								X							
MSA-DMW-6s-050114		↓	1517	↓	1								X							

SPECIAL INSTRUCTIONS/COMMENTS
Metals

24 hr TAT

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day

REQUESTED REPORT DATE

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data

Edata _____ Yes _____ No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Walt P	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: Walt Pagan	Printed Name: J Seward	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TT INC	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 5-1-14	Date/Time: 5/2/14 0752	Date/Time	Date/Time	Date/Time	Date/Time

R1403172 5
Tetra Tech NUS, Inc.
MSA Groundwater

Distribution: White - Lab Copy; Yellow - Return to Originator

© 2012 by ALS Group

Cooler Receipt and Preservation Check Form

Project/Client _____ Folder Number R14-3172

Cooler received on 5/2/14 by: JFS COURIER: ALS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
5. Were **Ice** or **Ice packs** present? YES NO
6. Where did the bottles originate? ALS/ROC, CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
8. Temperature of cooler(s) upon receipt: 0.6 ____ ____ ____ ____

Is the temperature within 0° - 6° C?: Y N Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: 5/2/14 0755

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples:

All Samples held in storage location Noon by JFS on 5/2/14 at 0755
5035 samples placed in storage location ____ by ____ on ____ at ____

PC Secondary Review: [signature]

Cooler Breakdown: Date: 5/2/14 Time: 1200 by: [initials]

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: ____

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Bottle lot numbers: 112612-2VV

Other Comments:

CAL Buffer : WC 126185G Exp. 3/15 -002 { MW-27D on bottle
{ C.O.C. says MW-27S

PC Secondary Review: [signature]

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

G:\SMODOCS\Cooler Receipt 6.doc 11/6/12

00006

CASE NARRATIVE

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1403172
Project:	MSA Ground Water	**Project Number:**	112IC06183
Sample Matrix:	Water	**Date Received:**	5/2/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 5/1/14 and received at ALS in good condition at a cooler temperature of 0.6°C as noted on the cooler receipt and preservation check form. The sample preservation was checked upon receipt and samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CLP Batching sheets for a cross-reference between Client ID and ALS Job # and analyses requested. Sample ID were changed per client request to match bottle ID's.

Hexavalent Chromium Analysis – 218.6

Three water samples were analyzed for Dissolved CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

Note: The samples were analyzed outside of the client requested 24 hours holding time but within method specified holding time of 28 days. All samples were analyzed on the same day they were received.

All the initial and continuing calibration criteria of 95 – 105 % were met.

The Blank Spike (LCS) recovery was within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #:	112IC06183	Batch Complete:	Yes	Date Revised:	
Submission:	R1403172	Diskette Requested:	No	Date Due:	5/23/14
Client:	Tetra Tech NUS, Inc.	Date:	5/8/14	Protocol:	MCAWW
Client Rep:	DPATTON	Custody Seal: Present/Absent:		Shipping No.:	
Project:	MSA Groundwater	Chain of Custody: Present/Absent:		SDG #:	

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1403172-001	MSA-DMW-1S-050114	Water	218.6 LL	5/1/14	5/2/14			
R1403172-002	MSA-MW-27S-050114	Water	218.6 LL	5/1/14	5/2/14			
R1403172-003	MSA-DMW-6S-050114	Water	218.6 LL	5/1/14	5/2/14			

Folder Comments:

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1403172
Project:	MSA Groundwater/112IC06183	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1403172-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6 LL	0.020	U	µg/L	0.020	0.014	1	NA	5/2/14 16:38	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183
Sample Matrix: Water

Service Request: R1403172
Date Analyzed: 5/2/14

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1403172-LCS Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.202	0.200	101	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

05-02-14 IC#8 218.6LL Analyst: CWoods Pipets: Barney Fears

Injection Number	Injection Name	Type	Level	Processing Method	Inject Time	Dilution	Comment
1	STANDARD 1	Calibration Standard	01	8-040314LL	02/05/14 15:27	1.0	218.6 LL
2	STANDARD 2	Calibration Standard	02	8-040314LL	02/05/14 15:38	1.0	218.6 LL
3	STANDARD 3	Calibration Standard	03	8-040314LL	02/05/14 15:47	1.0	218.6 LL
4	STANDARD 4	Calibration Standard	04	8-040314LL	02/05/14 15:55	1.0	218.6 LL
5	STANDARD 5	Calibration Standard	05	8-040314LL	02/05/14 16:04	1.0	218.6 LL
6	STANDARD 6	Calibration Standard	06	8-040314LL	02/05/14 16:13	1.0	218.6 LL
7	STANDARD 7	Calibration Standard	07	8-040314LL	02/05/14 16:21	1.0	218.6 LL
8	ICV	Unknown		8-040314LL	02/05/14 16:30	1.0	218.6 LL
9	ICB	Unknown		8-040314LL	02/05/14 16:38	1.0	218.6 LL
10	LCS	Unknown		8-040314LL	02/05/14 16:47	1.0	218.6 LL
11	R1402731-001	Unknown		8-040314LL	02/05/14 17:07	2.0	218.6 LL
12	R1402731-002	Unknown		8-040314LL	02/05/14 17:15	2.0	218.6 LL
13	R1402731-003	Unknown		8-040314LL	02/05/14 17:24	2.0	218.6 LL
14	R1402731-004	Unknown		8-040314LL	02/05/14 17:33	2.0	218.6 LL
15	R1403172-003	Unknown		8-040314LL	02/05/14 17:41	2.0	218.6 LL
16	R1403172-002	Unknown		8-040314LL	02/05/14 17:50	2.0	218.6 LL
17	R1403172-001	Unknown		8-040314LL	02/05/14 17:58	2.0	218.6 LL
18	R1402789-001	Unknown		8-040314LL	02/05/14 18:07	2.0	218.6 LL
19	R1402789-001 MS	Unknown		8-040314LL	02/05/14 18:15	2.0	218.6 LL
20	CCV	Unknown		8-040314LL	02/05/14 18:24	1.0	218.6 LL
21	CCB	Unknown		8-040314LL	02/05/14 18:33	1.0	218.6 LL
22	R1402789-001 MSD	Unknown		8-040314LL	02/05/14 18:41	2.0	218.6 LL
23	R1402789-002	Unknown		8-040314LL	02/05/14 18:50	2.0	218.6 LL
24	R1402881-001	Unknown		8-040314LL	02/05/14 18:59	2.0	218.6 LL
25	R1402731-004	Unknown		8-040314LL	02/05/14 19:08	4.0	218.6 LL
26	R1402731-004	Unknown		8-040314LL	02/05/14 19:16	10.0	218.6 LL
27	R1402731-004	Unknown		8-040314LL	02/05/14 19:25	20.0	218.6 LL
28	CCV	Unknown		8-040314LL	02/05/14 19:34	1.0	218.6 LL
29	CCB	Unknown		8-040314LL	02/05/14 19:43	1.0	218.6 LL

R2731
R3172
R2789
R2881
4 copies

Reviewed & Approved
By: CK
Date: 5/5/14

61000

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183

Service Request: R1403172

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: ppb

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	391057	RQ1404599-03	5/2/14 16:30	0.500	0.500	100	95 - 105
CCV2	391057	RQ1404599-04	5/2/14 18:24	0.500	0.500	100	95 - 105
CCV3	391057	RQ1404599-05	5/2/14 19:34	0.500	0.502	100	95 - 105

Client: Tetra Tech NUS, Inc.
Project: MSA Groundwater/112IC06183

Service Request: R1403172

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	391057	RQ1404599-06	5/2/14 16:38	0.014	0.020	0.020	U
CCB2	391057	RQ1404599-07	5/2/14 18:33	0.014	0.020	0.020	U
CCB3	391057	RQ1404599-08	5/2/14 19:43	0.014	0.020	0.020	U

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
5/1/14 0930	R14-3141-002	7199 ~~218.6 RL~~ ~~218.6 LL~~ 218.7	Water Drinking Water	4/28/14 0530	Yes No Field	—	—	8.47	9.131	DH 5/1/14 2055	Buffer	WC126856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R14-3141-003	7199 ~~218.6 RL~~ ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/14 0500	Yes No Field	—	—	8.49	9.38	DH 5/1/14 2103	Buffer	WC126856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R14-3141-004	7199 ~~218.6 RL~~ ~~218.6 LL~~ 218.7	Water Drinking Water	4/30/14 0500	Yes No Field	—	—	8.34	9.33	DH 5/1/14 2106	Buffer	WC126856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
5/2/14 0752 ~~0900~~	3172-001 DMW-15	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	5/1/14 1048	Yes No Field	—	—	9.258	9.355	DH 5/2/14 1035	Buffer	WC126856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	3172-002 MW-27D	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	5/1/14 1035	Yes No Field	—	—	9.220	9.357	DH 5/2/14 1037	Buffer	WC126856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	3172-003 DMW-60	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	5/1/14 1517	Yes No Field	—	—	6.253	9.352	DH 5/2/14 1041	Buffer	WC126856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
5/2/14 0950	MW-20	7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	5/1/14 1016	Yes No Field	—	—	9.631	—	DH 5/2/14 1042	Buffer	WC126856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
		7199 218.6 RL ~~218.6 LL~~ 218.7	Water Drinking Water	5/1/14 0751	Yes No Field	—	—	9.582	—	DH 5/2/14 1043	Buffer	WC126856
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 391057 **Method/Testcode:** 218.6 LL/Cr6 D LL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1404599-03	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.500 ppb	1					5/2/14 16:30:00	N	IV
RQ1404599-06	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 16:38:00	N	IV
RQ1404599-09	Chromium, Hexavalent, Dissolved	MB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 16:38:00	N	IV
RQ1404599-10	Chromium, Hexavalent, Dissolved	LCS		Water	0.20 ppb	10 mL	0.202 µg/L	1	0.014	0.020	101		5/2/14 16:47:00	N	IV
R1402731-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			5/2/14 17:07:00	N	IV
R1402731-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.11 ppb	10 mL	0.224 µg/L	2	0.020	0.040			5/2/14 17:15:00	N	IV
R1402731-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.020	0.040			5/2/14 17:24:00	N	IV
R1403172-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 17:41:00	N	IV
R1403172-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 17:50:00	N	IV
R1403172-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.06 ppb	10 mL	0.125 µg/L	2	0.028	0.040			5/2/14 17:58:00	N	IV
R1402789-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 18:07:00	Y	IV
RQ1404599-01	Chromium, Hexavalent, Dissolved	MS	R1402789-001	Water	0.22 ppb	10 mL	0.430 µg/L	2	0.028	0.040	108		5/2/14 18:15:00	N	IV
RQ1404599-04	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.500 ppb	1					5/2/14 18:24:00	N	IV
RQ1404599-07	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 18:33:00	N	IV
RQ1404599-02	Chromium, Hexavalent, Dissolved	DMS	R1402789-001	Water	0.19 ppb	10 mL	0.386 µg/L	2	0.028	0.040	96	11	5/2/14 18:41:00	N	IV
R1402789-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 18:50:00	N	IV
R1402881-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.040 µg/L U	2	0.028	0.040			5/2/14 18:59:00	N	IV
R1402731-004	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 ppb	10 mL	0.40 µg/L U	20	0.20	0.40			5/2/14 19:25:00	N	IV
RQ1404599-05	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 ppb	10 mL	0.502 ppb	1					5/2/14 19:34:00	N	IV
RQ1404599-08	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 ppb	10 mL	0.020 µg/L U	1	0.014	0.020			5/2/14 19:43:00	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.