Technical Memorandum: July 2012 Surface Water Sampling Results for Frog Mortar Creek Martin State Airport 701 Wilson Point Road Middle River, Maryland

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TABLE OF CONTENTS

Section **Page**

ACRONYMS ..... **v**

1 INTRODUCTION **1-1**

2 SITE BACKGROUND AND PREVIOUS INVESTIGATIONS **2-1**

2.1 SITE BACKGROUND 2-1

2.2 PREVIOUS INVESTIGATIONS OF FROG MORTAR CREEK 2-2

2.2.1 1997 Investigation 2-2

2.2.2 2004 Investigation 2-3

2.2.3 2007–2008 Investigation 2-4

2.2.4 2010 Investigation 2-5

2.2.5 2011 Investigation 2-6

2.2.6 2012 Monitoring Events 2-17

3 INVESTIGATION APPROACH AND METHODOLOGY **3-1**

3.1 SURFACE WATER SAMPLING 3-2

3.1.1 Surface Water Sampling and Chemical Analyses 3-2

3.1.2 Documentation 3-3

3.1.3 Sample Nomenclature and Handling 3-4

3.1.4 Equipment Decontamination 3-4

3.1.5 Waste Management 3-5

3.2 DATA MANAGEMENT 3-5

3.2.1 Data Tracking and Control 3-5

3.2.2 Sample Information 3-5

3.2.3 Project Data Compilation 3-6

3.2.4 Geographic Information System 3-6

3.3 DATA REVIEW 3-6

4 RESULTS **4-1**

4.1 SURFACE WATER DATA AND SCREENING CRITERIA 4-1

4.2 SURFACE WATER SAMPLING RESULTS 4-2

4.2.1 Volatile Organic Compounds 4-2

4.2.2 Metals 4-4

4.2.3 Hexavalent Chromium 4-5

TABLE OF CONTENTS (continued)

Section		Page
5	SUMMARY	5-1
6	REFERENCES	6-1

APPENDICES

APPENDIX A—SURFACE WATER SAMPLING LOG SHEETS

APPENDIX B—DATA-VALIDATION REPORTS (ON CD)

APPENDIX C—CHEMICAL RESULTS DATA TABLE

LIST OF FIGURES

		Page
Figure 1-1	Martin State Airport, Dump Road Area, and Frog Mortar Creek Location Map	1-2
Figure 2-1	Martin State Airport and Surrounding Features	2-22
Figure 2-2	Areas of Concern, Dump Road and Runway Area	2-23
Figure 2-3	1997 Surface Water and Sediment Sampling Locations	2-24
Figure 2-4	2004 Surface Water and Sediment Sampling Locations	2-25
Figure 2-5	2007 Trident Probe Sampling Locations	2-26
Figure 2-6	2007 Phase II Surface Water and Sediment Sampling Locations	2-27
Figure 2-7	2007–2008 Phase III Surface Water and Sediment Sampling Locations	2-28
Figure 2-8	July 2010 Surface Water Sampling Locations	2-29
Figure 2-9	March 2011 Surface Water Sampling Locations with Analytes Exceeding Screening Criteria	2-30
Figure 2-10	June 2011 Surface Water Sampling Locations	2-31
Figure 2-11	August 2011 Surface Water Sample Locations	2-32
Figure 2-12	September and December 2011 Surface Water Sample Locations	2-33
Figure 2-13	March and June 2012 Surface Water Sampling Locations	2-34
Figure 3-1	July 2012 Surface Water Sampling Locations	3-9
Figure 4-1	Concentrations of Trichloroethene in Surface Water Samples—July 2012	4-15

TABLE OF CONTENTS (continued)

LIST OF FIGURES

Page

Figure 4-2 Concentrations of *cis*-1,2-Dichloroethene in Surface Water Samples—July 2012 4-16

Figure 4-3 Concentrations of Vinyl Chloride in Surface Water Samples—July 2012 4-17

LIST OF TABLES

Page

Table 3-1 Chemical Analyses for Frog Mortar Creek Surface Water Samples—July 2012 3-8

Table 4-1 Statistical Summary of Analytes Detected in Frog Mortar Creek Surface Water Samples—July 2012 4-6

Table 4-2 Chemical Results and Screening Criteria for Surface Water Monitoring—July 2012—Frog Mortar Creek 4-7

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ACRONYMS

AWQC	Ambient Water Quality Criteria
BTAG	Biological Technical Advisory Group
BTEX	benzene, toluene, ethylbenzene, and xylenes
cis-1,2-DCE	*cis*-1,2-dichloroethene
COC	chain of custody
COMAR	*Code of Maryland Regulations*
cVOC	chlorinated volatile organic compound
DRA	Dump Road Area
GIS	geographic information system
IDW	investigation-derived waste
Lockheed Martin	Lockheed Martin Corporation
MAA	Maryland Aviation Administration
MDE	Maryland Department of the Environment
MSA	Martin State Airport
µg/L	microgram(s) per liter
NRWQC	National Recommended Water Quality Criteria
PA	preliminary assessment
PAHs	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyl
PDF	portable document format
PPE	personal protective equipment
RI	remedial investigation
SVOC	semivolatile organic compound
TCE	trichloroethene
TB	trip blank
Tetra Tech	Tetra Tech, Inc.
USEPA	U.S. Environmental Protection Agency
VC	vinyl chloride
VOC	volatile organic compound

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Section 1
Introduction

On behalf of Lockheed Martin Corporation (Lockheed Martin), Tetra Tech, Inc. (Tetra Tech) has prepared this technical memorandum to detail work conducted as part of the *2012 Surface Water Sampling Work Plan* (Tetra Tech, 2012a) for the Dump Road Area (DRA) at Martin State Airport (MSA) in Middle River, Maryland (see Figure 1-1). This technical memorandum presents the results of surface water samples collected from Frog Mortar Creek on July 12, 2012. The sampling objectives were to:

- provide additional surface water quality data to determine the concentrations and spatial distributions of volatile organic compounds (VOCs) and other chemicals of potential concern in Frog Mortar Creek that may be emanating from a groundwater plume at the Dump Road Area of Martin State Airport
- evaluate the interaction between Dump Road Area shallow groundwater and Frog Mortar Creek
- provide information that can be used to assess human health risks for recreational users of Frog Mortar Creek and to update the modeling of shallow groundwater flow patterns and discharge to Frog Mortar Creek

This technical memorandum is organized as follows:

Section 2—Site Background and Previous Investigations: Briefly describes the site and summarizes previous Frog Mortar Creek investigations.

Section 3—Investigation Approach and Methodology: Presents the technical approach of the surface water sampling and describes the field methodology.

Section 4—Results: Presents the investigation findings.

Section 5—Summary: Summarizes the investigation approach and findings.

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

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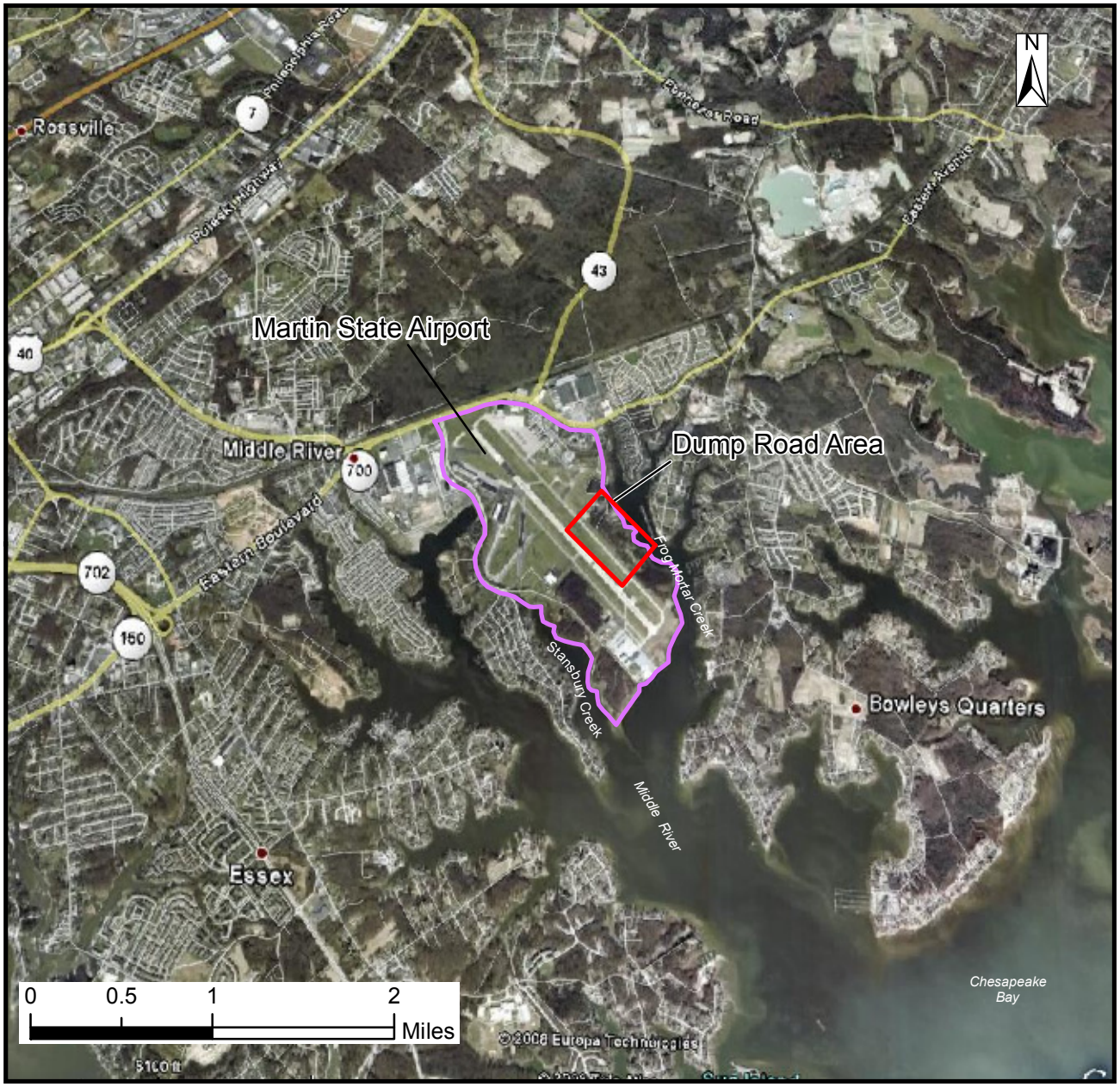

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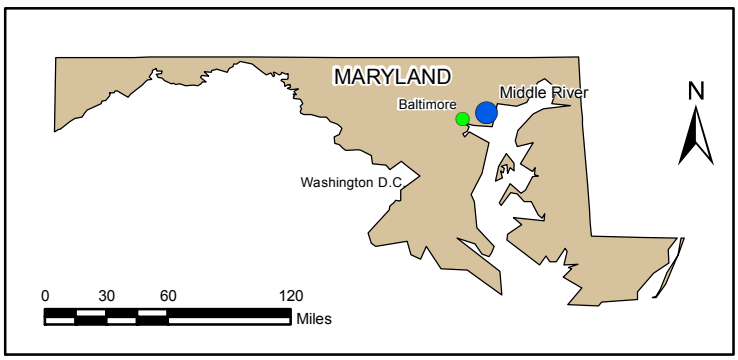

FIGURE 1-1

MARTIN STATE AIRPORT, DUMP ROAD AREA, AND FROG MORTAR CREEK LOCATION MAP

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
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TETRA TECH

Section 2
Site Background and Previous Investigations

2.1 SITE BACKGROUND

Martin State Airport (MSA) is at 701 Wilson Point Road in Middle River, Maryland. It is bounded by Frog Mortar Creek to the east and Stansbury Creek and Dark Head Cove to the west (Figure 2-1). Both creeks are tidal tributaries of Chesapeake Bay. The area under investigation is Frog Mortar Creek, east of and adjacent to the Dump Road Area (DRA) site at MSA. During the 1930s through 1960s, three pits in the Dump Road Area were reported to have been used to dump spent battery acid, acid-type strippers, and other acidic solutions, along with dredge spoils and construction debris.

Environmental investigations of the DRA began in 1989 when the Maryland Department of the Environment (MDE) conducted a preliminary assessment (PA) of MSA. Although the use of three pits was reported, the MDE only found two of the three pits during site visits. MDE referred to the two pits as ponds in the PA, which were named Acid Pit #1 (or Pond 1) and Acid Pit #2 (or Pond 2) in subsequent studies. The U.S. Environmental Protection Agency (USEPA) reviewed the preliminary assessment, concluded that no signs of waste disposal were apparent, and classified the site as No Further Remedial Action Planned.

In July 1991, four drums containing dried zinc-chromate paint were uncovered during installation of underground electric cables adjacent to Taxiway Tango (Figure 2-2). The discovery prompted MDE to order additional studies (MDE, 1992 and 1997); aerial photographs from 1952 and 1957 reviewed during these studies show an open “burial area” or “dump” adjacent to what is now Taxiway Tango. The Maryland Aviation Administration (MAA), the owner of the airport at that time, removed the four drums and conducted environmental studies from 1991–1998, including geophysical surveys, to locate and identify buried materials and

sample and chemically analyze soil, groundwater, surface water, and sediment. These initial investigations identified four areas of concern at MSA: the Taxiway Tango Median Anomaly Area, the Drum Area, two ponds (Pond 1 and Pond 2), and the Petroleum Hydrocarbon Area (Figure 2-2).

From 1999–2009, the Lockheed Martin Corporation (Lockheed Martin), the successor corporate entity of the Glenn L. Martin Aircraft Company, conducted a remedial investigation (RI) of the DRA (Tetra Tech, Inc. [Tetra Tech], 2010a). Lockheed Martin also conducted supplemental RI studies of the DRA in 2010 and 2011 (Tetra Tech 2010b–c, 2011a–d, 2012a–g) to further delineate the extent of chemical impacts in soil, groundwater, and sediment that earlier studies had indicated. Through geophysical surveys, test pits, soil borings, and soil sample chemical analyses, the RI and supplemental studies identified surface and subsurface soil contamination from buried fill material.

The fill material consists of soil, stained soil, and debris, the latter of which is comprised of concrete rubble and disposed industrial items (e.g., batteries, decomposed drums, tires, paint cans, burned items, sludge, buckets, glass, wood, etc.). Volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) (primarily polycyclic aromatic hydrocarbons [PAHs]), and several metals have been detected in soils at concentrations exceeding human health risk screening levels. Chlorinated VOCs (cVOCs) (e.g., trichloroethene [TCE] and its degradation products *cis*-1,2-dichloroethene [*cis*-1,2-DCE] and vinyl chloride [VC]), petroleum VOCs (e.g., benzene, toluene, ethylbenzene, and xylenes [BTEX]), and metals have been also found in surficial aquifer groundwater at concentrations exceeding Maryland groundwater and drinking water standards. Complete details of the site background, including previous investigations, descriptions of site geology and hydrogeology, and current conditions, are in the RI (Tetra Tech, 2010a).

2.2 PREVIOUS INVESTIGATIONS OF FROG MORTAR CREEK

2.2.1 1997 Investigation

An MAA investigation in late 1997 evaluated possible contamination of surface water and bottom sediments in Frog Mortar Creek, east and hydraulically downgradient of the DRA (Apex Environmental, 1998). Six sediment and nine surface water samples were collected along

three transects in Frog Mortar Creek, as shown in Figure 2-3. Surface water and sediment samples were analyzed for VOCs, SVOCs, metals, cyanide, and pH (a measure of the acidity or alkalinity of a substance).

SVOCs and cyanide were not detected in these surface water samples at concentrations above the laboratory method detection limits. The only VOC detected, methylene chloride, is considered a common laboratory contaminant. Several SVOCs (primarily PAHs) and metals were detected above laboratory method detection limits in the sediment samples; copper was detected at particularly high concentrations in sediment samples. Several metals also exceeded comparison criteria in surface water samples.

MAA's consultant at the time of the investigation, the Maryland Environmental Service (MES), determined that SVOC concentrations in sediment were comparable to background levels found in other sediment samples collected in Chesapeake Bay. MES concluded that these concentrations pose no public health or environmental concerns with respect to surface water or bottom-sediment quality. An MDE memorandum of August 20, 1998 (MDE, 1998) reviewed the surface water and sediment data and concluded that the potential risks associated with these exposure concentrations are within the range USEPA considers acceptable.

2.2.2 2004 Investigation

In July 2004, Tetra Tech collected sediment and surface water samples from Frog Mortar Creek to provide quality data for risk assessment (Tetra Tech, 2006). Two sediment and two surface water samples were collected within 50 feet of the DRA shoreline. These sampling locations were selected based on extensive groundwater sampling and modeling that indicated that the on-site VOC plume is moving toward Frog Mortar Creek. The July 2004 sampling locations are shown in Figure 2-4.

Sediment and surface water samples were analyzed for inorganic constituents, VOCs, SVOCs, polychlorinated biphenyls (PCBs), and pesticides. Very low concentrations of VOCs and concentrations of various metals were detected in surface water and sediment samples. These data were used to assess risk to recreational users of Frog Mortar Creek. The 2006 human health risk assessment indicates that contact with sediments and surface water in Frog Mortar Creek

during recreational use of the creek do not pose a significant cancer risk or health hazard to adults, youth, and child recreational users (Tetra Tech, 2006).

2.2.3 2007–2008 Investigation

Tetra Tech completed a three-phase investigation of surface water and sediment in Frog Mortar Creek (Tetra Tech, 2009) in 2007–2008. That investigation identified and sampled areas where groundwater discharges into Frog Mortar Creek to assess possible contamination in sediment and surface water and whether contaminants may have historically migrated from the site into Frog Mortar Creek via surface erosion. Sampling locations for the three phases of this investigation are shown in Figures 2-5 through 2-7. The three-phase investigation included the following tasks:

- *Phase I*—a Trident™ probe identified locations where groundwater discharges to surface water
- *Phase II*—surface water and shallow sediment was sampled at the locations identified in Phase I as possible groundwater discharge points
- *Phase III*—deeper sediments were sampled at locations identified in Phase II as possibly affected

The Phase I Trident™ study identified likely groundwater discharge at the southern end of the DRA groundwater plume. The Phase II investigation indicated that groundwater discharge appears to affect surface water and sediment in Frog Mortar Creek east of the DRA. The Phase III investigation confirmed the Phase II results, but also indicated that metals and PAHs are widespread in the Frog Mortar Creek system, including areas away from the DRA.

The 2007–2008 investigation concluded that cVOC groundwater contamination, upon discharge to Frog Mortar Creek, was affecting surface water and sediment at locations adjacent to and east of the DRA. These locations are within the lateral boundaries of the groundwater plume and known fill area at the DRA. The sample analyses show that:

- the highest concentrations of cVOCs known to be associated with the DRA groundwater plume were detected in sediments adjacent to the site
- the highest detected concentrations of metals were typically found at areas not influenced by the DRA plume
- the highest concentrations of PAHs in Frog Mortar Creek were found north of the site

Several concentrations of metals in surface water exceed USEPA National Recommended Water Quality Criteria (NRWQC). However, concentrations of these metals are consistent throughout Frog Mortar Creek, and do not appear associated with known MSA contaminant sources. In addition, these metals concentrations do not appear associated with high levels of potential risk. Most metals appear to be in dissolved form, and not adsorbed to suspended material in the water column.

The 2007–2008 study concluded that surface water concentrations of PAHs and metals appear to be associated with typical sources in active recreational water bodies such as Frog Mortar Creek; these include metals from marine paint, PAHs from boat exhaust and oil discharge, and runoff from land sources. Only Gar Gut, an embayment of Frog Mortar Creek to the north, demonstrates impacts that may not be associated with these typical types of contaminant sources, and thus may represent a separate source. Gar Gut was found to have localized elevated concentrations of VOCs, PAHs, and metals in surface water and elevated concentrations of PAHs in sediment. The types and concentrations of contaminants at this location have a different signature than contamination found at other locations.

2.2.4 2010 Investigation

As a part of the July 2010 groundwater and surface water sampling program, three surface water samples were collected along the western shoreline of Frog Mortar Creek near the DRA (Tetra Tech, 2010c). These sampling locations are shown in Figure 2-8. Sample MSA-SW38 was collected northeast of wells DMW2A/B, near the center of the DRA groundwater VOC plumes. Samples MSA-SW37 and MSA-SW39 were collected north and south of the DRA, respectively.

Sample MSA-SW38 reflects near-shore surface water quality in a locale hydraulically downgradient of the DRA groundwater plume. In that sample, the primary site groundwater contaminants TCE, *cis*-1,2-DCE, VC, and 1,4-dioxane were detected, as well as low concentrations of three other DRA groundwater VOCs: 1,2,4-trichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene. These results indicate that cVOCs in the DRA groundwater plume discharge to Frog Mortar Creek. The vinyl chloride concentration (32 micrograms per liter [µg/L]) detected in the sample exceeds the NRWQC human health consumption-of-organism criterion.

Other site VOCs (such as BTEX, chlorobenzene, and other chlorobenzene isomers) were not detected in the Frog Mortar Creek surface water samples collected in 2010. Hexavalent chromium was detected at low concentrations in the three surface water samples collected in 2010. One sample's hexavalent chromium concentration (MSA-SW39) exceeded the human health screening level used for the study.

2.2.5 2011 Investigation

The results of the 2011 Frog Mortar Creek surface water investigation are summarized below:

- Four quarterly rounds of surface water samples were collected in March, June, September, and December 2011. Samples were chemically analyzed to assess concentrations of chemical constituents previously detected in Frog Mortar Creek and to assess the impact to creek surface water quality from a groundwater plume at the DRA. An additional 60 surface water samples were collected from Frog Mortar Creek in August 2011 during two surface water sampling events. These were chemically analyzed to assess variations in surface water chemical concentrations at different depths and at high and low tides.

- Five samples were collected in March near the western shoreline of Frog Mortar Creek. In June, September, and December, three samples were collected along each of nine transects, spaced approximately 350 feet apart, along the western shoreline of Frog Mortar Creek for a total of 27 surface water samples. Along each transect, one sample was collected near the shoreline ("A" sample), one was collected approximately 50 feet from the shoreline ("B" sample), and one was collected approximately 100 feet from the shoreline ("C" sample). Each sample was collected at approximately one foot below the water surface. Samples were collected in August along five transects and at multiple depths.

- Quarterly Frog Mortar Creek samples were analyzed for VOCs, 1,4-dioxane, perchlorate, filtered and unfiltered metals, and total hexavalent chromium. The March samples were analyzed for PAHs and the June samples were analyzed for SVOCs. August samples were analyzed for VOCs only.

- The data were validated in accordance with the USEPA Region 3 *Modifications to the National Functional Guidelines for Data Review* and the specifics of the analytical methods used.

- Sampling results were screened against the USEPA Region 3 Biological Technical Advisory Group (BTAG) ecological freshwater screening benchmarks and the NRWQC and Maryland Ambient Water Quality Criteria (AWQC) for acute and chronic aquatic-organism exposures and human health criteria for aquatic organism consumption.

- VOCs (primarily TCE, *cis*-1,2-DCE, and VC), an SVOC (1,4-dioxane), and metals were detected in the 2011 surface water samples.

- Concentrations of VOCs and 1,4-dioxane are greatest at sampling locations MSA-SW38A and MSA-SW41A, northeast and hydraulically downgradient of the DRA monitoring wells that contain some of the highest concentrations of site-related constituents in groundwater (e.g., wells DMW2S/A/B and DMW5S).

- In general, the concentrations of VOCs and 1,4-dioxane detected in March and December samples are higher than those detected in samples collected during the summer months (June, August, and September). Perchlorate was only detected in the December samples.

- Concentrations of TCE, *cis*-1,2-DCE, and VC generally decrease progressively north and south of the MSA-SW38 and MSA-SW41 transects. 1,4-Dioxane was not detected beyond samples from transects MSA-SW38, MSA-SW40, and MSA-SW41.

- At sampling transects with the highest concentrations of VOCs, TCE, and *cis*-1,2-DCE, concentrations are highest near the shoreline and decrease progressively in samples collected farther from the shoreline. 1,4-Dioxane was predominantly detected in the shoreline, or "A," samples.

- All but six detected VOC concentrations are less than screening criteria. In March 2011, TCE was detected in two shoreline samples (MSA-SW38 and MSA-SW41), vinyl chloride was detected in one shoreline sample (MSA-SW38), and total xylenes and *meta*- and *para*-xylenes were detected in sample MSA-SW38. The remaining exceedance is a concentration of TCE detected in a shoreline sample (MSA-SW41A) in December.

- *cis*-1,2-DCE and VC were not detected as far south as TCE during high tide.

- In general, the August 2011 concentrations of TCE, *cis*-1,2-DCE, or VC in samples collected at different depths at any given location show no discernible differences.

- The tidal phase appears to have some influence on detected VOC concentrations, particularly in the samples collected 50 feet from the shore. In general, VOC concentrations in samples collected in the "B-series" (50 feet from the shore) are greater at low tide than at high tide, irrespective of sampling depth. Low tide VOC concentrations are also greater than high tide concentrations at MSA-SW43, the southernmost transect sampled in August 2011. Conversely, at the near-shore surface-sampling location MSA-SW38A-1-HT, VOC concentrations are higher at high tide than at low tide. This effect is likely the result of more complex mixing in the very shallow near-shore environment due to tide changes.

- 1,4-Dioxane was detected in seven samples. Although 1,4-dioxane does not have a surface water screening criterion, California has adopted a human health advisory level of 3 µg/L for drinking water and groundwater. All seven detected 1,4-dioxane concentrations in the Frog Mortar Creek samples are less than this health advisory level.

- Perchlorate was detected in only 11 of the December 2011 samples. Although perchlorate does not have a surface water screening criterion, Maryland has a perchlorate groundwater standard of 2.6 µg/L. All perchlorate concentrations in the Frog Mortar

Creek samples are less than this standard. The distribution of perchlorate in the December Frog Mortar Creek samples does not appear related to the DRA groundwater plume distribution.

- Concentrations of four dissolved metals (barium, manganese, arsenic, and cadmium) and three total metals (iron, mercury, and selenium) exceed a screening level in one or more of the 88 surface water samples (five samples for iron and manganese) collected during 2011. However, three of these metals (dissolved cadmium, total mercury, and total selenium) only exceed their respective screening levels in less than 6% of samples (i.e., one to five samples of 88) collected during the four quarterly sampling rounds.

- Dissolved barium concentrations detected in the June, September, and December sampling rounds are within narrow concentration ranges, typically 2–3 µg/L. The highest dissolved barium concentrations detected were in March (22.2–30 µg/L), followed by the lowest concentrations in June (6.7–7.9 µg/L), with higher concentrations again detected in September (20–21 µg/L) and December (11–13 µg/L). The barium data show no consistent spatial trends, suggesting that these concentrations may be naturally occurring levels for Frog Mortar Creek.

- Dissolved arsenic concentrations for 2011 range from 0.77 to 3.0 µg/L and are similar to the dissolved arsenic concentrations (2.2–3.9 µg/L) reported for reference samples (i.e., background locations) collected during the 2007–2008 Frog Mortar Creek investigation (Tetra Tech, 2009).

- Hexavalent chromium was detected in all June and December 2011 samples, but not in the March or September samples. Concentrations detected in December are greater than those for June, which may in part be due to higher turbidity in December samples. All hexavalent chromium concentrations detected are less than screening levels. The maximum detected concentration (5.21 µg/L) is in sample MSA-SW41B, collected in December; this concentration is half the lowest screening level for hexavalent chromium (11 µg/L). The second highest concentration (0.379 µg/L, at MSA-SW39B) is nearly 30 times less than the lowest screening level. Although strong spatial trends in the June and December data are not apparent, the maximum concentration of 5.21 µg/L, as well as several of the higher hexavalent chromium concentrations, were collected in the area where the highest VOC concentrations have been detected (i.e., the area of sampling transects MSA-SW38 and MSA-SW41).

The following sections provide a more detailed description of the 2011 Frog Mortar Creek surface water sampling program.

2.2.5.1 March 2011 Investigation

As a part of the 2011 surface water sampling program, five surface water samples were collected along the western shoreline of Frog Mortar Creek near the DRA on March 3, 2011 (Tetra Tech, 2012d). Sampling locations and chemical analytes exceeding ecological and human health screening criteria are shown in Figure 2-9. All five of the March 2011 surface water

samples were collected near the Frog Mortar Creek shoreline from approximately one foot below the water surface. Samples MSA-SW37 and MSA-SW39 were collected north and south of the DRA, respectively.

TCE, *cis*-1,2-DCE, VC, 1,4-dioxane, and metals were detected in the March 2011 surface water samples. PAHs, perchlorate, and hexavalent chromium were not detected in the March 2011 surface water samples. Concentrations of TCE exceed an ecological screening criterion at locations MSA-SW38 and MSA-SW41 (in the central portion of the DRA) and xylenes exceed ecological screening criteria at sampling location MSA-SW38. VC was also detected at location MSA-SW38 at a concentration (140 µg/L) exceeding the human health consumption-of-aquatic-organism criterion of 24 µg/L. Metals exceedances in these samples include dissolved arsenic, dissolved barium, dissolved cadmium, total iron, and dissolved manganese. However, concentrations of dissolved arsenic, as well as total arsenic, are similar in all samples and similar to the arsenic concentrations reported for reference samples (i.e., background locations) collected as part of Lockheed Martin's 2007–2008 Frog Mortar Creek investigation.

2.2.5.2 June 2011 Investigation

In June 2011, 27 surface water samples were collected along nine surface water sampling transects (MSA-SW37 to MSA-SW45) (Tetra Tech, 2012e). Sampling locations are shown in Figure 2-10. Transects were spaced approximately 350 feet apart, with five of the nine transects co-located with previous (March 2011) sampling locations MSA-SW37, MSA-SW38, MSA-SW39, MSA-SW40, and MSA-SW41. Along each transect, one sample was collected near the shoreline ("A" sample), one sample was collected approximately 50 feet from the shoreline ("B" sample), and one sample was collected approximately 100 feet from the shoreline ("C" sample). Each sample was collected from approximately one foot below the water surface.

The June 2011 samples were analyzed for VOCs, SVOCs (including 1,4-dioxane), filtered and unfiltered metals, hexavalent chromium, and perchlorate. VOCs (primarily TCE, *cis*-1,2-DCE and VC), a few SVOCs, and metals were detected in the June 2011 surface water samples. The VOC concentrations detected are less than their respective screening criteria. Metals exceeding the screening criteria include dissolved arsenic and barium.

Dissolved and total arsenic concentrations were lower than the dissolved arsenic concentrations in reference (background) samples collected in 2007–2008 during the Frog Mortar Creek investigation. Perchlorate and 1,4-dioxane were not detected in the June 2011 surface water samples. SVOCs detected were either attributed to laboratory artifacts (phthalates), or were detected very infrequently and at concentrations below screening criteria.

Concentrations of VOCs are greatest at sampling location MSA-SW38A, which is northeast and hydraulically downgradient of the DRA monitoring wells that contain some of the highest groundwater concentrations of site-related constituents (i.e., wells DMW2S/A/B and DMW3S/I/D). At most sampling transects, TCE and *cis*-1,2-DCE concentrations are highest near the shoreline; concentrations decrease progressively with increased distance from the shoreline. Concentrations of TCE and *cis*-1,2-DCE decrease progressively north and south of MSA-SW38A-C. However, *cis*-1,2-DCE was not detected as far south as was TCE (i.e., it was not detected at MSA-SW45A-C and MSA-SW39B). The maximum concentration of VC was detected at location MSA-SW38A, with lower concentrations detected in samples collected from transects to the north (MSA-SW40B, MSA-SW42A, and MSA-SW37B). VC was not detected in any surface water samples collected at distances beyond 50 feet from the shoreline.

2.2.5.3 August 2011 Investigation

In August 2011, two additional parameters (depth and tide) were incorporated into the surface water sampling program to assess constituent variations at different depths and at high and low tides. Surface water samples were again collected at three different distances from shoreline ("A," "B," and "C" samples, as in the June 2011 sampling) and at varying depths below the water surface along five previously sampled transects (Tetra Tech, 2011d). Sixty surface water samples were collected for this study. The August 2011 surface water sampling locations are shown in Figure 2-11; these samples were analyzed for VOCs only.

TCE, *cis*-1,2-DCE, VC, toluene, and acetone were detected in the August 2011 surface water samples at concentrations similar to those detected in the June 2011 samples. All detected VOC concentrations are less than their respective screening criteria. Also consistent with previous surface water trends, concentrations of VOCs (primarily TCE and *cis*-1,2-DCE) are highest in samples collected along surface water transects MSA-SW38 and MSA-SW40.

These transects are hydraulically downgradient of DRA monitoring wells that contain some of the highest groundwater concentrations of site-related constituents. Concentrations of VOCs, though similar, were slightly higher in the August 2011 samples as compared to those detected in the June 2011 samples. Concentrations of TCE and *cis*-1,2-DCE generally decrease north of MSA-SW40A and south of MSA-SW38A-C. VC and *cis*-1,2-DCE were not detected as far south as TCE during high tide (i.e., only one low concentration was detected, in sample MSA-SW43A-C-HT).

At most sampling transects, TCE and *cis*-1,2-DCE concentrations are highest in the sample collected at, or near (50 feet from), the shoreline; concentrations decrease in samples collected 100 feet from the shoreline. Similarly, detected concentrations of VC are generally greatest in near-shore samples and decrease progressively with increased distance from the shoreline. The maximum concentrations of VC were detected in near-shore samples collected at locations MSA-SW38A (high tide) and MSA-SW40A (low tide); lower concentrations were detected in samples collected from transects to the north (MSA-SW40B, MSA-SW42A, and MSA-SW37B).

VOC concentrations appear to be influenced by the tidal phase, particularly in samples collected 50 feet from the shore. In general, VOC concentrations in samples collected in the "B-series" from 50 feet offshore are greater at low tide than at high tide, irrespective of sampling depth. An exception, however, occurred in the near-shore surface water sample MSA-SW38A-1-HT; VOC concentrations in this sample were higher at high tide than at low tide.

2.2.5.4 September 2011 Investigation

Twenty-eight surface water samples (27 samples and one duplicate sample) were collected from Frog Mortar Creek near the DRA site on September 13, 2011 (Tetra Tech, 2012f). Three samples were collected along each of the nine previously sampled transects, spaced approximately 350 feet apart, along the western shoreline of Frog Mortar Creek. Samples were again collected from approximately one foot below the water surface at three different distances from shoreline ("A," "B," and "C" samples) along each transect, similar to the June 2011 sampling event.

Figure 2-12 shows the September 2011 surface water sampling locations. Samples were analyzed for VOCs by SW846 Method 8260B, for 1,4-dioxane by SW846 Method 8270C, for priority pollutant metals (filtered and unfiltered) by SW846 Methods 6020/7470A, for hexavalent

chromium by SW846 Method 218.6, and for perchlorate by USEPA Method 314. Chlorinated VOCs detected in these samples include TCE, *cis*-1,2-DCE, and VC (which are also the primary cVOCs detected in the DRA groundwater plume west of Frog Mortar Creek). BTEX were also detected in these samples.

TCE was detected in all 28 samples (27 samples and the duplicate sample) at concentrations ranging from 0.44 to 9.5 µg/L. VC and *cis*-1,2-DCE detections are similar to those of TCE, but less frequent. *cis*-1,2-DCE was detected in 24 samples at concentrations ranging from 0.32 to 17 µg/L. VC was detected in 16 samples at concentrations ranging from 0.39 to 21 µg/L. All VOCs detected in the September 2011 surface water samples were reported at concentrations less than their respective screening criteria.

Concentrations of TCE are greatest at sampling locations MSA-SW41A and MSA-SW38A (9.5 and 6 µg/L, respectively), northeast and hydraulically downgradient of DRA monitoring wells DMW2S, DMW2A, and DMW5S. These wells contain some of the highest site-related concentrations found in shallow- and intermediate-depth groundwater. As distance from the shore increases in these two transects, TCE concentrations decrease (4.7 and 3.7 µg/L at MSA-SW38B-C, and 3.4 and 1.3 µg/L at MSA-SW41B-C). Similar, but slightly lower, TCE concentrations were detected in samples from MSA-SW40A-B-C (3.4, 4.3, and 2.1 µg/L, respectively) and MSA-SW42A-B-C (2.1, 2.4, and 2.4 µg/L, respectively), north of transects MSA-SW38 and MSA-SW41.

Similar to the March, June, and August 2011 surface water results, a decreasing TCE trend is evident in Frog Mortar Creek samples north and south of the MSA-SW38/MSA-SW41 sampling area. The September 2011 TCE concentrations at MSA-SW38A-B (6 µg/L and 4.7 µg/L) are higher than the June 2011 TCE concentrations (1.7 and 1.5 µg/L), but are still approximately five to six times less than the highest March 2011 TCE concentration (32 µg/L at MSA-SW38). At sampling transects with the highest TCE concentrations (transects MSA-SW38 and MSA-SW41), TCE concentrations are highest near the shoreline and decrease progressively in samples collected farther from the shoreline. Other transects (e.g., transects MSA-SW37, MSA-SW39, and MSA-SW42 through MSA-SW45) show increasing concentrations of TCE with distance from the shoreline.

Concentrations of *cis*-1,2-DCE and VC follow the same patterns as TCE, except that fewer detections occurred in samples collected south of MSA-SW41. The maximum 1,2-DCE and VC concentrations (17 µg/L and 21 µg/L, respectively) were both detected at sampling location MSA-SW38A. Similar to TCE, *cis*-1,2-DCE and VC concentrations typically decrease (or are not detected) in samples collected north and south of the highest concentration area (transects MSA-SW38 and MSA-SW41). Concentrations of *cis*-1,2-DCE and VC decrease progressively from the shoreline at transects MSA-SW38, MSA-SW41, and MSA-SW42. Areas where 1,2-DCE and/or VC concentrations increase with distance from the shore were found in sampling transects MSA-37, MSA-SW43, and MSA-SW45 (for both VC and *cis*-1,2-DCE), and in transect MSA-SW44 (for *cis*-1,2-DCE only).

Toluene, a component of petroleum fuels and a site groundwater contaminant, was detected in seven samples at trace to low concentrations, ranging from an estimated (*J*-qualified; see Section 3.3) 0.14 to 1.5 µg/L. All detected concentrations are less than screening levels. 1,2,4-Trimethylbenzene, benzene, ethylbenzene, and xylenes were all detected in sample MSA-SW41A (collected near the shore) but not in the "B" or "C" samples (collected 50 feet and 100 feet from shore, respectively) along this transect. Benzene was detected in only one other sample (MSA-SW39A), at a low estimated concentration of 0.14 µg/L.

Acetone was detected in four samples at trace concentrations below screening levels. All acetone results were "*B*-qualified," indicating acetone was in the trip blank. As such, acetone in these four samples does not reflect the samples' true concentrations. In addition, because acetone was reported at such low concentrations (i.e., at concentrations below the project action level calculated in the validation), and because acetone is a common laboratory contaminant, it is likely not a constituent of the DRA VOC plume. 1,4-Dioxane was detected in only one sample (MSA-SW38A), at a low estimated concentration of 0.85 *J* µg/L.

Dissolved arsenic and barium were detected in all samples, and, except for one total mercury concentration, are the only metals to exceed surface water screening levels. Detected concentrations of dissolved arsenic and barium range from 1.6 to 2.4 µg/L and 20 to 21 µg/L, respectively. Dissolved barium concentrations in all 28 samples exceed the BTAG ecological screening level of 4 µg/L. Dissolved arsenic exceeds the human health consumption-of-organism screening criterion of 1.4 µg/L at all locations. However, the dissolved arsenic concentrations

(1.6 to 2.4 µg/L) detected in September 2011 are less than or within the range of dissolved arsenic concentrations (2.2 to 3.9 µg/L) reported for reference (background) samples collected as part of Lockheed Martin's 2007–2008 Frog Mortar Creek investigation (Tetra Tech, 2009).

Total arsenic concentrations, ranging from 2.4 to 5 µg/L, are also similar to the 2007–2008 reference-sample range. The 28 dissolved barium concentrations are similar throughout the area sampled, with detected concentrations occurring within a narrow range of 20 to 21 µg/L. Total barium was detected at similar concentrations, but with a slightly more varied results range: 21 to 35 µg/L; all but one location had barium concentrations of 21 to 25 µg/L. Barium was not analyzed as part of the 2007–2008 Frog Mortar Creek sampling program; therefore, the results cannot be compared to prior reference (background) concentrations. Only one concentration of total mercury (0.26 µg/L), detected in sample MSA-SW45A, exceeds the BTAG screening benchmark (0.026 µg/L). Neither hexavalent chromium nor perchlorate was detected in the September 2011 surface water samples.

2.2.5.5 December 2011 Investigation

Twenty-eight surface water samples (27 samples and one duplicate sample) were collected from Frog Mortar Creek near the DRA site on December 8, 2011 (Tetra Tech, 2012g). Three samples were again collected along each of the same nine transects, from approximately one foot below the water surface, at three different distances from shoreline ("A," "B," and "C" samples). These surface water samples were collected as part of an ongoing investigation to assess the effects of the DRA groundwater contaminants on the water quality of Frog Mortar Creek. Figure 2-12 shows the December 2011 surface water sampling locations.

Samples were analyzed for VOCs, 1,4-dioxane, total (i.e., unfiltered) metals, dissolved (i.e., filtered) metals, hexavalent chromium, and perchlorate. Several VOCs, 1,4-dioxane, perchlorate, and several metals were detected in the surface water samples. cVOCs detected in these samples include TCE, *cis*-1,2-DCE, 1,1-dichloroethene (1,1-DCE), and VC, which are also the primary cVOCs detected in the DRA groundwater plume. Other VOCs detected with limited occurrence (i.e., in only one or two samples) include the petroleum-related compounds toluene, ethylbenzene, xylenes, and chlorobenzene.

TCE was detected in all 28 samples (27 samples and one duplicate sample) at concentrations ranging from an estimated 0.69*J* to 27 µg/L. *cis*-1,2-DCE was detected in all but six samples at concentrations ranging from an estimated 0.41*J* to 21 µg/L. Vinyl chloride was detected less frequently (in only 13 samples), at concentrations ranging from 0.30*J* to 14 µg/L. However, only one detected TCE concentration (27 µg/L, in sample MSA-SW41A) exceeds the VOC screening criteria.

Toluene, ethylbenzene, and xylenes (components of petroleum fuels and site groundwater contaminants) were detected at trace to low concentrations in four samples (MSA-SW38A, MSA-SW41A, MSA-SW42A [ethylbenzene was not detected at MSA-SW42A], and MSA-SW44A). All detected concentrations are below their corresponding screening levels. These three VOCs were detected in samples collected near the shore ("A" samples), but not in the "B" or "C" samples, which were collected 50 feet and 100 feet from shore. Benzene, another common VOC component of petroleum fuels and a site groundwater contaminant, was not detected in these samples. Acetone was detected in one sample at a trace concentration less than its screening levels. Acetone is a common laboratory contaminant, and its presence, at a low concentration in only one sample, may indicate a laboratory artifact.

TCE concentrations are greatest in samples from MSA-SW41A, MSA-SW38A, and MSA-SW38B (27, 17, and 14 µg/L, respectively), northeast to east and hydraulically downgradient of the DRA monitoring wells that contain some of the highest site-related shallow- and intermediate-depth groundwater concentrations (i.e., wells DMW2S, DMW2A, DMW4S/4I, DMW5S/5I). Generally, TCE concentrations decrease progressively in samples collected north and south of transects MSA-SW38 and MSA-SW41. This trend of decreasing TCE concentrations to the north and south of the MSA-SW38 and MSA-SW41 sampling transects is similar to what was observed in previous surface water sampling rounds.

Along sampling transects MSA-SW40, MSA-SW38, and MSA-SW41, TCE concentrations are highest near the shoreline, and decrease progressively in samples collected farther from the shoreline. In the other sampling transects, TCE concentrations are relatively consistent. The December 2011 TCE concentrations along sampling transects MSA-SW38 and MSA-SW41 are typically two to three times greater than the TCE concentrations detected at the same locations in September 2011.

The December 2011 surface water concentrations of *cis*-1,2-DCE in near-shore samples from transects MSA-SW40, MSA-SW38, MSA-SW41, and MSA-SW43, and in the "B" sample from MSA-SW38B, are generally greater than those detected in September 2011. The concentrations and spatial distribution of *cis*-1,2-DCE at the remaining December sampling locations are similar to those seen in the September 2011 surface water sampling event. The two highest *cis*-1,2-DCE concentrations (21 and 18 µg/L) were detected at MSA-SW38A and MSA-SW41A, respectively. Concentrations of *cis*-1,2-DCE decrease to the north and south of transects MSA-SW38 and MSA-SW41, and typically decrease with increasing distance from the shoreline.

Vinyl chloride shows spatial distributions and trends similar to TCE and *cis*-1,2-DCE. Consistent with the pattern of cVOC detection seen in past rounds, the maximum VC concentration of 14 µg/L was detected at sampling location MSA-SW38A. During the December 2011 sampling event, VC was more frequently detected in sampling transects north of the highest concentration area (i.e., MSA-SW40, MSA-SW42, and MSA-SW37) than it was in samples collected farther south (i.e., MSA-SW43, MSA-SW44, MSA-SW45, and MSA-SW39).

VC concentrations generally decrease with increasing distance from the shoreline, particularly in the highest concentration area (transects MSA-SW38, MSA-SW41, and MSA-SW40). Overall, the pattern of VC concentrations is consistent across the June, August, and September sampling rounds, with the maximum VC concentrations detected at location MSA-SW38A. The December maximum VC concentration (14 µg/L) is approximately 30% less than the September 2011 maximum concentration (21 µg/L).

1,4-Dioxane was detected in four samples in the same area as the highest VOC concentrations (transects MSA-SW38, MSA-SW40, and MSA-SW41), at concentrations ranging from 0.51 µg/L at MSA-SW38B to 1.4 µg/L at MSA-SW38A. Three of four 1,4-dioxane detections were in the "A" samples collected near the shoreline (MSA-SW38A, MSA-SW40A, and MSA-SW-41A). The remaining sampling location (MSA-SW38B) is along MSA-SW38, the transect that had the highest concentration of cVOCs. Perchlorate was detected in 11 samples at concentrations ranging from 0.094 µg/L (MSASW44C) to 0.79 µg/L (MSA-SW38C). MSA-SW38 is the location with the highest cVOC concentrations. Except for the maximum concentration found at MSA-SW38C, the highest concentrations of perchlorate were detected

primarily in near-shore ("A") samples from transects MSA-SW41, MSA-SW43, MSA-SW44, and MSA-SW45; these transects are south of the area of highest cVOC concentrations.

Total arsenic was detected in all samples at concentrations exceeding the screening level for human health, but these concentrations are less than ecological and AWQC criteria. Total arsenic concentrations range from an estimated 1.9*J* to 4.2 µg/L. All dissolved barium concentrations not flagged with a "*B*" validation qualifier exceed the BTAG ecological screening level of 4 µg/L. All total barium results were flagged with a "*B*" data-validation qualifier, indicating that barium was detected in the laboratory blanks.

Many total cadmium and total lead concentrations exceed both the AWQC and ecological screening criteria; however, concentrations of both metals are within the same order of magnitude as these criteria and are moderately consistent over the sampling area. None of the dissolved lead, and only four of the dissolved cadmium results, exceed screening criteria. Hexavalent chromium was detected in all samples, at concentrations ranging from 0.056 to 5.21 µg/L. The maximum concentration of hexavalent chromium was detected at MSA-SW41B. If this concentration is excluded, the range of remaining hexavalent concentrations is much narrower, with concentrations from 0.056 to 0.379 µg/L.

2.2.6 2012 Monitoring Events

Six surface water sampling rounds will be completed in Frog Mortar Creek in 2012. This includes quarterly rounds in March, June, September, and December 2012, and additional sampling in July and August 2012 to provide surface water data for Frog Mortar Creek during peak recreational months. Starting in March 2012, additional surface water samples were collected along a transect extending out from the eastern shoreline of Frog Mortar Creek at 3301 Edwards Lane.

2.2.6.1 March 2012 Investigation

Forty surface water samples were collected from Frog Mortar Creek near the Dump Road Area (DRA) site on March 20, 2012 (Tetra Tech, 2012h). Figure 2-13 shows the March 2012 surface water sampling locations. Volatile organic compounds (primarily TCE, *cis*-1,2-DCE, and VC), and metals were detected in the March 2012 surface water samples. Concentrations of volatile organic compounds are greatest at sampling locations MSA-SW40A and MSA-SW41A,

northeast and hydraulically downgradient of the DRA monitoring wells that contain some of the highest concentrations of site-related constituents in groundwater (i.e., wells DMW2S/A/B and DMW5S).

The March 2012 volatile organic compound concentrations are greater than the December 2011 concentrations in transect SW40, and less than December 2011 concentrations in transects SW38 and SW41. In March 2012, the highest TCE concentration of 21 µg/L was detected in the SW40B sample 50 feet from the shoreline, whereas in December 2011 the highest TCE concentrations were detected in the shoreline samples from transects SW38 and SW41 (at concentrations of 17 and 27 µg/L, respectively). The concentrations of *cis*-1,2-DCE and VC concentrations increased significantly in SW37A and SW40A and decreased significantly in SW38A from December 2011 to March 2012. Generally, concentrations of TCE, *cis*-1,2-DCE, and VC decrease progressively north and south of the MSA-SW40 and MSA-SW41 transects, except for slightly elevated concentrations in SW37, the northernmost transect. This is similar to previous rounds of Frog Mortar Creek surface water samples collected in 2011.

At sampling transects with the highest concentrations of volatile organic compounds (transects MSA-SW40 and MSA-SW41), TCE, *cis*-1,2-DCE, and vinyl chloride concentrations are highest near the shoreline and decrease progressively in samples collected farther from the shoreline, except for TCE in transect SW40, where the concentration increased approximately 100% from 11 µg/L in SW40A to 21 µg/L in SW40B. Along sampling transects SW42 and SW40, TCE concentrations are highest in the "B" samples collected approximately 50 feet from the shoreline and decrease progressively in samples collected farther from the shoreline. Along sampling transect SW38, the highest concentration was detected in the "A" sample collected close to the shoreline. For the other sampling transects, TCE concentrations are relatively consistent along each transect.

cis-1,2-DCE concentrations typically decrease with increasing distance from the shoreline, except for four transects (SW42, SW43, SW44, and SW45) where the highest *cis*-1,2-DCE concentration was detected in the "B" sample. The *cis*-1,2-DCE concentrations in transect EL-SW01 (along the eastern shoreline) are consistent throughout all four samples, ranging from 0.9*J* to 1.4 µg/L. VC concentrations follow a similar trend to that of *cis*-1,2-DCE, with the highest *cis*-1,2-DCE concentration detected in the "B" sample in seven of 10 transects (SW39,

SW41, SW42, SW43, SW44, SW45 and EL-SW01), while decreasing with increasing distance from the shoreline in the other three transects (SW37, SW38, and SW40). *cis*-1,2-DCE was detected in the "C" (0.33*J* µg/L) and "D" (0.40*J* µg/L) samples in transect EL-SW01 along the eastern shoreline.

Dissolved hexavalent chromium was detected in the March 2012 surface water samples at trace concentrations ranging from 0.054*L* to 0.092L µg/L, well below the screening criteria. During the previous sampling event in December 2011, hexavalent chromium was detected in all samples at concentrations ranging from 0.056 to 5.21 µg/L. The maximum concentration of hexavalent chromium was detected at MSA-SW41B at a concentration of 5.21 µg/L. Excluding the maximum concentration at MSA-SW41B, the range of remaining hexavalent concentrations is much narrower, with concentrations from 0.056 to 0.379 µg/L. Metals exceeding screening criteria in the March 2012 Frog Mortar Creek samples include dissolved barium in all samples, and dissolved arsenic in two samples. During the previous sampling event (December 2011), dissolved metals exceeding screening criteria included arsenic in one sample, cadmium in four, and barium in all samples.

2.2.6.2 June 2012 Investigation

Forty surface water samples were collected from Frog Mortar Creek near the DRA site on June 14, 2012 (Tetra Tech, 2012j). Figure 2-13 shows the June 2012 surface water sampling locations. In general, the June 2012 VOC concentrations are lower than the March 2012 concentrations. In June 2012, the highest TCE concentration (2.7 µg/L) was detected in sample MSA-SW38A (collected near the shoreline). In March 2012, the highest TCE concentration (21 µg/L) was detected in the MSA-SW40B sample collected 50 feet from the shoreline.

Concentrations of TCE, *cis*-1,2-DCE, and VC show similar spatial distribution compared to previous events. For example, concentrations are highest near the shoreline and decrease progressively in samples collected farther from the shoreline. In addition, concentrations generally decrease progressively north and south of the SW38, SW40, and SW41 transects. Concentrations of volatiles in the June 2012 samples do not exceed Maryland and USEPA Region 3 surface water screening criteria; TCE and *cis*-1,2-DCE concentrations do not exceed site-specific swimming criteria.

Samples from transect SW38 had the highest concentrations of TCE during the June 2012 event, ranging from 0.57*J* to 2.7 µg/L, with the highest concentration detected nearest the shore. Similar concentration ranges for TCE were detected in June 2012 in samples from transects SW40 and SW41. TCE concentrations in transect SW42 (north of transects SW38 and SW40) show a more narrow range (1.3 to 1.6 µg/L) of detections among its four samples. Consistently across the sampling transects east and south of the DRA, the June 2012 TCE concentrations are highest in the "A" samples near the shoreline and generally decrease with distance from the shoreline. Low TCE concentrations (ranging from 0.63*J* to 0.67*J* µg/L) were also detected in the Edwards Lane surface water samples (i.e., EL-SW01A through EL-SW01D).

The June 2012 *cis*-1,2-DCE concentrations show a significant decrease over the March 2012 results. Transects SW38 and SW41 had the highest detected concentrations, ranging from 0.42 to 7.5 µg/L and from non-detect to 1.7 µg/L, respectively. The concentrations of *cis*-1,2-DCE are lower throughout transects SW37 and SW42, with concentrations ranging from 0.64 to 0.81 µg/L. Trace *cis*-1,2-DCE concentrations were also detected in samples EL-SW01C (0.38 µg/L), MSA-SW40C (0.35 µg/L), and MSA-SW44C (0.29 µg/L).

The VC concentrations follow a trend similar to those of TCE and *cis*-1,2-DCE, with the highest levels near the shoreline and decreasing concentrations with increasing distance from the shoreline. Similar to the June 2012 results for TCE and *cis*-1,2-DCE, the maximum VC concentration (3.7 µg/L) was detected at sampling location MSA-SW38A. VC was detected in nearly all samples from transects north of SW38 (i.e., SW37, SW42, and SW40), except for the two samples collected farthest from shore in transect SW40 (i.e., SW40C and SW40D) and the farthest sample from shore in transect SW37 (SW37D). Concentrations of VC in these samples range from 0.25 µg/L (SW42D) to 0.8 µg/L (SW37A). SW41A has the only detected concentration of VC (0.23 µg/L) in samples collected south of transect SW38. Concentrations of VC in near-shore samples MSA-SW38A (3.7 µg/L) and MSA-SW37A (0.8 µg/L) exceed site-specific swimming criteria.

Dissolved hexavalent chromium was detected in the June 2012 surface water samples at trace concentrations ranging from 0.056*J* to 0.099*L* µg/L, well below its screening criterion. Except for the maximum hexavalent chromium concentration (5.21 µg/L) detected in December 2011, the range of remaining detected hexavalent chromium concentrations has been fairly consistent

with the June 2012 results. Metals exceeding screening criteria in the June 2012 Frog Mortar Creek samples include dissolved arsenic and dissolved barium (in all samples). Overall, the range of metals concentrations in June 2012 samples is consistent with metals concentrations in previous rounds of surface water sampling.

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Source: Google Earth Pro, 2010

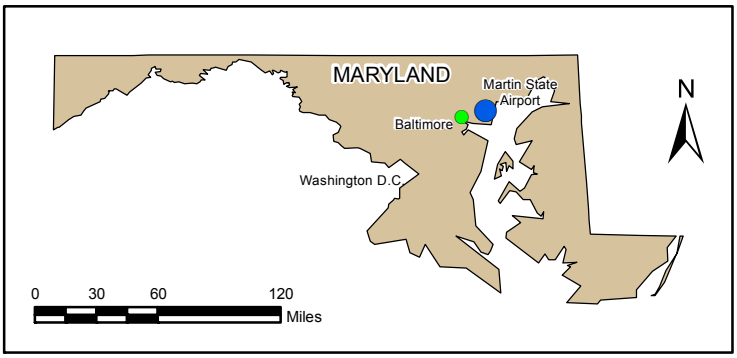

FIGURE 2-1

MARTIN STATE AIRPORT AND SURROUNDING FEATURES

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

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

TETRA TECH

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\MSA Dump Road Features Fig 2-1_revised 1 13 12.mxd)
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FIGURE 2-2

AREAS OF CONCERN
DUMP ROAD AND RUNWAY AREA

LEGEND

POND

MARYLAND AIR NATIONAL GUARD BOUNDARY

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

0 60 120 240 Feet

N

DATE MODIFIED: 1/13/12

CREATED BY: MP

TETRA TECH

FIGURE 2-3

1997 SURFACE WATER AND SEDIMENT SAMPLING LOCATIONS

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

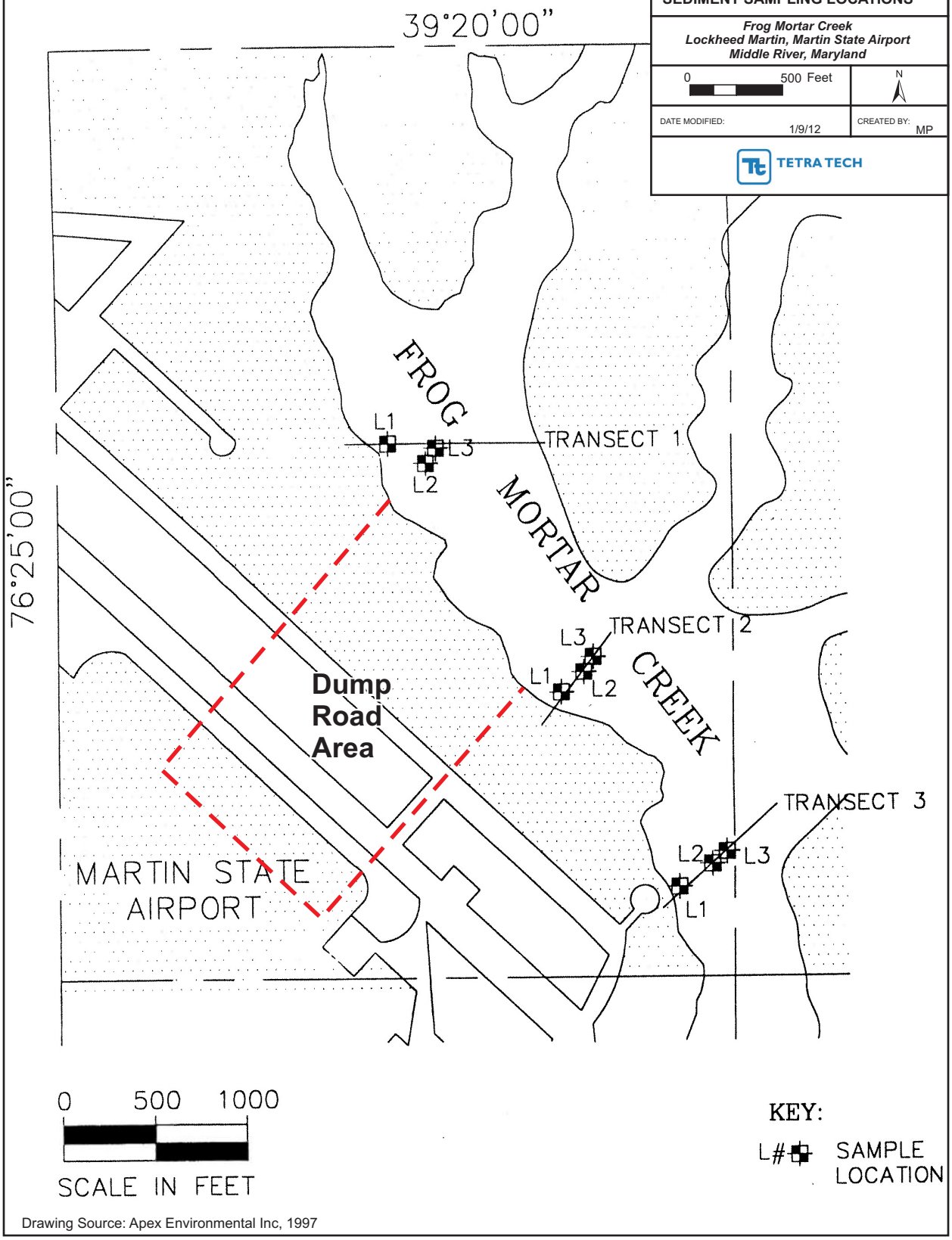
0 500 Feet

N

DATE MODIFIED: 1/9/12

CREATED BY: MP

TETRA TECH



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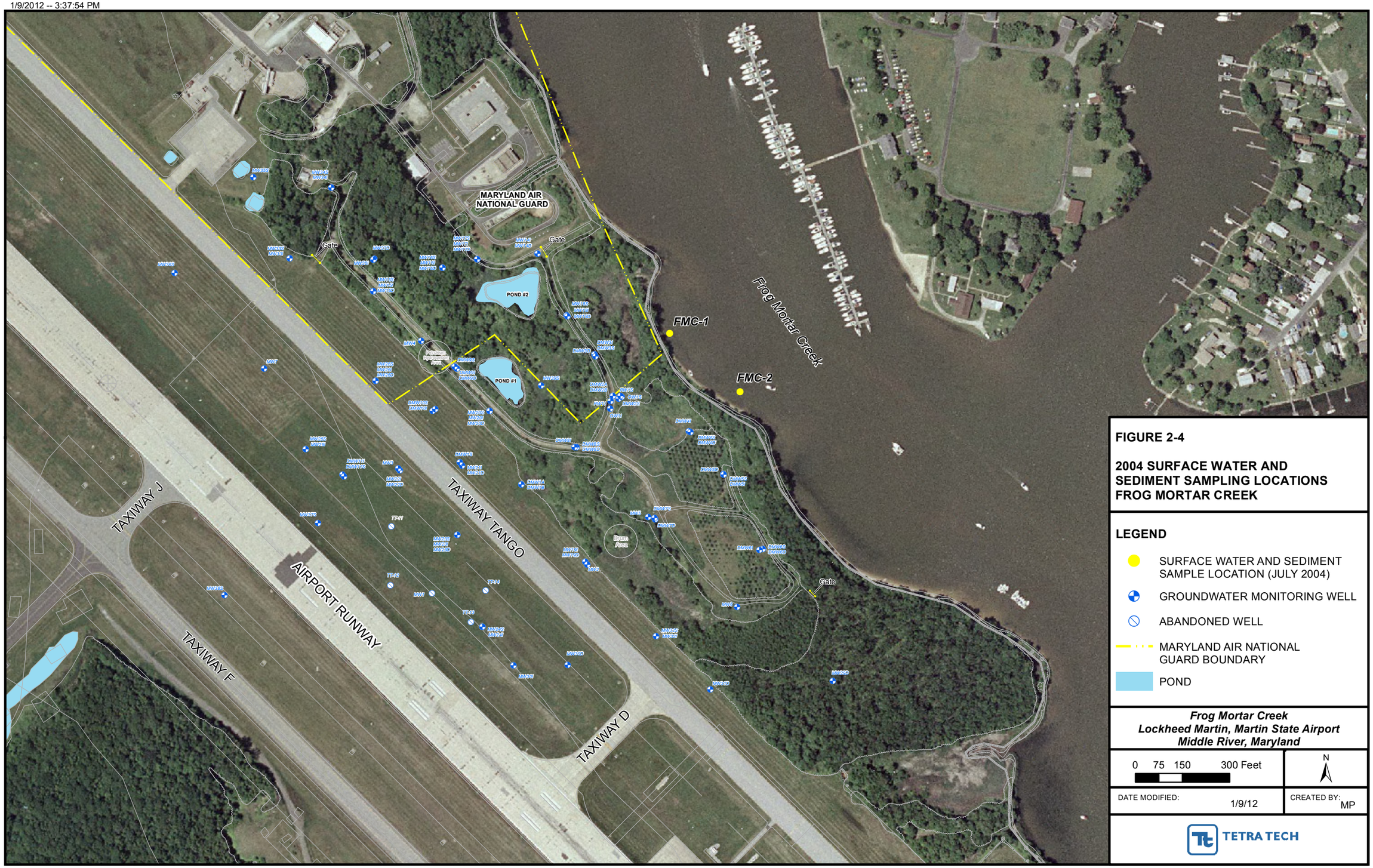

FIGURE 2-4

2004 SURFACE WATER AND SEDIMENT SAMPLING LOCATIONS FROG MORTAR CREEK

LEGEND

- SURFACE WATER AND SEDIMENT SAMPLE LOCATION (JULY 2004)
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- POND

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

0 75 150 300 Feet

N

DATE MODIFIED: 1/9/12

CREATED BY: MP

TETRA TECH

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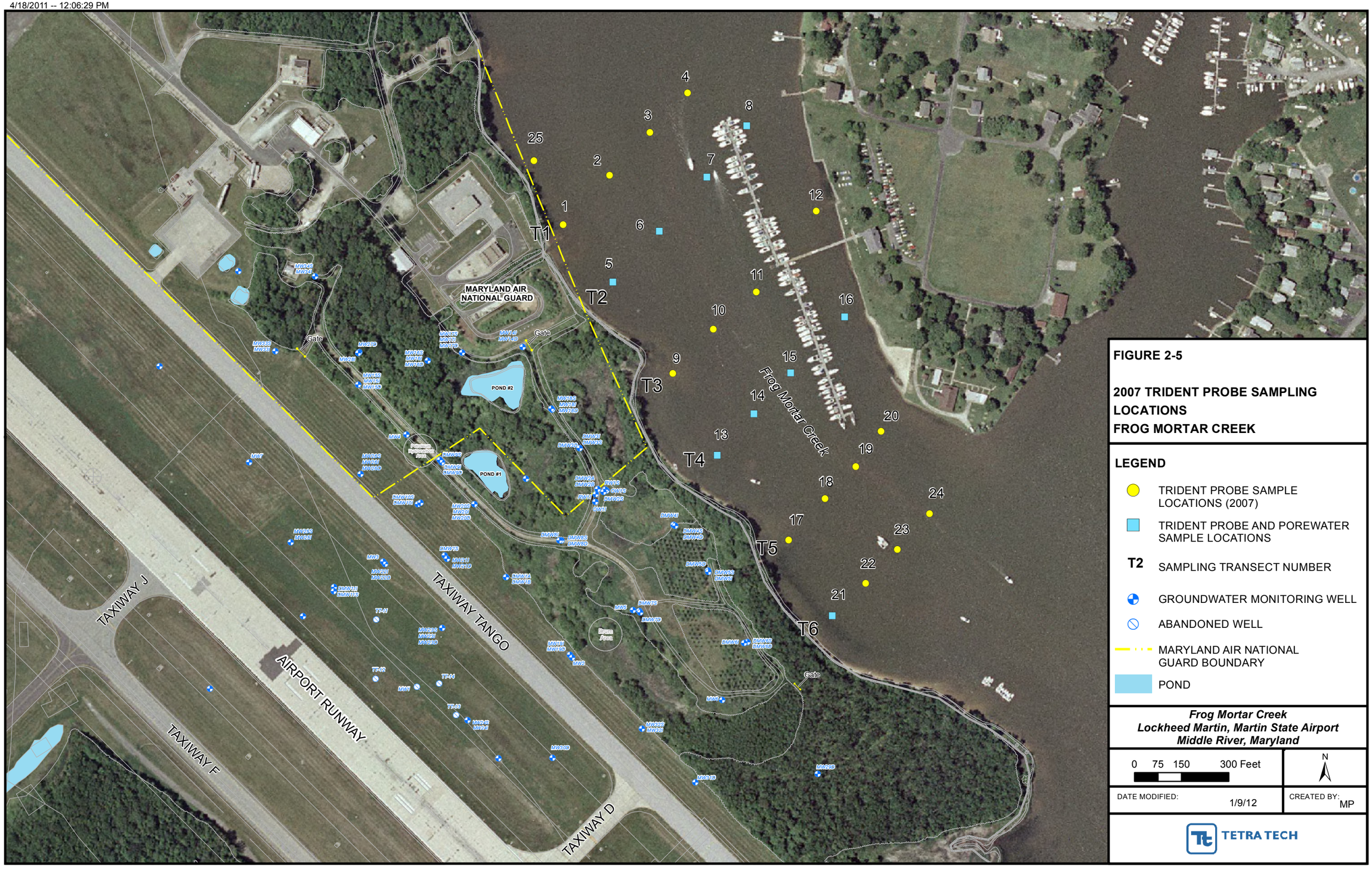

FIGURE 2-5

2007 TRIDENT PROBE SAMPLING LOCATIONS
FROG MORTAR CREEK

LEGEND

- TRIDENT PROBE SAMPLE LOCATIONS (2007)
- TRIDENT PROBE AND POREWATER SAMPLE LOCATIONS
- T2 — SAMPLING TRANSECT NUMBER
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- POND

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

0 75 150 300 Feet

N

DATE MODIFIED: 1/9/12

CREATED BY: MP

TETRA TECH

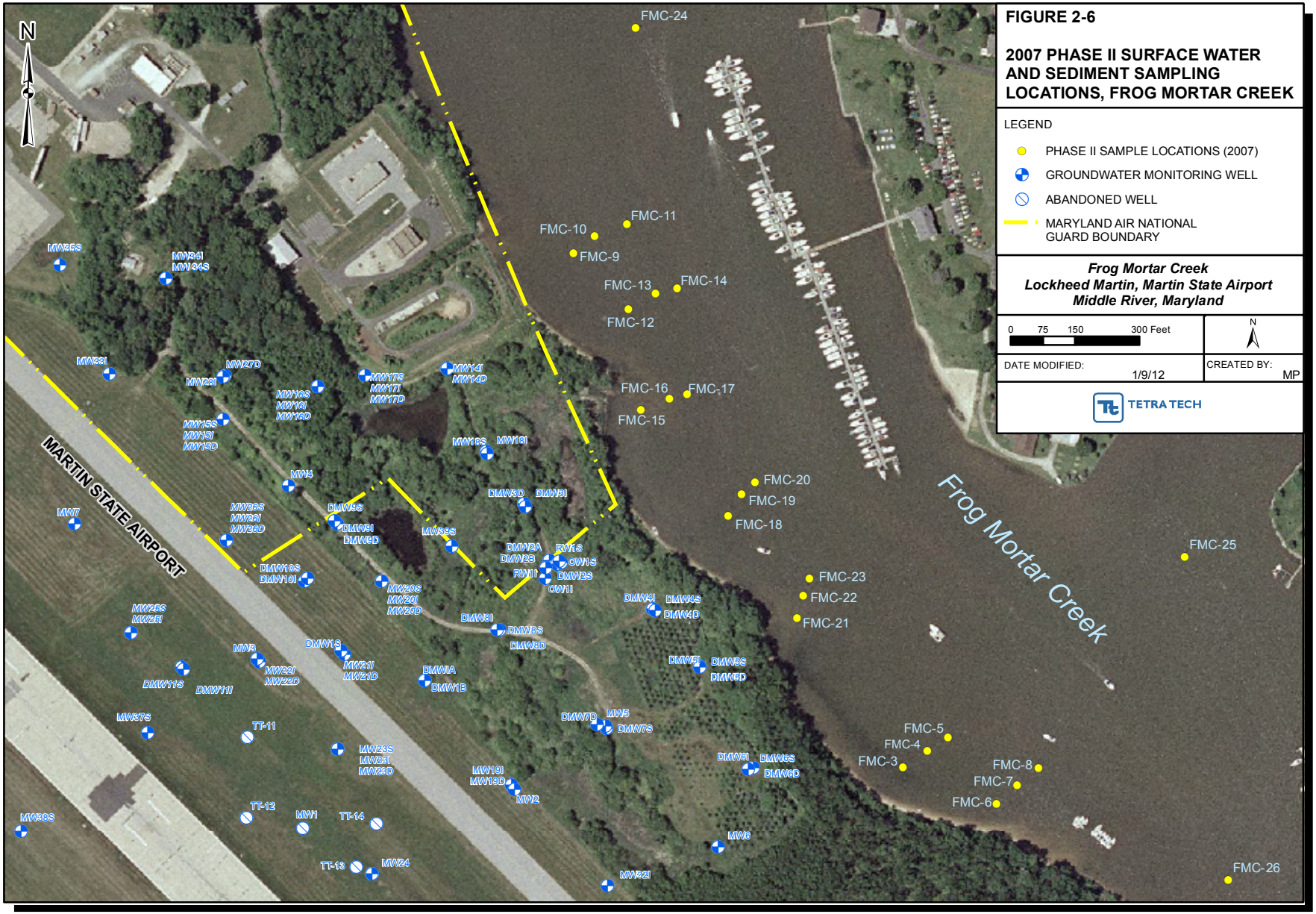

FIGURE 2-6

2007 PHASE II SURFACE WATER AND SEDIMENT SAMPLING LOCATIONS, FROG MORTAR CREEK

LEGEND

- PHASE II SAMPLE LOCATIONS (2007)
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

0 75 150 300 Feet

N

DATE MODIFIED: 1/9/12

CREATED BY: MP

TETRA TECH

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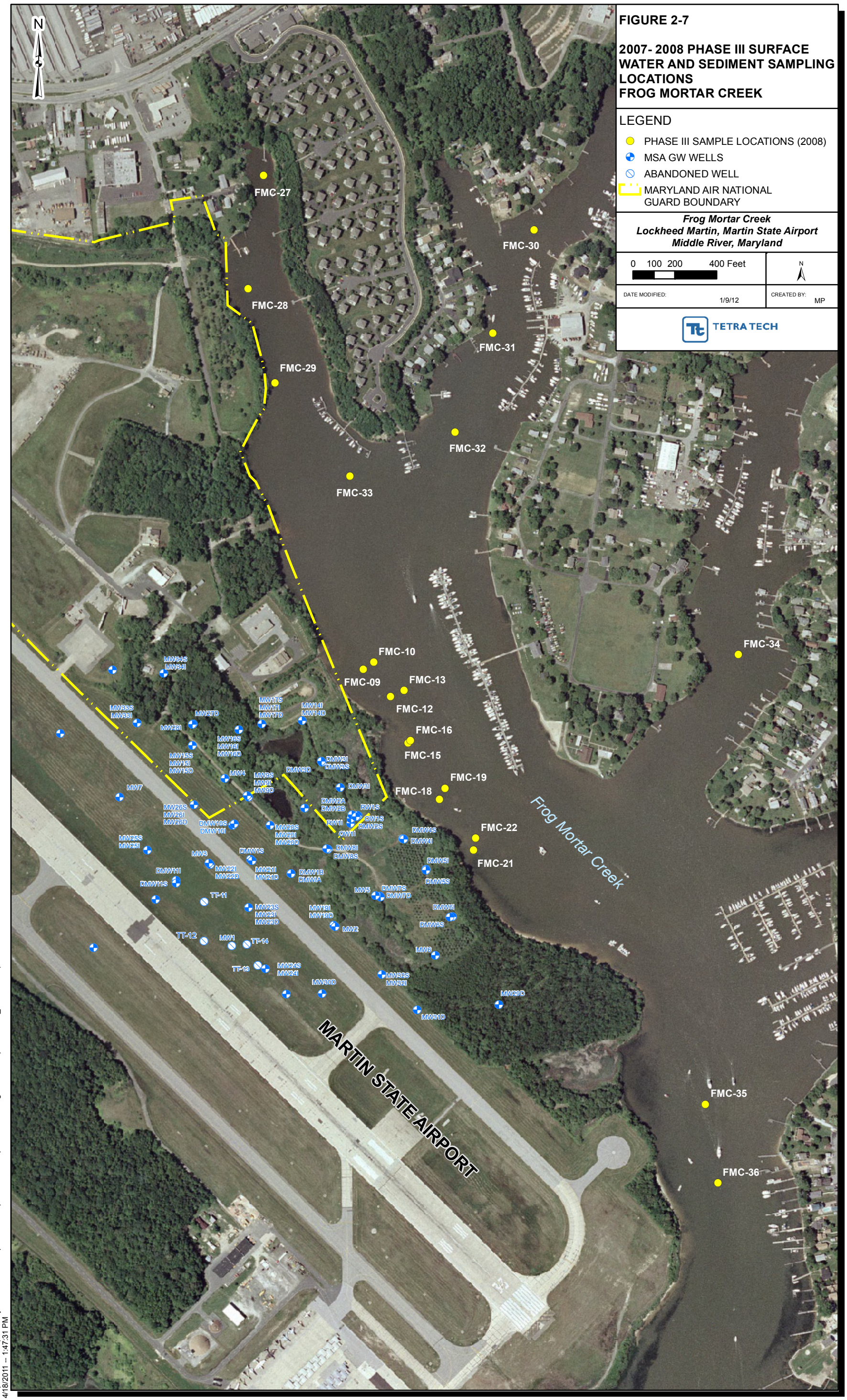

FIGURE 2-7

2007- 2008 PHASE III SURFACE WATER AND SEDIMENT SAMPLING LOCATIONS FROG MORTAR CREEK

LEGEND

- PHASE III SAMPLE LOCATIONS (2008)
- MSA GW WELLS
- ABANDONED WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 400 Feet

N

DATE MODIFIED: 1/9/12

CREATED BY: MP

TETRA TECH

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FIGURE 2-8

JULY 2010 SURFACE WATER SAMPLING LOCATIONS

LEGEND

- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- SURFACE WATER SAMPLE LOCATION (2010)
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- POND

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

0 75 150 300 Feet

N

DATE MODIFIED: 1/9/12

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\MSA Surface Water Samples Exceedances 4 19 11_revised 012712.mxd)
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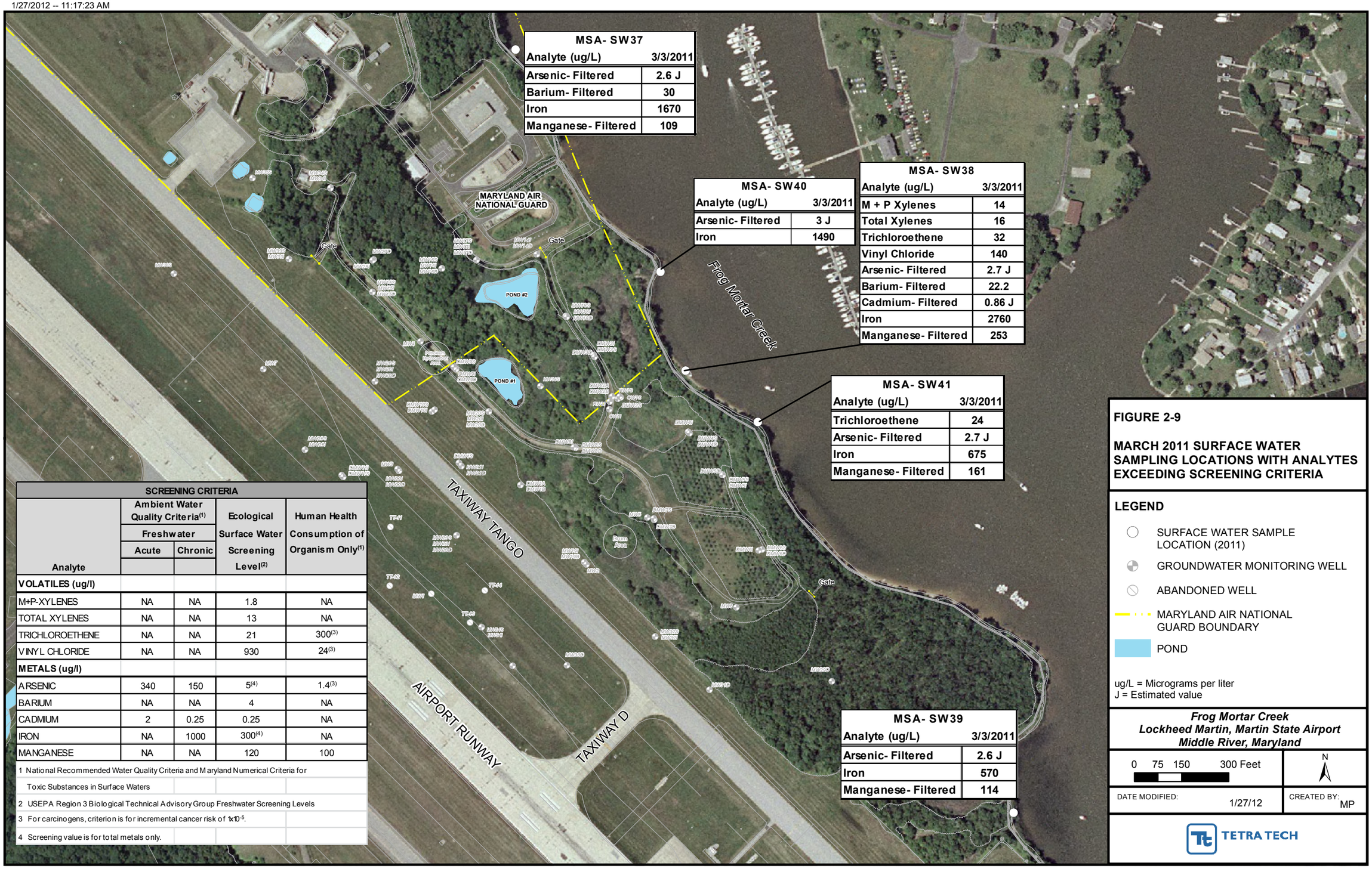

MSA- SW37	
Analyte (ug/L)	3/3/2011
Arsenic- Filtered	2.6 J
Barium- Filtered	30
Iron	1670
Manganese- Filtered	109

MSA- SW40	
Analyte (ug/L)	3/3/2011
Arsenic- Filtered	3 J
Iron	1490

MSA- SW38	
Analyte (ug/L)	3/3/2011
M + P Xylenes	14
Total Xylenes	16
Trichloroethene	32
Vinyl Chloride	140
Arsenic- Filtered	2.7 J
Barium- Filtered	22.2
Cadmium- Filtered	0.86 J
Iron	2760
Manganese- Filtered	253

MSA- SW41	
Analyte (ug/L)	3/3/2011
Trichloroethene	24
Arsenic- Filtered	2.7 J
Iron	675
Manganese- Filtered	161

MSA- SW39	
Analyte (ug/L)	3/3/2011
Arsenic- Filtered	2.6 J
Iron	570
Manganese- Filtered	114

SCREENING CRITERIA				
	Ambient Water Quality Criteria[1]		Ecological	Human Health
	Freshwater		Surface Water	Consumption of
	Acute	Chronic	Screening	Organism Only[1]
Analyte			Level[2]	
VOLATILES (ug/l)				
M+P-XYLENES	NA	NA	1.8	NA
TOTAL XYLENES	NA	NA	13	NA
TRICHLOROETHENE	NA	NA	21	300[3]
VINYL CHLORIDE	NA	NA	930	24[3]
METALS (ug/l)				
ARSENIC	340	150	5[4]	1.4[3]
BARIUM	NA	NA	4	NA
CADMIUM	2	0.25	0.25	NA
IRON	NA	1000	300[4]	NA
MANGANESE	NA	NA	120	100

1 National Recommended Water Quality Criteria and Maryland Numerical Criteria for Toxic Substances in Surface Waters

2 USEPA Region 3 Biological Technical Advisory Group Freshwater Screening Levels

3 For carcinogens, criterion is for incremental cancer risk of 1×10^{-5}.

4 Screening value is for total metals only.

FIGURE 2-9

MARCH 2011 SURFACE WATER SAMPLING LOCATIONS WITH ANALYTES EXCEEDING SCREENING CRITERIA

LEGEND

- SURFACE WATER SAMPLE LOCATION (2011)
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- POND

ug/L = Micrograms per liter
J = Estimated value

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

0 75 150 300 Feet

N

DATE MODIFIED: 1/27/12

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Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\MSA Surface Water Samples June_Sept_Dec_2011.mxd)
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FIGURE 2-10

JUNE 2011 SURFACE WATER SAMPLING LOCATIONS

LEGEND

- SURFACE WATER SAMPLE LOCATION (1 FOOT DEPTH BELOW WATER SURFACE)
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- POND

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

0 75 150 300 Feet

N

DATE MODIFIED: 1/4/12

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\MSA Surface Water Samples August2011.mxd)
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FIGURE 2-11

AUGUST 2011 SURFACE WATER SAMPLING LOCATIONS

LEGEND

- AUGUST 2011 SURFACE WATER SAMPLE LOCATION
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- POND

"A" 1 foot below surface
"B" 1 foot below surface and 1 foot above bottom
"C" 1 foot below surface, midpoint of water column, and 1 foot above bottom

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

0 75 150 300 Feet

N

DATE MODIFIED: 1/4/12

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\MSA Surface Water Samples September and December2011.mxd)
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SW-37-C
SW-37-B
SW-37-A
SW-42-C
SW-42-B
SW-42-A
SW-40-C
SW-40-B
SW-40-A
SW-38-C
SW-38-B
SW-38-A
SW-41-C
SW-41-B
SW-41-A
SW-43-C
SW-43-B
SW-43-A
SW-44-C
SW-44-B
SW-44-A
SW-45-C
SW-45-B
SW-45-A
SW-39-C
SW-39-B
SW-39-A

MARYLAND AIR NATIONAL GUARD
Parkside Marina
Conrad's Ruth Villa
Frog Mortar Creek
POND #1
POND #2
Gate
Drum Area
TAXIWAY J
TAXIWAY TANGO
AIRPORT RUNWAY
TAXIWAY F
TAXIWAY D

FIGURE 2-12

SEPTEMBER AND DECEMBER 2011 SURFACE WATER SAMPLE LOCATIONS

LEGEND

- DECEMBER 2011 SURFACE WATER SAMPLE LOCATION
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 75 150 300 Feet

N

DATE MODIFIED: 4/27/12

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\MSA Surface Water Samples June2012.mxd)



FIGURE 2-13

MARCH AND JUNE 2012 SURFACE WATER SAMPLING LOCATIONS

LEGEND

- MARCH 2012 AND JUNE 2012 SURFACE WATER SAMPLE LOCATION
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- POND

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

0 75 150 300 Feet

N

DATE MODIFIED: 9/5/12

CREATED BY: MP

TETRA TECH

Section 3
Investigation Approach and Methodology

The 2011 surface water sampling data for Frog Mortar Creek supported additional investigations to assess the extent to which surface water is affected by groundwater discharge from the Dump Road Area (DRA). These data were used to evaluate chemical concentrations with respect to U.S. Environmental Protection Agency (USEPA) or Maryland Department of the Environment (MDE) screening levels and USEPA Ambient Water Quality Criteria (AWQC). Previously, in March and June 2011, the site-related groundwater volatile organic compounds (VOCs) trichloroethene (TCE), *cis*-1,2-dichloroethene (*cis*-1,2-DCE), and vinyl chloride (VC) were detected in Frog Mortar Creek surface water samples at concentrations exceeding ecological and/or human health screening criteria. These VOCs were also detected in surface water samples collected from Frog Mortar Creek in August 2011 (the August samples were analyzed for VOCs only). The September and December samples were collected to provide more information regarding concentration trends identified in previous sampling events.

The July 2012 sampling event is the third of six surface water sampling rounds in 2012. Subsequent quarterly sampling rounds are scheduled for September and December 2012. An additional sampling round was conducted in August 2012 due to increased recreational activity in Frog Mortar Creek during that month. To assess water quality with respect to recreational activities, additional site-specific screening levels were developed for TCE, *cis*-1,2-DCE, and VC that would protect swimmers in warm weather months, specifically June, July, August, and September sampling events. Therefore, sampling results from these months will be compared to these site-specific swimming criteria, in addition to the USEPA and MDE criteria cited above. These sampling episodes are part of an ongoing investigation to assess the effects of DRA groundwater contaminants on the water quality of Frog Mortar Creek. The July 2012 sampling locations are shown in Figure 3-1.

3.1 SURFACE WATER SAMPLING

3.1.1 Surface Water Sampling and Chemical Analyses

Forty surface water samples were collected from Frog Mortar Creek near the DRA site on July 12, 2012. Four samples were collected along each of nine transects spaced approximately 350 feet apart along the western shoreline of Frog Mortar Creek; these transects are designated as MSA-SW37, MSA-SW38, MSA-SW39, MSA-SW40, MSA-SW41, MSA-SW42, MSA-SW43, MSA-SW44, and MSA-SW45. Four samples were also collected along a transect extending out from the creek's eastern shoreline at 3301 Edwards Lane; this transect is designated EL-SW01 (see Figure 3-1). Along each transect, one sample was collected near the shoreline ("A" sample), one was collected approximately 50 feet from the shoreline ("B" sample), one was collected approximately 100 feet from the shoreline ("C" sample), and one was collected approximately 200 feet from the shoreline ("D" sample). Each sample was collected approximately one foot below the water surface.

Frog Mortar Creek samples designated with the "MSA-SW" prefix were analyzed for VOCs by SW846 Method 8260C; for metals (filtered in the field) by SW846 Methods 6010C/7470A; and for hexavalent chromium (filtered in the field) by USEPA Method 218.6. The Edwards Lane samples (designated with the "EL-SW" prefix) were analyzed for VOCs only. Analytical parameters for the Frog Mortar creek samples are in Table 3-1. Water quality parameters, (including temperature, pH, specific conductance, salinity, turbidity, dissolved oxygen, and oxidation-reduction potential) were measured at all surface water sampling locations on both sides of the creek at the time of sampling. Water depth at the sampling location and the tidal stage at the time of sampling were also recorded. All information was documented on the sample log sheets included herein as Appendix A.

Surface water samples were collected as grab samples using direct-fill sampling techniques. All samples were collected at a depth of approximately one foot below the water surface. The VOC samples were collected using a stainless steel discrete-interval sampler (a "Bacon Bomb" sampler). The sampler was lowered to approximately one foot below the water surface, the check valve was engaged to allow the sampler to fill, the sampler was then brought to the surface, and water was removed through a valve to fill three laboratory-cleaned, hydrochloric-acid-preserved 40-milliliter (mL) sample vials. The discrete-interval sampler was cleaned after each use by

rinsing with potable water. Equipment was cleaned after each sample was collected. No decontamination fluids were collected during this sampling event.

For hexavalent chromium samples, a pre-cleaned bottle containing no sample preservatives (e.g., no nitric acid for preserving metal samples, etc.) was submerged approximately one foot below the water surface and allowed to fill. Samples for metals were collected by a different method, using a peristaltic pump and Teflon® tubing, in accordance with USEPA guidance. The tubing inlet was set at the desired sampling depth (approximately one foot below the water surface) and the tubing was connected to a peristaltic pump. The sample was drawn directly from the desired sampling depth through a disposable 0.45-micron filter and collected in an unpreserved bottle. Metals and hexavalent chromium samples were preserved in the laboratory using nitric acid to reach the appropriate pH level. Surface water sampling locations were surveyed in the Maryland State Plane North American Datum 1983 (in feet) using a handheld global positioning system receiver.

Hexavalent chromium samples must be analyzed within 24 hours of collection. These samples must therefore be expedited to the laboratory so they can be analyzed within the prescribed holding time. Hexavalent chromium samples were shipped overnight to allow the laboratory sufficient time for analyses. No duplicates were collected during the July 2012 investigation. A trip blank (one per cooler containing VOC samples) was submitted for VOC analysis for quality assurance/quality control purposes.

3.1.2 Documentation

A master site logbook was maintained as an overall record of field activities for the site. Sample documentation includes completed chain of custody (COC) forms and surface-water-specific sampling log sheets. COC forms are standardized to summarize and document pertinent sample information such as sample identification and type, matrix, date and time of collection, preservation, and the analyses requested. Sample custody procedures document sample acquisition and integrity. Surface water sampling log sheets are in Appendix A. COC forms and data validation reports are in Appendix B.

3.1.3 Sample Nomenclature and Handling

Surface water samples collected from transects SW37 through SW45 were identified with a unique sample identification tag. Surface water samples were labeled with an "MSA-SW" prefix, followed by the sample number, the profile location ("A," "B," "C", or "D"), and the six-digit sampling date. For example, the surface water sample collected on July 12, 2012 from MSA-SW37A was labeled as MSA-SW37A-071212. Samples collected from the Edwards Lane transect were labeled similarly, except for carrying an "EL-SW" prefix instead of "MSA-SW." The trip blank was labeled with a "TB" prefix followed by the sample's six-digit submittal date (e.g., TB-071212).

Sample handling includes field-related considerations concerning the selection of sample containers, preservatives, allowable holding times, and analyses requested. Proper custody procedures were followed throughout all phases of sample collection and handling. COC protocols were used throughout sample handling to assure the evidentiary integrity of sample containers. These protocols demonstrate that the samples were handled and transferred in a manner that would prevent or detect possible tampering.

Sample containers were released under signature from the laboratory and accepted under signature by the sampler(s) or other individual responsible for maintaining custody until the sample containers were transferred to the sampler(s). Transport containers returning to the laboratory were sealed with strapping tape and a tamper-resistant custody seal. The custody seal contains the signature of the individual releasing the transport container, along with the date and time.

3.1.4 Equipment Decontamination

This project required minimal equipment decontamination. The discrete-interval sampler was cleaned after each use by rinsing with potable water. Equipment was cleaned over the water after each sample had been collected. No decontamination fluids were collected during this sampling event. Both dedicated and disposable equipment were used for surface water sampling, to reduce decontamination activities.

3.1.5 Waste Management

Investigation-derived waste (IDW) consisted of personal protective equipment (PPE) generated during field sampling. PPE IDW was brushed off, placed in trash bags, and disposed of in a facility trash receptacle designated by facility personnel.

3.2 DATA MANAGEMENT

Laboratory data handling procedures met the requirements of the laboratory subcontract. All analytical and field data are maintained in project files, including copies of COC forms, sample log forms, sampling location maps, and documentation of quality assurance and data corrections.

3.2.1 Data Tracking and Control

A cradle-to-grave sample tracking system was used from the beginning to the end of the sampling event. The field operations leader began and coordinated sample tracking before mobilizing to the field. Sample container labels were handwritten in the field and reviewed to ensure that they were accurate and adhered to work plan requirements. The project manager coordinated with the analytical laboratory to ensure that the laboratory was aware of the number and type of samples and analyses that would be submitted that day.

During field sampling, the field operations leader forwarded the COC to a designated project assistant and to the laboratory. The project assistant confirmed that the COC provided the information required by the work plan. This allowed for early detection of errors while still in the field so that adjustments could be made before sample analyses. The laboratory submitted an electronic deliverable for each sample delivery group after successfully completing all requested analyses. When all electronic deliverables had been received from the laboratory, the project assistant checked the laboratory submittal to determine whether the laboratory had performed all analyses requested. All requested analyses were performed for this project.

3.2.2 Sample Information

Data from field measurements were recorded using appropriate sampling log sheets and summarized in tabular form, as were the raw instrument data from the laboratory. The field operations leader verified field data daily; laboratory data were verified by the group supervisor

and then by the laboratory's quality control/documentation department. The sampling log sheets are in Appendix A.

3.2.3 Project Data Compilation

The analytical laboratory generated an Adobe® portable document format (PDF) file of the analytical data package, as well as an electronic database deliverable. The electronic database was checked against the PDF file provided by the laboratory and updated as required, based on data qualifier flags applied during data validation. All data, such as units of measure and chemical nomenclature, were corrected as necessary to be consistent with the project database.

3.2.4 Geographic Information System

Data management systems for this investigation consist of a relational database and geographic information system (GIS) to manage environmental information pertaining to Martin State Airport (MSA). The relational database stores chemical, geological, hydrogeologic, and other environmental data collected during environmental investigations. The GIS is created from the relational database and contains subsets of the larger data pool. The GIS allows environmental data to be posted onto base maps to graphically represent project information. Compiled sampling, chemical, and positional data were incorporated into the GIS.

3.3 DATA REVIEW

Data from the laboratory were entered into a sample database and evaluated against risk-based criteria. Data validation (to evaluate data completeness, holding times, calibrations, precision, accuracy, laboratory and field-blank contamination, and detection limits) was completed concurrent with the data evaluation. These reviews are based on the *USEPA Region III Modifications to the National Functional Guidelines for Data Review* (USEPA, 1993 and 1994) and the specifics of the analytical methods used. Data from this sampling event consist of surface water sample chemical results. Data validation reports and COC are in Appendix B (on compact disc) as PDF files. Appendix C presents a table of all July 2012 Frog Mortar Creek surface water sample analytical data, including non-detects.

Collectively, these data are acceptable for their intended uses (site characterization and risk assessment), except for data qualified as unreliable (*R* flag). For this validation, the data

qualifiers (i.e., flags) listed below were applied to the chemical results presented in this report. These flags appear on the chemical results tables in Section 4 and in Appendix C.

B The analyte was not detected substantially above the level reported in the laboratory or field blank (i.e., the result is considered an artifact of the laboratory analysis and is not considered indicative of a site contaminant).

J The analyte is considered present in the sample. However, the value is estimated and may not be accurate or precise.

K Positive result is considered estimated biased high.

L Positive result is considered estimated biased low.

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

UR The result is considered qualitatively or quantitatively unreliable.

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

Occasionally, common laboratory or field contaminants may be detected in samples. Analysis of quality control blanks and other internal laboratory blanks (e.g., method blanks, etc.) determines the significance of the analytical results versus possible laboratory or field contaminants. Common laboratory contaminants associated with VOC analyses include acetone, methylene chloride, and 2-butanone.

USEPA's *National Functional Guidelines* for contract laboratories requires that any compound, other than common laboratory contaminants, detected in both the sample and an associated blank must be qualified (i.e., "*B*" flag) when the sample concentration is less than five times the blank concentration. For the common laboratory contaminants listed above, results were qualified with a "*B*" flag when the sample concentration was less than 10 times the blank concentration. In addition to the common laboratory contaminants listed above, several common metals were also reported in the blank. Qualified data results are included in the chemical tables and figures in Section 4 and in Appendices B and C.

TABLE 3-1

CHEMICAL ANALYSES FOR FROG MORTAR CREEK SURFACE WATER SAMPLES - JULY 2012
MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

	Analyses Performed		
Containter(s): Preservative: Sample ID	VOCs (USEPA 8260B) 3x40 ml glass vials HCl	Dissolved Metals (USEPA 6020/7470A) 500 ml plastic HNO_3	Hexavalent Chromium (USEPA 218.6) 250 ml plastic None
MSA-SW37A	X	X	X
MSA-SW37B	X	X	X
MSA-SW37C	X	X	X
MSA-SW38A	X	X	X
MSA-SW38B	X	X	X
MSA-SW38C	X	X	X
MSA-SW39A	X	X	X
MSA-SW39B	X	X	X
MSA-SW39C	X	X	X
MSA-SW40A	X	X	X
MSA-SW40B	X	X	X
MSA-SW40C	X	X	X
MSA-SW41A	X	X	X
MSA-SW41B	X	X	X
MSA-SW41C	X	X	X
MSA-SW42A	X	X	X
MSA-SW42B	X	X	X
MSA-SW42C	X	X	X
MSA-SW43A	X	X	X
MSA-SW43B	X	X	X
MSA-SW43C	X	X	X
MSA-SW44A	X	X	X
MSA-SW44B	X	X	X
MSA-SW44C	X	X	X
MSA-SW45A	X	X	X
MSA-SW45B	X	X	X
MSA-SW45C	X	X	X
EL-SW01A	X		
EL-SW01B	X		
EL-SW01C	X		
EL-SW01D	X		

HCL - hydrochloric acid
HNO_3 - nitric acid
ml - milliliter
VOCs - volatile organic compounds
USEPA - U.S. Environmental Protection Agency

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\MSA Surface Water Samples July 2012.mxd)



FIGURE 3-1

JULY 2012 SURFACE WATER SAMPLING LOCATIONS

LEGEND

- JULY 2012 SURFACE WATER SAMPLE LOCATION (1 FOOT BELOW WATER SURFACE)
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- POND

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

0 75 150 300 Feet

N

DATE MODIFIED: 9/5/12

CREATED BY: MP

TETRA TECH

Section 4
Results

4.1 SURFACE WATER DATA AND SCREENING CRITERIA

Validated surface water chemical data from the samples collected in July 2012 were used to generate a statistical summary table (Table 4-1) and a table summarizing positive detections of chemical analytes (Table 4-2). Samples were analyzed for volatile organic compounds (VOCs), dissolved (i.e., filtered) metals, and hexavalent chromium. Table 4-2 compares surface water sampling results to several applicable screening criteria, including:

- U.S. Environmental Protection Agency (USEPA) Region 3 Biological Technical Advisory Group (BTAG) freshwater screening benchmarks (USEPA, 2006)
- USEPA National Recommended Water Quality Criteria (NRWQC) for acute and chronic aquatic-organism exposures, and NRWQC for human health aquatic-organism consumption (USEPA, 2009)
- Maryland Ambient Water Quality Criteria (AWQC) for acute and chronic aquatic-organism exposures and AWQC for human health aquatic-organism consumption (*Code of Maryland Regulations*, 2011)
- site-specific swimming screening levels developed for TCE, *cis*-1,2-DCE, and VC only

The NRWQC, AWQC, and most BTAG screening levels for metals represent concentrations of dissolved metals in the water column; therefore, dissolved metals criteria are used to screen against these results. The BTAG screening levels for arsenic, iron, mercury, selenium, and thallium are based on the total metals concentration in the water column. During the current surface water sampling round, only dissolved metals were analyzed in surface water; therefore, the dissolved results for these five metals are not directly comparable to the BTAG criteria developed for total metals.

The NRWQC screening values for select dissolved metals (chromium, copper, lead, nickel, and zinc) were adjusted for hardness using a site-specific value of 260 mg/L (the standard default value is 100 mg/L). The site-specific swimming criteria shown in Table 4-2 are surface water

screening levels for TCE, *cis*-1,2-DCE, and VC developed by Lockheed Martin Corporation (Lockheed Martin) to protect swimmers near the DRA shoreline. The surface water cVOC results are screened against the swimming criteria for monitoring events conducted in peak recreational swimming months (i.e., June, July, and August).

Gray shading in Table 4-2 indicates a result that exceeds its surface water screening criterion. Figures 4-1 through 4-3 show the respective concentrations of trichloroethene (TCE), *cis*-1,2-dichloroethene (*cis*-1,2-DCE), and vinyl chloride (VC) detected in July 2012 Frog Mortar Creek samples. Appendix C presents the July 2012 analytical data, including non-detect results.

4.2 SURFACE WATER SAMPLING RESULTS

As shown in Tables 4-1 and 4-2, several VOCs and metals were detected in surface water samples. Hexavalent chromium was detected in 23 of the 36 samples analyzed; however, the detected concentrations are all low values, well below screening criteria.

4.2.1 Volatile Organic Compounds

The most frequently detected chlorinated VOCs (cVOCs) in the July 2012 samples include TCE, *cis*-1,2-DCE, and VC. These three analytes are also the primary cVOCs detected in the Dump Road Area (DRA) groundwater plume. Toluene is the only other VOC detected, and with limited occurrence (i.e., in only four samples).

Results for TCE, *cis*-1,2-DCE, and VC are shown in Figures 4-1 through 4-3, respectively. As shown in Figure 4-1, TCE was detected in 25 of 40 samples at low concentrations, ranging from 0.17*J* to 0.64 micrograms per liter (µg/L). As shown in Figure 4-2, *cis*-1,2-DCE was detected less frequently, in only three of 40 samples, at concentrations ranging from 0.28*J* to 3.2 µg/L. Vinyl chloride was detected in only one of the 40 samples, at a concentration of 8.7 µg/L (Figure 4-3). Table 4-2 includes all positively detected surface water concentrations. All cVOC concentrations shown in Table 4-2 are less than both the BTAG freshwater screening benchmarks and the NRWQC for human health aquatic-organism-consumption screening criteria. The single detected VC concentration in sample MSA-SW38A (8.7 µg/L) exceeds the site-specific screening criteria developed to protect recreational swimmers (0.7 µg/L). Toluene, a component of petroleum fuels and a site groundwater contaminant, was detected at low estimated concentrations ranging from 0.14*J* to 0.26*J* µg/L in four surface water samples (ELSW-01B,

MSA-SW39D, MSA-SW45B, and MSA-SW45C). Detected concentrations of toluene are less than the screening criteria.

Concentrations of TCE in the July 2012 sampling event are highest along surface water sampling transects SW38, SW41, and SW43. The highest TCE concentration (0.64*J* µg/L) was detected in sample MSA-SW41A. Lower TCE concentrations were detected in samples MSA-SW41B, MSA-SW41C, and MSA-SW41D (0.39*J*, 0.22*J*, and 0.35*J* µg/L, respectively), collected farther from shore but along the same transect. Transects SW38 and SW41 are nearest to the DRA monitoring wells that contain some of the highest concentrations of site-related constituents in groundwater (e.g., wells DMW2S, DMW2A, DMW3I). Transect SW43 is south of transects SW38, SW40, and SW41 and south of the DRA wells with the highest VOC concentrations in groundwater. Low estimated TCE concentrations were also reported in transects SW37, SW38, SW40, SW42, and SW44 (in two or more samples in each transect) in July 2012. Transects SW37, SW40, and SW42 are north of transect SW38.

Overall, TCE concentrations were lower in July than in June 2012. Samples from transect SW38 had the highest concentrations of TCE during the June 2012 event, ranging from 0.57*J* to 2.7 µg/L, with the highest concentration detected at the location nearest the shore. TCE was detected at low estimated concentrations in surface water samples from the Edwards Lane transect, originating from the east bank of the creek, as follows: EL-SW01A (0.22*J* µg/L), EL-SW01B (0.28*J* µg/L), EL-SW01C (0.21*J* µg/L), and EL-SW01D (0.21*J* µg/L). These TCE results are consistent with TCE concentrations detected in samples collected at this transect in previous 2012 sampling events, and are below the site-specific screening criteria.

In general, TCE concentrations from transects SW38 and SW41 (east of the DRA monitoring wells DMW2S, DMW2A, DMW3I) are highest in samples collected near the shoreline, with decreased concentrations detected toward the center of Frog Mortar Creek (Figure 4-1). Samples from transect SW43 show a similar pattern. During the July 2012 sampling event, either no pattern in TCE concentrations was evident or they were too low (e.g., near or below laboratory detection limits) to establish a pattern. However, the low detected concentrations of TCE nevertheless provide evidence of relatively elevated concentrations close to the shoreline in areas east of wells DMW2S, DMW2A, DMW3I. This is consistent with prior monitoring events.

As shown in Figure 4-2, detections of *cis*-1,2-DCE are limited to only three samples collected in the July 2012 event: MSA-SW38A (3.2 µg/L), MSA-SW43A (0.28*J* µg/L), and MSA-SW41A (0.65*J* µg/L). The highest concentration of *cis*-1,2-DCE in the June 2012 event was detected in the SW38 transect, which is consistent with the limited July 2012 detections. Concentrations of *cis*-1,2-DCE have significantly decreased since March 2012. During the March 2012 sampling event, the highest concentrations of *cis*-1,2-DCE were collected near the shoreline at transects SW40 (39 µg/L at SW40A) and SW41 (18 µg/L at SW41A). In June and July 2012, detections of *cis*-1,2-DCE were lower and less frequent. However, the areas with relatively elevated *cis*-1,2-DCE concentrations for the June and July events are consistent with previous investigations: their general location is east of DRA groundwater monitoring wells DMW2S, DMW2A, and DMW3I.

As shown in Figure 4-3, VC was detected in July 2012 in only one surface water sample, MSA-SW38A (near the shoreline and adjacent to the DRA). The maximum VC concentration (8.7 µg/L) in June 2012 was detected at the same location (MSA-SW38A) and at a similar concentration (3.7 µg/L). The detected VC concentration (8.7 µg/L at MSA-SW38A) in July 2012 exceeds the site-specific swimming criterion for VC of 0.7 µg/L. VC was detected less frequently in July 2012 than in June 2012, when it was detected in nearly all samples collected north of transect SW38. VC was not detected in any of the other Frog Mortar Creek or Edwards Lane surface water samples during the July 2012 sampling event.

4.2.2 Metals

During the June 2012 sampling event, dissolved arsenic was detected in all samples at estimated concentrations (2.3*J* to 2.8*J* µg/L) that exceed the human health consumption of aquatic-organism screening criterion of 1.4 µg/L, but less than the ecological and AWQC criteria. In July, arsenic was detected in all samples within the same narrow concentration range as in June 2012. However, in March 2012, arsenic was only detected in two locations. Dissolved barium concentrations (45 µg/L to 53 µg/L) exceed the BTAG ecological screening level (4 µg/L) in all July 2012 samples. These results are consistent with the barium results from the June 2012 event. No other metals exceedances were detected in the June 2012 Frog Mortar Creek samples. The Edwards Lane surface water samples were not analyzed for metals.

4.2.3 Hexavalent Chromium

Dissolved hexavalent chromium was detected in 23 of the 36 samples analyzed in July 2012, at concentrations ranging from 0.01*J* to 0.047*L* µg/L, well below the AWQC and the BTAG freshwater screening levels. Many of the concentrations of hexavalent chromium detected in the July 2012 sampling episode are *L*-qualified, indicating that the results are biased low. During the December 2011, March 2012, and June 2012 sampling events, hexavalent chromium (total) was detected below the AWQC and BTAG criteria in all surface water samples analyzed.

Table 4-1

Statistical Summary of Analytes Detected in Frog Mortar Creek - July 2012
Martin State Airport, Middle River, Maryland

Chemical	Frequency of Detection[1]		Mininum Non Detected	Maximum Non Detected	Mininum Detected		Maximum Detected		Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent										
VOLATILES (µg/L)												
TRICHLOROETHENE	25/40	63 %	0.17	0.17	0.17	J	0.64	J	MSA-SW41A-071212	0.197	0.264	0.117
TOLUENE	4/40	10 %	0.13	0.13	0.14	J	0.26	J	EL-SW01B-071212	0.077	0.183	0.039
CIS-1,2-DICHLOROETHENE	3/40	8 %	0.17	0.17	0.28	J	3.2		MSA-SW38A-071212	0.182	1.377	0.498
VINYL CHLORIDE	1/40	3 %	0.22	0.22	8.7		8.7		MSA-SW38A-071212	0.325	8.700	1.358
FILTERED METALS (µg/L)												
ANTIMONY	36/36	100 %			0.18	J	0.29	J	MSA-SW37C-071212	0.224	0.224	0.022
ARSENIC	36/36	100 %			2.3	J	2.8	J	MSA-SW37B-071212, MSA-SW37C-071212	2.553	2.553	0.121
BARIUM	36/36	100 %			45		53		MSA-SW39D-071212	48.056	48.056	2.042
COBALT	36/36	100 %			0.2	J	0.37	J	MSA-SW42B-071212	0.264	0.264	0.038
COPPER	36/36	100 %			2.9	K	4		MSA-SW40A-071212, MSA-SW44A-071212	3.367	3.367	0.266
MOLYBDENUM	36/36	100 %			1.6	J	8.1	J	MSA-SW45C-071212	2.047	2.047	1.097
NICKEL	36/36	100 %			1.3	J	3.7	K	MSA-SW42B-071212	1.683	1.683	0.526
VANADIUM	36/36	100 %			0.97	J	1.5	J	MSA-SW44A-071212	1.140	1.140	0.127
ZINC	12/36	33 %	2.3	4.1	2.4	J	59		MSA-SW37A-071212	3.715	8.492	9.626
TUNGSTEN	4/36	11 %	0.37	0.37	0.38	J	0.54	J	MSA-SW45C-071212	0.215	0.455	0.088
LEAD	1/36	3 %	0.18	0.18	0.33	J	0.33	J	MSA-SW44A-071212	0.097	0.330	0.040
SELENIUM	1/36	3 %	0.57	0.57	0.59	J	0.59	J	MSA-SW37B-071212	0.293	0.590	0.051
MISCELLANEOUS (µg/L)												
HEXAVALENT CHROMIUM	23/36	64 %	0.02	0.02	0.01	J	0.047	L	MSA-SW37B-071212	0.020	0.025	0.012

All concentrations are in micrograns per liter [µg/L]
1 Analytes are ranked from highest to lowest by percent frequency of detection.
For non-detects, 1/2 sample quantitation limit was used as a proxy concentration.
1/2 the detection limit was used for B qualified data.

Associated Samples

EL-SW01A-071212
EL-SW01B-071212
EL-SW01C-071212
EL-SW01D-071212
MSA-SW37A-071212
MSA-SW37B-071212
MSA-SW37C-071212
MSA-SW37D-071212
MSA-SW38A-071212
MSA-SW38B-071212
MSA-SW38C-071212
MSA-SW38D-071212
MSA-SW39A-071212
MSA-SW39B-071212
MSA-SW39C-071212
MSA-SW39D-071212
MSA-SW40A-071212
MSA-SW40B-071212
MSA-SW40C-071212
MSA-SW40D-071212
MSA-SW41A-071212
MSA-SW41B-071212
MSA-SW41C-071212
MSA-SW41D-071212
MSA-SW42A-071212
MSA-SW42B-071212
MSA-SW42C-071212
MSA-SW42D-071212
MSA-SW43A-071212
MSA-SW43B-071212
MSA-SW43C-071212
MSA-SW43D-071212
MSA-SW44A-071212
MSA-SW44B-071212
MSA-SW44C-071212
MSA-SW44D-071212
MSA-SW45A-071212
MSA-SW45B-071212
MSA-SW45C-071212
MSA-SW45D-071212

Table 4-2

Positive Chemical Results and Screening Criteria for Surface Water Monitoring - July 2012
Frog Mortar Creek
Martin State Airport, Middle River , Maryland

LOCATION	National Recommended and Ambient Water Quality		Ecological Surface Water	Human Health Consumption	Swimming	EL-SW01A	EL-SW01B	EL-SW01C	EL-SW01D	MSA-SW-37A
SAMPLE ID						EL-SW01A-071212	EL-SW01B-071212	EL-SW01C-071212	EL-SW01D-071212	MSA-SW37A-071212
SAMPLE DATE	Criteria[1] - Freshwater		Screening	of Organism	Screening Levels[6]	20120712	20120712	20120712	20120712	20120712
MATRIX	Acute	Chronic	Level[2]	Only[1]		SW	SW	SW	SW	SW
VOLATILES (ug/l)										
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	300	--	--	--	--	--
TOLUENE	NA	NA	2	15000	NA	--	0.26 J	--	--	--
TRICHLOROETHENE	NA	NA	21	300[4]	10	0.22 J	0.28 J	0.21 J	0.21 J	--
VINYL CHLORIDE	NA	NA	930	24[4]	0.7	--	--	--	--	--
FILTERED METALS (ug/l)										
ANTIMONY	NA	NA	30	640	NA	NA	NA	NA	NA	0.26 J
ARSENIC	340	150	NA[3]	1.4[4]	NA	NA	NA	NA	NA	2.6 J
BARIUM	NA	NA	4	NA	NA	NA	NA	NA	NA	48
COBALT	NA	NA	23	NA	NA	NA	NA	NA	NA	0.33 J
COPPER	33.06[5]	20[5]	9	NA	NA	NA	NA	NA	NA	3.6 K
LEAD	179.6[5]	7[5]	2.5	NA	NA	NA	NA	NA	NA	--
MOLYBDENUM	NA	NA	73	NA	NA	NA	NA	NA	NA	2 J
NICKEL	1051[5]	117[5]	52	4600	NA	NA	NA	NA	NA	1.6 J
SELENIUM	NA	5	NA[3]	4200	NA	NA	NA	NA	NA	--
TUNGSTEN	NA	NA	NA	NA	NA	NA	NA	NA	NA	--
VANADIUM	NA	NA	20	NA	NA	NA	NA	NA	NA	1.2 J
ZINC	263.3[5]	265[5]	120	26000	NA	NA	NA	NA	NA	59
MISCELLANEOUS (ug/l)										
HEXAVALENT CHROMIUM	16	11	11	NA	NA	NA	NA	NA	NA	0.038 L

Table 4-2

Positive Chemical Results and Screening Criteria for Surface Water Monitoring - July 2012
Frog Mortar Creek
Martin State Airport, Middle River , Maryland

LOCATION	National Recommended and Ambient Water Quality		Ecological Surface Water	Human Health Consumption	Swimming	MSA-SW-37B	MSA-SW-37C	MSA-SW-37D	MSA-SW-38A	MSA-SW-38B
SAMPLE ID						MSA-SW37B-071212	MSA-SW37C-071212	MSA-SW37D-071212	MSA-SW38A-071212	MSA-SW38B-071212
SAMPLE DATE	Criteria[1] - Freshwater		Screening	of Organism	Screening Levels[6]	20120712	20120712	20120712	20120712	20120712
MATRIX	Acute	Chronic	Level[2]	Only[1]		SW	SW	SW	SW	SW
VOLATILES (ug/l)										
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	300	--	--	--	3.2	--
TOLUENE	NA	NA	2	15000	NA	--	--	--	--	--
TRICHLOROETHENE	NA	NA	21	300[4]	10	--	0.18 J	0.25 J	0.37 J	0.25 J
VINYL CHLORIDE	NA	NA	930	24[4]	0.7	--	--	--	8.7	--
FILTERED METALS (ug/l)										
ANTIMONY	NA	NA	30	640	NA	0.27 J	0.29 J	0.24 J	0.2 J	0.22 J
ARSENIC	340	150	NA[3]	1.4[4]	NA	2.8 J	2.8 J	2.7 J	2.4 J	2.4 J
BARIUM	NA	NA	4	NA	NA	47	48	46	45	48
COBALT	NA	NA	23	NA	NA	0.31 J	0.33 J	0.26 J	0.24 J	0.25 J
COPPER	33.06[5]	20[5]	9	NA	NA	3.8 K	3.6 K	3.4 K	3.1 K	3.2 K
LEAD	179.6[5]	7[5]	2.5	NA	NA	--	--	--	--	--
MOLYBDENUM	NA	NA	73	NA	NA	2.1 J	1.9 J	1.7 J	1.6 J	1.8 J
NICKEL	1051[5]	117[5]	52	4600	NA	2.5 K	1.6 J	1.4 J	1.3 J	1.6 J
SELENIUM	NA	5	NA[3]	4200	NA	0.59 J	--	--	--	--
TUNGSTEN	NA	NA	NA	NA	NA	0.47 J	--	--	--	--
VANADIUM	NA	NA	20	NA	NA	1.1 J	1.4 J	1 J	0.97 J	1.2 J
ZINC	263.3[5]	265[5]	120	26000	NA	3.4 B	--	--	--	4.1 B
MISCELLANEOUS (ug/l)										
HEXAVALENT CHROMIUM	16	11	11	NA	NA	0.047 L	0.04 L	0.037 L	0.015 J	--

Table 4-2

Positive Chemical Results and Screening Criteria for Surface Water Monitoring - July 2012
Frog Mortar Creek
Martin State Airport, Middle River , Maryland

LOCATION	National Recommended and Ambient Water Quality		Ecological Surface Water	Human Health Consumption	Swimming	MSA-SW-38C	MSA-SW-38D	MSA-SW-39A	MSA-SW-39B	MSA-SW-39C
SAMPLE ID						MSA-SW38C-071212	MSA-SW38D-071212	MSA-SW39A-071212	MSA-SW39B-071212	MSA-SW39C-071212
SAMPLE DATE	Criteria[1] - Freshwater		Screening	of Organism	Screening Levels[6]	20120712	20120712	20120712	20120712	20120712
MATRIX	Acute	Chronic	Level[2]	Only[1]		SW	SW	SW	SW	SW
VOLATILES (ug/l)										
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	300	--	--	--	--	--
TOLUENE	NA	NA	2	15000	NA	--	--	--	--	--
TRICHLOROETHENE	NA	NA	21	300[4]	10	0.26 J	0.23 J	--	--	--
VINYL CHLORIDE	NA	NA	930	24[4]	0.7	--	--	--	--	--
FILTERED METALS (ug/l)										
ANTIMONY	NA	NA	30	640	NA	0.22 J	0.22 J	0.22 J	0.21 J	0.2 J
ARSENIC	340	150	NA[3]	1.4[4]	NA	2.5 J	2.6 J	2.5 J	2.4 J	2.4 J
BARIUM	NA	NA	4	NA	NA	46	49	48	51	51
COBALT	NA	NA	23	NA	NA	0.23 J	0.26 J	0.22 J	0.25 J	0.24 J
COPPER	33.06[5]	20[5]	9	NA	NA	3 K	3.3 K	3.3 K	3.1 K	3 K
LEAD	179.6[5]	7[5]	2.5	NA	NA	--	--	--	--	--
MOLYBDENUM	NA	NA	73	NA	NA	1.7 J	1.8 J	2.6 J	2.2 J	2.1 J
NICKEL	1051[5]	117[5]	52	4600	NA	1.4 J	1.5 J	1.5 J	1.5 J	1.5 J
SELENIUM	NA	5	NA[3]	4200	NA	--	--	--	--	--
TUNGSTEN	NA	NA	NA	NA	NA	--	--	--	--	--
VANADIUM	NA	NA	20	NA	NA	1.1 J	1 J	0.98 J	1 J	1.2 J
ZINC	263.3[5]	265[5]	120	26000	NA	--	--	--	2.9 J	3.7 J
MISCELLANEOUS (ug/l)										
HEXAVALENT CHROMIUM	16	11	11	NA	NA	0.014 J	--	--	--	0.011 J

Table 4-2

Positive Chemical Results and Screening Criteria for Surface Water Monitoring - July 2012
Frog Mortar Creek
Martin State Airport, Middle River , Maryland

LOCATION	National Recommended and Ambient Water Quality		Ecological Surface Water	Human Health Consumption	Swimming	MSA-SW-39D	MSA-SW-40A	MSA-SW-40B	MSA-SW-40C	MSA-SW-40D
SAMPLE ID						MSA-SW39D-071212	MSA-SW40A-071212	MSA-SW40B-071212	MSA-SW40C-071212	MSA-SW40D-071212
SAMPLE DATE	Criteria[1] - Freshwater		Screening	of Organism	Screening Levels[6]	20120712	20120712	20120712	20120712	20120712
MATRIX	Acute	Chronic	Level[2]	Only[1]		SW	SW	SW	SW	SW
VOLATILES (ug/l)										
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	300	--	--	--	--	--
TOLUENE	NA	NA	2	15000	NA	0.18 J	--	--	--	--
TRICHLOROETHENE	NA	NA	21	300[4]	10	--	--	--	0.2 J	0.26 J
VINYL CHLORIDE	NA	NA	930	24[4]	0.7	--	--	--	--	--
FILTERED METALS (ug/l)										
ANTIMONY	NA	NA	30	640	NA	0.2 J	0.24 J	0.23 J	0.22 J	0.22 J
ARSENIC	340	150	NA[3]	1.4[4]	NA	2.5 J	2.7 J	2.6 J	2.5 J	2.5 J
BARIUM	NA	NA	4	NA	NA	53	48	47	45	47
COBALT	NA	NA	23	NA	NA	0.25 J	0.32 J	0.27 J	0.24 J	0.24 J
COPPER	33.06[5]	20[5]	9	NA	NA	2.9 K	4	3.4 K	3.5 K	3.6 K
LEAD	179.6[5]	7[5]	2.5	NA	NA	--	--	--	--	--
MOLYBDENUM	NA	NA	73	NA	NA	2 J	1.8 J	1.7 J	1.7 J	1.7 J
NICKEL	1051[5]	117[5]	52	4600	NA	1.5 J	3.5 K	1.4 J	1.4 J	1.6 J
SELENIUM	NA	5	NA[3]	4200	NA	--	--	--	--	--
TUNGSTEN	NA	NA	NA	NA	NA	--	--	--	--	--
VANADIUM	NA	NA	20	NA	NA	1.3 J	1 J	1.2 J	1.2 J	1.2 J
ZINC	263.3[5]	265[5]	120	26000	NA	--	2.8 B	--	2.3 B	3.5 B
MISCELLANEOUS (ug/l)										
HEXAVALENT CHROMIUM	16	11	11	NA	NA	--	0.029 L	0.03 L	0.031 L	0.033 L

Table 4-2

Positive Chemical Results and Screening Criteria for Surface Water Monitoring - July 2012
Frog Mortar Creek
Martin State Airport, Middle River , Maryland

LOCATION	National Recommended and Ambient Water Quality		Ecological Surface Water	Human Health Consumption	Swimming	MSA-SW-41A	MSA-SW-41B	MSA-SW-41C	MSA-SW-41D	MSA-SW-42A
SAMPLE ID						MSA-SW41A-071212	MSA-SW41B-071212	MSA-SW41C-071212	MSA-SW41D-071212	MSA-SW42A-071212
SAMPLE DATE	Criteria[1] - Freshwater		Screening	of Organism	Screening Levels[6]	20120712	20120712	20120712	20120712	20120712
MATRIX	Acute	Chronic	Level[2]	Only[1]		SW	SW	SW	SW	SW
VOLATILES (ug/l)										
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	300	0.65 J	--	--	--	--
TOLUENE	NA	NA	2	15000	NA	--	--	--	--	--
TRICHLOROETHENE	NA	NA	21	300[4]	10	0.64 J	0.39 J	0.22 J	0.35 J	--
VINYL CHLORIDE	NA	NA	930	24[4]	0.7	--	--	--	--	--
FILTERED METALS (ug/l)										
ANTIMONY	NA	NA	30	640	NA	0.22 J	0.21 J	0.25 J	0.26 J	0.24 J
ARSENIC	340	150	NA[3]	1.4[4]	NA	2.5 J	2.6 J	2.5 J	2.7 J	2.7 J
BARIUM	NA	NA	4	NA	NA	47	49	46	47	49
COBALT	NA	NA	23	NA	NA	0.26 J	0.27 J	0.22 J	0.25 J	0.31 J
COPPER	33.06[5]	20[5]	9	NA	NA	3.2 K	3.3 K	3.2 K	3.4 K	3.5 K
LEAD	179.6[5]	7[5]	2.5	NA	NA	--	--	--	--	--
MOLYBDENUM	NA	NA	73	NA	NA	1.7 J	1.8 J	2 J	1.9 J	1.8 J
NICKEL	1051[5]	117[5]	52	4600	NA	1.4 J	1.6 J	1.5 J	1.5 J	1.5 J
SELENIUM	NA	5	NA[3]	4200	NA	--	--	--	--	--
TUNGSTEN	NA	NA	NA	NA	NA	--	--	0.38 J	0.43 J	--
VANADIUM	NA	NA	20	NA	NA	1.2 J	1 J	1.1 J	1.1 J	1.1 J
ZINC	263.3[5]	265[5]	120	26000	NA	2.9 B	2.9 B	--	2.6 J	--
MISCELLANEOUS (ug/l)										
HEXAVALENT CHROMIUM	16	11	11	NA	NA	0.013 J	0.018 J	0.01 J	--	0.035 L

Table 4-2

Positive Chemical Results and Screening Criteria for Surface Water Monitoring - July 2012
Frog Mortar Creek
Martin State Airport, Middle River , Maryland

LOCATION	National Recommended and Ambient Water Quality		Ecological Surface Water	Human Health Consumption	Swimming	MSA-SW-42B	MSA-SW-42C	MSA-SW-42D	MSA-SW-43A	MSA-SW-43B
SAMPLE ID						MSA-SW42B-071212	MSA-SW42C-071212	MSA-SW42D-071212	MSA-SW43A-071212	MSA-SW43B-071212
SAMPLE DATE	Criteria[1] - Freshwater		Screening	of Organism	Screening Levels[6]	20120712	20120712	20120712	20120712	20120712
MATRIX	Acute	Chronic	Level[2]	Only[1]		SW	SW	SW	SW	SW
VOLATILES (ug/l)										
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	300	--	--	--	0.28 J	--
TOLUENE	NA	NA	2	15000	NA	--	--	--	--	--
TRICHLOROETHENE	NA	NA	21	300[4]	10	--	0.18 J	0.22 J	0.33 J	0.31 J
VINYL CHLORIDE	NA	NA	930	24[4]	0.7	--	--	--	--	--
FILTERED METALS (ug/l)										
ANTIMONY	NA	NA	30	640	NA	0.25 J	0.23 J	0.23 J	0.21 J	0.21 J
ARSENIC	340	150	NA[3]	1.4[4]	NA	2.6 J	2.5 J	2.7 J	2.5 J	2.6 J
BARIUM	NA	NA	4	NA	NA	47	45	47	45	46
COBALT	NA	NA	23	NA	NA	0.37 J	0.3 J	0.26 J	0.23 J	0.25 J
COPPER	33.06[5]	20[5]	9	NA	NA	3.6 K	3.8 K	3.4 K	3.3 K	3.4 K
LEAD	179.6[5]	7[5]	2.5	NA	NA	--	--	--	--	--
MOLYBDENUM	NA	NA	73	NA	NA	1.8 J	1.7 J	1.7 J	1.7 J	1.7 J
NICKEL	1051[5]	117[5]	52	4600	NA	3.7 K	2.4 K	1.6 J	1.4 J	1.6 J
SELENIUM	NA	5	NA[3]	4200	NA	--	--	--	--	--
TUNGSTEN	NA	NA	NA	NA	NA	--	--	--	--	--
VANADIUM	NA	NA	20	NA	NA	1.4 J	1 J	1.2 J	1 J	1.2 J
ZINC	263.3[5]	265[5]	120	26000	NA	3 B	2.8 B	3.8 B	--	10 J
MISCELLANEOUS (ug/l)										
HEXAVALENT CHROMIUM	16	11	11	NA	NA	0.046 L	0.02 J	0.041 L	0.02 J	0.012 J

Table 4-2

Positive Chemical Results and Screening Criteria for Surface Water Monitoring - July 2012
Frog Mortar Creek
Martin State Airport, Middle River , Maryland

LOCATION	National Recommended and Ambient Water Quality		Ecological Surface Water	Human Health Consumption	Swimming	MSA-SW-43C	MSA-SW-43D	MSA-SW-44A	MSA-SW-44B	MSA-SW-44C
SAMPLE ID						MSA-SW43C-071212	MSA-SW43D-071212	MSA-SW44A-071212	MSA-SW44B-071212	MSA-SW44C-071212
SAMPLE DATE	Criteria[1] - Freshwater		Screening	of Organism	Screening Levels[6]	20120712	20120712	20120712	20120712	20120712
MATRIX	Acute	Chronic	Level[2]	Only[1]		SW	SW	SW	SW	SW
VOLATILES (ug/l)										
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	300	--	--	--	--	--
TOLUENE	NA	NA	2	15000	NA	--	--	--	--	--
TRICHLOROETHENE	NA	NA	21	300[4]	10	0.17 J	0.23 J	0.25 J	0.22 J	--
VINYL CHLORIDE	NA	NA	930	24[4]	0.7	--	--	--	--	--
FILTERED METALS (ug/l)										
ANTIMONY	NA	NA	30	640	NA	0.23 J	0.22 J	0.21 J	0.21 J	0.21 J
ARSENIC	340	150	NA[3]	1.4[4]	NA	2.5 J	2.6 J	2.6 J	2.6 J	2.7 J
BARIUM	NA	NA	4	NA	NA	49	48	48	51	51
COBALT	NA	NA	23	NA	NA	0.24 J	0.24 J	0.33 J	0.27 J	0.28 J
COPPER	33.06[5]	20[5]	9	NA	NA	3.3 K	3.3 K	4	3.5 K	3.5 K
LEAD	179.6[5]	7[5]	2.5	NA	NA	--	--	0.33 J	--	--
MOLYBDENUM	NA	NA	73	NA	NA	1.9 J	1.7 J	1.7 J	1.7 J	1.7 J
NICKEL	1051[5]	117[5]	52	4600	NA	1.7 J	1.5 J	1.6 J	1.5 J	1.6 J
SELENIUM	NA	5	NA[3]	4200	NA	--	--	--	--	--
TUNGSTEN	NA	NA	NA	NA	NA	--	--	--	--	--
VANADIUM	NA	NA	20	NA	NA	1.1 J	1.1 J	1.5 J	1.1 J	1.3 J
ZINC	263.3[5]	265[5]	120	26000	NA	5.5 J	--	3.3 J	2.7 J	2.4 J
MISCELLANEOUS (ug/l)										
HEXAVALENT CHROMIUM	16	11	11	NA	NA	--	--	0.011 J	0.013 J	--

Table 4-2

Positive Chemical Results and Screening Criteria for Surface Water Monitoring - July 2012
Frog Mortar Creek
Martin State Airport, Middle River , Maryland

LOCATION	National Recommended and Ambient Water Quality		Ecological Surface Water	Human Health Consumption	Swimming	MSA-SW-44D	MSA-SW-45A	MSA-SW-45B	MSA-SW-45C	MSA-SW-45D
SAMPLE ID						MSA-SW44D-071212	MSA-SW45A-071212	MSA-SW45B-071212	MSA-SW45C-071212	MSA-SW45D-071212
SAMPLE DATE	Criteria[1] - Freshwater		Screening	of Organism	Screening Levels[6]	20120712	20120712	20120712	20120712	20120712
MATRIX	Acute	Chronic	Level[2]	Only[1]		SW	SW	SW	SW	SW
VOLATILES (ug/l)										
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	300	--	--	--	--	--
TOLUENE	NA	NA	2	15000	NA	--	--	0.15 J	0.14 J	--
TRICHLOROETHENE	NA	NA	21	300[4]	10	--	0.17 J	--	--	--
VINYL CHLORIDE	NA	NA	930	24[4]	0.7	--	--	--	--	--
FILTERED METALS (ug/l)										
ANTIMONY	NA	NA	30	640	NA	0.21 J	0.2 J	0.18 J	0.21 J	0.21 J
ARSENIC	340	150	NA[3]	1.4[4]	NA	2.5 J	2.4 J	2.5 J	2.3 J	2.4 J
BARIUM	NA	NA	4	NA	NA	50	47	50	50	51
COBALT	NA	NA	23	NA	NA	0.22 J	0.2 J	0.25 J	0.25 J	0.25 J
COPPER	33.06[5]	20[5]	9	NA	NA	3.1 K	3.1 K	3.1 K	3.2 K	3.2 K
LEAD	179.6[5]	7[5]	2.5	NA	NA	--	--	--	--	--
MOLYBDENUM	NA	NA	73	NA	NA	1.8 J	1.6 J	1.7 J	8.1 J	3.6 J
NICKEL	1051[5]	117[5]	52	4600	NA	1.6 J	1.5 J	1.6 J	1.5 J	1.5 J
SELENIUM	NA	5	NA[3]	4200	NA	--	--	--	--	--
TUNGSTEN	NA	NA	NA	NA	NA	--	--	--	0.54 J	--
VANADIUM	NA	NA	20	NA	NA	1.1 J	1.1 J	1.1 J	1.2 J	1.1 J
ZINC	263.3[5]	265[5]	120	26000	NA	3.4 J	2.9 J	3.5 J	--	--
MISCELLANEOUS (ug/l)										
HEXAVALENT CHROMIUM	16	11	11	NA	NA	--	--	--	0.014 J	--

Notes:
1 National Recommended Water Quality Criteria, http://water.epa.gov/scitech/swguidance/standards/current/index.cfm; and Maryland Numerical Criteria for Toxic Substances in Surface Waters, COMAR 26.08.02.03, http://www.dsd.state.md.us./comar/comarhtml/26/26.08.02.03-2.htm
2 USEPA Region 3 Biological Technical Advisory Group (BTAG) Freshwater Screening Benchmarks.
3 The BTAG screening benchmark is based on total metal concentration for this analyte. Therefore, dissolved metals results for this metal are not screened against the BTAG screening benchmark.
4 For carcinogens, criterion is for incremental cancer risk of $1x10^{-5}$.
5 Screening criteria adjusted based on using a site specific hardness value of 260 mg/L as opposed to the standard 100 mg/L.
6 Site-specific swimming screening levels developed for TCE, cis-1,2-DCE and VC only.
Gray shading indicates the value exceeds one of the criteria.
B - Laboratory blank contamination.
J - Positive result is considered estimated.
L - Positive result is considered estimated biased low.
K - Positive result is considered biased high.
ug/l - micrograms per liter.
NA = Not analyzed or not available.
- - = Not detected

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\MSA Surface Water Samples TCE concentration July2012.mxd)



FIGURE 4-1

CONCENTRATIONS OF TRICHLOROETHENE IN SURFACE WATER SAMPLES, JULY 2012
FROG MORTAR CREEK

LEGEND

- JULY 2012 SURFACE WATER SAMPLE LOCATION
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- POND

(1.7) =Trichloroethene Concentration
J = Estimated Value
- - = Not Detected

Concentration in micrograms per liter (ug/L)

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

0 75 150 300 Feet

N

DATE MODIFIED: 9/5/12

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\MSA Surface Water Samples CIS 1-2 Dichloroethene July2012.mxd)



FIGURE 4-2

CONCENTRATIONS OF CIS-1,2-DICHLOROETHENE IN SURFACE WATER SAMPLES, JULY 2012 FROG MORTAR CREEK

LEGEND

- JULY 2012 SURFACE WATER SAMPLE LOCATION
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- POND

(1.7) = CIS-1,2-DICHLOROETHENE
J = ESTIMATED VALUE
- - = NOT DETECTED

Concentration in micrograms per liter (ug/L)

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

0 75 150 300 Feet

N

DATE MODIFIED: 9/5/12

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\MSA Surface Water Samples Vinyl Chloride concentration July2012.mxd)



FIGURE 4-3

CONCENTRATIONS OF VINYL CHLORIDE IN SURFACE WATER SAMPLES, JULY 2012
FROG MORTAR CREEK

LEGEND

- JULY 2012 SURFACE WATER SAMPLE LOCATION
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- POND

(1.7) = Vinyl Chloride Concentration
J = Estimated Value
- - = Not Detected

Concentration in micrograms per liter (ug/L)

Frog Mortar Creek
Lockheed Martin, Martin State Airport
Middle River, Maryland

0 75 150 300 Feet

N

DATE MODIFIED: 9/5/12

CREATED BY: MP

TETRA TECH

Section 5
Summary

The following summarizes Lockheed Martin Corporation's (Lockheed Martin's) July 2012 Frog Mortar Creek surface water investigation and findings:

- Forty surface water samples were collected from Frog Mortar Creek on July 12, 2012 and chemically analyzed to assess concentrations of chemical constituents previously detected in Frog Mortar Creek, and to assess creek surface-water quality near the Dump Road Area (DRA).

- Four samples were collected along each of nine transects spaced approximately 350 feet apart along the western shoreline of Frog Mortar Creek. In addition, four samples were collected along a transect extending out from a property (3301 Edwards Lane) across Frog Mortar Creek along the eastern shoreline. The transects are designated MSA-SW37, MSA-SW38, MSA-SW39, MSA-SW40, MSA-SW41, MSA-SW42, MSA-SW43, MSA-SW44, and MSA-SW45, all of them along the western shoreline of Frog Mortar Creek near the Dump Road Area, and EL-SW01, which is along the eastern shoreline of Frog Mortar Creek near 3301 Edwards Lane. Along each transect, one sample was collected near the shoreline ("A" sample), one was collected approximately 50 feet from the shoreline ("B" sample), one was collected approximately 100 feet from the shoreline ("C" sample), and one was collected approximately 200 feet from the shoreline ("D" sample). Each sample was collected approximately one foot below the water surface.

- All of the Frog Mortar Creek samples (except the Edwards Lane samples) were analyzed for volatile organic compounds (VOCs), filtered metals, and filtered hexavalent chromium. The four surface water samples from the Edwards Lane transect were analyzed for volatile organic compounds only.

- The data were validated in accordance with the *U.S. Environmental Protection Agency (USEPA) Region III Modifications to the National Functional Guidelines for Data Review* (USEPA, 1993 and 1994), and the specific requirements of the analytical methods used.

- Sampling results were screened against U.S. Environmental Protection Agency Region 3 Biological Technical Advisory Group (BTAG) ecological freshwater screening benchmarks; U.S. Environmental Protection Agency National Recommended Water Quality Criteria (NRWQC) for acute and chronic aquatic-organism exposures and for human health aquatic-organism-consumption; Maryland Ambient Water Quality Criteria (AWQC) for acute and chronic aquatic-organism exposures and for human health aquatic-organism-consumption; and site-specific screening levels developed to evaluate

risks to recreational swimmers from exposure to volatile organic compounds in surface water.

- Volatile organic compounds (primarily trichloroethene [TCE], *cis*-1,2-dichloroethene [*cis*-1,2-DCE] and vinyl chloride [VC]) and metals were detected in the July 2012 surface water samples.

- Concentrations of volatile organic compounds are greatest for sampling locations MSA-SW38A and MSA-SW41A, which are east and hydraulically downgradient of the Dump Road Area monitoring wells that contain some of the highest concentrations of site-related constituents in groundwater (i.e., wells DMW2S/A/B and DMW5S).

- The July 2012 volatile organic compound concentrations are generally lower than the June 2012 concentrations. In July 2012, the highest trichloroethene concentration (0.64*J* micrograms per liter [µg/L]) was detected in MSA-SW41A (collected near the shoreline). In June 2012, the highest trichloroethene concentration (2.7 micrograms per liter) was detected in the MSA-SW38A sampling location (north of MSA-SW41A). Generally, concentrations of trichloroethene, *cis*-1,2-dichloroethene, and vinyl chloride decrease progressively north and south of the MSA-SW38 and MSA-SW41 transects; this pattern is similar to what was observed in previous rounds of Frog Mortar Creek surface water samples collected in 2011.

- At sampling transects with the highest concentrations of volatile organic compounds during the July 2012 round (transects SW38 and/or SW41), trichloroethene, *cis*-1,2-dichloroethene, and vinyl chloride concentrations are highest near the shoreline and decrease progressively, or are not detected, in samples collected farther from the shoreline. Concentrations of VOCs in the July 2012 samples do not exceed state and U.S. Environmental Protection Agency Region 3 surface water screening criteria.

- Generally, trichloroethene concentrations are highest in the "A" samples near the shoreline and decrease progressively in samples collected farther from the shoreline. Along sampling transect SW38 and SW41, the highest trichloroethene concentrations were detected in the "A" samples collected close to the shoreline (0.37*J* micrograms per liter at MSA-SW38A and 0.64*J* micrograms per liter at MSA-SW41A). Trace concentrations of trichloroethene were also detected in samples EL-SW01A, 01B, 01C, and 01D (0.22*J*, 0.28*J*, 0.21*J*, and 0.21*J* micrograms per liter, respectively).

- *cis*-1,2-Dichloroethene concentrations have shown a decreasing trend over the past two sampling events and during summer months (e.g., June and July 2012). Transect SW38 had the highest detected *cis*-1,2-dichloroethene concentration in July 2012, among three detections ranging from 0.28*J* to 3.2 micrograms per liter.

- Vinyl chloride was detected in only one surface water sample (MSA-SW38A) in July 2012. The vinyl chloride concentration at MSA-SW38A (8.7 micrograms per liter) detected in July 2012 exceeds that constituent's site-specific swimming criterion of 0.7 micrograms per liter. These results are similar to the June 2012 results, when the maximum vinyl chloride concentration (8.7 micrograms per liter) was detected at sampling location MSA-SW38A. The frequency of detection for vinyl chloride has

decreased over the summer months of 2012 (i.e., 34 detections in March 2012, 11 in June, and one in July).

- Dissolved hexavalent chromium was detected in the July 2012 surface water samples at trace concentrations ranging from 0.01*J* micrograms per liter to 0.047*L* micrograms per liter, well below its screening criterion. During the June 2012 sampling event, hexavalent chromium was detected at concentrations ranging from 0.056*J* to 0.099*L* micrograms per liter. During previous sampling in December 2011, a maximum hexavalent chromium concentration of 5.21 micrograms per liter was detected at MSA-SW41B. However, if this maximum concentration is disregarded, then the range of detected hexavalent chromium concentrations is more consistent (0.047*L* to 0.379 micrograms per liter), to date.

- Metals exceeding screening criteria in the July 2012 Frog Mortar Creek samples include dissolved arsenic and dissolved barium, for all samples. During the previous sampling event (June 2012), dissolved arsenic and barium also exceeded their screening criteria in all samples. Overall, the range of metals concentrations in July 2012 samples is consistent with metals concentrations in previous rounds of surface water sampling.

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Section 6
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APPENDIX A—SURFACE WATER SAMPLING LOG SHEETS

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA, FMC SW
Project No.: 112G04021

Sample ID No.: MSA-EL-SW01A-071212
Sample Location: MSA FMC
Sampled By: SC
C.O.C. No.:

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal Creek - estuarine
[] QA Sample Type:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0818								
Depth: 1'	GY/BR	7.64	6.49	27.58	9.11	7.20	NC	125
Method: GRAB								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 mL vials	
Dissolved Metals	HNO3	1 - 500 mL plastic bottle	
Hex Chrom	None	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

Gauge height 38" @ 0806
39" @ 1222

MAP:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA, FMC SW
Project No.: 117604021

Sample ID No.: MSA-SW018-071212
Sample Location: MSA
Sampled By: SC
C.O.C. No.:

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal Creek - estuarine
[] QA Sample Type:

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

SAMPLING DATA:

Date: 07/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0823								
Depth: 1ft	GR/BR	7.55	6.37	28.37	9.79	6.15	NA	124
Method: GRAB								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC's	HCl	3-40 mL vials	
Dissolved metals	HNO3	1-500 mL bottle	
Hex chrom	-	1-250 mL plastic bottle	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA FMC
Project No.:

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal Creek - Estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW01C-071212
Sample Location: MSA
Sampled By: SL
C.O.C. No.:

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

SAMPLING DATA:

Date: 07/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0826								
Depth: 1'	GY/BR	7.53	639	28.51	11.93	5.10	NR	130
Method: GRAB								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOLS	HCl	3-40 mL vials	
Dissolved metals	HNO_3	1-500 mL plastic bottle	
Hex chrom	-	1-250 mL plastic bottle	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA - FMC
Project No.: 112L04021

Sample ID No.: MSA-SW010-071212
Sample Location: MSA
Sampled By: SC
C.O.C. No.:

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal Creek - Estuarine
[] QA Sample Type:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0828								
Depth: 1'	GR/BR	7.53	6.44	28.67	9.80	5.59	NR	130
Method: GRAB								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	
Dissolved Metals	HNO_3	1-500 mL plastic bottle	
Hex Chrom	-	1-250 mL plastic bottle	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA- FMC SW
Project No.: 112IC04021

Sample ID No.: MSA-SW 37A-071212
Sample Location: MSA
Sampled By: SL
C.O.C. No.:

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal Creek - Estuarine
[] QA Sample Type:

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

SAMPLING DATA:

Date: 7/12/12 Time: 0836 Depth: 1' Method: GRAB	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
	GY/BR	7.69	6.12	28.25	16.6	6.05	NR	126

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	
dissolved metals	HNO_3	1-500 mL plastic bottle	
Hex Chrom	-	1-250 mL plastic bottle	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA - FML SW
Project No.: 112IL04021

Sample ID No.: MSA-SW378-071212
Sample Location: MSA
Sampled By: SL
C.O.C. No.:

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal Creek - estuarine
[] QA Sample Type:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 0842								DRP
Depth: 1'	GR/BR	7.74	6.11	28.62	100	7.40	NC	117
Method: GRAB								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	
dissolved metals	HNO3	1-500 mL plastic bottle	
Hex Chrom	—	1-250 mL plastic bottle	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA, FMC SW
Project No.: 112G04021

Sample ID No.: MSA-SW37C-071212
Sample Location: MSA
Sampled By: SC
C.O.C. No.:

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal Creek - estuarine
[] QA Sample Type:

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

SAMPLING DATA:

Date: 07/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0845								
Depth: 1'	BR/BR	7.74	6.16	28.58	10.18	7.19	NC	124
Method: GRAB								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml vials	
dissolved metals	HNO_3	1 - 500 ml plastic bottle	
Hex Chrom	-	1 - 250 ml plastic bottle	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA, FMC SW
Project No.: 112IC04021

Sample ID No.: MSA-SW37D-071212
Sample Location: MSA
Sampled By: SL
C.O.C. No.:

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal / Creek - estuarine
[] QA Sample Type:

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

SAMPLING DATA:

Date: 7/12/12 Time: 0848 Depth: 1' Method: GRAB	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
	BR/BA	7.75	6.15	28.70	9.98	5.71	NE	127

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 ml glass vials	
Dissolved metals	HNO_3	1-500 ml plastic bottle	
Hex Chrom	-	1-250 ml plastic bottle	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 38A-DW12-12
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1038								
Depth: 1 foot	brown	8.03	6.15	29.76	9.76	9.17	3.3	88
Method: Grab								

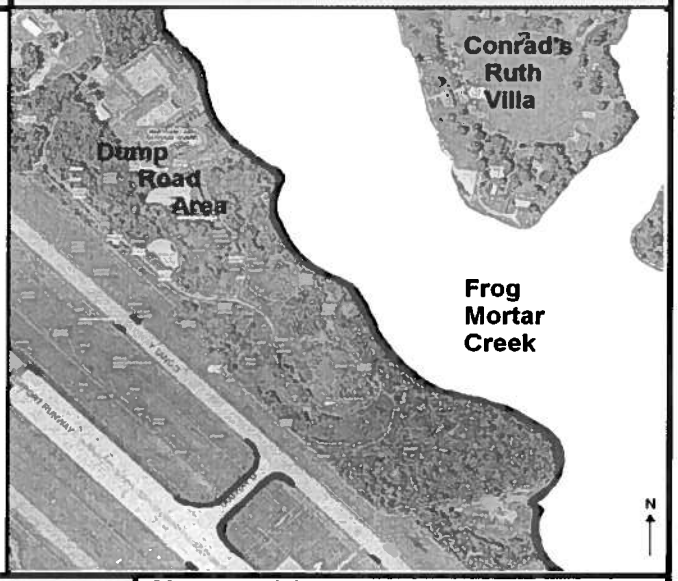
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4^{0}C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 38B-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1037								
Depth: 1 foot	brown	8.04	6.19	29.64	8.54	6.32	3.4	116
Method: Grab								

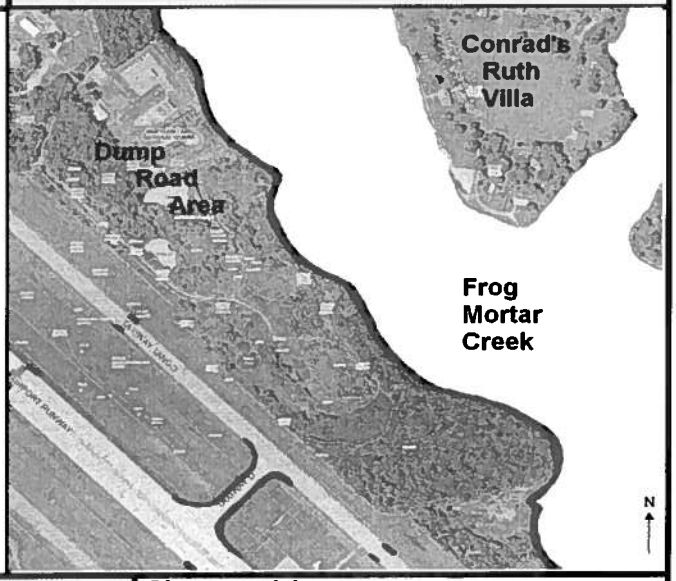
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4^{0}C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW38C-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time:								
Depth: 1 foot	BM/BR	8.05	6.15	29.12	9.21	6.55	3.3	126
Method: Grab								

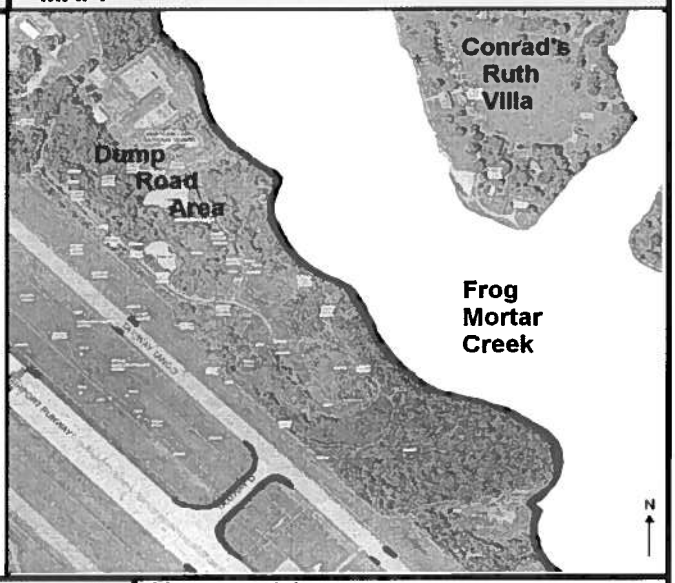
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4^{0}C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 38D-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 07/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other DRY
Time: 1047								
Depth: 1 foot	BR/Se	8.09	6.20	29.32	8.50	6.32	3.3	126
Method: Grab								

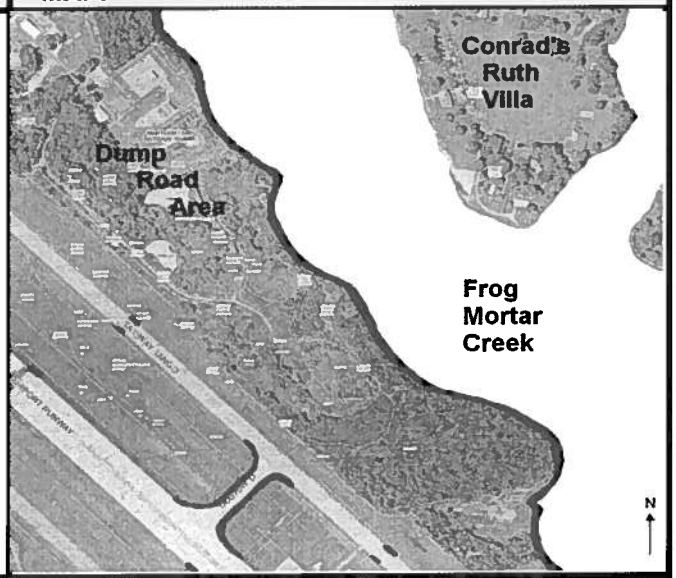
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 39A-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1203								
Depth: 1 foot	GR/BR	8.35	6.33	29.94	7.85	6.58	3.4	141
Method: Grab								

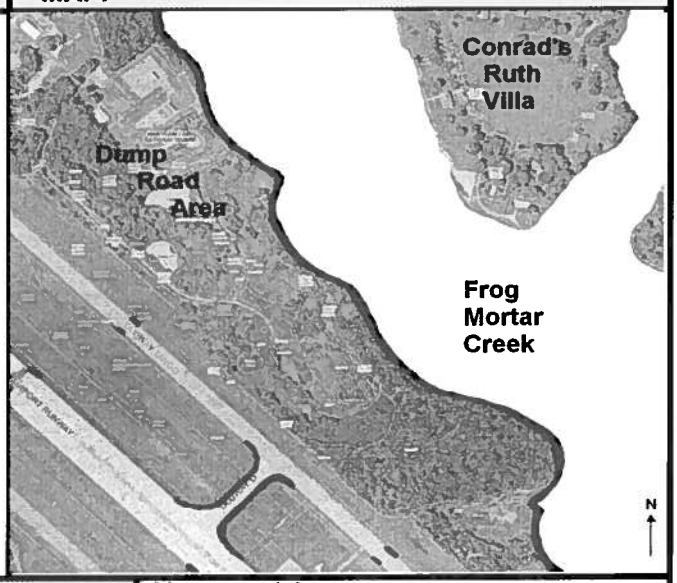
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4^{0}C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 39B-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1206								
Depth: 1 foot	GY/BR	8.34	6.41	30.49	8.35	7.13	3.5	136
Method: Grab								

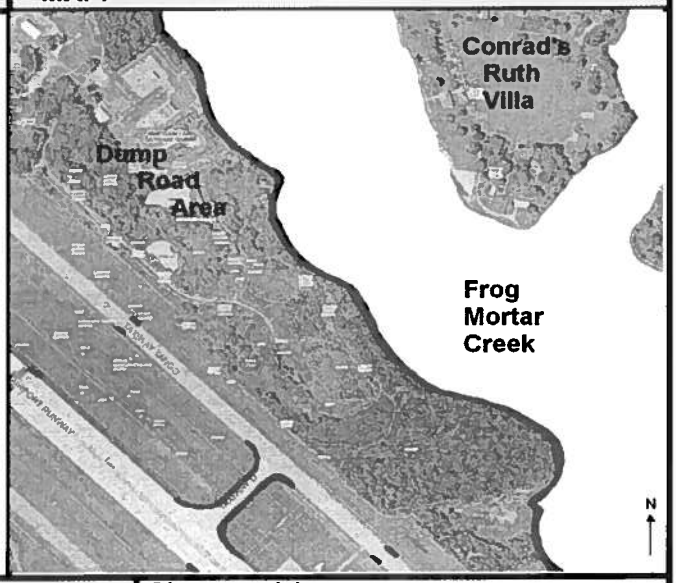
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 39C-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1210	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Depth: 1 foot	GR/BR	8.36	6.40	29.04	8.83	6.48	3.4	111
Method: Grab								

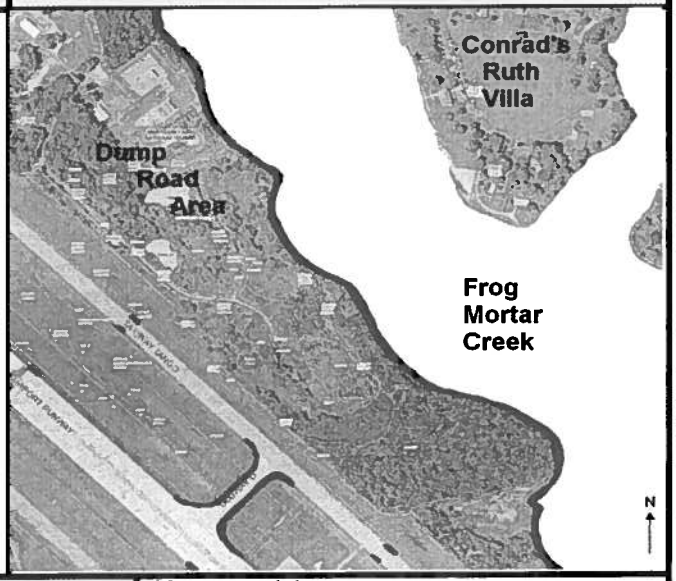
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 390-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

		Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date:	7/12/12								
Time:	1214								
Depth:	1 foot	GR/BR	8.24	6.43	29.00	9.44	6.46	3.5	103
Method:	Grab								

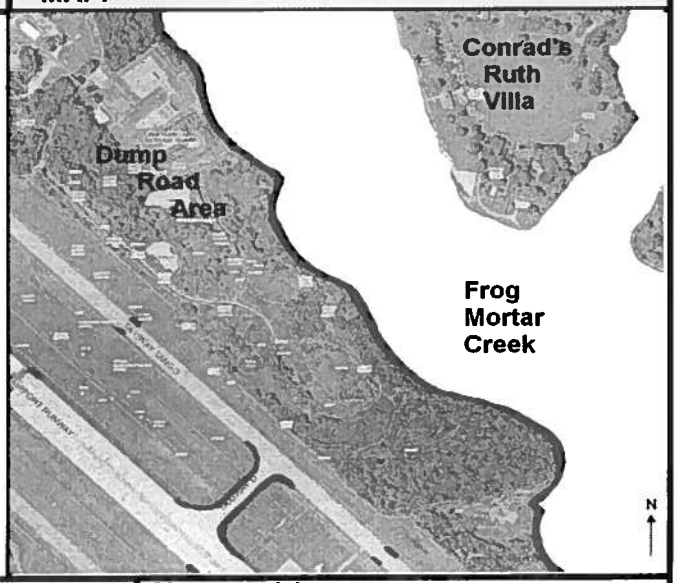
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA - FML SW
Project No.: 112-IL04021

Sample ID No.: MSA - SW40A-071212
Sample Location: MSH
Sampled By: SC
C.O.C. No.:

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal Creek - Estuarine
[] QA Sample Type:

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

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/12/12								
Time: 0909								
Depth: 1'	Gd/Br	8.09	6.09	28.76	9.47	6.39	NA	ORP
Method: GRAB								109

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	
dissolved metals	HNO_3	1-500 mL plastic bottle	
Hex Chrom	-	1-250 mL plastic bottle	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA FML SW
Project No.: 112IC04021

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal Creek-estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW-DB-071212
Sample Location: MSA
Sampled By: SC
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0913								
Depth: 1'	GN/BR	7.92	6.11	28.69	9.36	6.01	NC	123
Method: GRAB								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	
dissolved metals	HNO3	1-500 mL plastic bottle	
Hex chrom	-	1-250 mL plastic bottle	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA FMC SW
Project No.: 117IL04021

Sample ID No.: MSA-SW40C-071212
Sample Location: MSA
Sampled By: SC
C.O.C. No.:

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal Creek - estuarine
[] QA Sample Type:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0916								
Depth: 1'	GY/gr	7.90	6.12	28.62	8.50	5.97	NL	129
Method: GRAB								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	
dissolved metals	HNO_3	1-500 mL plastic bottle	
Hex Chrom	-	1-250 mL plastic bottle	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA FML SW
Project No.: 112ICO4021

Sample ID No.: MSA-SW40D-071212
Sample Location: MSA
Sampled By: SC
C.O.C. No.:

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal Creek; estuarine
[] QA Sample Type:

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

SAMPLING DATA:

Date: 07/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0919								
Depth: 1'	GY/BR	7.95	6.18	28.73	9.79	5.72	NR	129
Method: GRAB								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL glass vials	
dissolved metals	HNO3	1-500 mL plastic bottle	
Hex-chrom	-	1-250 mL plastic bottle	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW4/A-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1055								
Depth: 1 foot								
Method: Grab	6x/8a	8.22	6.19	29.75	15.7	6.96	3.4	114

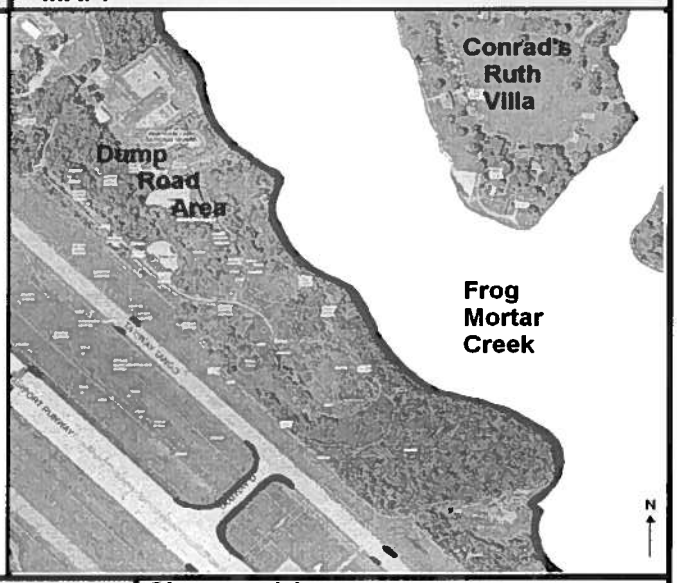
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW4/B-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1058								
Depth: 1 foot	BR/BR	8.07	6.20	29.37	11.62	6.41	3.4	116
Method: Grab								

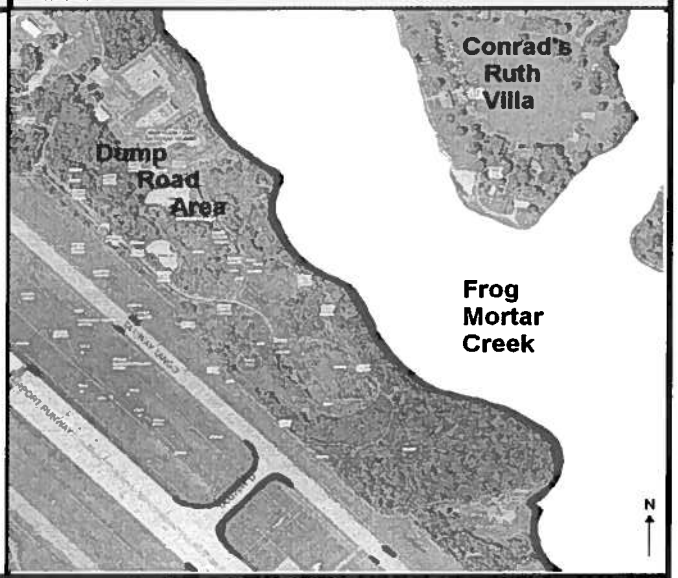
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 4/C-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other DLP
Time: 1101								
Depth: 1 foot	BR/BR	8.10	6.24	29.54	9.32	6.58	3.4	119
Method: Grab								

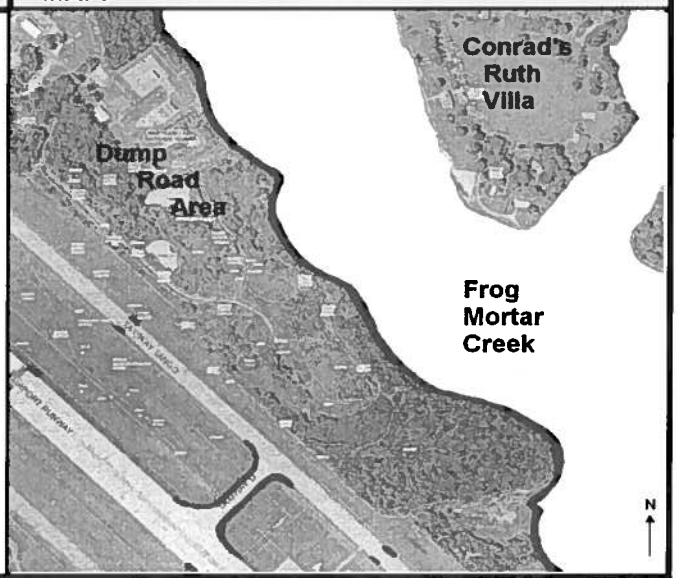
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4^{0}C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW410-070212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/2/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1105								
Depth: 1 foot	BR/AR	8.19	6.25	29.41	8.44	6.78	7.8	122
Method: Grab								

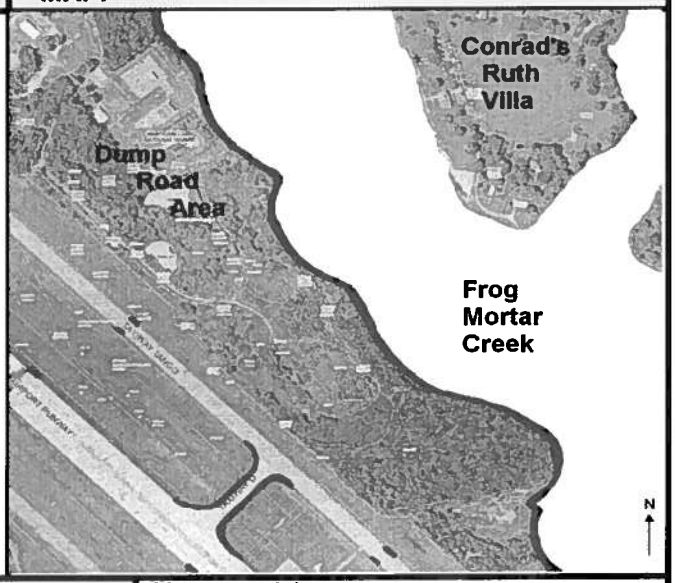
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA - FMC, SW
Project No.: 112-IL04021

Sample ID No.: MSA-SW-GRAB-071212
Sample Location: MSA
Sampled By: SC
C.O.C. No.:

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal Creek - Estuarine
[] QA Sample Type:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0854								
Depth: 1'								
Method: GRAB	GR/GR	7.99	6.12	28.71	10.10	5.99	NR	117

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 ml glass vials	
dissolved metals	HNO3	1-500 mL plastic bottle	
Hex Chrom	–	1-250 mL plastic bottle	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA, FMC, SW
Project No.: 112C04021

Sample ID No.: MSA-SW4213-071212
Sample Location: MSA
Sampled By: SL
C.O.C. No.:

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal Creek - estuarine
[] QA Sample Type:

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

SAMPLING DATA:

Date: 7/12/12 Time: 0857 Depth: 1' Method: GRAB	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
	BR/BK	7.83	605	28.68	11.48	5.98	NC	93

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL glass vials	
dissolved metals	HNO_3	1-500 mL plastic bottle	
Hex chrom	-	1-250 mL plastic bottle	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA-FML SW
Project No.: 112G 04021

Sample ID No.: MSA-SW42C-071212
Sample Location: MSA
Sampled By: SL
C.O.C. No.:

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal Creek - Estuarine
[] QA Sample Type:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0901								
Depth: 1'	GY/BR	7.84	6.13	28.70	10.22	5.84	NR	113
Method: GRAB								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	~~3 EA~~ 3 - 40 mL vials	
dissolved metals	HNO3	1-500 mL plastic bottle	
HEM shown	-	1-250 mL plastic bottle	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: MSA FME SW
Project No.: 112TC04021

Sample ID No.: MSA-SW420-071212
Sample Location: MSA
Sampled By: SL
C.O.C. No.:

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal / Creek - estuarine
[] QA Sample Type:

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

SAMPLING DATA:

Date: 7/12/12 Time: 0908 Depth: 1' Method: GRAB	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
	BK/BR	7.98	6.17	28.74	8.80	6.88	NR	109

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL glass vials	
dissolved metals	HNO_3	1-500 mL plastic bottle	
Hex chrom	-	1-250 mL plastic bottle	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 43A-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1113								
Depth: 1 foot	GY/BR	8.24	6.21	30.11	12.08	6.70	3.4	121
Method: Grab								

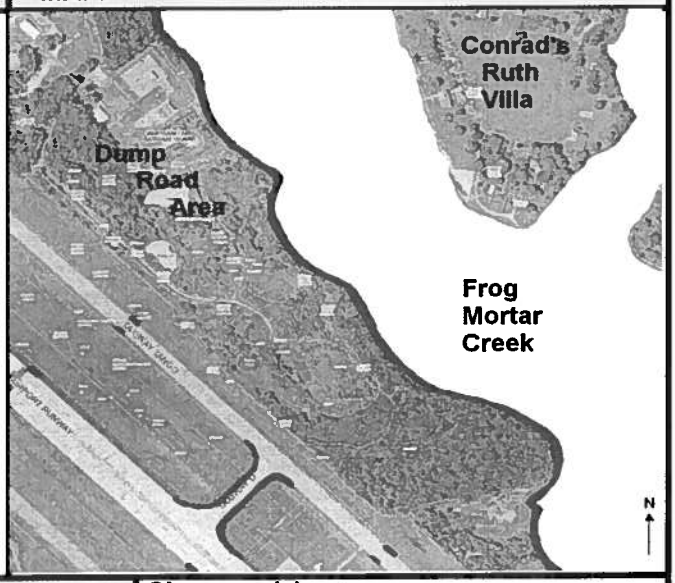
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 43B-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1117								
Depth: 1 foot	GY/BR	8.21	6.88	29.91	8.08	6.55	3.4	130
Method: Grab								

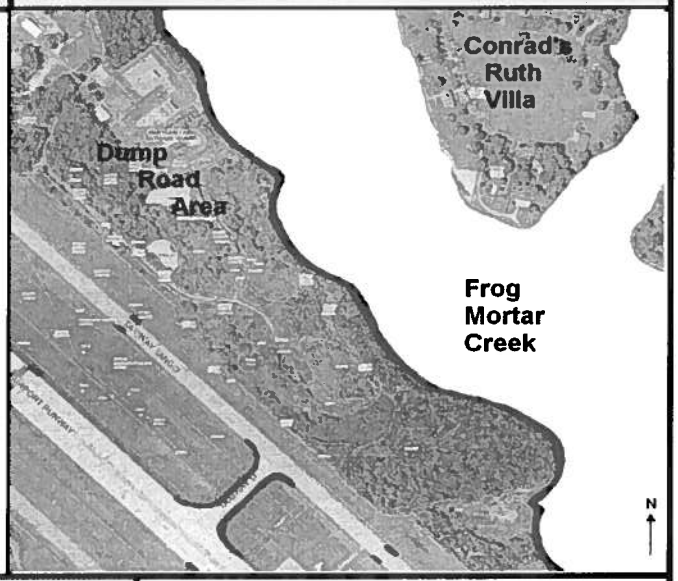
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW-13C-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

		Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date:	7/12/12								
Time:	1120								
Depth:	1 foot	LR/BR	8.29	6.32	29.88	8.58	6.77	3.4	121
Method:	Grab								

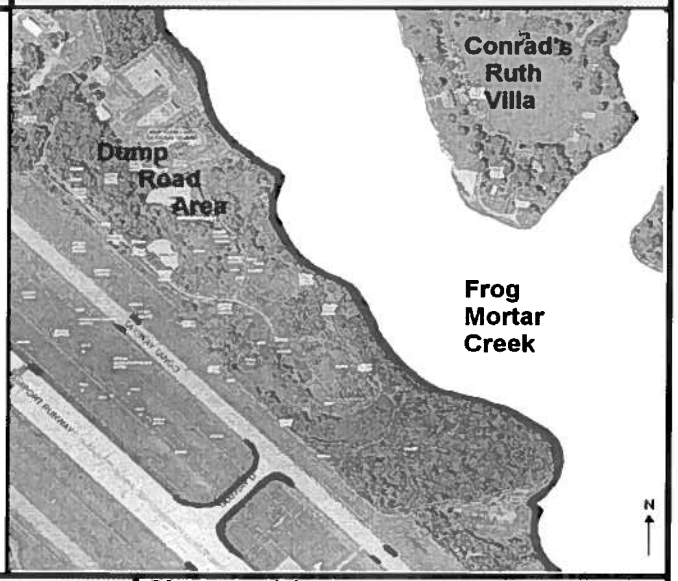
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 430-07122
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1124								
Depth: 1 foot	GR/BR	8.33	6.30	29.65	8.84	6.91	3.4	122
Method: Grab								

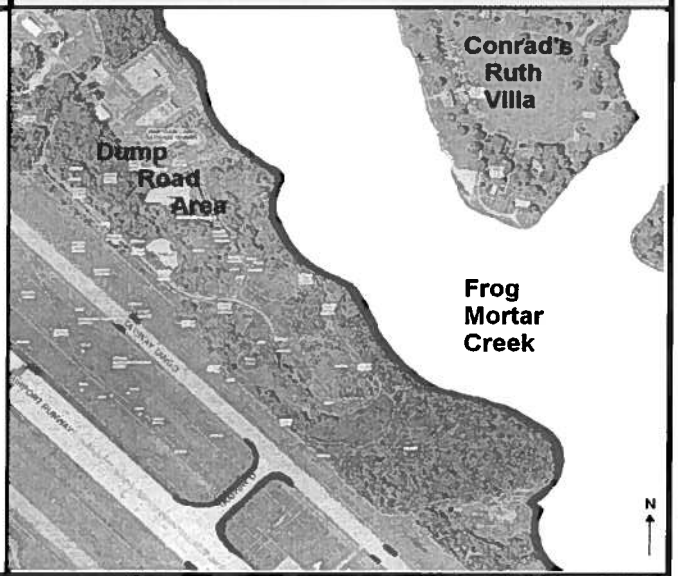
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 44A-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1128								
Depth: 1 foot	BR/BR	8.36	6.15	30.08	11.12	6.89	7.3	123
Method: Grab								

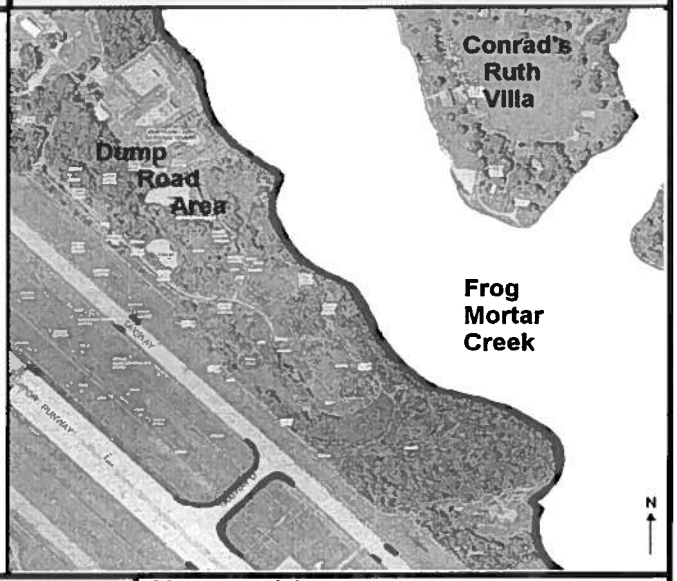
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW-FMB-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1132								
Depth: 1 foot	GR/BR	8.35	6.27	29.49	8.49	7.45	3.8	135
Method: Grab								

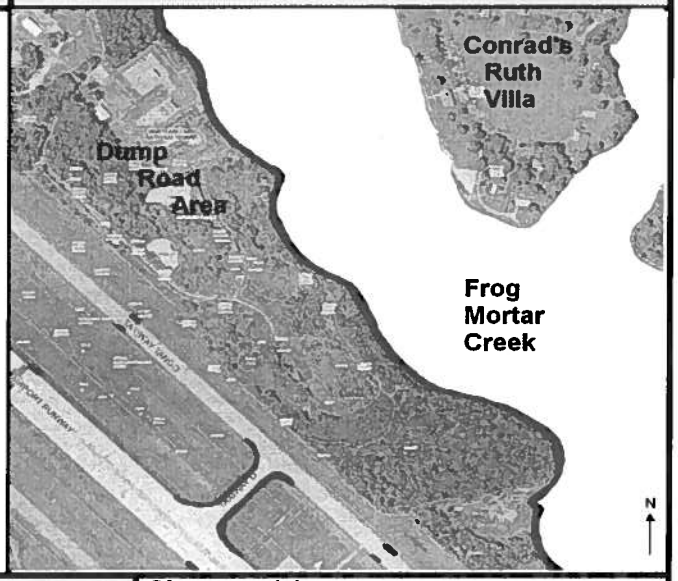
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4^{0}C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW-FMC-070212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1136								
Depth: 1 foot	BR/BR	8.24	6.34	29.93	8.77	6.96	3.4	133
Method: Grab								

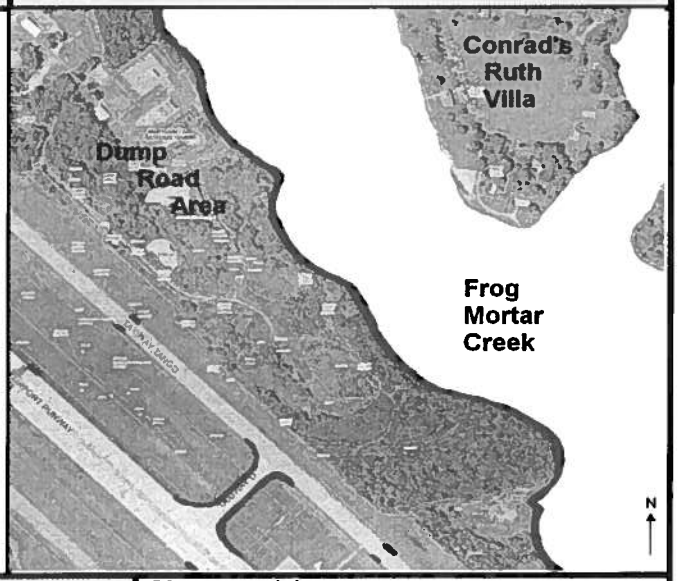
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 44D-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1134								
Depth: 1 foot	GR/BR	8.34	6.34	29.89	9.3	6.92	7.4	131
Method: Grab								

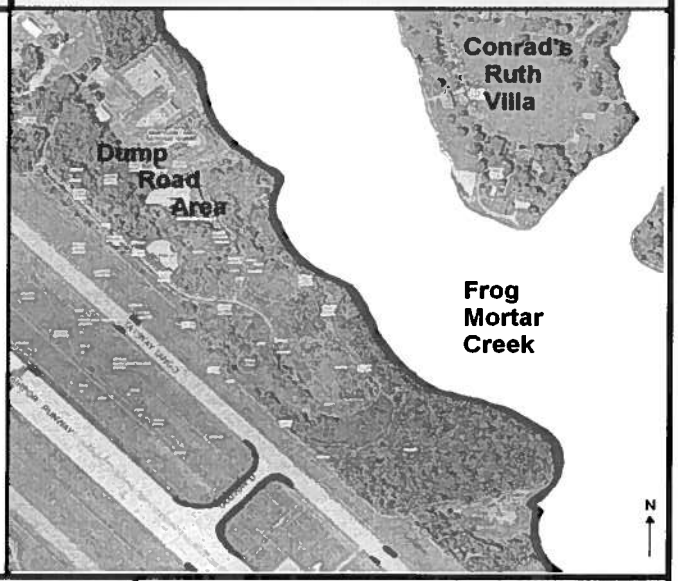
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 45A-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1145	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Depth: 1 foot	GR/SN	8.37	6.34	30.12	13.2	6.90	3.4	133
Method: Grab								

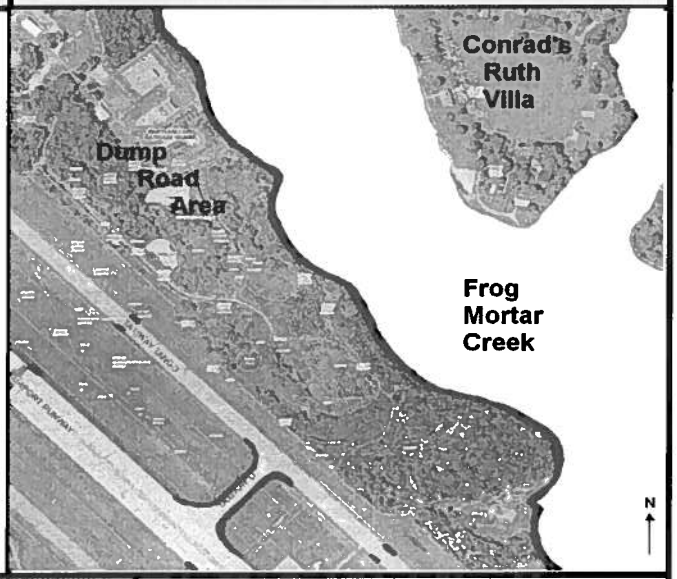
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 45B-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1150								
Depth: 1 foot	BR/BR	8.28	6.46	29.47	10.95	6.94	3.5	139
Method: Grab								

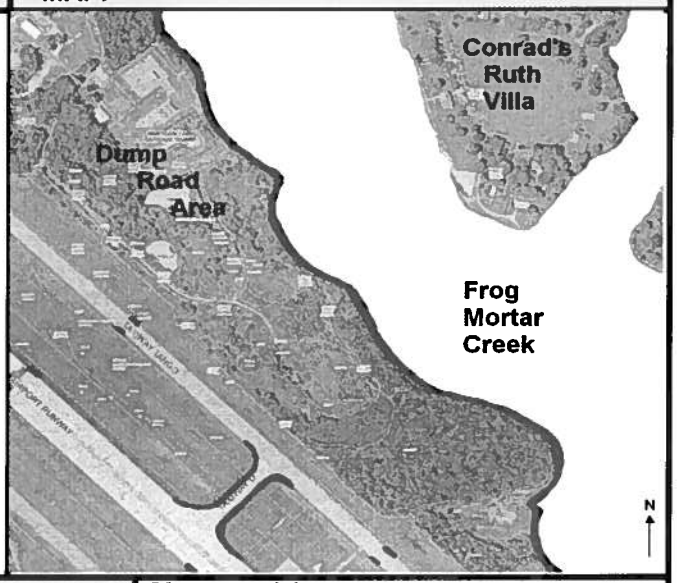
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4^{0}C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 45C-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1152								
Depth: 1 foot	GR/BR	8.24	641	29.49	10.08	6.75	3.5	141
Method: Grab								

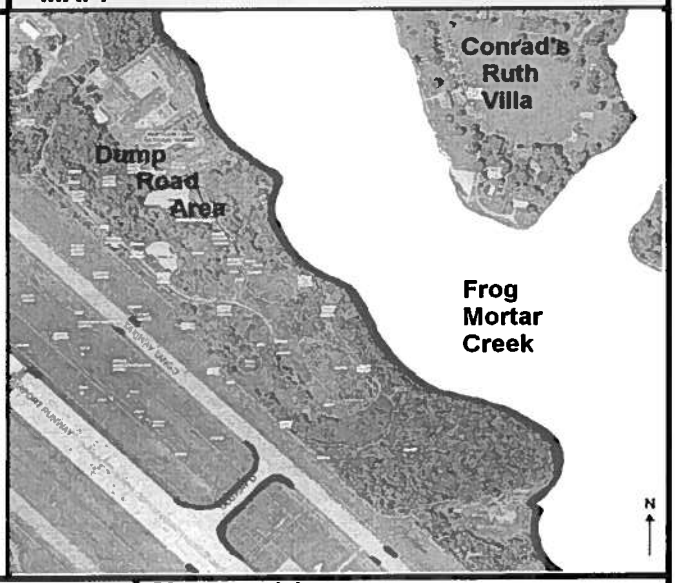
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4^{0}C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project Number - Task: 112IC04021 - 07

[] Stream
[] Spring
[] Pond
[] Lake
[x] Other: Tidal creek - estuarine
[] QA Sample Type:

Sample ID No.: MSA-SW 450-071212
Sample Location: FMC SW
Sampled By: S.Cameron/M.Bowersox
C.O.C. No.:

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

SAMPLING DATA:

Date: 7/12/12	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1155								
Depth: 1 foot	GY/BL	8.27	6.39	24.49	9.76	6.75	3.5	142
Method: Grab								

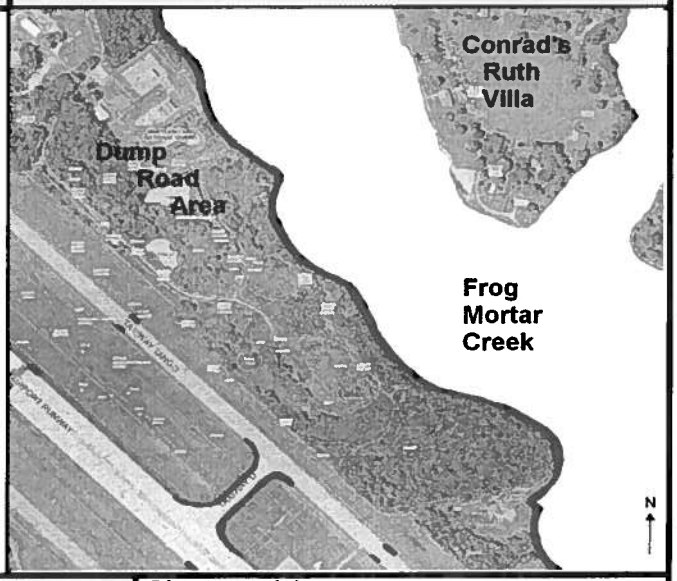
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCl pH<2	3 - 40 mL glass vials	
Dissolved Metals	HNO^3 pH<2	1 - 500 mL plastic bottle	
Hexavalent Chromium	<4°C	1 - 250 mL plastic bottle	

OBSERVATIONS / NOTES:

GPS Coordinates:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

APPENDIX B—DATA VALIDATION REPORTS

Tetra Tech, Inc. **INTERNAL CORRESPONDENCE**

TO: **A. APANAVAGE** **DATE:** **JULY 27, 2012**

FROM: **MICHELLE L. ALLEN** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
SDG 240-13166-1

SAMPLES: 41/Aqueous/VOC

EL-SW01A-071212	EL-SW01B-071212	EL-SW01C-071212
EL-SW01D-071212	MSA-SW37A-071212	MSA-SW37B-071212
MSA-SW37C-071212	MSA-SW37D-071212	MSA-SW38A-071212
MSA-SW38B-071212	MSA-SW38C-071212	MSA-SW38D-071212
MSA-SW39A-071212	MSA-SW39B-071212	MSA-SW39C-071212
MSA-SW39D-071212	MSA-SW40A-071212	MSA-SW40B-071212
MSA-SW40C-071212	MSA-SW40D-071212	MSA-SW41A-071212
MSA-SW41B-071212	MSA-SW41C-071212	MSA-SW41D-071212
MSA-SW42A-071212	MSA-SW42B-071212	MSA-SW42C-071212
MSA-SW42D-071212	MSA-SW43A-071212	MSA-SW43B-071212
MSA-SW43C-071212	MSA-SW43D-071212	MSA-SW44A-071212
MSA-SW44B-071212	MSA-SW44C-071212	MSA-SW44D-071212
MSA-SW45A-071212	MSA-SW45B-071212	MSA-SW45C-071212
MSA-SW45D-071212	TB-071212	

Overview

The sample set for LMC-MSA, SDG 240-13166-1 consisted of forty (40) aqueous environmental samples and one (1) trip blank. All forty-one (41) aqueous samples were analyzed for volatile organic compounds (VOC). No field duplicate sample pair was included in this SDG.

The samples were collected by Tetra Tech, Inc. on July 12, 2012 and analyzed by Test America, Inc. All analyses were conducted in accordance with SW-846 Method 8260B analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, trip blank results, surrogate spike recoveries, blank spike results, matrix spike/matrix spike duplicate results, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- The initial and continuing calibrations performed on instrument A3UX9 had Relative Response Factors (RRFs) for tert-butyl alcohol and 2-butanone below the 0.050 minimum response criterion. In addition, the continuing calibrations performed on this instrument had RRFs for vinyl acetate below the 0.050 minimum response criterion. All samples were affected. The non-detected results reported for these compounds in the affected samples were qualified as rejected, (UR).

Minor

- Positive results reported below the Reporting Limit (RL) limit but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

The continuing calibration performed on 07/13/12 @ 15:19 had Percent Differences (%Ds) which exceeded the 20% quality control limit but was less than 50% for bromomethane, tert-butyl alcohol, vinyl acetate, 2-butanone, bromochloromethane, 2-chloroethyl vinyl ether, 4-methyl-2-pentanone, 2-hexanone, 1,1,2,2-tetrachloroethane, 1,2,4-trichlorobenzene, naphthalene, and 1,2,3-trichlorobenzene. Samples associated with laboratory batch #240-50787 were affected. No validation action was necessary because no positive results were reported for these compounds in the affected samples.

The %Ds for the continuing calibration performed on 07/14/12 @ 16:19 were greater than the 20% quality control limit but less than 50% for bromomethane, tert-butyl alcohol, 2-hexanone, 1,1,2,2-tetrachloroethane, naphthalene, and 1,2,3-trichlorobenzene. No validation action was necessary in the affected samples from batch #240-50806 because no positive results were reported for these compounds.

The %Ds for tert-butyl alcohol, 2-butanone, 4-methyl-2-pentanone, 2-hexanone, 1,1,2,2-tetrachloroethane, 1,2,4-trichlorobenzene, and 1,2,3-trichlorobenzene exceeded the 20% quality control limit but were less than 50% for the continuing calibration performed on 07/16/12 @ 17:19. No action was necessary because only non-detected results were reported for these compounds in the affected sample, EL-SW01D-071212, and these non-detects were not affected.

The following contaminants were detected in the laboratory method blanks at the following maximum concentrations:

Compound	Maximum Concentration (µg/L)	Action Level (µg/L)
Methylene Chloride [1]	0.497	4.97
1,2,3-Trimethylbenzene [2]	0.156	0.78
Hexachlorobutadiene [2]	0.445	2.225
Methylene Chloride [2]	1.04	10.4
Hexachlorobutadiene [3]	0.503	2.515
Methylene Chloride [3]	0.541	5.41

1 Maximum concentration detected in the laboratory method blank, MB240-50787/4, affecting samples associated with batch #240-50787.

2 Maximum concentration detected in the laboratory method blank, MB240-50806/4, affecting samples associated with batch #240-50806.

3 Maximum concentration detected in the laboratory method blank, MB240-50954/4, affecting the sample associated with batch #240-50954.

An action level of 10X the maximum concentration was used for the common laboratory contaminant, methylene chloride, and an action level of 5X the maximum concentration was used for the remaining compounds to evaluate for blank contamination. Sample aliquot and dilution factor, if applicable, were taken into consideration when evaluating for blank contamination. No action was necessary because no positive results were reported for these contaminants in the affected samples.

The Percent Recoveries (%Rs) for 1,1,2,2-tetrachloroethane and 2-hexanone were above the upper quality control limits the blank spike samples associated with batches #240-50787, #240-50608, and #240-50954. In addition, the %Rs for 2-butanone, 4-methyl-2-pentanone, and tert-butyl alcohol were above the upper quality control limits for the blank spike sample associated with batch #240-50954. No validation action was necessary because no positive results were reported for these compounds in the environmental samples associated with these laboratory batches.

The Matrix Spike (MS) %R for tert-butyl alcohol was above the upper quality control limit. No action was taken because the MSD %R for this compound was acceptable and no positive result was reported for this compound in the parent sample, EL-SW01D-071212.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: Initial and/or continuing calibration RRFs for tert-butyl alcohol, vinyl acetate, and 2-butanone were below the quality control criterion resulting in the rejection of the non-detected results. Laboratory method blank contamination was noted for some target compounds. The blank spike samples had a few high %Rs.

Other Factors Affecting Data Quality: The MS sample had one high %R. Positive results below the RL were estimated.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994) and SW-846 Method 8260B analytical and reporting protocols. The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Allen
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Quality Assurance Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	EL-SW01A-071212			EL-SW01B-071212			EL-SW01C-071212			EL-SW01D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-38			240-13166-39			240-13166-40			240-13166-41		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	UR	C	0.57	UR	C	0.57	UR	C	0.57	UR	C
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		1.1	U		1.1	U		1.1	U		1.1	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW37A-071212			MSA-SW37B-071212			MSA-SW37C-071212			MSA-SW37D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-1			240-13166-2			240-13166-3			240-13166-4		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	UR	C	0.57	UR	C	0.57	UR	C	0.57	UR	C
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		1.1	U		1.1	U		1.1	U		1.1	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW38A-071212			MSA-SW38B-071212			MSA-SW38C-071212			MSA-SW38D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-13			240-13166-14			240-13166-15			240-13166-16		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	UR	C	0.57	UR	C	0.57	UR	C	0.57	UR	C
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		1.1	U		1.1	U		1.1	U		1.1	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW39A-071212			MSA-SW39B-071212			MSA-SW39C-071212			MSA-SW39D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-33			240-13166-34			240-13166-35			240-13166-36		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	UR	C	0.57	UR	C	0.57	UR	C	0.57	UR	C
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		1.1	U		1.1	U		1.1	U		1.1	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW40A-071212			MSA-SW40B-071212			MSA-SW40C-071212			MSA-SW40D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-9			240-13166-10			240-13166-11			240-13166-12		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	UR	C	0.57	UR	C	0.57	UR	C	0.57	UR	C
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		1.1	U		1.1	U		1.1	U		1.1	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW41A-071212			MSA-SW41B-071212			MSA-SW41C-071212			MSA-SW41D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-17			240-13166-18			240-13166-19			240-13166-20		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	UR	C	0.57	UR	C	0.57	UR	C	0.57	UR	C
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		1.1	U		1.1	U		1.1	U		1.1	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW42A-071212			MSA-SW42B-071212			MSA-SW42C-071212			MSA-SW42D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-5			240-13166-6			240-13166-7			240-13166-8		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	UR	C	0.57	UR	C	0.57	UR	C	0.57	UR	C
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		1.1	U		1.1	U		1.1	U		1.1	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW43A-071212			MSA-SW43B-071212			MSA-SW43C-071212			MSA-SW43D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-21			240-13166-22			240-13166-23			240-13166-24		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	UR	C	0.57	UR	C	0.57	UR	C	0.57	UR	C
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		1.1	U		1.1	U		1.1	U		1.1	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW44A-071212			MSA-SW44B-071212			MSA-SW44C-071212			MSA-SW44D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-25			240-13166-26			240-13166-27			240-13166-28		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	UR	C	0.57	UR	C	0.57	UR	C	0.57	UR	C
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		1.1	U		1.1	U		1.1	U		1.1	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW45A-071212			MSA-SW45B-071212			MSA-SW45C-071212			MSA-SW45D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-29			240-13166-30			240-13166-31			240-13166-32		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	UR	C	0.57	UR	C	0.57	UR	C	0.57	UR	C
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		1.1	U		1.1	U		1.1	U		1.1	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 04021	NSAMPLE	TB-071212
SDG: 240-13166-1	LAB_ID	240-13166-37
FRACTION: OV	SAMP_DATE	7/12/2012
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	0.23	U	
1,1,1-TRICHLOROETHANE	0.22	U	
1,1,2,2-TETRACHLOROETHANE	0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28	U	
1,1-DICHLOROETHANE	0.15	U	
1,1-DICHLOROETHENE	0.19	U	
1,1-DICHLOROPROPENE	0.13	U	
1,2,3-TRICHLOROBENZENE	0.17	U	
1,2,3-TRICHLOROPROPANE	0.43	U	
1,2,3-TRIMETHYLBENZENE	0.0059	U	
1,2,4-TRICHLOROBENZENE	0.15	U	
1,2,4-TRIMETHYLBENZENE	0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE	0.67	U	
1,2-DIBROMOETHANE	0.24	U	
1,2-DICHLOROBENZENE	0.13	U	
1,2-DICHLOROETHANE	0.22	U	
1,2-DICHLOROPROPANE	0.18	U	
1,3-DICHLOROBENZENE	0.14	U	
1,3-DICHLOROPROPANE	0.16	U	
1,4-DICHLOROBENZENE	0.13	U	
2,2-DICHLOROPROPANE	0.13	U	
2-BUTANONE	0.57	UR	C
2-CHLOROETHYL VINYL ETHER	0.99	U	
2-CHLOROTOLUENE	0.11	U	
2-HEXANONE	0.41	U	
4-CHLOROTOLUENE	0.18	U	
4-ISOPROPYLTOLUENE	0.12	U	
4-METHYL-2-PENTANONE	0.32	U	
ACETONE	1.1	U	
BENZENE	0.13	U	
BROMOBENZENE	0.13	U	
BROMOCHLOROMETHANE	0.29	U	
BROMODICHLOROMETHANE	0.15	U	
BROMOFORM	0.64	U	
BROMOMETHANE	0.41	U	

PROJ_NO: 04021	NSAMPLE	EL-SW01A-071212			EL-SW01B-071212			EL-SW01C-071212			EL-SW01D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-38			240-13166-39			240-13166-40			240-13166-41		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.26	J	P	0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.22	J	P	0.28	J	P	0.21	J	P	0.21	J	P
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW37A-071212			MSA-SW37B-071212			MSA-SW37C-071212			MSA-SW37D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-1			240-13166-2			240-13166-3			240-13166-4		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.17	U		0.17	U		0.18	J	P	0.25	J	P
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW38A-071212			MSA-SW38B-071212			MSA-SW38C-071212			MSA-SW38D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-13			240-13166-14			240-13166-15			240-13166-16		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		3.2			0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.37	J	P	0.25	J	P	0.26	J	P	0.23	J	P
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW39A-071212			MSA-SW39B-071212			MSA-SW39C-071212			MSA-SW39D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-33			240-13166-34			240-13166-35			240-13166-36		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.13	U		0.18	J	P
TOTAL XYLENES		0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.17	U		0.17	U		0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW40A-071212			MSA-SW40B-071212			MSA-SW40C-071212			MSA-SW40D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-9			240-13166-10			240-13166-11			240-13166-12		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.17	U		0.17	U		0.2	J	P	0.26	J	P
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW41A-071212			MSA-SW41B-071212			MSA-SW41C-071212			MSA-SW41D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-17			240-13166-18			240-13166-19			240-13166-20		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.65	J	P	0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.64	J	P	0.39	J	P	0.22	J	P	0.35	J	P
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW42A-071212			MSA-SW42B-071212			MSA-SW42C-071212			MSA-SW42D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-5			240-13166-6			240-13166-7			240-13166-8		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.17	U		0.17	U		0.18	J	P	0.22	J	P
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW43A-071212			MSA-SW43B-071212			MSA-SW43C-071212			MSA-SW43D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-21			240-13166-22			240-13166-23			240-13166-24		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.28	J	P	0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.33	J	P	0.31	J	P	0.17	J	P	0.23	J	P
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW44A-071212			MSA-SW44B-071212			MSA-SW44C-071212			MSA-SW44D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-25			240-13166-26			240-13166-27			240-13166-28		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.25	J	P	0.22	J	P	0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW45A-071212			MSA-SW45B-071212			MSA-SW45C-071212			MSA-SW45D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-29			240-13166-30			240-13166-31			240-13166-32		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE		0.13	U		0.15	J	P	0.14	J	P	0.13	U	
TOTAL XYLENES		0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		0.17	J	P	0.17	U		0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 04021	NSAMPLE	TB-071212
SDG: 240-13166-1	LAB_ID	240-13166-37
FRACTION: OV	SAMP_DATE	7/12/2012
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
CARBON DISULFIDE	0.13	U	
CARBON TETRACHLORIDE	0.13	U	
CHLOROBENZENE	0.15	U	
CHLORODIBROMOMETHANE	0.18	U	
CHLOROETHANE	0.29	U	
CHLOROFORM	0.16	U	
CHLOROMETHANE	0.3	U	
CIS-1,2-DICHLOROETHENE	0.17	U	
CIS-1,3-DICHLOROPROPENE	0.14	U	
DIBROMOMETHANE	0.28	U	
DICHLORODIFLUOROMETHANE	0.31	U	
DIISOPROPYL ETHER	1.5	U	
ETHYL TERT-BUTYL ETHER	0.11	U	
ETHYLBENZENE	0.17	U	
HEXACHLOROBUTADIENE	0.3	U	
ISOPROPYLBENZENE	0.13	U	
M+P-XYLENES	0.24	U	
METHYL TERT-BUTYL ETHER	0.17	U	
METHYLENE CHLORIDE	0.33	U	
NAPHTHALENE	0.24	U	
N-BUTYLBENZENE	0.12	U	
N-PROPYLBENZENE	0.14	U	
O-XYLENE	0.14	U	
SEC-BUTYLBENZENE	0.13	U	
STYRENE	0.11	U	
TERT-AMYL METHYL ETHER	0.067	U	
TERT-BUTYLBENZENE	0.13	U	
TERTIARY-BUTYL ALCOHOL	3.9	UR	C
TETRACHLOROETHENE	0.29	U	
TOLUENE	0.13	U	
TOTAL XYLENES	0.28	U	
TRANS-1,2-DICHLOROETHENE	0.19	U	
TRANS-1,3-DICHLOROPROPENE	0.19	U	
TRICHLOROETHENE	0.17	U	
TRICHLOROFLUOROMETHANE	0.21	U	

PROJ_NO: 04021	NSAMPLE	EL-SW01A-071212			EL-SW01B-071212			EL-SW01C-071212			EL-SW01D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-38			240-13166-39			240-13166-40			240-13166-41		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C	0.19	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW37A-071212			MSA-SW37B-071212			MSA-SW37C-071212			MSA-SW37D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-1			240-13166-2			240-13166-3			240-13166-4		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C	0.19	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW38A-071212			MSA-SW38B-071212			MSA-SW38C-071212			MSA-SW38D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-13			240-13166-14			240-13166-15			240-13166-16		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C	0.19	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		8.7			0.22	U		0.22	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW39A-071212			MSA-SW39B-071212			MSA-SW39C-071212			MSA-SW39D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-33			240-13166-34			240-13166-35			240-13166-36		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C	0.19	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW40A-071212			MSA-SW40B-071212			MSA-SW40C-071212			MSA-SW40D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-9			240-13166-10			240-13166-11			240-13166-12		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C	0.19	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW41A-071212			MSA-SW41B-071212			MSA-SW41C-071212			MSA-SW41D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-17			240-13166-18			240-13166-19			240-13166-20		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C	0.19	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW42A-071212			MSA-SW42B-071212			MSA-SW42C-071212			MSA-SW42D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-5			240-13166-6			240-13166-7			240-13166-8		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C	0.19	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW43A-071212			MSA-SW43B-071212			MSA-SW43C-071212			MSA-SW43D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-21			240-13166-22			240-13166-23			240-13166-24		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C	0.19	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW44A-071212			MSA-SW44B-071212			MSA-SW44C-071212			MSA-SW44D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-25			240-13166-26			240-13166-27			240-13166-28		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C	0.19	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW45A-071212			MSA-SW45B-071212			MSA-SW45C-071212			MSA-SW45D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-29			240-13166-30			240-13166-31			240-13166-32		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C	0.19	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 04021	NSAMPLE	TB-071212		
SDG: 240-13166-1	LAB_ID	240-13166-37		
FRACTION: OV	SAMP_DATE	7/12/2012		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C
VINYL CHLORIDE		0.22	U	

Appendix B

Results as Reported by the Laboratory

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **EL-SW01A-071212**

Lab Sample ID: 240-13166-38
Client Matrix: Water

Date Sampled: 07/12/2012 0818
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932866.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/15/2012 0048			Final Weight/Volume:	5 mL
Prep Date:	07/15/2012 0048				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **EL-SW01A-071212**

Lab Sample ID: 240-13166-38
Client Matrix: Water

Date Sampled: 07/12/2012 0818
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932866.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/15/2012 0048			Final Weight/Volume:	5 mL
Prep Date:	07/15/2012 0048				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.22	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	78		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **EL-SW01B-071212**

Lab Sample ID: 240-13166-39
Client Matrix: Water

Date Sampled: 07/12/2012 0823
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932867.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/15/2012 0112			Final Weight/Volume:	5 mL
Prep Date:	07/15/2012 0112				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **EL-SW01B-071212**

Lab Sample ID: 240-13166-39
Client Matrix: Water

Date Sampled: 07/12/2012 0823
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932867.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/15/2012 0112			Final Weight/Volume:	5 mL
Prep Date:	07/15/2012 0112				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	0.26	J	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.28	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	76		63 - 129
4-Bromofluorobenzene (Surr)	81		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	89		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **EL-SW01C-071212**

Lab Sample ID: 240-13166-40
Client Matrix: Water

Date Sampled: 07/12/2012 0826
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932868.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/15/2012 0136			Final Weight/Volume:	5 mL
Prep Date:	07/15/2012 0136				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **EL-SW01C-071212**

Lab Sample ID: 240-13166-40
Client Matrix: Water

Date Sampled: 07/12/2012 0826
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932868.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/15/2012 0136			Final Weight/Volume:	5 mL
Prep Date:	07/15/2012 0136				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.21	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	76		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 117
Dibromofluoromethane (Surr)	81		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **EL-SW01D-071212**

Lab Sample ID: 240-13166-41
Client Matrix: Water

Date Sampled: 07/12/2012 0828
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50954	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932873.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2012 1857			Final Weight/Volume:	5 mL
Prep Date:	07/16/2012 1857				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U *	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U *	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **EL-SW01D-071212**

Lab Sample ID: 240-13166-41
Client Matrix: Water

Date Sampled: 07/12/2012 0828
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50954	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932873.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2012 1857			Final Weight/Volume:	5 mL
Prep Date:	07/16/2012 1857				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U *	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.21	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	78		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 117
Dibromofluoromethane (Surr)	81		75 - 121
Toluene-d8 (Surr)	91		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW37A-071212**

Lab Sample ID: 240-13166-1
Client Matrix: Water

Date Sampled: 07/12/2012 0836
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932825.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1701			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1701				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW37A-071212**

Lab Sample ID: 240-13166-1
Client Matrix: Water

Date Sampled: 07/12/2012 0836
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932825.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1701			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1701				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	79		63 - 129
4-Bromofluorobenzene (Surr)	86		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	91		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW37B-071212**

Lab Sample ID: 240-13166-2
Client Matrix: Water

Date Sampled: 07/12/2012 0842
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932826.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1727			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1727				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW37B-071212**

Lab Sample ID: 240-13166-2
Client Matrix: Water

Date Sampled: 07/12/2012 0842
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932826.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1727			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1727				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	77		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW37C-071212**

Lab Sample ID: 240-13166-3
Client Matrix: Water

Date Sampled: 07/12/2012 0845
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932827.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1753			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1753				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW37C-071212**

Lab Sample ID: 240-13166-3
Client Matrix: Water

Date Sampled: 07/12/2012 0845
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932827.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1753			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1753				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.18	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	79		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	89		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW37D-071212**

Lab Sample ID: 240-13166-4
Client Matrix: Water

Date Sampled: 07/12/2012 0848
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932828.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1820			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1820				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW37D-071212**

Lab Sample ID: 240-13166-4
Client Matrix: Water

Date Sampled: 07/12/2012 0848
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932828.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1820			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1820				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.25	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	79		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW38A-071212**

Lab Sample ID: 240-13166-13
Client Matrix: Water

Date Sampled: 07/12/2012 1038
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932837.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2157			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2157				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	3.2		0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW38A-071212**

Lab Sample ID: 240-13166-13
Client Matrix: Water

Date Sampled: 07/12/2012 1038
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932837.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2157			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2157				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.37	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	8.7		0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	78		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 117
Dibromofluoromethane (Surr)	81		75 - 121
Toluene-d8 (Surr)	91		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW38B-071212**

Lab Sample ID: 240-13166-14
Client Matrix: Water

Date Sampled: 07/12/2012 1037
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932838.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2221			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2221				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW38B-071212**

Lab Sample ID: 240-13166-14
Client Matrix: Water

Date Sampled: 07/12/2012 1037
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932838.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2221			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2221				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.25	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	79		63 - 129
4-Bromofluorobenzene (Surr)	84		66 - 117
Dibromofluoromethane (Surr)	81		75 - 121
Toluene-d8 (Surr)	91		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW38C-071212**

Lab Sample ID: 240-13166-15
Client Matrix: Water

Date Sampled: 07/12/2012 1043
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932839.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2245			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2245				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW38C-071212**

Lab Sample ID: 240-13166-15
Client Matrix: Water

Date Sampled: 07/12/2012 1043
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932839.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2245			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2245				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.26	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	77		63 - 129
4-Bromofluorobenzene (Surr)	85		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	91		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW38D-071212**

Lab Sample ID: 240-13166-16
Client Matrix: Water

Date Sampled: 07/12/2012 1047
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932840.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2310			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2310				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW38D-071212**

Lab Sample ID: 240-13166-16
Client Matrix: Water

Date Sampled: 07/12/2012 1047
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932840.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2310			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2310				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.23	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	80		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 117
Dibromofluoromethane (Surr)	79		75 - 121
Toluene-d8 (Surr)	89		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW39A-071212**

Lab Sample ID: 240-13166-33
Client Matrix: Water

Date Sampled: 07/12/2012 1202
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932861.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2248			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2248				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW39A-071212**

Lab Sample ID: 240-13166-33
Client Matrix: Water

Date Sampled: 07/12/2012 1202
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932861.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2248			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2248				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	77		63 - 129
4-Bromofluorobenzene (Surr)	84		66 - 117
Dibromofluoromethane (Surr)	81		75 - 121
Toluene-d8 (Surr)	89		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW39B-071212**

Lab Sample ID: 240-13166-34
Client Matrix: Water

Date Sampled: 07/12/2012 1206
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932862.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2312			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2312				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW39B-071212**

Lab Sample ID: 240-13166-34
Client Matrix: Water

Date Sampled: 07/12/2012 1206
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932862.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2312			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2312				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	78		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 117
Dibromofluoromethane (Surr)	82		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW39C-071212**

Lab Sample ID: 240-13166-35
Client Matrix: Water

Date Sampled: 07/12/2012 1210
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932863.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2336			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2336				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW39C-071212**

Lab Sample ID: 240-13166-35
Client Matrix: Water

Date Sampled: 07/12/2012 1210
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932863.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2336			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2336				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	77		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 117
Dibromofluoromethane (Surr)	78		75 - 121
Toluene-d8 (Surr)	88		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW39D-071212**

Lab Sample ID: 240-13166-36
Client Matrix: Water

Date Sampled: 07/12/2012 1214
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932864.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/15/2012 0000			Final Weight/Volume:	5 mL
Prep Date:	07/15/2012 0000				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW39D-071212**

Lab Sample ID: 240-13166-36
Client Matrix: Water

Date Sampled: 07/12/2012 1214
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932864.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/15/2012 0000			Final Weight/Volume:	5 mL
Prep Date:	07/15/2012 0000				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	0.18	J	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	76		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 117
Dibromofluoromethane (Surr)	82		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW40A-071212**

Lab Sample ID: 240-13166-9
Client Matrix: Water

Date Sampled: 07/12/2012 0909
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932833.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2020			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2020				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW40A-071212**

Lab Sample ID: 240-13166-9
Client Matrix: Water

Date Sampled: 07/12/2012 0909
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932833.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2020			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2020				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	79		63 - 129
4-Bromofluorobenzene (Surr)	84		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW40B-071212**

Lab Sample ID: 240-13166-10
Client Matrix: Water

Date Sampled: 07/12/2012 0913
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932834.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2044			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2044				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW40B-071212**

Lab Sample ID: 240-13166-10
Client Matrix: Water

Date Sampled: 07/12/2012 0913
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932834.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2044			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2044				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	79		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW40C-071212**

Lab Sample ID: 240-13166-11
Client Matrix: Water

Date Sampled: 07/12/2012 0916
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932835.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2108			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2108				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW40C-071212**

Lab Sample ID: 240-13166-11
Client Matrix: Water

Date Sampled: 07/12/2012 0916
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932835.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2108			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2108				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.20	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	78		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	89		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW40D-071212**

Lab Sample ID: 240-13166-12
Client Matrix: Water

Date Sampled: 07/12/2012 0919
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932836.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2133			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2133				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW40D-071212**

Lab Sample ID: 240-13166-12
Client Matrix: Water

Date Sampled: 07/12/2012 0919
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932836.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2133			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2133				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.26	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	80		63 - 129
4-Bromofluorobenzene (Surr)	84		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW41A-071212**

Lab Sample ID: 240-13166-17
Client Matrix: Water

Date Sampled: 07/12/2012 1055
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932841.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2334			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2334				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	0.65	J	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW41A-071212**

Lab Sample ID: 240-13166-17
Client Matrix: Water

Date Sampled: 07/12/2012 1055
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932841.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2334			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2334				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.64	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	80		63 - 129
4-Bromofluorobenzene (Surr)	81		66 - 117
Dibromofluoromethane (Surr)	81		75 - 121
Toluene-d8 (Surr)	89		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW41B-071212**

Lab Sample ID: 240-13166-18
Client Matrix: Water

Date Sampled: 07/12/2012 1058
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932842.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2358			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2358				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW41B-071212**

Lab Sample ID: 240-13166-18
Client Matrix: Water

Date Sampled: 07/12/2012 1058
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932842.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 2358			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 2358				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.39	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	78		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	89		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW41C-071212**

Lab Sample ID: 240-13166-19
Client Matrix: Water

Date Sampled: 07/12/2012 1101
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932843.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 0022			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 0022				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW41C-071212**

Lab Sample ID: 240-13166-19
Client Matrix: Water

Date Sampled: 07/12/2012 1101
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932843.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 0022			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 0022				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.22	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	78		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 117
Dibromofluoromethane (Surr)	81		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW41D-071212**

Lab Sample ID: 240-13166-20
Client Matrix: Water

Date Sampled: 07/12/2012 1105
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932844.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 0047			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 0047				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW41D-071212**

Lab Sample ID: 240-13166-20
Client Matrix: Water

Date Sampled: 07/12/2012 1105
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932844.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 0047			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 0047				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.35	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	81		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 117
Dibromofluoromethane (Surr)	79		75 - 121
Toluene-d8 (Surr)	89		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW42A-071212**

Lab Sample ID: 240-13166-5
Client Matrix: Water

Date Sampled: 07/12/2012 0854
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932829.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1843			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1843				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW42A-071212**

Lab Sample ID: 240-13166-5
Client Matrix: Water

Date Sampled: 07/12/2012 0854
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932829.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1843			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1843				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	78		63 - 129
4-Bromofluorobenzene (Surr)	86		66 - 117
Dibromofluoromethane (Surr)	81		75 - 121
Toluene-d8 (Surr)	91		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW42B-071212**

Lab Sample ID: 240-13166-6
Client Matrix: Water

Date Sampled: 07/12/2012 0857
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932830.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1907			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1907				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW42B-071212**

Lab Sample ID: 240-13166-6
Client Matrix: Water

Date Sampled: 07/12/2012 0857
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932830.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1907			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1907				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	82		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 117
Dibromofluoromethane (Surr)	81		75 - 121
Toluene-d8 (Surr)	91		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW42C-071212**

Lab Sample ID: 240-13166-7
Client Matrix: Water

Date Sampled: 07/12/2012 0901
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932831.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1932			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1932				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW42C-071212**

Lab Sample ID: 240-13166-7
Client Matrix: Water

Date Sampled: 07/12/2012 0901
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932831.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1932			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1932				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.18	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	79		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW42D-071212**

Lab Sample ID: 240-13166-8
Client Matrix: Water

Date Sampled: 07/12/2012 0904
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932832.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1956			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1956				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW42D-071212**

Lab Sample ID: 240-13166-8
Client Matrix: Water

Date Sampled: 07/12/2012 0904
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932832.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1956			Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1956				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.22	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	78		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 117
Dibromofluoromethane (Surr)	82		75 - 121
Toluene-d8 (Surr)	91		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW43A-071212**

Lab Sample ID: 240-13166-21
Client Matrix: Water

Date Sampled: 07/12/2012 1113
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932849.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 1758			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 1758				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	0.28	J	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW43A-071212**

Lab Sample ID: 240-13166-21
Client Matrix: Water

Date Sampled: 07/12/2012 1113
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932849.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 1758			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 1758				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.33	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	82		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 117
Dibromofluoromethane (Surr)	83		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW43B-071212**

Lab Sample ID: 240-13166-22
Client Matrix: Water

Date Sampled: 07/12/2012 1117
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932850.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 1822			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 1822				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW43B-071212**

Lab Sample ID: 240-13166-22
Client Matrix: Water

Date Sampled: 07/12/2012 1117
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932850.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 1822			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 1822				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.31	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	80		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 117
Dibromofluoromethane (Surr)	81		75 - 121
Toluene-d8 (Surr)	89		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW43C-071212**

Lab Sample ID: 240-13166-23
Client Matrix: Water

Date Sampled: 07/12/2012 1120
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932851.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 1847			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 1847				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW43C-071212**

Lab Sample ID: 240-13166-23
Client Matrix: Water

Date Sampled: 07/12/2012 1120
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932851.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 1847			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 1847				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.17	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	80		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 117
Dibromofluoromethane (Surr)	82		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW43D-071212**

Lab Sample ID: 240-13166-24
Client Matrix: Water

Date Sampled: 07/12/2012 1124
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932852.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 1911			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 1911				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW43D-071212**

Lab Sample ID: 240-13166-24
Client Matrix: Water

Date Sampled: 07/12/2012 1124
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932852.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 1911			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 1911				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.23	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	79		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	92		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW44A-071212**

Lab Sample ID: 240-13166-25
Client Matrix: Water

Date Sampled: 07/12/2012 1128
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932853.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 1935			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 1935				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW44A-071212**

Lab Sample ID: 240-13166-25
Client Matrix: Water

Date Sampled: 07/12/2012 1128
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932853.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 1935			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 1935				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.25	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	79		63 - 129
4-Bromofluorobenzene (Surr)	81		66 - 117
Dibromofluoromethane (Surr)	79		75 - 121
Toluene-d8 (Surr)	88		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW44B-071212**

Lab Sample ID: 240-13166-26
Client Matrix: Water

Date Sampled: 07/12/2012 1132
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932854.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2000			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2000				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW44B-071212**

Lab Sample ID: 240-13166-26
Client Matrix: Water

Date Sampled: 07/12/2012 1132
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932854.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2000			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2000				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.22	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	77		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 117
Dibromofluoromethane (Surr)	82		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW44C-071212**

Lab Sample ID: 240-13166-27
Client Matrix: Water

Date Sampled: 07/12/2012 1136
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932855.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2023			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2023				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW44C-071212**

Lab Sample ID: 240-13166-27
Client Matrix: Water

Date Sampled: 07/12/2012 1136
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932855.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2023			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2023				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	77		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 117
Dibromofluoromethane (Surr)	81		75 - 121
Toluene-d8 (Surr)	91		74 - 115

Client Sample ID: **MSA-SW44D-071212**

Lab Sample ID: 240-13166-28
Client Matrix: Water

Date Sampled: 07/12/2012 1139
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932856.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2047			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2047				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW44D-071212**

Lab Sample ID: 240-13166-28
Client Matrix: Water

Date Sampled: 07/12/2012 1139
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932856.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2047			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2047				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	79		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 117
Dibromofluoromethane (Surr)	81		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW45A-071212**

Lab Sample ID: 240-13166-29
Client Matrix: Water

Date Sampled: 07/12/2012 1145
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932857.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2111			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2111				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW45A-071212**

Lab Sample ID: 240-13166-29
Client Matrix: Water

Date Sampled: 07/12/2012 1145
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932857.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2111			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2111				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.17	J	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	76		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 117
Dibromofluoromethane (Surr)	81		75 - 121
Toluene-d8 (Surr)	89		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW45B-071212**

Lab Sample ID: 240-13166-30
Client Matrix: Water

Date Sampled: 07/12/2012 1150
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932858.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2136			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2136				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW45B-071212**

Lab Sample ID: 240-13166-30
Client Matrix: Water

Date Sampled: 07/12/2012 1150
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932858.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2136			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2136				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	0.15	J	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	77		63 - 129
4-Bromofluorobenzene (Surr)	81		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	88		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW45C-071212**

Lab Sample ID: 240-13166-31
Client Matrix: Water

Date Sampled: 07/12/2012 1152
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932859.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2200			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2200				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW45C-071212**

Lab Sample ID: 240-13166-31
Client Matrix: Water

Date Sampled: 07/12/2012 1152
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932859.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2200			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2200				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	0.14	J	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	77		63 - 129
4-Bromofluorobenzene (Surr)	81		66 - 117
Dibromofluoromethane (Surr)	79		75 - 121
Toluene-d8 (Surr)	88		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW45D-071212**

Lab Sample ID: 240-13166-32
Client Matrix: Water

Date Sampled: 07/12/2012 1155
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932860.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2224			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2224				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **MSA-SW45D-071212**

Lab Sample ID: 240-13166-32
Client Matrix: Water

Date Sampled: 07/12/2012 1155
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932860.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 2224			Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 2224				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	78		63 - 129
4-Bromofluorobenzene (Surr)	83		66 - 117
Dibromofluoromethane (Surr)	81		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: TB-071212

Lab Sample ID: 240-13166-37TB
Client Matrix: Water

Date Sampled: 07/12/2012 0000
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932865.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/15/2012 0024			Final Weight/Volume:	5 mL
Prep Date:	07/15/2012 0024				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U *	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U *	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Diisopropyl ether	5.0	U	1.5	5.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Client Sample ID: **TB-071212**

Lab Sample ID: 240-13166-37TB
Client Matrix: Water

Date Sampled: 07/12/2012 0000
Date Received: 07/13/2012 0745

8260B Volatile Priority Pollutants

Analysis Method:	8260B	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UX932865.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	07/15/2012 0024			Final Weight/Volume:	5 mL
Prep Date:	07/15/2012 0024				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	76		63 - 129
4-Bromofluorobenzene (Surr)	82		66 - 117
Dibromofluoromethane (Surr)	80		75 - 121
Toluene-d8 (Surr)	90		74 - 115

Appendix C

Support Documentation

LOCKHEED MARTIN CORPORATION - MARTIN STATE AIRPORT
SDG 240-13166-1

SAMPLE IDENTIFICATION	MSA-SW38A-071212
COMPOUND	VINYL CHLORIDE
COMPOUND AREA	242864
INTERNAL STANDARD AMOUNT (ng)	100
VOLUME WATER PURGED (ml)	5
DILUTION FACTOR	1
INTERNAL STANDARD AREA	1740816
AVERAGE RRF	0.3221
ml to µl	1000
ng to µg	1000

= 8.7 µg/L

242864 x 100 ng x 1 x 1000ml x 1µg /1740816 x 0.3221 x 5ml x 1L x 1000ng

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A3UX9\20120713-11544.b\UX932837.D		
Lims ID:	240-13166-B-13	Client ID:	MSA-SW38A-071212
Inject. Date:	13-Jul-2012 21:57:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0011544-018		
Misc. Info.:			
Operator:	1904	Instrument ID:	A3UX9
Vol. Injected:	1.0000	ALS Bottle#:	18
Lims Batch ID:	50787	Lims Sample ID:	18
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A3UX9\20120713-11544.b\8260_9.m		
Last Update:	13-Jul-2012 17:25:16	Calib Date:	04-Jan-2012 21:08:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A3UX9\20120104-6517.b\UX91746.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-18		

First Level Reviewer: laveyt Date: 14-Jul-2012 16:11:10

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.295	5.297	-0.002	100	1740816	20.0	
* 2 Chlorobenzene-d5	117	7.957	7.960	-0.003	82	1338681	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.182	10.184	-0.002	95	639731	20.0	
$ 5 Dibromofluoromethane (Surr)	113	4.739	4.739	0.0	59	390187	16.2	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	5.023	5.023	0.0	89	448119	15.6	
$ 7 Toluene-d8 (Surr)	98	6.644	6.644	0.0	92	1661753	18.1	
$ 131 4-Bromofluorobenzene (Surr)	95	9.058	9.058	0.0	92	571501	16.4	
12 Dichlorodifluoromethane	85		1.650					
13 Chloromethane	50		1.804					
→ 14 Vinyl chloride	62	1.911	1.911	0.0	97	242684	8.66	
15 Bromomethane	94		2.207					
16 Chloroethane	64		2.301					
18 Trichlorofluoromethane	101		2.502					
23 1,1,2-Trichloro-1,2,2-trifluoroe	101		2.940					
21 1,1-Dichloroethene	61		2.940					
22 Acetone	43		2.952					
26 Carbon disulfide	76		3.130					
30 Methylene Chloride	49		3.343					
31 2-Methyl-2-propanol	59		3.378					
33 trans-1,2-Dichloroethene	61		3.532					
34 Methyl tert-butyl ether	73		3.532					
36 1,1-Dichloroethane	63		3.875					
37 Vinyl acetate	86		3.911					
38 Isopropyl ether	87		3.913					
40 Tert-butyl ethyl ether	59		4.209					
42 cis-1,2-Dichloroethene	61	4.348	4.348	0.0	60	99143	3.19	
41 2-Butanone (MEK)	72		4.348					
43 2,2-Dichloropropane	77		4.348					
47 Chlorobromomethane	49		4.550					
49 Chloroform	83		4.597					
50 1,1,1-Trichloroethane	97		4.774					

$\overline{RRF} = 0.3221$

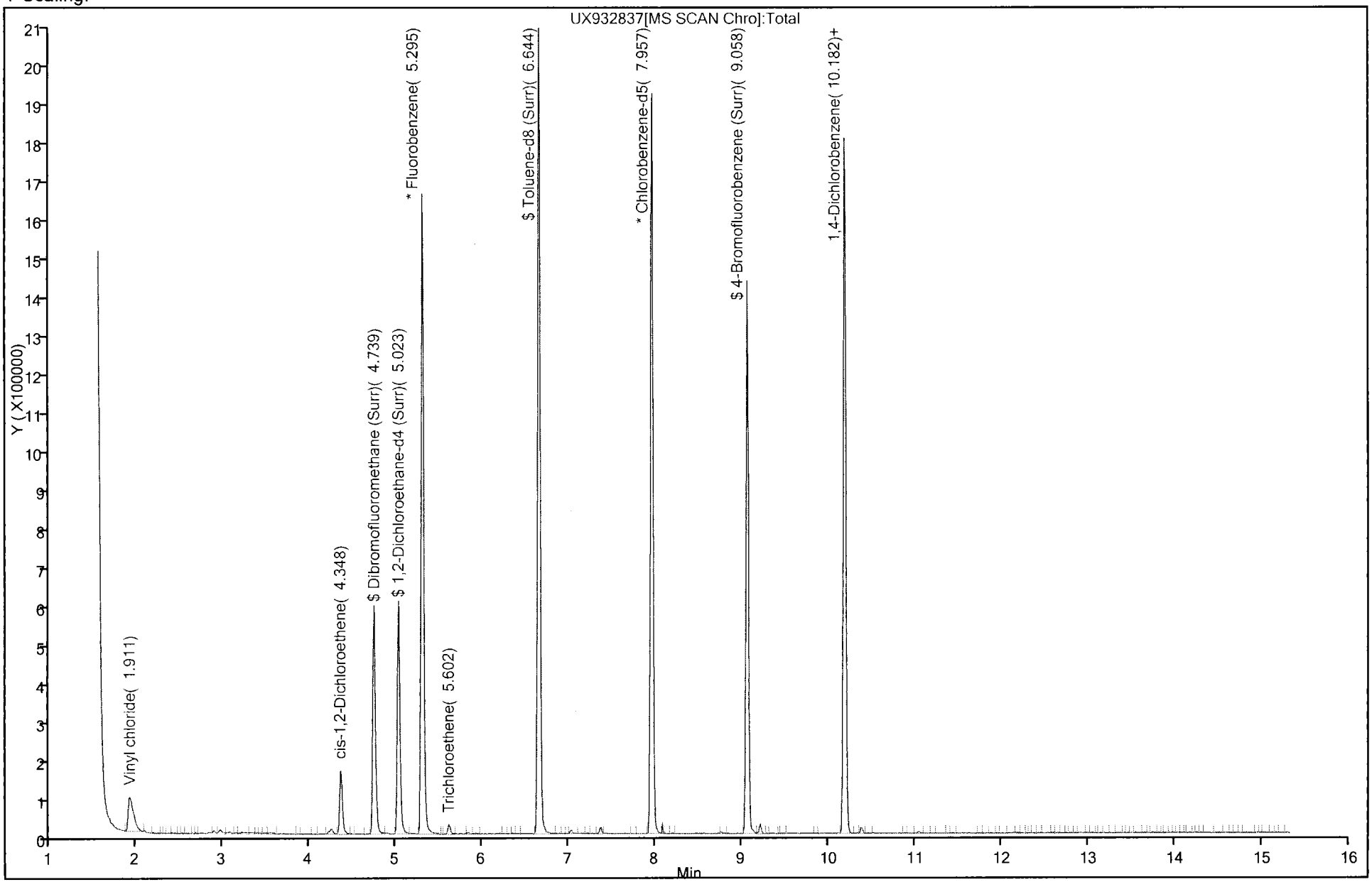
Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
52 1,1-Dichloropropene	75		4.905					
53 Carbon tetrachloride	117		4.905					
55 Benzene	78		5.070					
56 1,2-Dichloroethane	62		5.082					
57 Tert-amyl methyl ether	73		5.143					
60 Trichloroethene	130	5.602	5.603	-0.001	62	9951	0.3692	
62 1,2-Dichloropropane	63		5.792					
65 Dibromomethane	174		5.898					
67 Dichlorobromomethane	83		6.017					
69 2-Chloroethyl vinyl ether	63		6.265					
70 cis-1,3-Dichloropropene	75		6.407					
71 4-Methyl-2-pentanone (MIBK)	43		6.526					
72 Toluene	91		6.703					
73 trans-1,3-Dichloropropene	75		6.881					
77 Tetrachloroethene	166		7.200					
76 1,3-Dichloropropane	76		7.212					
78 2-Hexanone	43		7.259					
79 Chlorodibromomethane	129		7.425					
123 Ethylene Dibromide	107		7.531					
82 Chlorobenzene	112		7.981					
83 1,1,1,2-Tetrachloroethane	131		8.052					
84 Ethylbenzene	106		8.076					
10 m-Xylene & p-Xylene	106		8.182					
85 o-Xylene	106		8.561					
86 Styrene	104		8.573					
87 Bromoform	173		8.762					
88 Isopropylbenzene	105		8.904					
90 1,1,2,2-Tetrachloroethane	83		9.188					
91 Bromobenzene	156		9.212					
92 1,2,3-Trichloropropane	110		9.235					
94 N-Propylbenzene	120		9.306					
95 2-Chlorotoluene	126		9.389					
104 4-Chlorotoluene	126		9.496					
97 tert-Butylbenzene	119		9.791					
98 1,2,4-Trimethylbenzene	105		9.839					
99 sec-Butylbenzene	105		10.004					
100 1,3-Dichlorobenzene	146		10.123					
101 4-Isopropyltoluene	119		10.146					
102 1,4-Dichlorobenzene	146	10.217	10.206	0.011	29	5038	0.0960	
103 1,2,3-Trimethylbenzene	105		10.255					
105 n-Butylbenzene	91		10.549					
106 1,2-Dichlorobenzene	146		10.584					
107 1,2-Dibromo-3-Chloropropane	157		11.353					
109 1,2,4-Trichlorobenzene	180		12.182					
110 Hexachlorobutadiene	225		12.347					
111 Naphthalene	128		12.430					
112 1,2,3-Trichlorobenzene	180		12.679					
S 114 Xylenes, Total	106		16.530					

Report Date: 14-Jul-2012 16:11:10 Chrom Revision: 2.0 08-Feb-2012 11:07:54

Data File: \\Ncchrom\ChromData\A3UX9\20120713-11544.b\UX932837.D

Injection Date:	13-Jul-2012 21:57:30	Limit Group:	MSV 8260B ICAL
Client ID:	MSA-SW38A-071212	Instrument ID:	A3UX9
Lims Batch ID:	50787	Lims Sample ID:	18
Operator ID:	1904		
Column Type:	DB-624	Column Dia:	0.18 mm

Y Scaling:



Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Tony Apanavage	Site Contact: Stu Cameron	Lab Contact: Pat Omeara	COC No:
Address: 20251 Century Blvd Ste 200	Telephone: (301) 233-8230	Telephone: (703) 342-8389	Telephone: (330) 497-9396	1 of 5 COCs
City/State/Zip: Germantown, MD 20874	Email:	Analysis Turnaround Time (Calendar Days)	Analyses	
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: MSA SW Sampling	Method of Shipment/Carrier:			
Project Number: 112IC04021	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Perforated Sample (Y/N)	VOCs	Dissolved Metals	Sample Specific Notes / Special Instructions:
MSA-SW37A-071212	7/12/12	0836		X					1	3							X	X	
MSA-SW37B-071212	↓	0842		↓					↓	↓							↓	↓	
MSA-SW37C-071212	↓	0845		↓					↓	↓							↓	↓	
MSA-SW37D-071212	↓	0848		↓					↓	↓							↓	↓	
MSA-SW42A-071212	↓	0854		↓					↓	↓							↓	↓	
MSA-SW42B-071212	↓	0857		↓					↓	↓							↓	↓	
MSA-SW42C-071212	↓	0901		↓					↓	↓							↓	↓	
MSA-SW42D-071212	↓	0904		↓					↓	↓							↓	↓	
MSA-SW40A-071212	↓	0909		↓					↓	↓							↓	↓	
MSA-SW40B-071212	↓	0913		↓					↓	↓							↓	↓	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	7-12-12 / 1430			
			Received in Laboratory by: [signature]	Company: TA	Date/Time: 7/13/12 0745

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TAL-0018 (1008)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Tony Apanavage	Site Contact: Stu Cameron	Lab Contact: Pat Omeara	COC No:
Address: 20251 Century Blvd Ste 200	Telephone: (301) 233-8230	Telephone: (703) 342-8389	Telephone: (330) 497-9396	2 of 5 COCs
City/State/Zip: Germantown MD 20874	Email:	Analysis Turnaround Time (CALENDAR DAYS)	Analyses	
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: MSA SW Sampling	Method of Shipment/Carrier:			
Project Number: 112IC04021	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (Y/N)	VOCs	Dissolved Metals	Sample Specific Notes / Special Instructions:
MSA-SW40C-071212	7/12/12	0916		X					1	3							X	X	
MSA-SW40D-071212	↓	0919		↓					↓	↓							↓	↓	
MSA-SW38A-071212	↓	1038		↓					↓	↓							↓	↓	
MSA-SW38B-071212	↓	1037		↓					↓	↓							↓	↓	
MSA-SW38C-071212	↓	1043		↓					↓	↓							↓	↓	
MSA-SW38D-071212	↓	1047		↓					↓	↓							↓	↓	
MSA-SW41A-071212	↓	1055		↓					↓	↓							↓	↓	
MSA-SW41B-071212	↓	1058		↓					↓	↓							↓	↓	
MSA-SW41C-071212	↓	1101		↓					↓	↓							↓	↓	
MSA-SW41D-071212	↓	1105		↓					↓	↓							↓	↓	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	7-12-12 / 1451			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TA	Date/Time: 7/13/12 0745

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TAL-0018 (1008)

07/23/2012

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Tony Apanavage	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara	COC No:
Address: 20251 Century Blvd Ste 200	Telephone: (301) 233-8230	Telephone: (703) 342-8389	Telephone: (330) 497-9396	3 of 5 COCs
City/State/Zip: Germantown MD 20874	Email:			
Phone: (301) 528-5552				
Project Name: MSA SW Sampling	Method of Shipment/Carrier:			
Project Number: 112IC04021	Shipping/Tracking No:			
PO #				

Analysis Turnaround Time (Calendar Days)

TAT if different from below _____

☐ 3 weeks
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

Analyses

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (Y/N)	VOCs	Dissolved Metals	Sample Specific Notes / Special Instructions:
MSA-SW43A-071212	7/12/12	1113		X					1	3							X	X	
MSA-SW43B-071212	↓	1117		↓					↓	↓							↓	↓	
MSA-SW43C-071212	↓	1120		↓					↓	↓							↓	↓	
MSA-SW43D-071212	↓	1124		↓					↓	↓							↓	↓	
MSA-SW44A-071212	↓	1128		↓					↓	↓							↓	↓	
MSA-SW44B-071212	↓	1132		↓					↓	↓							↓	↓	
MSA-SW44C-071212	↓	1136		↓					↓	↓							↓	↓	
MSA-SW44D-071212	↓	1139		↓					↓	↓							↓	↓	
MSA-SW43A-071212	↓	1145		↓					↓	↓							↓	↓	
MSA-SW45B-071212	↓	1150		↓					↓	↓							↓	↓	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	7-12-12/1430			
			Received in Laboratory by: [signature]	Company: TA	Date/Time: 7/13/12 0745

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TAL-0018 (1008)

07/23/2012

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Tony Appenzeller	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara	COC No:
Address: 20251 Century Blvd Ste 200	Telephone: (301) 233-8230	Telephone: (703) 342-8389	Telephone: (330) 497-9396	4 of 5 COCs
City/State/Zip: Germantown MD 20874	Email:	Analysis Turnaround Time (Calendar Days)	Analyses	
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: MSA SW Sampling	Method of Shipment/Carrier:			
Project Number: 112IC04021	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	VOCs	Dissolved Metals	Sample Specific Notes / Special Instructions:
MSA-SW45C-071212	7/12/12	1152		X					1	3							X	X	
MSA-SW45D-071212		1155																	
MSA-SW39A-071212		1202																	
MSA-SW39B-071212		1206																	
MSA-SW39C-071212		1210																	
MSA-SW39D-071212		1214																	
TB-071212		—								2									

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	7-12-12/1430			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TA	Date/Time: 7/13/12-0745

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TAL-0018 (1008)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Tony Aparicio	Site Contact: Stu Cameron	Lab Contact: Pat Oneeng	COC No:
Address: 20251 Century Blvd Ste 200	Telephone: (301) 233-8250	Telephone: (703) 341-8384	Telephone: (330) 497-9396	5 of 5 COCs
City/State/Zip: Germantown MD 20874	Email:	Analysis Turnaround Time: CALENDAR DAYS / WORK DAYS	Analyses	
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: MSA SW Sampling	Method of Shipment/Carrier:			
Project Number: 112IC04021	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	VOCs	Sample Specific Notes / Special Instructions:
EL-SW01A-071212	7/12/12	0818		X						3							X	
EL-SW01B-071212	"	0823		"						3							X	
EL-SW01C-071212	"	0826		"						3							X	
EL-SW01D-071212	↓	0828		↓						3							X	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	7-12-12 / 1430			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Terry Burns	Company: TA	Date/Time: 7/13/12 0745

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TAL-0018 (1008)

TestAmerica North Canton Sample Receipt Form/Narrative **Login # :** _____

Client Tetra Tech Site Name MSA By: Derry Burns

Cooler Received on 7/13/12 Opened on 7/13/12 (Signature)

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other Multiple

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF 0°C)	Observed Sample Temp._____°C	Corrected Sample Temp._____°C	
IR GUN# 4G	(CF –1°C)	Observed Sample Temp._____°C	Corrected Sample Temp._____°C	☒ Multiple on Back
IR GUN# 5G	(CF –1°C)	Observed Sample Temp._____°C	Corrected Sample Temp._____°C	
IR GUN# 8	(CF 0°C)	Observed Sample Temp._____°C	Corrected Sample Temp._____°C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity_____ Yes No
   - Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   - Were custody seals on the bottle(s)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Did all bottles arrive in good condition (Unbroken)? Yes No
7. Could all bottle labels be reconciled with the COC? Yes No
8. Were correct bottle(s) used for the test(s) indicated? Yes No
9. Sufficient quantity received to perform indicated analyses? Yes No
10. Were sample(s) at the correct pH upon receipt? Yes No NA
11. Were VOAs on the COC? Yes No
12. Were air bubbles >6 mm in any VOA vials? Yes No NA
13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s)_____ were received after the recommended holding time had expired.

Sample(s)_____ were received in a broken container.

Sample(s)_____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 110410-HNO3; Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 - NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
37A	<2	7.13.12	MS
37B	<2		
37C	<2		
37D	<2		
42A	<2		
42B	<2		
42C	<2		
42D	<2		
40A	<2		
B	<2		
C	<2		
D	<2		
38A	<2		
B	<2		
C	<2		
D	<2		
41A	<2		
B	<2		
C	<2		
D	<2		
43A	<2		
B	<2		
C	<2		
D	<2		
44A	<2		
B	<2		
C	<2		
D	<2		
45A	<2		
B	<2		
C	<2		
D	<2		
39A	<2		
B	<2		
C	<2		
D	<2		

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant
Client cooler	4.6	3.6	56	ICE
1	5.6	4.6	1	1

Login Sample Receipt Checklist

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Login Number: 13166
List Number: 1
Creator: Sutek, Nick

List Source: TestAmerica Canton

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CASE NARRATIVE

Client: Tetra Tech, Inc

Project: MSA Surface Water

Report Number: 240-13166-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 07/13/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.6 and 4.6 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples MSA-SW37A-071212 (240-13166-1), MSA-SW37B-071212 (240-13166-2), MSA-SW37C-071212 (240-13166-3), MSA-SW37D-071212 (240-13166-4), MSA-SW42A-071212 (240-13166-5), MSA-SW42B-071212 (240-13166-6), MSA-SW42C-071212 (240-13166-7), MSA-SW42D-071212 (240-13166-8), MSA-SW40A-071212 (240-13166-9), MSA-SW40B-071212 (240-13166-10), MSA-SW40C-071212 (240-13166-11), MSA-SW40D-071212 (240-13166-12), MSA-SW38A-071212 (240-13166-13), MSA-SW38B-071212 (240-13166-14), MSA-SW38C-071212 (240-13166-15), MSA-SW38D-071212 (240-13166-16), MSA-SW41A-071212 (240-13166-17), MSA-SW41B-071212 (240-13166-18), MSA-SW41C-071212 (240-13166-19), MSA-SW41D-071212 (240-13166-20), MSA-SW43A-071212 (240-13166-21), MSA-SW43B-071212 (240-13166-22), MSA-SW43C-071212 (240-13166-23), MSA-SW43D-071212 (240-13166-24), MSA-SW44A-071212 (240-13166-25), MSA-SW44B-071212 (240-13166-26), MSA-SW44C-071212 (240-13166-27), MSA-SW44D-071212 (240-13166-28), MSA-SW45A-071212 (240-13166-29), MSA-SW45B-071212 (240-13166-30), MSA-SW45C-071212 (240-13166-31), MSA-SW45D-071212 (240-13166-32), MSA-SW39A-071212 (240-13166-33), MSA-SW39B-071212 (240-13166-34), MSA-SW39C-071212 (240-13166-35), MSA-SW39D-071212 (240-13166-36), TB-071212 (240-13166-37), EL-SW01A-071212 (240-13166-38), EL-SW01B-071212 (240-13166-39), EL-SW01C-071212 (240-13166-40) and EL-SW01D-071212 (240-13166-41) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 07/13/2012, 07/14/2012, 07/15/2012 and 07/16/2012.

Methylene Chloride was detected in method blank MB 240-50787/4 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Methylene Chloride was detected in method blank MB 240-50806/4 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

1,2,3-Trimethylbenzene and Hexachlorobutadiene were detected in method blank MB 240-50806/4 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Hexachlorobutadiene and Methylene Chloride were detected in method blank MB 240-50954/4 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The laboratory control sample (LCS) for batch 50787 exceeded control limits for the following analytes: 2-hexanone, and 1,1,2,2-tetrachloroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The laboratory control sample (LCS) for batch 50806 exceeded control limits for the following analytes: 2-hexanone, and 1,1,2,2-tetrachloroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The laboratory control sample (LCS) for batch 50954 exceeded control limits for the following analytes: 2-hexanone, 2-butanone, 2-methyl-2-propanol, 4-methyl-2-pentanone, and 1,1,2,2-tetrachloroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

tert-Butyl alcohol failed the recovery criteria high for the MS of sample 240-13052-2 in batch 240-50954.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 50787.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 50806.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)

Samples MSA-SW37A-071212 (240-13166-1), MSA-SW37B-071212 (240-13166-2), MSA-SW37C-071212 (240-13166-3), MSA-SW37D-071212 (240-13166-4), MSA-SW42A-071212 (240-13166-5), MSA-SW42B-071212 (240-13166-6), MSA-SW42C-071212 (240-13166-7), MSA-SW42D-071212 (240-13166-8), MSA-SW40A-071212 (240-13166-9), MSA-SW40B-071212 (240-13166-10), MSA-SW40C-071212 (240-13166-11), MSA-SW40D-071212 (240-13166-12), MSA-SW38A-071212 (240-13166-13), MSA-SW38B-071212 (240-13166-14), MSA-SW38C-071212 (240-13166-15), MSA-SW38D-071212 (240-13166-16), MSA-SW41A-071212 (240-13166-17), MSA-SW41B-071212 (240-13166-18), MSA-SW41C-071212 (240-13166-19), MSA-SW41D-071212 (240-13166-20), MSA-SW43A-071212 (240-13166-21), MSA-SW43B-071212 (240-13166-22), MSA-SW43C-071212 (240-13166-23), MSA-SW43D-071212 (240-13166-24), MSA-SW44A-071212 (240-13166-25), MSA-SW44B-071212 (240-13166-26), MSA-SW44C-071212 (240-13166-27), MSA-SW44D-071212 (240-13166-28), MSA-SW45A-071212 (240-13166-29), MSA-SW45B-071212 (240-13166-30), MSA-SW45C-071212 (240-13166-31), MSA-SW45D-071212 (240-13166-32), MSA-SW39A-071212 (240-13166-33), MSA-SW39B-071212 (240-13166-34), MSA-SW39C-071212 (240-13166-35) and MSA-SW39D-071212 (240-13166-36) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 07/13/2012 and analyzed on 07/20/2012 and 07/21/2012.

Zinc was detected in method blank MB 240-50728/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Chromium failed the recovery criteria high for the MS/MSD of sample MSA-SW37A-071212 (240-13166-1) in batch 240-51574.

The continuing calibration verification (CCV) for beryllium (be) associated with batch 50728 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.
MSA-SW37A-071212 (240-13166-1), MSA-SW37B-071212 (240-13166-2), MSA-SW37C-071212 (240-13166-3), MSA-SW37D-071212 (240-13166-4), MSA-SW38A-071212 (240-13166-13), MSA-SW40A-071212 (240-13166-9), MSA-SW40B-071212 (240-13166-10), MSA-SW40C-071212 (240-13166-11), MSA-SW40D-071212 (240-13166-12), MSA-SW42A-071212 (240-13166-5), MSA-SW42B-071212 (240-13166-6), MSA-SW42C-071212 (240-13166-7), MSA-SW42D-071212 (240-13166-8)

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)

Samples MSA-SW37A-071212 (240-13166-1), MSA-SW37B-071212 (240-13166-2), MSA-SW37C-071212 (240-13166-3), MSA-SW37D-071212 (240-13166-4), MSA-SW42A-071212 (240-13166-5), MSA-SW42B-071212 (240-13166-6), MSA-SW42C-071212 (240-13166-7), MSA-SW42D-071212 (240-13166-8), MSA-SW40A-071212 (240-13166-9), MSA-SW40B-071212 (240-13166-10), MSA-SW40C-071212 (240-13166-11), MSA-SW40D-071212 (240-13166-12), MSA-SW38A-071212 (240-13166-13), MSA-SW38B-071212 (240-13166-14), MSA-SW38C-071212 (240-13166-15), MSA-SW38D-071212 (240-13166-16), MSA-SW41A-071212 (240-13166-17), MSA-SW41B-071212 (240-13166-18), MSA-SW41C-071212 (240-13166-19), MSA-SW41D-071212 (240-13166-20), MSA-SW43A-071212 (240-13166-21), MSA-SW43B-071212 (240-13166-22), MSA-SW43C-071212 (240-13166-23), MSA-SW43D-071212 (240-13166-24), MSA-SW44A-071212 (240-13166-25), MSA-SW44B-071212 (240-13166-26), MSA-SW44C-071212 (240-13166-27), MSA-SW44D-071212 (240-13166-28), MSA-SW45A-071212 (240-13166-29), MSA-SW45B-071212 (240-13166-30), MSA-SW45C-071212 (240-13166-31), MSA-SW45D-071212 (240-13166-32), MSA-SW39A-071212 (240-13166-33), MSA-SW39B-071212 (240-13166-34),

MSA-SW39C-071212 (240-13166-35) and MSA-SW39D-071212 (240-13166-36) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 07/13/2012 and analyzed on 07/16/2012 and 07/17/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates the analyte was analyzed for but not detected.
	*	LCS or LCSD exceeds the control limits
	F	MS or MSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals		
	B	Compound was found in the blank and sample.
	^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Client: Tetra Tech, Inc

Job Number: 240-13166-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:240-50787					
LCS 240-50787/5	Lab Control Sample	T	Water	8260B	
MB 240-50787/4	Method Blank	T	Water	8260B	
240-13166-1	MSA-SW37A-071212	T	Water	8260B	
240-13166-2	MSA-SW37B-071212	T	Water	8260B	
240-13166-3	MSA-SW37C-071212	T	Water	8260B	
240-13166-4	MSA-SW37D-071212	T	Water	8260B	
240-13166-5	MSA-SW42A-071212	T	Water	8260B	
240-13166-6	MSA-SW42B-071212	T	Water	8260B	
240-13166-7	MSA-SW42C-071212	T	Water	8260B	
240-13166-8	MSA-SW42D-071212	T	Water	8260B	
240-13166-9	MSA-SW40A-071212	T	Water	8260B	
240-13166-10	MSA-SW40B-071212	T	Water	8260B	
240-13166-11	MSA-SW40C-071212	T	Water	8260B	
240-13166-12	MSA-SW40D-071212	T	Water	8260B	
240-13166-13	MSA-SW38A-071212	T	Water	8260B	
240-13166-14	MSA-SW38B-071212	T	Water	8260B	
240-13166-15	MSA-SW38C-071212	T	Water	8260B	
240-13166-16	MSA-SW38D-071212	T	Water	8260B	
240-13166-17	MSA-SW41A-071212	T	Water	8260B	
240-13166-18	MSA-SW41B-071212	T	Water	8260B	
240-13166-19	MSA-SW41C-071212	T	Water	8260B	
240-13166-20	MSA-SW41D-071212	T	Water	8260B	

Client: Tetra Tech, Inc

Job Number: 240-13166-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:240-50806					
LCS 240-50806/5	Lab Control Sample	T	Water	8260B	
MB 240-50806/4	Method Blank	T	Water	8260B	
240-13166-21	MSA-SW43A-071212	T	Water	8260B	
240-13166-22	MSA-SW43B-071212	T	Water	8260B	
240-13166-23	MSA-SW43C-071212	T	Water	8260B	
240-13166-24	MSA-SW43D-071212	T	Water	8260B	
240-13166-25	MSA-SW44A-071212	T	Water	8260B	
240-13166-26	MSA-SW44B-071212	T	Water	8260B	
240-13166-27	MSA-SW44C-071212	T	Water	8260B	
240-13166-28	MSA-SW44D-071212	T	Water	8260B	
240-13166-29	MSA-SW45A-071212	T	Water	8260B	
240-13166-30	MSA-SW45B-071212	T	Water	8260B	
240-13166-31	MSA-SW45C-071212	T	Water	8260B	
240-13166-32	MSA-SW45D-071212	T	Water	8260B	
240-13166-33	MSA-SW39A-071212	T	Water	8260B	
240-13166-34	MSA-SW39B-071212	T	Water	8260B	
240-13166-35	MSA-SW39C-071212	T	Water	8260B	
240-13166-36	MSA-SW39D-071212	T	Water	8260B	
240-13166-37TB	TB-071212	T	Water	8260B	
240-13166-38	EL-SW01A-071212	T	Water	8260B	
240-13166-39	EL-SW01B-071212	T	Water	8260B	
240-13166-40	EL-SW01C-071212	T	Water	8260B	
Analysis Batch:240-50954					
LCS 240-50954/5	Lab Control Sample	T	Water	8260B	
MB 240-50954/4	Method Blank	T	Water	8260B	
240-13052-D-2 MS	Matrix Spike	T	Water	8260B	
240-13052-G-2 MSD	Matrix Spike Duplicate	T	Water	8260B	
240-13166-41	EL-SW01D-071212	T	Water	8260B	

Report Basis
T = Total

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MSA-SW37A-071212	240-13166-1	80	79	91	86
MSA-SW37B-071212	240-13166-2	80	77	90	83
MSA-SW37C-071212	240-13166-3	80	79	89	82
MSA-SW37D-071212	240-13166-4	80	79	90	82
MSA-SW42A-071212	240-13166-5	81	78	91	86
MSA-SW42B-071212	240-13166-6	81	82	91	83
MSA-SW42C-071212	240-13166-7	80	79	90	83
MSA-SW42D-071212	240-13166-8	82	78	91	83
MSA-SW40A-071212	240-13166-9	80	79	90	84
MSA-SW40B-071212	240-13166-10	80	79	90	82
MSA-SW40C-071212	240-13166-11	80	78	89	83
MSA-SW40D-071212	240-13166-12	80	80	90	84
MSA-SW38A-071212	240-13166-13	81	78	91	82
MSA-SW38B-071212	240-13166-14	81	79	91	84
MSA-SW38C-071212	240-13166-15	80	77	91	85
MSA-SW38D-071212	240-13166-16	79	80	89	82
MSA-SW41A-071212	240-13166-17	81	80	89	81
MSA-SW41B-071212	240-13166-18	80	78	89	83
MSA-SW41C-071212	240-13166-19	81	78	90	83
MSA-SW41D-071212	240-13166-20	79	81	89	83
MSA-SW43A-071212	240-13166-21	83	82	90	82
MSA-SW43B-071212	240-13166-22	81	80	89	82
MSA-SW43C-071212	240-13166-23	82	80	90	83
MSA-SW43D-071212	240-13166-24	80	79	92	83
MSA-SW44A-071212	240-13166-25	79	79	88	81
MSA-SW44B-071212	240-13166-26	82	77	90	83
MSA-SW44C-071212	240-13166-27	81	77	91	82
MSA-SW44D-071212	240-13166-28	81	79	90	82
MSA-SW45A-071212	240-13166-29	81	76	89	82
MSA-SW45B-071212	240-13166-30	80	77	88	81
MSA-SW45C-071212	240-13166-31	79	77	88	81
MSA-SW45D-071212	240-13166-32	81	78	90	83
MSA-SW39A-071212	240-13166-33	81	77	89	84
MSA-SW39B-071212	240-13166-34	82	78	90	82
MSA-SW39C-071212	240-13166-35	78	77	88	82

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MSA-SW39D-071212	240-13166-36	82	76	90	83
TB-071212	240-13166-37	80	76	90	82
EL-SW01A-071212	240-13166-38	80	78	90	82
EL-SW01B-071212	240-13166-39	80	76	89	81
EL-SW01C-071212	240-13166-40	81	76	90	83
EL-SW01D-071212	240-13166-41	81	78	91	82
	MB 240-50787/4	81	78	91	84
	MB 240-50806/4	82	79	90	82
	MB 240-50954/4	81	77	91	85
	LCS 240-50787/5	80	79	93	90
	LCS 240-50806/5	81	82	93	87
	LCS 240-50954/5	83	82	92	89
	240-13052-D-2 MS	81	81	92	87
	240-13052-G-2 MSD	81	80	92	90

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Sample No.: STD8260 240-21323/6 Date Analyzed: 10/31/2011 19:06

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX90536.D Heated Purge: (Y/N) N

Calibration ID: 4930

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1578693	5.29	1327896	7.96	737837	10.19
UPPER LIMIT		3157386	5.79	2655792	8.46	1475674	10.69
LOWER LIMIT		789347	4.79	663948	7.46	368919	9.69
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-21323/15		1608933	5.30	1287572	7.96	725889	10.18
CCVIS 240-50787/2		1845768	5.30	1409657	7.96	717421	10.18
CCVIS 240-50806/2		1812058	5.30	1399900	7.96	708362	10.18
CCVIS 240-50954/2		1795603	5.30	1385090	7.96	709869	10.19

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Sample No.: CCVIS 240-50787/2 Date Analyzed: 07/13/2012 15:19

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX932821.D Heated Purge: (Y/N) N

Calibration ID: 6381

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1845768	5.30	1409657	7.96	717421	10.18
UPPER LIMIT		3691536	5.80	2819314	8.46	1434842	10.68
LOWER LIMIT		922884	4.80	704829	7.46	358711	9.68
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-50787/5		1845076	5.30	1389997	7.96	714359	10.19
CCV 240-50787/3		1796543	5.30	1367499	7.96	679272	10.18
MB 240-50787/4		1775058	5.30	1351633	7.96	648132	10.18
240-13166-1	MSA-SW37A-071212	1748151	5.30	1329715	7.96	642015	10.18
240-13166-2	MSA-SW37B-071212	1743830	5.30	1332803	7.96	635172	10.18
240-13166-3	MSA-SW37C-071212	1746391	5.30	1346509	7.96	636651	10.19
240-13166-4	MSA-SW37D-071212	1763105	5.29	1344854	7.96	636443	10.19
240-13166-5	MSA-SW42A-071212	1731114	5.30	1318514	7.96	629296	10.18
240-13166-6	MSA-SW42B-071212	1700136	5.30	1319715	7.96	633130	10.18
240-13166-7	MSA-SW42C-071212	1731539	5.30	1319027	7.96	625544	10.19
240-13166-8	MSA-SW42D-071212	1701080	5.30	1305559	7.96	634228	10.18
240-13166-9	MSA-SW40A-071212	1760395	5.29	1343130	7.96	640225	10.19
240-13166-10	MSA-SW40B-071212	1735816	5.29	1334537	7.96	653266	10.18
240-13166-11	MSA-SW40C-071212	1761271	5.30	1346323	7.96	643059	10.18
240-13166-12	MSA-SW40D-071212	1737557	5.30	1336592	7.96	635358	10.18
240-13166-13	MSA-SW38A-071212	1740816	5.30	1338681	7.96	639731	10.18
240-13166-14	MSA-SW38B-071212	1738254	5.30	1338186	7.96	643276	10.18
240-13166-15	MSA-SW38C-071212	1749075	5.30	1324442	7.96	633214	10.18
240-13166-16	MSA-SW38D-071212	1719532	5.30	1322727	7.96	639468	10.18
240-13166-17	MSA-SW41A-071212	1724459	5.29	1338397	7.96	631529	10.19
240-13166-18	MSA-SW41B-071212	1726350	5.30	1332430	7.96	661419	10.18
240-13166-19	MSA-SW41C-071212	1730897	5.30	1339333	7.96	641584	10.18
240-13166-20	MSA-SW41D-071212	1706712	5.30	1335169	7.96	639793	10.18

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Sample No.: CCVIS 240-50806/2 Date Analyzed: 07/14/2012 16:19

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX932845.D Heated Purge: (Y/N) N

Calibration ID: 6381

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1812058	5.30	1399900	7.96	708362	10.18
UPPER LIMIT		3624116	5.80	2799800	8.46	1416724	10.68
LOWER LIMIT		906029	4.80	699950	7.46	354181	9.68
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-50806/5		1794644	5.30	1373445	7.96	701340	10.18
CCV 240-50806/3		1783477	5.30	1365944	7.96	672430	10.18
MB 240-50806/4		1715238	5.30	1348844	7.96	645249	10.18
240-13166-21	MSA-SW43A-071212	1713901	5.30	1326712	7.96	620073	10.18
240-13166-22	MSA-SW43B-071212	1703263	5.30	1330593	7.96	630611	10.18
240-13166-23	MSA-SW43C-071212	1705886	5.29	1333109	7.96	635000	10.18
240-13166-24	MSA-SW43D-071212	1705793	5.30	1299692	7.96	639059	10.19
240-13166-25	MSA-SW44A-071212	1722441	5.30	1337302	7.96	648127	10.18
240-13166-26	MSA-SW44B-071212	1705046	5.29	1302984	7.96	633131	10.19
240-13166-27	MSA-SW44C-071212	1709512	5.29	1310558	7.96	626478	10.19
240-13166-28	MSA-SW44D-071212	1706773	5.29	1315225	7.96	644196	10.18
240-13166-29	MSA-SW45A-071212	1722165	5.29	1329821	7.96	644342	10.18
240-13166-30	MSA-SW45B-071212	1716039	5.30	1332125	7.96	625550	10.19
240-13166-31	MSA-SW45C-071212	1727108	5.30	1336846	7.96	654164	10.18
240-13166-32	MSA-SW45D-071212	1714815	5.30	1323784	7.96	642484	10.18
240-13166-33	MSA-SW39A-071212	1718404	5.29	1325996	7.96	632803	10.18
240-13166-34	MSA-SW39B-071212	1697795	5.30	1312517	7.96	645866	10.18
240-13166-35	MSA-SW39C-071212	1733603	5.30	1329983	7.96	622329	10.18
240-13166-36	MSA-SW39D-071212	1717952	5.30	1314528	7.96	628999	10.18
240-13166-37	TB-071212	1730345	5.29	1326661	7.96	640311	10.18
240-13166-38	EL-SW01A-071212	1703718	5.30	1319079	7.95	630271	10.19
240-13166-39	EL-SW01B-071212	1716563	5.30	1333749	7.96	632419	10.18
240-13166-40	EL-SW01C-071212	1721810	5.30	1314069	7.96	638649	10.18

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Sample No.: CCVIS 240-50954/2 Date Analyzed: 07/16/2012 17:19

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18 (mm)

Lab File ID (Standard): UX932869.D Heated Purge: (Y/N) N

Calibration ID: 6381

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1795603	5.30	1385090	7.96	709869	10.19
UPPER LIMIT		3591206	5.80	2770180	8.46	1419738	10.69
LOWER LIMIT		897802	4.80	692545	7.46	354935	9.69
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-50954/5		1717575	5.30	1354914	7.96	699767	10.18
CCV 240-50954/3		1753365	5.30	1333507	7.96	661624	10.18
MB 240-50954/4		1688729	5.29	1306488	7.96	632192	10.18
240-13166-41	EL-SW01D-071212	1690313	5.30	1293836	7.96	625986	10.19
240-13052-D-2 MS		1745007	5.30	1346504	7.96	713920	10.18
240-13052-G-2 MSD		1739715	5.29	1332730	7.96	683581	10.18

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab File ID: BFB1885.D BFB Injection Date: 10/31/2011

Instrument ID: A3UX9 BFB Injection Time: 17:28

Analysis Batch No.: 21323

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.8	
75	30.0 - 60.0 % of mass 95	49.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.2	(0.3)1
174	50.0 - 120.00 % of mass 95	91.5	
175	5.0 - 9.0 % of mass 174	6.9	(7.5)1
176	95.0 - 101.0 % of mass 174	89.5	(97.8)1
177	5.0 - 9.0 % of mass 176	5.4	(6.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-21323/3	UX90533.D	10/31/2011	17:54
	STD8260 240-21323/4	UX90534.D	10/31/2011	18:18
	STD8260 240-21323/5	UX90535.D	10/31/2011	18:42
	STD8260 240-21323/6	UX90536.D	10/31/2011	19:06
	STD8260 240-21323/7	UX90537.D	10/31/2011	19:31
	STD8260 240-21323/8	UX90538.D	10/31/2011	19:56
	STDA9 240-21323/9	UX90539.D	10/31/2011	20:23
	STDA9 240-21323/10	UX90540.D	10/31/2011	20:47
	STDA9 240-21323/11	UX90541.D	10/31/2011	21:13
	STDA9 240-21323/12	UX90542.D	10/31/2011	21:40
	STDA9 240-21323/13	UX90543.D	10/31/2011	22:06
	ICV 240-21323/15	UX90545.D	10/31/2011	22:56

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-13166-1 Analy Batch No.: 21323

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2011 17:54 Calibration End Date: 10/31/2011 19:56 Calibration ID: 4930

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-21323/3	UX90533.D
Level 2	STD8260 240-21323/4	UX90534.D
Level 3	STD8260 240-21323/5	UX90535.D
Level 4	STD8260 240-21323/6	UX90536.D
Level 5	STD8260 240-21323/7	UX90537.D
Level 6	STD8260 240-21323/8	UX90538.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3390	0.2710	0.3417	0.3101	0.3551	Ave		0.3234				10.0		15.0			
Chloromethane	0.3309 0.2413	0.2541	0.2729	0.2519	0.2603	Ave		0.2686			0.1000	12.0		15.0			
Vinyl chloride	0.3487 0.3244	0.2738	0.3361	0.3160	0.3338	Ave		0.3221				8.1		15.0			
Bromomethane	0.2527	0.2238	0.2151	0.2078	0.2396	Ave		0.2278				8.0		15.0			
Chloroethane	0.2034 0.2186	0.1949	0.1967	0.1921	0.2080	Ave		0.2023				4.9		15.0			
Trichlorofluoromethane	0.4421 0.5020	0.3818	0.4752	0.4492	0.5060	Ave		0.4594				10.0		15.0			
Acrolein	0.0364 0.0346	0.0378	0.0323	0.0315	0.0348	Ave		0.0346				7.0		15.0			
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.2696 0.2998	0.3057	0.2575	0.2851	0.3109	Ave		0.2881				7.4		15.0			
1,1-Dichloroethene	0.3979 0.4703	0.4327	0.4309	0.4463	0.4763	Ave		0.4424				6.5		15.0			
Acetone	0.0611	0.1756	0.0648	0.0591	0.0637	Lin1	0.2185	0.0589							0.9980		0.9900
Iodomethane	0.5315 0.4974	0.5204	0.4748	0.4757	0.5146	Ave		0.5024				4.7		15.0			
Carbon disulfide	0.8416 0.8810	0.7973	0.8113	0.8250	0.8958	Ave		0.8420				4.6		15.0			
Acetonitrile	0.0225	0.0344	0.0236	0.0230	0.0241	Lin1	0.1158	0.0228							0.9990		0.9900
Methyl acetate	0.2387 0.1523	0.2112	0.1491	0.1458	0.1518	Lin1	0.0937	0.1499							0.9990		0.9900
Methylene Chloride	0.3116	0.4294	0.3208	0.3027	0.3211	Ave		0.3371				15.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-13166-1 Analy Batch No.: 21323

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2011 17:54 Calibration End Date: 10/31/2011 19:56 Calibration ID: 4930

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0223 0.0201	0.0204	0.0198	0.0205	0.0207	Ave		0.0206				4.3		15.0			
Acrylonitrile	0.1040 0.0825	0.0840	0.0773	0.0785	0.0863	Ave		0.0855				11.0		15.0			
Methyl tert-butyl ether	0.8969 0.8168	0.7950	0.7443	0.7529	0.8161	Ave		0.8037				6.9		15.0			
trans-1,2-Dichloroethene	0.3403 0.3336	0.3430	0.3150	0.3132	0.3416	Ave		0.3311				4.1		15.0			
Hexane	0.2417 0.2224	0.1870	0.1716	0.1933	0.2245	Ave		0.2068				13.0		15.0			
1,1-Dichloroethane	0.4348 0.4017	0.4325	0.3876	0.3724	0.4247	Ave		0.4089			0.1000	6.3		15.0			
Vinyl acetate	 0.0589	0.0668	0.0513	0.0513	0.0588	Ave		0.0574				11.0		15.0			
cis-1,2-Dichloroethene	0.3975 0.3416	0.4035	0.3352	0.3211	0.3433	Ave		0.3570				9.7		15.0			
2,2-Dichloropropane	0.1478 0.1868	0.1914	0.1812	0.1818	0.1955	Ave		0.1807				9.4		15.0			
2-Butanone	0.0601 0.0292	0.0557	0.0284	0.0271	0.0301	Lin1	0.0367	0.0287							0.9970		0.9900
Bromochloromethane	0.2012 0.1778	0.1820	0.1751	0.1701	0.1808	Ave		0.1812				5.9		15.0			
Tetrahydrofuran	 0.0540	0.0755	0.0514	0.0536	0.0560	Lin1	0.0178	0.0539							0.9990		0.9900
Chloroform	0.4760 0.4722	0.5039	0.4450	0.4408	0.4828	Ave		0.4701				5.1		15.0			
1,1,1-Trichloroethane	0.2653 0.3260	0.3068	0.3000	0.3064	0.3412	Ave		0.3076				8.4		15.0			
Cyclohexane	0.2973 0.3295	0.3255	0.2739	0.3097	0.3406	Ave		0.3128				7.8		15.0			
1,1-Dichloropropene	0.2900 0.3508	0.3131	0.3230	0.3300	0.3585	Ave		0.3276				7.7		15.0			
Carbon tetrachloride	0.2782 0.3033	0.2251	0.2426	0.2597	0.3074	Ave		0.2694				12.0		15.0			
Benzene	1.0923 1.0786	1.0399	0.9973	0.9919	1.0933	Ave		1.0489				4.4		15.0			
1,2-Dichloroethane	0.3333 0.3712	0.3708	0.3544	0.3455	0.3787	Ave		0.3590				4.9		15.0			
Trichloroethene	0.3200 0.3201	0.3116	0.2861	0.2918	0.3281	Ave		0.3096				5.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-13166-1 Analy Batch No.: 21323

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2011 17:54 Calibration End Date: 10/31/2011 19:56 Calibration ID: 4930

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methylcyclohexane	0.2138 0.2232	0.2300	0.1825	0.1962	0.2273	Ave		0.2122				9.0		15.0			
1,2-Dichloropropane	0.2498 0.2294	0.2445	0.2178	0.2127	0.2352	Ave		0.2316				6.3		15.0			
1,4-Dioxane	0.0030 0.0033	0.0036	0.0028	0.0032	0.0034	Ave		0.0032				8.9		15.0			
Dibromomethane	0.2050 0.2017	0.2069	0.1892	0.1928	0.2042	Ave		0.2000				3.6		15.0			
Bromodichloromethane	0.3667 0.3518	0.3341	0.3135	0.3134	0.3590	Ave		0.3397				6.8		15.0			
2-Chloroethyl vinyl ether	0.1440 0.1556	0.1368	0.1379	0.1388	0.1564	Ave		0.1449				6.2		15.0			
cis-1,3-Dichloropropene	0.4189 0.4224	0.3875	0.3706	0.3848	0.4207	Ave		0.4008				5.6		15.0			
4-Methyl-2-pentanone	0.1738 0.1852	0.1915	0.1651	0.1686	0.1854	Ave		0.1783				5.9		15.0			
Toluene	1.4095 1.5939	1.5091	1.4133	1.3801	1.6344	Ave		1.4901				7.1		15.0			
trans-1,3-Dichloropropene	0.4373 0.4977	0.4575	0.4244	0.4187	0.5077	Ave		0.4572				8.3		15.0			
Ethyl methacrylate	0.3084 0.4243	0.3048	0.3435	0.3467	0.4264	Ave		0.3590				15.0		15.0			
1,1,2-Trichloroethane	0.2971 0.3080	0.3160	0.2891	0.2802	0.3187	Ave		0.3015				5.1		15.0			
Tetrachloroethene	0.3898 0.3915	0.3934	0.3602	0.3579	0.4104	Ave		0.3839				5.4		15.0			
1,3-Dichloropropane	0.5924 0.5397	0.5249	0.4934	0.4903	0.5550	Ave		0.5326				7.3		15.0			
2-Hexanone	0.1485 0.1621	0.1403	0.1437	0.1434	0.1610	Ave		0.1498				6.3		15.0			
Dibromochloromethane	0.3196 0.3611	0.3235	0.2999	0.3051	0.3589	Ave		0.3280				8.0		15.0			
1,2-Dibromoethane	0.3286 0.3334	0.3057	0.3097	0.2965	0.3401	Ave		0.3190				5.5		15.0			
Chlorobenzene	1.1239 1.0602	1.0840	0.9894	0.9479	1.1016	Ave		1.0512			0.3000	6.5		15.0			
1,1,1,2-Tetrachloroethane	0.3646 0.3655	0.3523	0.3189	0.3012	0.3660	Ave		0.3448				8.1		15.0			
Ethylbenzene	0.5177 0.5585	0.5185	0.4880	0.4922	0.5758	Ave		0.5251				6.7		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-13166-1 Analy Batch No.: 21323

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2011 17:54 Calibration End Date: 10/31/2011 19:56 Calibration ID: 4930

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.6173 0.7252	0.5777	0.5995	0.6235	0.7323	Ave		0.6459				10.0		15.0			
o-Xylene	0.6556 0.6901	0.6525	0.5960	0.6016	0.7039	Ave		0.6499				6.8		15.0			
Styrene	1.0127 1.2749	0.9778	1.0316	1.0480	1.2606	Ave		1.1009				12.0		15.0			
Bromoform	0.2505	0.2402	0.1990	0.1991	0.2455	Ave		0.2269			0.1000	11.0		15.0			
Isopropylbenzene	1.3564 1.7000	1.4302	1.3843	1.4096	1.7113	Ave		1.4986				11.0		15.0			
1,1,2,2-Tetrachloroethane	0.7245 0.7349	0.7831	0.6781	0.6682	0.7218	Ave		0.7184			0.3000	5.8		15.0			
Bromobenzene	0.8308 0.8694	0.8715	0.8204	0.7857	0.8579	Ave		0.8393				4.0		15.0			
1,2,3-Trichloropropane	0.3124 0.2758	0.2973	0.2604	0.2622	0.2695	Ave		0.2796				7.5		15.0			
trans-1,4-Dichloro-2-butene	0.2092	0.2294	0.1687	0.1738	0.1950	Ave		0.1952				13.0		15.0			
n-Propylbenzene	0.8440 0.7863	0.7178	0.6672	0.7080	0.7912	Ave		0.7524				8.7		15.0			
2-Chlorotoluene	0.7963 0.7319	0.6561	0.6857	0.6545	0.7378	Ave		0.7104				7.8		15.0			
1,3,5-Trimethylbenzene	2.1800 2.4917	2.0710	2.0946	2.1358	2.3994	Ave		2.2288				7.8		15.0			
4-Chlorotoluene	0.8013 0.8068	0.8052	0.7272	0.7067	0.8006	Ave		0.7747				5.8		15.0			
tert-Butylbenzene	2.0433 2.1733	1.9376	1.8420	1.8666	2.1382	Ave		2.0002				7.0		15.0			
1,2,4-Trimethylbenzene	2.5517 2.6031	2.3472	2.2230	2.2538	2.5289	Ave		2.4179				6.8		15.0			
sec-Butylbenzene	2.2182 2.9174	2.4377	2.4133	2.4683	2.8067	Ave		2.5436				10.0		15.0			
1,3-Dichlorobenzene	1.6128 1.5994	1.5213	1.4402	1.4239	1.5593	Ave		1.5262				5.2		15.0			
p-Isopropyltoluene	2.1072 2.6401	2.0613	2.1269	2.1814	2.5122	Ave		2.2715				11.0		15.0			
1,4-Dichlorobenzene	1.8181 1.6665	1.7273	1.5228	1.4692	1.6446	Ave		1.6414				7.8		15.0			
n-Butylbenzene	1.6760 2.1173	1.6481	1.6886	1.7568	2.0629	Ave		1.8249				11.0		15.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-13166-1 Analy Batch No.: 21323

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2011 17:54 Calibration End Date: 10/31/2011 19:56 Calibration ID: 4930

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.5662 1.5704	1.5759	1.4489	1.4088	1.5415	Ave		1.5186				4.7		15.0			
1,2-Dibromo-3-Chloropropane	0.1819	0.2017	0.1517	0.1601	0.1652	Ave		0.1721				12.0		15.0			
1,3,5-Trichlorobenzene	1.2400 1.0468	1.0697	0.9519	0.9236	1.0306	Ave		1.0438				11.0		15.0			
1,2,4-Trichlorobenzene	1.0289 0.9740	1.1397	0.9100	0.8611	0.9225	Ave		0.9727				10.0		15.0			
Hexachlorobutadiene	0.6003 0.4138	0.4429	0.4030	0.3757	0.4046	Lin1	0.0683	0.4037							0.9990		0.9900
Naphthalene	2.6756 2.7639	2.6504	2.4577	2.4326	2.4612	Ave		2.5736				5.5		15.0			
1,2,3-Trichlorobenzene	1.0287 0.8202	0.9418	0.8493	0.8041	0.7635	Ave		0.8679				11.0		15.0			
Dibromofluoromethane (Surr)	0.2709	0.3226	0.2605	0.2478	0.2828	Ave		0.2769				10.0		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3235	0.4022	0.3027	0.2976	0.3246	Ave		0.3301				13.0		15.0			
Toluene-d8 (Surr)	1.4118	1.5148	1.2827	1.2098	1.4431	Ave		1.3724				9.0		15.0			
4-Bromofluorobenzene (Surr)	0.5221	0.5936	0.4756	0.4578	0.5478	Ave		0.5194				11.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-13166-1 Analy Batch No.: 21323

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2011 20:23 Calibration End Date: 10/31/2011 22:06 Calibration ID: 4933

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-21323/9	UX90539.D
Level 2	STDA9 240-21323/10	UX90540.D
Level 3	STDA9 240-21323/11	UX90541.D
Level 4	STDA9 240-21323/12	UX90542.D
Level 5	STDA9 240-21323/13	UX90543.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorofluoromethane	0.5259	0.4705	0.4871	0.4937	0.4872	Ave		0.4929				4.1		15.0			
Ethyl ether	0.2016	0.1759	0.1851	0.1897	0.1826	Ave		0.1870				5.1		15.0			
3-Chloro-1-propene	0.2615	0.2177	0.1984	0.1864	0.1653	Lin1	0.1295	0.1751							0.9930		0.9900
Diisopropyl ether	0.2506	0.2224	0.2323	0.2467	0.2515	Ave		0.2407				5.3		15.0			
2-Chloro-1,3-butadiene	0.2850	0.3020	0.3236	0.3467	0.3499	Ave		0.3214				8.7		15.0			
Ethyl-t-butyl ether (ETBE)	0.6929	0.6185	0.6475	0.7009	0.7068	Ave		0.6733				5.7		15.0			
Ethyl acetate	0.2190	0.1583	0.1754	0.1771	0.1770	Ave		0.1814				12.0		15.0			
Propionitrile	0.0319	0.0267	0.0290	0.0289	0.0291	Ave		0.0291				6.4		15.0			
Methacrylonitrile	0.1128	0.1112	0.1097	0.1148	0.1120	Ave		0.1121				1.7		15.0			
Isobutyl alcohol	0.0082	0.0059	0.0073	0.0072	0.0068	Ave		0.0071				12.0		15.0			
Tert-amyl-methyl ether (TAME)	0.7063	0.6339	0.6732	0.7077	0.7235	Ave		0.6889				5.2		15.0			
n-Heptane	0.6640	0.1480	0.1314	0.1210	0.1163	Lin1	0.5425	0.1073							0.9980		0.9900
n-Butanol	0.0068	0.0056	0.0065	0.0066	0.0064	Ave		0.0064				7.6		15.0			
Methyl methacrylate	0.2043	0.1576	0.1629	0.1680	0.1708	Ave		0.1727				11.0		15.0			
2-Nitropropane	0.0408	0.0297	0.0323	0.0353	0.0354	Ave		0.0347				12.0		15.0			
Cyclohexanone	0.0250	0.0206	0.0227	0.0213	0.0209	Ave		0.0221				8.2		15.0			
1,2,3-Trimethylbenzene	2.3517	2.2462	2.4894	2.5321	2.6289	Ave		2.4497				6.2		15.0			
2-Methylnaphthalene	1.0950	1.2009	1.3691	1.5194	1.4805	Ave		1.3330				14.0		15.0			
n-Butyl acetate	0.3244	0.3080	0.3537	0.3693	0.3680	Ave		0.3447				7.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: ICV 240-21323/15 Calibration Date: 10/31/2011 22:56

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 19:56

Lab File ID: UX90545.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3234	0.2750		17.0	20.0	-15.0	50.0
Chloromethane	Ave	0.2686	0.2450	0.1000	18.2	20.0	-8.8	50.0
Vinyl chloride	Ave	0.3221	0.2937		18.2	20.0	-8.8	20.0
Bromomethane	Ave	0.2278	0.1967		17.3	20.0	-13.6	50.0
Chloroethane	Ave	0.2023	0.1820		18.0	20.0	-10.0	50.0
Trichlorofluoromethane	Ave	0.4594	0.5166		22.5	20.0	12.5	50.0
Acrolein	Ave	0.0346	0.0407		70.5	60.0	17.6	50.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.2881	0.3175		22.0	20.0	10.2	50.0
1,1-Dichloroethene	Ave	0.4424	0.4839		21.9	20.0	9.4	20.0
Acetone	Lin1		0.0623		38.6	40.0	-3.5	50.0
Iodomethane	Ave	0.5024	0.5076		20.2	20.0	1.0	50.0
Carbon disulfide	Ave	0.8420	0.8637		20.5	20.0	2.6	50.0
Acetonitrile	Lin1		0.0266		64.9	60.0	8.2	50.0
Methyl acetate	Lin1		0.1422		18.3	20.0	-8.5	50.0
Methylene Chloride	Ave	0.3371	0.3149		18.7	20.0	-6.6	50.0
tert-Butyl alcohol	Ave	0.0206	0.0229		445	400	11.1	50.0
Acrylonitrile	Ave	0.0855	0.0833		58.5	60.0	-2.6	50.0
Methyl tert-butyl ether	Ave	0.8037	0.7777		19.4	20.0	-3.2	50.0
trans-1,2-Dichloroethene	Ave	0.3311	0.3254		19.7	20.0	-1.7	50.0
Hexane	Ave	0.2068	0.2255		21.8	20.0	9.0	20.0
1,1-Dichloroethane	Ave	0.4089	0.4042	0.1000	19.8	20.0	-1.2	50.0
Vinyl acetate	Ave	0.0574	0.0644		22.4	20.0	12.1	50.0
2,2-Dichloropropane	Ave	0.1807	0.1836		20.3	20.0	1.6	50.0
2-Butanone	Lin1		0.0263		35.4	40.0	-11.5	50.0
cis-1,2-Dichloroethene	Ave	0.3570	0.3232		18.1	20.0	-9.5	50.0
Bromochloromethane	Ave	0.1812	0.1763		19.5	20.0	-2.7	50.0
Tetrahydrofuran	Lin1		0.0538		19.6	20.0	-2.0	50.0
Chloroform	Ave	0.4701	0.4691		20.0	20.0	-0.2	20.0
1,1,1-Trichloroethane	Ave	0.3076	0.3098		20.1	20.0	0.7	50.0
Cyclohexane	Ave	0.3128	0.3176		20.3	20.0	1.5	50.0
1,1-Dichloropropene	Ave	0.3276	0.3380		20.6	20.0	3.2	50.0
Carbon tetrachloride	Ave	0.2694	0.2676		19.9	20.0	-0.7	50.0
Benzene	Ave	1.049	1.023		19.5	20.0	-2.5	50.0
1,2-Dichloroethane	Ave	0.3590	0.3551		19.8	20.0	-1.1	50.0
Trichloroethene	Ave	0.3096	0.3033		19.6	20.0	-2.0	50.0
Methylcyclohexane	Ave	0.2122	0.2122		20.0	20.0	0.0	50.0
1,2-Dichloropropane	Ave	0.2316	0.2241		19.4	20.0	-3.2	20.0
Dibromomethane	Ave	0.2000	0.2007		20.1	20.0	0.3	50.0
Bromodichloromethane	Ave	0.3397	0.3163		18.6	20.0	-6.9	50.0
2-Chloroethyl vinyl ether	Ave	0.1449	0.1421		19.6	20.0	-2.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: ICV 240-21323/15 Calibration Date: 10/31/2011 22:56

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 19:56

Lab File ID: UX90545.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Ave	0.4008	0.3550		17.7	20.0	-11.4	50.0
4-Methyl-2-pentanone	Ave	0.1783	0.1773		39.8	40.0	-0.6	50.0
Toluene	Ave	1.490	1.486		19.9	20.0	-0.3	20.0
trans-1,3-Dichloropropene	Ave	0.4572	0.4421		19.3	20.0	-3.3	50.0
1,1,2-Trichloroethane	Ave	0.3015	0.2884		19.1	20.0	-4.4	50.0
Tetrachloroethene	Ave	0.3839	0.3750		19.5	20.0	-2.3	50.0
1,3-Dichloropropane	Ave	0.5326	0.5064		19.0	20.0	-4.9	50.0
2-Hexanone	Ave	0.1498	0.1536		41.0	40.0	2.5	50.0
Dibromochloromethane	Ave	0.3280	0.3051		18.6	20.0	-7.0	50.0
1,2-Dibromoethane	Ave	0.3190	0.3091		19.4	20.0	-3.1	50.0
Chlorobenzene	Ave	1.051	1.010	0.3000	19.2	20.0	-3.9	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3448	0.3084		17.9	20.0	-10.5	50.0
Ethylbenzene	Ave	0.5251	0.5284		20.1	20.0	0.6	20.0
m-Xylene & p-Xylene	Ave	0.6459	0.6394		39.6	40.0	-1.0	50.0
o-Xylene	Ave	0.6499	0.6377		19.6	20.0	-1.9	50.0
Styrene	Ave	1.101	1.108		20.1	20.0	0.6	50.0
Bromoform	Ave	0.2269	0.2045	0.1000	18.0	20.0	-9.9	50.0
Isopropylbenzene	Ave	1.499	1.500		20.0	20.0	0.0	50.0
1,1,2,2-Tetrachloroethane	Ave	0.7184	0.6819	0.3000	19.0	20.0	-5.1	50.0
Bromobenzene	Ave	0.8393	0.8142		19.4	20.0	-3.0	50.0
1,2,3-Trichloropropane	Ave	0.2796	0.2732		19.5	20.0	-2.3	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1952	0.1748		35.8	40.0	-10.5	50.0
n-Propylbenzene	Ave	0.7524	0.7638		20.3	20.0	1.5	50.0
2-Chlorotoluene	Ave	0.7104	0.7020		19.8	20.0	-1.2	50.0
1,3,5-Trimethylbenzene	Ave	2.229	2.245		20.1	20.0	0.7	50.0
4-Chlorotoluene	Ave	0.7747	0.7449		19.2	20.0	-3.8	50.0
tert-Butylbenzene	Ave	2.000	1.963		19.6	20.0	-1.9	50.0
1,2,4-Trimethylbenzene	Ave	2.418	2.345		19.4	20.0	-3.0	50.0
sec-Butylbenzene	Ave	2.544	2.619		20.6	20.0	2.9	50.0
1,3-Dichlorobenzene	Ave	1.526	1.485		19.5	20.0	-2.7	50.0
p-Isopropyltoluene	Ave	2.272	2.382		21.0	20.0	4.8	50.0
1,4-Dichlorobenzene	Ave	1.641	1.591		19.4	20.0	-3.1	50.0
n-Butylbenzene	Ave	1.825	1.940		21.3	20.0	6.3	50.0
1,2-Dichlorobenzene	Ave	1.519	1.515		20.0	20.0	-0.2	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1721	0.1570		18.2	20.0	-8.8	50.0
1,2,4-Trichlorobenzene	Ave	0.9727	0.8980		18.5	20.0	-7.7	50.0
Hexachlorobutadiene	Lin1		0.3926		19.3	20.0	-3.5	50.0
Naphthalene	Ave	2.574	2.550		19.8	20.0	-0.9	50.0
1,2,3-Trichlorobenzene	Ave	0.8679	0.8723		20.1	20.0	0.5	50.0
Dibromofluoromethane (Surr)	Ave	0.2769	0.2442		17.6	20.0	-11.8	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3301	0.2844		17.2	20.0	-13.8	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: ICV 240-21323/15 Calibration Date: 10/31/2011 22:56

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 19:56

Lab File ID: UX90545.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toluene-d8 (Surr)	Ave	1.372	1.256		18.3	20.0	-8.5	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5194	0.4660		17.9	20.0	-10.3	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: ICV 240-21323/15 Calibration Date: 10/31/2011 22:56

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 20:23

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 22:06

Lab File ID: UX90545.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.1870	0.1974		21.1	20.0	5.6	50.0
Diisopropyl ether	Ave	0.2407	0.2373		19.7	20.0	-1.4	50.0
Isobutyl alcohol	Ave	0.0071	0.0069		981	1000	-1.9	50.0
Cyclohexanone	Ave	0.0221	0.0179		323	400	-19.3	50.0
1,2,3-Trimethylbenzene	Ave	2.450	2.507		20.5	20.0	2.3	50.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab File ID: BFB2078.D BFB Injection Date: 07/13/2012

Instrument ID: A3UX9 BFB Injection Time: 14:56

Analysis Batch No.: 50787

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.0	
75	30.0 - 60.0 % of mass 95	48.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	92.3	
175	5.0 - 9.0 % of mass 174	6.9	(7.4)1
176	95.0 - 101.0 % of mass 174	90.4	(97.9)1
177	5.0 - 9.0 % of mass 176	5.4	(6.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-50787/2	UX932821.D	07/13/2012	15:19
	LCS 240-50787/5	UX932822.D	07/13/2012	15:45
	CCV 240-50787/3	UX932823.D	07/13/2012	16:08
	MB 240-50787/4	UX932824.D	07/13/2012	16:35
MSA-SW37A-071212	240-13166-1	UX932825.D	07/13/2012	17:01
MSA-SW37B-071212	240-13166-2	UX932826.D	07/13/2012	17:27
MSA-SW37C-071212	240-13166-3	UX932827.D	07/13/2012	17:53
MSA-SW37D-071212	240-13166-4	UX932828.D	07/13/2012	18:20
MSA-SW42A-071212	240-13166-5	UX932829.D	07/13/2012	18:43
MSA-SW42B-071212	240-13166-6	UX932830.D	07/13/2012	19:07
MSA-SW42C-071212	240-13166-7	UX932831.D	07/13/2012	19:32
MSA-SW42D-071212	240-13166-8	UX932832.D	07/13/2012	19:56
MSA-SW40A-071212	240-13166-9	UX932833.D	07/13/2012	20:20
MSA-SW40B-071212	240-13166-10	UX932834.D	07/13/2012	20:44
MSA-SW40C-071212	240-13166-11	UX932835.D	07/13/2012	21:08
MSA-SW40D-071212	240-13166-12	UX932836.D	07/13/2012	21:33
MSA-SW38A-071212	240-13166-13	UX932837.D	07/13/2012	21:57
MSA-SW38B-071212	240-13166-14	UX932838.D	07/13/2012	22:21
MSA-SW38C-071212	240-13166-15	UX932839.D	07/13/2012	22:45
MSA-SW38D-071212	240-13166-16	UX932840.D	07/13/2012	23:10
MSA-SW41A-071212	240-13166-17	UX932841.D	07/13/2012	23:34
MSA-SW41B-071212	240-13166-18	UX932842.D	07/13/2012	23:58
MSA-SW41C-071212	240-13166-19	UX932843.D	07/14/2012	00:22
MSA-SW41D-071212	240-13166-20	UX932844.D	07/14/2012	00:47

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: CCVIS 240-50787/2 Calibration Date: 07/13/2012 15:19

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 19:56

Lab File ID: UX932821.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3234	0.2863		17.7	20.0	-11.5	50.0
Chloromethane	Ave	0.2686	0.2772	0.1000	20.6	20.0	3.2	50.0
Vinyl chloride	Ave	0.3221	0.2669		16.6	20.0	-17.2	20.0
Bromomethane	Ave	0.2278	0.1801		15.8	20.0	-20.9	50.0
Chloroethane	Ave	0.2023	0.1663		16.4	20.0	-17.8	50.0
Trichlorofluoromethane	Ave	0.4594	0.4030		17.5	20.0	-12.3	50.0
Acrolein	Ave	0.0346	0.0247		143	200	-28.5	50.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.2881	0.2375		16.5	20.0	-17.6	50.0
1,1-Dichloroethene	Ave	0.4424	0.4111		18.6	20.0	-7.1	20.0
Acetone	Lin1		0.0759		47.8	40.0	19.5	50.0
Iodomethane	Ave	0.5024	0.4392		17.5	20.0	-12.6	50.0
Carbon disulfide	Ave	0.8420	0.8748		20.8	20.0	3.9	50.0
Acetonitrile	Lin1		0.0311		268	200	34.2	50.0
Methyl acetate	Lin1		0.2036		53.7	40.0	34.3	50.0
Methylene Chloride	Ave	0.3371	0.3288		19.5	20.0	-2.5	50.0
tert-Butyl alcohol	Ave	0.0206	0.0257		497	400	24.3	50.0
Acrylonitrile	Ave	0.0855	0.1072		50.2	40.0	25.5	50.0
Methyl tert-butyl ether	Ave	0.8037	0.8380		20.9	20.0	4.3	50.0
trans-1,2-Dichloroethene	Ave	0.3311	0.3330		20.1	20.0	0.6	50.0
Hexane	Ave	0.2068	0.2260		21.9	20.0	9.3	20.0
1,1-Dichloroethane	Ave	0.4089	0.4167	0.1000	20.4	20.0	1.9	50.0
Vinyl acetate	Ave	0.0574	0.0416		14.5	20.0	-27.6	50.0
2,2-Dichloropropane	Ave	0.1807	0.1988		22.0	20.0	10.0	50.0
2-Butanone	Lin1		0.0363		49.3	40.0	23.3	50.0
cis-1,2-Dichloroethene	Ave	0.3570	0.3491		19.6	20.0	-2.2	50.0
Bromochloromethane	Ave	0.1812	0.2197		24.3	20.0	21.3	50.0
Tetrahydrofuran	Lin1		0.0806		29.6	20.0	48.0	50.0
Chloroform	Ave	0.4701	0.4387		18.7	20.0	-6.7	20.0
1,1,1-Trichloroethane	Ave	0.3076	0.3113		20.2	20.0	1.2	50.0
Cyclohexane	Ave	0.3128	0.3409		21.8	20.0	9.0	50.0
1,1-Dichloropropene	Ave	0.3276	0.3457		21.1	20.0	5.5	50.0
Carbon tetrachloride	Ave	0.2694	0.2657		19.7	20.0	-1.4	50.0
Benzene	Ave	1.049	1.075		20.5	20.0	2.5	50.0
1,2-Dichloroethane	Ave	0.3590	0.3241		18.1	20.0	-9.7	50.0
Trichloroethene	Ave	0.3096	0.2833		18.3	20.0	-8.5	50.0
Methylcyclohexane	Ave	0.2122	0.2093		19.7	20.0	-1.3	50.0
1,2-Dichloropropane	Ave	0.2316	0.2462		21.3	20.0	6.3	20.0
1,4-Dioxane	Ave	0.0032	0.0035		1100	1000	10.4	50.0
Dibromomethane	Ave	0.2000	0.1900		19.0	20.0	-5.0	50.0
Bromodichloromethane	Ave	0.3397	0.3205		18.9	20.0	-5.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: CCVIS 240-50787/2 Calibration Date: 07/13/2012 15:19

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 19:56

Lab File ID: UX932821.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1449	0.1802		49.7	40.0	24.4	50.0
cis-1,3-Dichloropropene	Ave	0.4008	0.3987		19.9	20.0	-0.5	50.0
4-Methyl-2-pentanone	Ave	0.1783	0.2351		52.8	40.0	31.9	50.0
Toluene	Ave	1.490	1.557		20.9	20.0	4.5	20.0
trans-1,3-Dichloropropene	Ave	0.4572	0.4615		20.2	20.0	0.9	50.0
Ethyl methacrylate	Ave	0.3590	0.4374		24.4	20.0	21.8	50.0
1,1,2-Trichloroethane	Ave	0.3015	0.3199		21.2	20.0	6.1	50.0
Tetrachloroethene	Ave	0.3839	0.3552		18.5	20.0	-7.5	50.0
1,3-Dichloropropane	Ave	0.5326	0.5786		21.7	20.0	8.6	50.0
2-Hexanone	Ave	0.1498	0.2120		56.6	40.0	41.5	50.0
Dibromochloromethane	Ave	0.3280	0.3277		20.0	20.0	-0.1	50.0
1,2-Dibromoethane	Ave	0.3190	0.3339		20.9	20.0	4.6	50.0
Chlorobenzene	Ave	1.051	1.006	0.3000	19.1	20.0	-4.3	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3448	0.3238		18.8	20.0	-6.1	50.0
Ethylbenzene	Ave	0.5251	0.5155		19.6	20.0	-1.8	20.0
m-Xylene & p-Xylene	Ave	0.6459	0.6410		39.7	40.0	-0.8	50.0
o-Xylene	Ave	0.6499	0.6298		19.4	20.0	-3.1	50.0
Styrene	Ave	1.101	1.125		20.4	20.0	2.2	50.0
Bromoform	Ave	0.2269	0.2103	0.1000	18.5	20.0	-7.3	50.0
Isopropylbenzene	Ave	1.499	1.435		19.2	20.0	-4.2	50.0
1,1,2,2-Tetrachloroethane	Ave	0.7184	0.8828	0.3000	24.6	20.0	22.9	50.0
Bromobenzene	Ave	0.8393	0.8658		20.6	20.0	3.2	50.0
1,2,3-Trichloropropane	Ave	0.2796	0.3132		22.4	20.0	12.0	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1952	0.1826		18.7	20.0	-6.5	50.0
n-Propylbenzene	Ave	0.7524	0.7451		19.8	20.0	-1.0	50.0
2-Chlorotoluene	Ave	0.7104	0.7231		20.4	20.0	1.8	50.0
1,3,5-Trimethylbenzene	Ave	2.229	2.299		20.6	20.0	3.2	50.0
4-Chlorotoluene	Ave	0.7747	0.7756		20.0	20.0	0.1	50.0
tert-Butylbenzene	Ave	2.000	1.990		19.9	20.0	-0.5	50.0
1,2,4-Trimethylbenzene	Ave	2.418	2.395		19.8	20.0	-0.9	50.0
sec-Butylbenzene	Ave	2.544	2.632		20.7	20.0	3.5	50.0
1,3-Dichlorobenzene	Ave	1.526	1.472		19.3	20.0	-3.5	50.0
p-Isopropyltoluene	Ave	2.272	2.284		20.1	20.0	0.6	50.0
1,4-Dichlorobenzene	Ave	1.641	1.549		18.9	20.0	-5.6	50.0
n-Butylbenzene	Ave	1.825	1.926		21.1	20.0	5.5	50.0
1,2-Dichlorobenzene	Ave	1.519	1.458		19.2	20.0	-4.0	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1721	0.1615		18.8	20.0	-6.2	50.0
1,3,5-Trichlorobenzene	Ave	1.044	0.8985		17.2	20.0	-13.9	50.0
1,2,4-Trichlorobenzene	Ave	0.9727	0.7548		15.5	20.0	-22.4	50.0
Hexachlorobutadiene	Lin1		0.3617		17.7	20.0	-11.5	50.0
Naphthalene	Ave	2.574	2.013		15.6	20.0	-21.8	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: CCVIS 240-50787/2 Calibration Date: 07/13/2012 15:19

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 19:56

Lab File ID: UX932821.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.8679	0.6052		13.9	20.0	-30.3	50.0
Dibromofluoromethane (Surr)	Ave	0.2769	0.2302		16.6	20.0	-16.9	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3301	0.2709		16.4	20.0	-17.9	50.0
Toluene-d8 (Surr)	Ave	1.372	1.290		18.8	20.0	-6.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5194	0.4549		17.5	20.0	-12.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: CCV 240-50787/3 Calibration Date: 07/13/2012 16:08

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 20:23

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 22:06

Lab File ID: UX932823.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.4929	0.4220		17.1	20.0	-14.4	50.0
Ethyl ether	Ave	0.1870	0.1699		18.2	20.0	-9.1	50.0
3-Chloro-1-propene	Lin1		0.2741		30.6	20.0	53.0*	50.0
Diisopropyl ether	Ave	0.2407	0.2514		104	100	4.4	50.0
2-Chloro-1,3-butadiene	Ave	0.3214	0.3340		20.8	20.0	3.9	50.0
Ethyl-t-butyl ether (ETBE)	Ave	0.6733	0.7521		22.3	20.0	11.7	50.0
Ethyl acetate	Ave	0.1814	0.2167		47.8	40.0	19.5	50.0
Propionitrile	Ave	0.0291	0.0395		54.2	40.0	35.5	50.0
Methacrylonitrile	Ave	0.1121	0.1502		26.8	20.0	34.0	50.0
Isobutyl alcohol	Ave	0.0071	0.0086		488	400	21.9	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.6889	0.7693		22.3	20.0	11.7	50.0
n-Heptane	Lin1		0.1292		19.0	20.0	-5.0	50.0
n-Butanol	Ave	0.0064	0.0085		529	400	32.3	50.0
Methyl methacrylate	Ave	0.1727	0.2119		24.5	20.0	22.7	50.0
2-Nitropropane	Ave	0.0347	0.0423		48.8	40.0	21.9	50.0
Cyclohexanone	Ave	0.0221	0.0457		413	200	106.6*	50.0
1,2,3-Trimethylbenzene	Ave	2.450	2.612		21.3	20.0	6.6	50.0
2-Methylnaphthalene	Ave	1.333	0.4819		14.5	40.0	-63.8*	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab File ID: UX932824.D Lab Sample ID: MB 240-50787/4

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 07/13/2012 16:35

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-50787/5	UX932822.D	07/13/2012 15:45
MSA-SW37A-071212	240-13166-1	UX932825.D	07/13/2012 17:01
MSA-SW37B-071212	240-13166-2	UX932826.D	07/13/2012 17:27
MSA-SW37C-071212	240-13166-3	UX932827.D	07/13/2012 17:53
MSA-SW37D-071212	240-13166-4	UX932828.D	07/13/2012 18:20
MSA-SW42A-071212	240-13166-5	UX932829.D	07/13/2012 18:43
MSA-SW42B-071212	240-13166-6	UX932830.D	07/13/2012 19:07
MSA-SW42C-071212	240-13166-7	UX932831.D	07/13/2012 19:32
MSA-SW42D-071212	240-13166-8	UX932832.D	07/13/2012 19:56
MSA-SW40A-071212	240-13166-9	UX932833.D	07/13/2012 20:20
MSA-SW40B-071212	240-13166-10	UX932834.D	07/13/2012 20:44
MSA-SW40C-071212	240-13166-11	UX932835.D	07/13/2012 21:08
MSA-SW40D-071212	240-13166-12	UX932836.D	07/13/2012 21:33
MSA-SW38A-071212	240-13166-13	UX932837.D	07/13/2012 21:57
MSA-SW38B-071212	240-13166-14	UX932838.D	07/13/2012 22:21
MSA-SW38C-071212	240-13166-15	UX932839.D	07/13/2012 22:45
MSA-SW38D-071212	240-13166-16	UX932840.D	07/13/2012 23:10
MSA-SW41A-071212	240-13166-17	UX932841.D	07/13/2012 23:34
MSA-SW41B-071212	240-13166-18	UX932842.D	07/13/2012 23:58
MSA-SW41C-071212	240-13166-19	UX932843.D	07/14/2012 00:22
MSA-SW41D-071212	240-13166-20	UX932844.D	07/14/2012 00:47

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Method Blank - Batch: 240-50787

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 240-50787/4	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932824.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1635	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1635				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Method Blank - Batch: 240-50787

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 240-50787/4	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932824.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1635	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1635				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Diisopropyl ether	5.0	U	1.5	5.0
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	0.497	J	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	78	63 - 129
4-Bromofluorobenzene (Surr)	84	66 - 117
Dibromofluoromethane (Surr)	81	75 - 121
Toluene-d8 (Surr)	91	74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Lab Control Sample - Batch: 240-50787

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 240-50787/5	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932822.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1545	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1545				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	20.0	17.8	89	72 - 116	
1,1,1-Trichloroethane	20.0	18.7	94	74 - 118	
1,1,2,2-Tetrachloroethane	20.0	23.7	119	68 - 118	*
1,1,2-Trichloro-1,2,2-trichfluoroethane	20.0	17.0	85	74 - 151	
1,1-Dichloroethane	20.0	19.4	97	82 - 115	
1,1-Dichloroethene	20.0	17.4	87	78 - 131	
1,1-Dichloropropene	20.0	19.2	96	83 - 114	
1,2,3-Trichlorobenzene	20.0	14.5	73	54 - 126	
1,2,3-Trichloropropane	20.0	21.9	110	73 - 129	
1,2,3-Trimethylbenzene	20.0	19.7	99	70 - 130	
1,2,4-Trichlorobenzene	20.0	15.6	78	48 - 135	
1,2,4-Trimethylbenzene	20.0	19.4	97	76 - 120	
1,2-Dibromo-3-Chloropropane	20.0	19.8	99	42 - 136	
1,2-Dibromoethane	20.0	20.2	101	79 - 113	
1,2-Dichlorobenzene	20.0	18.8	94	81 - 110	
1,2-Dichloroethane	20.0	17.4	87	71 - 127	
1,2-Dichloropropane	20.0	20.2	101	81 - 115	
1,3-Dichlorobenzene	20.0	19.1	96	80 - 110	
1,3-Dichloropropane	20.0	21.1	106	79 - 116	
1,4-Dichlorobenzene	20.0	18.1	91	82 - 110	
2,2-Dichloropropane	20.0	20.6	103	50 - 129	
2-Butanone	40.0	46.4	116	60 - 126	
2-Chloroethyl vinyl ether	20.0	21.0	105	52 - 131	
2-Chlorotoluene	20.0	19.4	97	76 - 116	
2-Hexanone	40.0	53.9	135	55 - 133	*
4-Chlorotoluene	20.0	18.9	95	77 - 115	
4-Methyl-2-pentanone	40.0	47.6	119	63 - 128	
Acetone	40.0	44.2	111	43 - 136	
Benzene	20.0	19.5	98	83 - 112	
Bromobenzene	20.0	19.7	99	76 - 115	
Bromochloromethane	20.0	19.4	97	77 - 120	
Bromodichloromethane	20.0	18.0	90	72 - 121	
Bromoform	20.0	18.2	91	40 - 131	
Bromomethane	20.0	13.2	66	11 - 185	
Carbon disulfide	20.0	18.2	91	62 - 142	
Carbon tetrachloride	20.0	19.2	96	66 - 128	
Chlorobenzene	20.0	18.5	93	85 - 110	
Chloroethane	20.0	14.1	71	25 - 153	
Chloroform	20.0	17.1	86	79 - 117	
Chloromethane	20.0	16.1	81	44 - 126	
cis-1,2-Dichloroethene	20.0	18.2	91	80 - 113	
cis-1,3-Dichloropropene	20.0	18.3	92	61 - 115	
Dibromochloromethane	20.0	18.7	94	64 - 119	
Dibromomethane	20.0	18.5	93	81 - 120	
Dichlorodifluoromethane	20.0	10.9	55	19 - 129	
Diisopropyl ether	20.0	20.2	101	77 - 118	

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Lab Control Sample - Batch: 240-50787

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 240-50787/5	Analysis Batch:	240-50787	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932822.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/13/2012 1545	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/13/2012 1545				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ethylbenzene	20.0	18.7	94	83 - 112	
Hexachlorobutadiene	20.0	17.9	90	36 - 134	
Isopropylbenzene	20.0	18.7	94	75 - 114	
Methyl tert-butyl ether	20.0	19.2	96	52 - 144	
Methylene Chloride	20.0	18.0	90	66 - 131	
m-Xylene & p-Xylene	40.0	37.8	95	83 - 113	
Naphthalene	20.0	15.6	78	32 - 141	
n-Butylbenzene	20.0	21.0	105	66 - 125	
n-Propylbenzene	20.0	19.7	99	74 - 121	
o-Xylene	20.0	18.6	93	83 - 113	
p-Isopropyltoluene	20.0	20.6	103	74 - 120	
sec-Butylbenzene	20.0	20.6	103	70 - 117	
Styrene	20.0	19.9	100	79 - 114	
tert-Butyl alcohol	400	500	125	70 - 130	
tert-Butylbenzene	20.0	18.3	92	71 - 115	
Tetrachloroethene	20.0	17.7	89	79 - 114	
Toluene	20.0	20.0	100	84 - 111	
trans-1,2-Dichloroethene	20.0	19.4	97	83 - 117	
trans-1,3-Dichloropropene	20.0	19.4	97	58 - 117	
Trichloroethene	20.0	18.0	90	76 - 117	
Trichlorofluoromethane	20.0	16.0	80	49 - 157	
Vinyl acetate	20.0	16.6	83	46 - 161	
Vinyl chloride	20.0	13.4	67	53 - 127	
Xylenes, Total	60.0	56.4	94	83 - 112	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	79	63 - 129
4-Bromofluorobenzene (Surr)	90	66 - 117
Dibromofluoromethane (Surr)	80	75 - 121
Toluene-d8 (Surr)	93	74 - 115

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab File ID: BFB2079.D BFB Injection Date: 07/14/2012

Instrument ID: A3UX9 BFB Injection Time: 15:56

Analysis Batch No.: 50806

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.5	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.3	(0.3)1
174	50.0 - 120.00 % of mass 95	82.6	
175	5.0 - 9.0 % of mass 174	6.2	(7.5)1
176	95.0 - 101.0 % of mass 174	81.1	(98.2)1
177	5.0 - 9.0 % of mass 176	5.3	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-50806/2	UX932845.D	07/14/2012	16:19
	LCS 240-50806/5	UX932846.D	07/14/2012	16:43
	CCV 240-50806/3	UX932847.D	07/14/2012	17:07
	MB 240-50806/4	UX932848.D	07/14/2012	17:34
MSA-SW43A-071212	240-13166-21	UX932849.D	07/14/2012	17:58
MSA-SW43B-071212	240-13166-22	UX932850.D	07/14/2012	18:22
MSA-SW43C-071212	240-13166-23	UX932851.D	07/14/2012	18:47
MSA-SW43D-071212	240-13166-24	UX932852.D	07/14/2012	19:11
MSA-SW44A-071212	240-13166-25	UX932853.D	07/14/2012	19:35
MSA-SW44B-071212	240-13166-26	UX932854.D	07/14/2012	20:00
MSA-SW44C-071212	240-13166-27	UX932855.D	07/14/2012	20:23
MSA-SW44D-071212	240-13166-28	UX932856.D	07/14/2012	20:47
MSA-SW45A-071212	240-13166-29	UX932857.D	07/14/2012	21:11
MSA-SW45B-071212	240-13166-30	UX932858.D	07/14/2012	21:36
MSA-SW45C-071212	240-13166-31	UX932859.D	07/14/2012	22:00
MSA-SW45D-071212	240-13166-32	UX932860.D	07/14/2012	22:24
MSA-SW39A-071212	240-13166-33	UX932861.D	07/14/2012	22:48
MSA-SW39B-071212	240-13166-34	UX932862.D	07/14/2012	23:12
MSA-SW39C-071212	240-13166-35	UX932863.D	07/14/2012	23:36
MSA-SW39D-071212	240-13166-36	UX932864.D	07/15/2012	00:00
TB-071212	240-13166-37	UX932865.D	07/15/2012	00:24
EL-SW01A-071212	240-13166-38	UX932866.D	07/15/2012	00:48
EL-SW01B-071212	240-13166-39	UX932867.D	07/15/2012	01:12
EL-SW01C-071212	240-13166-40	UX932868.D	07/15/2012	01:36

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: CCVIS 240-50806/2 Calibration Date: 07/14/2012 16:19

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 19:56

Lab File ID: UX932845.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3234	0.2989		18.5	20.0	-7.6	50.0
Chloromethane	Ave	0.2686	0.3083	0.1000	23.0	20.0	14.8	50.0
Vinyl chloride	Ave	0.3221	0.2761		17.1	20.0	-14.3	20.0
Bromomethane	Ave	0.2278	0.1795		15.8	20.0	-21.2	50.0
Chloroethane	Ave	0.2023	0.1710		16.9	20.0	-15.5	50.0
Trichlorofluoromethane	Ave	0.4594	0.3906		17.0	20.0	-15.0	50.0
Acrolein	Ave	0.0346	0.0296		172	200	-14.3	50.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.2881	0.2562		17.8	20.0	-11.1	50.0
1,1-Dichloroethene	Ave	0.4424	0.3980		18.0	20.0	-10.0	20.0
Acetone	Lin1		0.0732		46.0	40.0	15.0	50.0
Iodomethane	Ave	0.5024	0.4185		16.7	20.0	-16.7	50.0
Carbon disulfide	Ave	0.8420	0.8012		19.0	20.0	-4.8	50.0
Acetonitrile	Lin1		0.0306		263	200	31.6	50.0
Methyl acetate	Lin1		0.1849		48.7	40.0	21.8	50.0
Methylene Chloride	Ave	0.3371	0.3138		18.6	20.0	-6.9	50.0
tert-Butyl alcohol	Ave	0.0206	0.0264		512	400	27.9	50.0
Acrylonitrile	Ave	0.0855	0.0981		45.9	40.0	14.8	50.0
Methyl tert-butyl ether	Ave	0.8037	0.7672		19.1	20.0	-4.5	50.0
trans-1,2-Dichloroethene	Ave	0.3311	0.3110		18.8	20.0	-6.1	50.0
Hexane	Ave	0.2068	0.2018		19.5	20.0	-2.4	20.0
1,1-Dichloroethane	Ave	0.4089	0.3892	0.1000	19.0	20.0	-4.8	50.0
Vinyl acetate	Ave	0.0574	0.0451		15.7	20.0	-21.5	50.0
2,2-Dichloropropane	Ave	0.1807	0.1899		21.0	20.0	5.1	50.0
2-Butanone	Lin1		0.0340		46.2	40.0	15.5	50.0
cis-1,2-Dichloroethene	Ave	0.3570	0.3223		18.1	20.0	-9.7	50.0
Bromochloromethane	Ave	0.1812	0.1761		19.4	20.0	-2.8	50.0
Tetrahydrofuran	Lin1		0.0704		25.8	20.0	29.0	50.0
Chloroform	Ave	0.4701	0.4281		18.2	20.0	-8.9	20.0
1,1,1-Trichloroethane	Ave	0.3076	0.2936		19.1	20.0	-4.5	50.0
Cyclohexane	Ave	0.3128	0.3291		21.0	20.0	5.2	50.0
1,1-Dichloropropene	Ave	0.3276	0.3228		19.7	20.0	-1.5	50.0
Carbon tetrachloride	Ave	0.2694	0.2561		19.0	20.0	-4.9	50.0
Benzene	Ave	1.049	1.039		19.8	20.0	-0.9	50.0
1,2-Dichloroethane	Ave	0.3590	0.3069		17.1	20.0	-14.5	50.0
Trichloroethene	Ave	0.3096	0.2751		17.8	20.0	-11.1	50.0
Methylcyclohexane	Ave	0.2122	0.2043		19.3	20.0	-3.7	50.0
1,2-Dichloropropane	Ave	0.2316	0.2340		20.2	20.0	1.0	20.0
1,4-Dioxane	Ave	0.0032	0.0037		1150	1000	14.6	50.0
Dibromomethane	Ave	0.2000	0.1860		18.6	20.0	-7.0	50.0
Bromodichloromethane	Ave	0.3397	0.3132		18.4	20.0	-7.8	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: CCVIS 240-50806/2 Calibration Date: 07/14/2012 16:19

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 19:56

Lab File ID: UX932845.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1449	0.1677		46.3	40.0	15.7	50.0
cis-1,3-Dichloropropene	Ave	0.4008	0.3858		19.2	20.0	-3.8	50.0
4-Methyl-2-pentanone	Ave	0.1783	0.2132		47.8	40.0	19.6	50.0
Toluene	Ave	1.490	1.503		20.2	20.0	0.9	20.0
trans-1,3-Dichloropropene	Ave	0.4572	0.4400		19.2	20.0	-3.8	50.0
Ethyl methacrylate	Ave	0.3590	0.4337		24.2	20.0	20.8	50.0
1,1,2-Trichloroethane	Ave	0.3015	0.3258		21.6	20.0	8.1	50.0
Tetrachloroethene	Ave	0.3839	0.3438		17.9	20.0	-10.4	50.0
1,3-Dichloropropane	Ave	0.5326	0.5555		20.9	20.0	4.3	50.0
2-Hexanone	Ave	0.1498	0.1987		53.0	40.0	32.6	50.0
Dibromochloromethane	Ave	0.3280	0.3227		19.7	20.0	-1.6	50.0
1,2-Dibromoethane	Ave	0.3190	0.3179		19.9	20.0	-0.3	50.0
Chlorobenzene	Ave	1.051	0.999	0.3000	19.0	20.0	-5.0	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3448	0.3166		18.4	20.0	-8.2	50.0
Ethylbenzene	Ave	0.5251	0.5067		19.3	20.0	-3.5	20.0
m-Xylene & p-Xylene	Ave	0.6459	0.6301		39.0	40.0	-2.4	50.0
o-Xylene	Ave	0.6499	0.6202		19.1	20.0	-4.6	50.0
Styrene	Ave	1.101	1.134		20.6	20.0	3.0	50.0
Bromoform	Ave	0.2269	0.2223	0.1000	19.6	20.0	-2.0	50.0
Isopropylbenzene	Ave	1.499	1.433		19.1	20.0	-4.3	50.0
1,1,2,2-Tetrachloroethane	Ave	0.7184	0.9139	0.3000	25.4	20.0	27.2	50.0
Bromobenzene	Ave	0.8393	0.8602		20.5	20.0	2.5	50.0
1,2,3-Trichloropropane	Ave	0.2796	0.3219		23.0	20.0	15.1	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1952	0.1671		17.1	20.0	-14.4	50.0
n-Propylbenzene	Ave	0.7524	0.7509		20.0	20.0	-0.2	50.0
2-Chlorotoluene	Ave	0.7104	0.7160		20.2	20.0	0.8	50.0
1,3,5-Trimethylbenzene	Ave	2.229	2.325		20.9	20.0	4.3	50.0
4-Chlorotoluene	Ave	0.7747	0.7715		19.9	20.0	-0.4	50.0
tert-Butylbenzene	Ave	2.000	2.015		20.2	20.0	0.8	50.0
1,2,4-Trimethylbenzene	Ave	2.418	2.404		19.9	20.0	-0.6	50.0
sec-Butylbenzene	Ave	2.544	2.749		21.6	20.0	8.1	50.0
1,3-Dichlorobenzene	Ave	1.526	1.486		19.5	20.0	-2.7	50.0
p-Isopropyltoluene	Ave	2.272	2.376		20.9	20.0	4.6	50.0
1,4-Dichlorobenzene	Ave	1.641	1.598		19.5	20.0	-2.7	50.0
n-Butylbenzene	Ave	1.825	1.951		21.4	20.0	6.9	50.0
1,2-Dichlorobenzene	Ave	1.519	1.490		19.6	20.0	-1.9	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1721	0.1680		19.5	20.0	-2.4	50.0
1,3,5-Trichlorobenzene	Ave	1.044	0.9421		18.1	20.0	-9.7	50.0
1,2,4-Trichlorobenzene	Ave	0.9727	0.7909		16.3	20.0	-18.7	50.0
Hexachlorobutadiene	Lin1		0.3794		18.6	20.0	-7.0	50.0
Naphthalene	Ave	2.574	2.028		15.8	20.0	-21.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: CCVIS 240-50806/2 Calibration Date: 07/14/2012 16:19

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 19:56

Lab File ID: UX932845.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.8679	0.6312		14.5	20.0	-27.3	50.0
Dibromofluoromethane (Surr)	Ave	0.2769	0.2268		16.4	20.0	-18.1	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3301	0.2678		16.2	20.0	-18.9	50.0
Toluene-d8 (Surr)	Ave	1.372	1.258		18.3	20.0	-8.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5194	0.4456		17.2	20.0	-14.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: CCV 240-50806/3 Calibration Date: 07/14/2012 17:07

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 20:23

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 22:06

Lab File ID: UX932847.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.4929	0.5014		20.3	20.0	1.7	50.0
Ethyl ether	Ave	0.1870	0.2121		22.7	20.0	13.4	50.0
3-Chloro-1-propene	Lin1		0.2890		32.3	20.0	61.5*	50.0
Diisopropyl ether	Ave	0.2407	0.2629		109	100	9.2	50.0
2-Chloro-1,3-butadiene	Ave	0.3214	0.3526		21.9	20.0	9.7	50.0
Ethyl-t-butyl ether (ETBE)	Ave	0.6733	0.7623		22.6	20.0	13.2	50.0
Ethyl acetate	Ave	0.1814	0.2183		48.1	40.0	20.4	50.0
Propionitrile	Ave	0.0291	0.0399		54.8	40.0	37.0	50.0
Methacrylonitrile	Ave	0.1121	0.1531		27.3	20.0	36.6	50.0
Isobutyl alcohol	Ave	0.0071	0.0092		519	400	29.8	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.6889	0.7628		22.1	20.0	10.7	50.0
n-Heptane	Lin1		0.1408		21.2	20.0	6.0	50.0
n-Butanol	Ave	0.0064	0.0086		541	400	35.2	50.0
Methyl methacrylate	Ave	0.1727	0.2019		23.4	20.0	16.9	50.0
2-Nitropropane	Ave	0.0347	0.0391		45.1	40.0	12.7	50.0
Cyclohexanone	Ave	0.0221	0.0538		486	200	143.2*	50.0
1,2,3-Trimethylbenzene	Ave	2.450	2.583		21.1	20.0	5.4	50.0
2-Methylnaphthalene	Ave	1.333	0.4815		14.4	40.0	-63.9*	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab File ID: UX932848.D Lab Sample ID: MB 240-50806/4

Matrix: Water Heated Purge: (Y/N) N

Instrument ID: A3UX9 Date Analyzed: 07/14/2012 17:34

GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-50806/5	UX932846.D	07/14/2012 16:43
MSA-SW43A-071212	240-13166-21	UX932849.D	07/14/2012 17:58
MSA-SW43B-071212	240-13166-22	UX932850.D	07/14/2012 18:22
MSA-SW43C-071212	240-13166-23	UX932851.D	07/14/2012 18:47
MSA-SW43D-071212	240-13166-24	UX932852.D	07/14/2012 19:11
MSA-SW44A-071212	240-13166-25	UX932853.D	07/14/2012 19:35
MSA-SW44B-071212	240-13166-26	UX932854.D	07/14/2012 20:00
MSA-SW44C-071212	240-13166-27	UX932855.D	07/14/2012 20:23
MSA-SW44D-071212	240-13166-28	UX932856.D	07/14/2012 20:47
MSA-SW45A-071212	240-13166-29	UX932857.D	07/14/2012 21:11
MSA-SW45B-071212	240-13166-30	UX932858.D	07/14/2012 21:36
MSA-SW45C-071212	240-13166-31	UX932859.D	07/14/2012 22:00
MSA-SW45D-071212	240-13166-32	UX932860.D	07/14/2012 22:24
MSA-SW39A-071212	240-13166-33	UX932861.D	07/14/2012 22:48
MSA-SW39B-071212	240-13166-34	UX932862.D	07/14/2012 23:12
MSA-SW39C-071212	240-13166-35	UX932863.D	07/14/2012 23:36
MSA-SW39D-071212	240-13166-36	UX932864.D	07/15/2012 00:00
TB-071212	240-13166-37	UX932865.D	07/15/2012 00:24
EL-SW01A-071212	240-13166-38	UX932866.D	07/15/2012 00:48
EL-SW01B-071212	240-13166-39	UX932867.D	07/15/2012 01:12
EL-SW01C-071212	240-13166-40	UX932868.D	07/15/2012 01:36

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Method Blank - Batch: 240-50806

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 240-50806/4	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932848.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 1734	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 1734				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	0.156	J	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Method Blank - Batch: 240-50806

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 240-50806/4	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932848.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 1734	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 1734				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Diisopropyl ether	5.0	U	1.5	5.0
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	0.445	J	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.04		0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	79	63 - 129
4-Bromofluorobenzene (Surr)	82	66 - 117
Dibromofluoromethane (Surr)	82	75 - 121
Toluene-d8 (Surr)	90	74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Lab Control Sample - Batch: 240-50806

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 240-50806/5	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932846.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 1643	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 1643				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	20.0	18.4	92	72 - 116	
1,1,1-Trichloroethane	20.0	19.5	98	74 - 118	
1,1,2,2-Tetrachloroethane	20.0	24.4	122	68 - 118	*
1,1,2-Trichloro-1,2,2-trichfluoroethane	20.0	15.7	79	74 - 151	
1,1-Dichloroethane	20.0	21.1	106	82 - 115	
1,1-Dichloroethene	20.0	16.7	84	78 - 131	
1,1-Dichloropropene	20.0	20.6	103	83 - 114	
1,2,3-Trichlorobenzene	20.0	15.4	77	54 - 126	
1,2,3-Trichloropropane	20.0	21.8	109	73 - 129	
1,2,3-Trimethylbenzene	20.0	20.7	104	70 - 130	
1,2,4-Trichlorobenzene	20.0	16.0	80	48 - 135	
1,2,4-Trimethylbenzene	20.0	20.3	102	76 - 120	
1,2-Dibromo-3-Chloropropane	20.0	19.1	96	42 - 136	
1,2-Dibromoethane	20.0	21.0	105	79 - 113	
1,2-Dichlorobenzene	20.0	19.8	99	81 - 110	
1,2-Dichloroethane	20.0	18.2	91	71 - 127	
1,2-Dichloropropane	20.0	21.2	106	81 - 115	
1,3-Dichlorobenzene	20.0	19.8	99	80 - 110	
1,3-Dichloropropane	20.0	21.5	108	79 - 116	
1,4-Dichlorobenzene	20.0	19.4	97	82 - 110	
2,2-Dichloropropane	20.0	20.8	104	50 - 129	
2-Butanone	40.0	48.1	120	60 - 126	
2-Chloroethyl vinyl ether	20.0	23.8	119	52 - 131	
2-Chlorotoluene	20.0	19.9	100	76 - 116	
2-Hexanone	40.0	54.1	135	55 - 133	*
4-Chlorotoluene	20.0	20.1	101	77 - 115	
4-Methyl-2-pentanone	40.0	49.4	124	63 - 128	
Acetone	40.0	38.2	96	43 - 136	
Benzene	20.0	21.0	105	83 - 112	
Bromobenzene	20.0	20.8	104	76 - 115	
Bromochloromethane	20.0	23.5	118	77 - 120	
Bromodichloromethane	20.0	19.2	96	72 - 121	
Bromoform	20.0	18.5	93	40 - 131	
Bromomethane	20.0	14.7	74	11 - 185	
Carbon disulfide	20.0	16.3	82	62 - 142	
Carbon tetrachloride	20.0	19.9	100	66 - 128	
Chlorobenzene	20.0	19.5	98	85 - 110	
Chloroethane	20.0	15.3	77	25 - 153	
Chloroform	20.0	18.5	93	79 - 117	
Chloromethane	20.0	22.3	112	44 - 126	
cis-1,2-Dichloroethene	20.0	18.7	94	80 - 113	
cis-1,3-Dichloropropene	20.0	19.0	95	61 - 115	
Dibromochloromethane	20.0	19.3	97	64 - 119	
Dibromomethane	20.0	20.0	100	81 - 120	
Dichlorodifluoromethane	20.0	16.6	83	19 - 129	
Diisopropyl ether	20.0	21.3	107	77 - 118	

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Lab Control Sample - Batch: 240-50806

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 240-50806/5	Analysis Batch:	240-50806	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932846.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/14/2012 1643	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/14/2012 1643				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ethylbenzene	20.0	19.8	99	83 - 112	
Hexachlorobutadiene	20.0	18.9	95	36 - 134	
Isopropylbenzene	20.0	19.0	95	75 - 114	
Methyl tert-butyl ether	20.0	17.8	89	52 - 144	
Methylene Chloride	20.0	16.8	84	66 - 131	
m-Xylene & p-Xylene	40.0	39.4	99	83 - 113	
Naphthalene	20.0	16.0	80	32 - 141	
n-Butylbenzene	20.0	21.7	109	66 - 125	
n-Propylbenzene	20.0	20.7	104	74 - 121	
o-Xylene	20.0	19.5	98	83 - 113	
p-Isopropyltoluene	20.0	21.5	108	74 - 120	
sec-Butylbenzene	20.0	21.0	105	70 - 117	
Styrene	20.0	20.9	105	79 - 114	
tert-Butyl alcohol	400	439	110	70 - 130	
tert-Butylbenzene	20.0	20.0	100	71 - 115	
Tetrachloroethene	20.0	18.5	93	79 - 114	
Toluene	20.0	20.8	104	84 - 111	
trans-1,2-Dichloroethene	20.0	18.1	91	83 - 117	
trans-1,3-Dichloropropene	20.0	19.9	100	58 - 117	
Trichloroethene	20.0	18.8	94	76 - 117	
Trichlorofluoromethane	20.0	17.1	86	49 - 157	
Vinyl acetate	20.0	18.7	94	46 - 161	
Vinyl chloride	20.0	16.9	85	53 - 127	
Xylenes, Total	60.0	58.9	98	83 - 112	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	82	63 - 129
4-Bromofluorobenzene (Surr)	87	66 - 117
Dibromofluoromethane (Surr)	81	75 - 121
Toluene-d8 (Surr)	93	74 - 115

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab File ID: BFB2080.D BFB Injection Date: 07/16/2012

Instrument ID: A3UX9 BFB Injection Time: 16:55

Analysis Batch No.: 50954

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.9	
75	30.0 - 60.0 % of mass 95	47.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	94.9	
175	5.0 - 9.0 % of mass 174	7.0	(7.4)1
176	95.0 - 101.0 % of mass 174	90.7	(95.6)1
177	5.0 - 9.0 % of mass 176	5.9	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-50954/2	UX932869.D	07/16/2012	17:19
	LCS 240-50954/5	UX932870.D	07/16/2012	17:43
	CCV 240-50954/3	UX932871.D	07/16/2012	18:07
	MB 240-50954/4	UX932872.D	07/16/2012	18:33
EL-SW01D-071212	240-13166-41	UX932873.D	07/16/2012	18:57
	240-13052-D-2 MS	UX932881.D	07/16/2012	22:12
	240-13052-G-2 MSD	UX932882.D	07/16/2012	22:36

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: CCVIS 240-50954/2 Calibration Date: 07/16/2012 17:19

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 19:56

Lab File ID: UX932869.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3234	0.2593		16.0	20.0	-19.8	50.0
Chloromethane	Ave	0.2686	0.2903	0.1000	21.6	20.0	8.1	50.0
Vinyl chloride	Ave	0.3221	0.2754		17.1	20.0	-14.5	20.0
Bromomethane	Ave	0.2278	0.1956		17.2	20.0	-14.1	50.0
Chloroethane	Ave	0.2023	0.1861		18.4	20.0	-8.0	50.0
Trichlorofluoromethane	Ave	0.4594	0.3814		16.6	20.0	-17.0	50.0
Acrolein	Ave	0.0346	0.0303		175	200	-12.4	50.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.2881	0.2239		15.5	20.0	-22.3	50.0
1,1-Dichloroethene	Ave	0.4424	0.3752		17.0	20.0	-15.2	20.0
Acetone	Lin1		0.0751		47.3	40.0	18.3	50.0
Iodomethane	Ave	0.5024	0.4113		16.4	20.0	-18.1	50.0
Carbon disulfide	Ave	0.8420	0.7819		18.6	20.0	-7.1	50.0
Acetonitrile	Lin1		0.0288		248	200	24.0	50.0
Methyl acetate	Lin1		0.1947		51.3	40.0	28.3	50.0
Methylene Chloride	Ave	0.3371	0.3207		19.0	20.0	-4.9	50.0
tert-Butyl alcohol	Ave	0.0206	0.0293		567	400	41.8	50.0
Acrylonitrile	Ave	0.0855	0.1117		52.3	40.0	30.7	50.0
Methyl tert-butyl ether	Ave	0.8037	0.8115		20.2	20.0	1.0	50.0
trans-1,2-Dichloroethene	Ave	0.3311	0.3257		19.7	20.0	-1.6	50.0
Hexane	Ave	0.2068	0.1992		19.3	20.0	-3.7	20.0
1,1-Dichloroethane	Ave	0.4089	0.4031	0.1000	19.7	20.0	-1.4	50.0
Vinyl acetate	Ave	0.0574	0.0465		16.2	20.0	-19.0	50.0
2,2-Dichloropropane	Ave	0.1807	0.1782		19.7	20.0	-1.4	50.0
2-Butanone	Lin1		0.0373		50.7	40.0	26.8	50.0
cis-1,2-Dichloroethene	Ave	0.3570	0.3290		18.4	20.0	-7.9	50.0
Bromochloromethane	Ave	0.1812	0.1812		20.0	20.0	0.0	50.0
Tetrahydrofuran	Lin1		0.0765		28.1	20.0	40.5	50.0
Chloroform	Ave	0.4701	0.4351		18.5	20.0	-7.4	20.0
1,1,1-Trichloroethane	Ave	0.3076	0.2888		18.8	20.0	-6.1	50.0
Cyclohexane	Ave	0.3128	0.3161		20.2	20.0	1.0	50.0
1,1-Dichloropropene	Ave	0.3276	0.3255		19.9	20.0	-0.6	50.0
Carbon tetrachloride	Ave	0.2694	0.2500		18.6	20.0	-7.2	50.0
Benzene	Ave	1.049	1.048		20.0	20.0	-0.0	50.0
1,2-Dichloroethane	Ave	0.3590	0.3070		17.1	20.0	-14.5	50.0
Trichloroethene	Ave	0.3096	0.2741		17.7	20.0	-11.5	50.0
Methylcyclohexane	Ave	0.2122	0.1930		18.2	20.0	-9.0	50.0
1,2-Dichloropropane	Ave	0.2316	0.2433		21.0	20.0	5.1	20.0
1,4-Dioxane	Ave	0.0032	0.0041		1270	1000	27.1	50.0
Dibromomethane	Ave	0.2000	0.1909		19.1	20.0	-4.6	50.0
Bromodichloromethane	Ave	0.3397	0.3238		19.1	20.0	-4.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: CCVIS 240-50954/2 Calibration Date: 07/16/2012 17:19

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 19:56

Lab File ID: UX932869.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1449	0.1703		47.0	40.0	17.5	50.0
cis-1,3-Dichloropropene	Ave	0.4008	0.3881		19.4	20.0	-3.2	50.0
4-Methyl-2-pentanone	Ave	0.1783	0.2237		50.2	40.0	25.5	50.0
Toluene	Ave	1.490	1.528		20.5	20.0	2.6	20.0
trans-1,3-Dichloropropene	Ave	0.4572	0.4520		19.8	20.0	-1.1	50.0
Ethyl methacrylate	Ave	0.3590	0.4401		24.5	20.0	22.6	50.0
1,1,2-Trichloroethane	Ave	0.3015	0.3331		22.1	20.0	10.5	50.0
Tetrachloroethene	Ave	0.3839	0.3335		17.4	20.0	-13.1	50.0
1,3-Dichloropropane	Ave	0.5326	0.5754		21.6	20.0	8.0	50.0
2-Hexanone	Ave	0.1498	0.2088		55.7	40.0	39.4	50.0
Dibromochloromethane	Ave	0.3280	0.3314		20.2	20.0	1.0	50.0
1,2-Dibromoethane	Ave	0.3190	0.3285		20.6	20.0	3.0	50.0
Chlorobenzene	Ave	1.051	1.012	0.3000	19.3	20.0	-3.7	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3448	0.3268		19.0	20.0	-5.2	50.0
Ethylbenzene	Ave	0.5251	0.5045		19.2	20.0	-3.9	20.0
m-Xylene & p-Xylene	Ave	0.6459	0.6329		39.2	40.0	-2.0	50.0
o-Xylene	Ave	0.6499	0.6218		19.1	20.0	-4.3	50.0
Styrene	Ave	1.101	1.146		20.8	20.0	4.1	50.0
Bromoform	Ave	0.2269	0.2318	0.1000	20.4	20.0	2.2	50.0
Isopropylbenzene	Ave	1.499	1.412		18.8	20.0	-5.8	50.0
1,1,2,2-Tetrachloroethane	Ave	0.7184	0.9750	0.3000	27.1	20.0	35.7	50.0
Bromobenzene	Ave	0.8393	0.8582		20.5	20.0	2.3	50.0
1,2,3-Trichloropropane	Ave	0.2796	0.3284		23.5	20.0	17.5	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1952	0.1720		17.6	20.0	-11.9	50.0
n-Propylbenzene	Ave	0.7524	0.7176		19.1	20.0	-4.6	50.0
2-Chlorotoluene	Ave	0.7104	0.7119		20.0	20.0	0.2	50.0
1,3,5-Trimethylbenzene	Ave	2.229	2.279		20.5	20.0	2.3	50.0
4-Chlorotoluene	Ave	0.7747	0.7800		20.1	20.0	0.7	50.0
tert-Butylbenzene	Ave	2.000	1.970		19.7	20.0	-1.5	50.0
1,2,4-Trimethylbenzene	Ave	2.418	2.366		19.6	20.0	-2.2	50.0
sec-Butylbenzene	Ave	2.544	2.624		20.6	20.0	3.2	50.0
1,3-Dichlorobenzene	Ave	1.526	1.499		19.6	20.0	-1.8	50.0
p-Isopropyltoluene	Ave	2.272	2.253		19.8	20.0	-0.8	50.0
1,4-Dichlorobenzene	Ave	1.641	1.584		19.3	20.0	-3.5	50.0
n-Butylbenzene	Ave	1.825	1.854		20.3	20.0	1.6	50.0
1,2-Dichlorobenzene	Ave	1.519	1.501		19.8	20.0	-1.1	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1721	0.1813		21.1	20.0	5.3	50.0
1,3,5-Trichlorobenzene	Ave	1.044	0.9048		17.3	20.0	-13.3	50.0
1,2,4-Trichlorobenzene	Ave	0.9727	0.7776		16.0	20.0	-20.1	50.0
Hexachlorobutadiene	Lin1		0.3610		17.7	20.0	-11.5	50.0
Naphthalene	Ave	2.574	2.124		16.5	20.0	-17.5	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: CCVIS 240-50954/2 Calibration Date: 07/16/2012 17:19

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 19:56

Lab File ID: UX932869.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.8679	0.6546		15.1	20.0	-24.6	50.0
Dibromofluoromethane (Surr)	Ave	0.2769	0.2286		16.5	20.0	-17.4	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3301	0.2476		15.0	20.0	-25.0	50.0
Toluene-d8 (Surr)	Ave	1.372	1.262		18.4	20.0	-8.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5194	0.4515		17.4	20.0	-13.1	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: CCV 240-50954/3 Calibration Date: 07/16/2012 18:07

Instrument ID: A3UX9 Calib Start Date: 10/31/2011 20:23

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2011 22:06

Lab File ID: UX932871.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.4929	0.4724		19.2	20.0	-4.2	50.0
Ethyl ether	Ave	0.1870	0.1992		21.3	20.0	6.5	50.0
3-Chloro-1-propene	Lin1		0.2814		31.4	20.0	57.0*	50.0
Diisopropyl ether	Ave	0.2407	0.2572		107	100	6.8	50.0
2-Chloro-1,3-butadiene	Ave	0.3214	0.3262		20.3	20.0	1.5	50.0
Ethyl-t-butyl ether (ETBE)	Ave	0.6733	0.7271		21.6	20.0	8.0	50.0
Ethyl acetate	Ave	0.1814	0.2236		49.3	40.0	23.3	50.0
Propionitrile	Ave	0.0291	0.0404		55.4	40.0	38.6	50.0
Methacrylonitrile	Ave	0.1121	0.1572		28.1	20.0	40.3	50.0
Isobutyl alcohol	Ave	0.0071	0.0086		487	400	21.9	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.6889	0.7506		21.8	20.0	9.0	50.0
n-Heptane	Lin1		0.1206		17.4	20.0	-13.0	50.0
n-Butanol	Ave	0.0064	0.0088		548	400	37.1	50.0
Methyl methacrylate	Ave	0.1727	0.2034		23.6	20.0	17.8	50.0
2-Nitropropane	Ave	0.0347	0.0394		45.4	40.0	13.5	50.0
Cyclohexanone	Ave	0.0221	0.0566		512	200	156.0*	50.0
1,2,3-Trimethylbenzene	Ave	2.450	2.399		19.6	20.0	-2.1	50.0
2-Methylnaphthalene	Ave	1.333	0.4908		14.7	40.0	-63.2*	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab File ID: UX932872.D Lab Sample ID: MB 240-50954/4

Matrix: Water Heated Purge: (Y/N) N

Instrument ID: A3UX9 Date Analyzed: 07/16/2012 18:33

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-50954/5	UX932870.D	07/16/2012 17:43
EL-SW01D-071212	240-13166-41	UX932873.D	07/16/2012 18:57
	240-13052-D-2 MS	UX932881.D	07/16/2012 22:12
	240-13052-G-2 MSD	UX932882.D	07/16/2012 22:36

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Method Blank - Batch: 240-50954

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 240-50954/4	Analysis Batch:	240-50954	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932872.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2012 1833	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/16/2012 1833				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	5.0	U	0.67	5.0
1,2-Dibromoethane	1.0	U	0.24	1.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	5.0	U	0.57	5.0
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	5.0	U	0.41	5.0
4-Chlorotoluene	1.0	U	0.18	1.0
4-Methyl-2-pentanone	5.0	U	0.32	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromochloromethane	1.0	U	0.29	1.0
Bromodichloromethane	1.0	U	0.15	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Dibromomethane	1.0	U	0.28	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Method Blank - Batch: 240-50954

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 240-50954/4	Analysis Batch:	240-50954	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932872.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2012 1833	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/16/2012 1833				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Diisopropyl ether	5.0	U	1.5	5.0
Ethylbenzene	1.0	U	0.17	1.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Hexachlorobutadiene	0.503	J	0.30	1.0
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	0.541	J	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
tert-Butyl alcohol	20	U	3.9	20
tert-Butylbenzene	1.0	U	0.13	1.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.50	U	0.22	0.50
Xylenes, Total	2.0	U	0.28	2.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	77	63 - 129
4-Bromofluorobenzene (Surr)	85	66 - 117
Dibromofluoromethane (Surr)	81	75 - 121
Toluene-d8 (Surr)	91	74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Lab Control Sample - Batch: 240-50954

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 240-50954/5	Analysis Batch:	240-50954	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932870.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2012 1743	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/16/2012 1743				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	20.0	18.7	94	72 - 116	
1,1,1-Trichloroethane	20.0	19.8	99	74 - 118	
1,1,2,2-Tetrachloroethane	20.0	24.8	124	68 - 118	*
1,1,2-Trichloro-1,2,2-trichfluoroethane	20.0	18.8	94	74 - 151	
1,1-Dichloroethane	20.0	21.5	108	82 - 115	
1,1-Dichloroethene	20.0	20.3	102	78 - 131	
1,1-Dichloropropene	20.0	20.9	105	83 - 114	
1,2,3-Trichlorobenzene	20.0	15.5	78	54 - 126	
1,2,3-Trichloropropane	20.0	21.9	110	73 - 129	
1,2,3-Trimethylbenzene	20.0	20.1	101	70 - 130	
1,2,4-Trichlorobenzene	20.0	15.4	77	48 - 135	
1,2,4-Trimethylbenzene	20.0	19.3	97	76 - 120	
1,2-Dibromo-3-Chloropropane	20.0	20.7	104	42 - 136	
1,2-Dibromoethane	20.0	20.9	105	79 - 113	
1,2-Dichlorobenzene	20.0	19.3	97	81 - 110	
1,2-Dichloroethane	20.0	18.5	93	71 - 127	
1,2-Dichloropropane	20.0	22.0	110	81 - 115	
1,3-Dichlorobenzene	20.0	19.3	97	80 - 110	
1,3-Dichloropropane	20.0	21.9	110	79 - 116	
1,4-Dichlorobenzene	20.0	18.8	94	82 - 110	
2,2-Dichloropropane	20.0	20.7	104	50 - 129	
2-Butanone	40.0	53.4	134	60 - 126	*
2-Chloroethyl vinyl ether	20.0	24.3	122	52 - 131	
2-Chlorotoluene	20.0	19.6	98	76 - 116	
2-Hexanone	40.0	56.6	142	55 - 133	*
4-Chlorotoluene	20.0	19.6	98	77 - 115	
4-Methyl-2-pentanone	40.0	53.8	135	63 - 128	*
Acetone	40.0	46.8	117	43 - 136	
Benzene	20.0	21.7	109	83 - 112	
Bromobenzene	20.0	20.2	101	76 - 115	
Bromochloromethane	20.0	20.7	104	77 - 120	
Bromodichloromethane	20.0	19.5	98	72 - 121	
Bromoform	20.0	18.9	95	40 - 131	
Bromomethane	20.0	17.7	89	11 - 185	
Carbon disulfide	20.0	22.1	111	62 - 142	
Carbon tetrachloride	20.0	20.4	102	66 - 128	
Chlorobenzene	20.0	19.3	97	85 - 110	
Chloroethane	20.0	18.6	93	25 - 153	
Chloroform	20.0	18.8	94	79 - 117	
Chloromethane	20.0	21.5	108	44 - 126	
cis-1,2-Dichloroethene	20.0	19.6	98	80 - 113	
cis-1,3-Dichloropropene	20.0	19.2	96	61 - 115	
Dibromochloromethane	20.0	19.5	98	64 - 119	
Dibromomethane	20.0	20.6	103	81 - 120	
Dichlorodifluoromethane	20.0	15.8	79	19 - 129	
Diisopropyl ether	20.0	21.8	109	77 - 118	

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Lab Control Sample - Batch: 240-50954

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 240-50954/5	Analysis Batch:	240-50954	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932870.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2012 1743	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	07/16/2012 1743				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ethylbenzene	20.0	19.1	96	83 - 112	
Hexachlorobutadiene	20.0	17.5	88	36 - 134	
Isopropylbenzene	20.0	18.6	93	75 - 114	
Methyl tert-butyl ether	20.0	21.4	107	52 - 144	
Methylene Chloride	20.0	20.7	104	66 - 131	
m-Xylene & p-Xylene	40.0	38.6	97	83 - 113	
Naphthalene	20.0	16.7	84	32 - 141	
n-Butylbenzene	20.0	20.4	102	66 - 125	
n-Propylbenzene	20.0	19.7	99	74 - 121	
o-Xylene	20.0	19.1	96	83 - 113	
p-Isopropyltoluene	20.0	20.3	102	74 - 120	
sec-Butylbenzene	20.0	20.1	101	70 - 117	
Styrene	20.0	20.7	104	79 - 114	
tert-Butyl alcohol	400	582	146	70 - 130	*
tert-Butylbenzene	20.0	19.1	96	71 - 115	
Tetrachloroethene	20.0	17.6	88	79 - 114	
Toluene	20.0	20.9	105	84 - 111	
trans-1,2-Dichloroethene	20.0	21.3	107	83 - 117	
trans-1,3-Dichloropropene	20.0	19.7	99	58 - 117	
Trichloroethene	20.0	18.9	95	76 - 117	
Trichlorofluoromethane	20.0	19.0	95	49 - 157	
Vinyl acetate	20.0	17.7	89	46 - 161	
Vinyl chloride	20.0	18.0	90	53 - 127	
Xylenes, Total	60.0	57.7	96	83 - 112	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	82	63 - 129
4-Bromofluorobenzene (Surr)	89	66 - 117
Dibromofluoromethane (Surr)	83	75 - 121
Toluene-d8 (Surr)	92	74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-50954

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	240-13052-D-2 MS	Analysis Batch:	240-50954	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932881.D
Dilution:	25	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2012 2212			Final Weight/Volume:	5 mL
Prep Date:	07/16/2012 2212				
Leach Date:	N/A				

MSD Lab Sample ID:	240-13052-G-2 MSD	Analysis Batch:	240-50954	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932882.D
Dilution:	25	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2012 2236			Final Weight/Volume:	5 mL
Prep Date:	07/16/2012 2236				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1,1,2-Tetrachloroethane	84	84	64 - 118	1	30		
1,1,1-Trichloroethane	92	91	68 - 121	1	30		
1,1,2,2-Tetrachloroethane	116	117	63 - 122	1	30		
1,1,2-Trichloro-1,2,2-trichfluoroethane	86	90	70 - 152	4	30		
1,1-Dichloroethane	104	103	79 - 116	1	30		
1,1-Dichloroethene	92	96	74 - 135	5	30		
1,1-Dichloropropene	102	97	80 - 114	5	30		
1,2,3-Trichlorobenzene	70	77	45 - 129	10	30		
1,2,3-Trichloropropane	107	109	67 - 132	2	30		
1,2,3-Trimethylbenzene	98	99	70 - 130	1	30		
1,2,4-Trichlorobenzene	73	76	38 - 138	3	30		
1,2,4-Trimethylbenzene	93	95	67 - 124	2	30		
1,2-Dibromo-3-Chloropropane	84	91	32 - 139	8	30		
1,2-Dibromoethane	98	98	74 - 113	1	30		
1,2-Dichlorobenzene	94	94	75 - 111	1	30		
1,2-Dichloroethane	89	88	68 - 129	1	30		
1,2-Dichloropropane	105	105	78 - 115	0	30		
1,3-Dichlorobenzene	94	95	73 - 110	1	30		
1,3-Dichloropropane	106	106	74 - 118	0	30		
1,4-Dichlorobenzene	92	92	75 - 110	1	30		
2,2-Dichloropropane	92	89	38 - 127	4	30		
2-Butanone	121	115	54 - 129	5	30		
2-Chloroethyl vinyl ether	16	12	10 - 150	30	30	J	J
2-Chlorotoluene	95	98	69 - 117	3	30		
2-Hexanone	131	130	47 - 139	1	30		
4-Chlorotoluene	96	97	71 - 116	1	30		
4-Methyl-2-pentanone	122	121	56 - 131	1	30		
Acetone	109	112	33 - 145	2	30		
Benzene	104	103	72 - 121	1	30		
Bromobenzene	99	100	71 - 116	2	30		
Bromochloromethane	117	98	73 - 121	18	30		
Bromodichloromethane	89	88	67 - 120	1	30		
Bromoform	81	83	32 - 128	2	30		

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-50954

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	240-13052-D-2 MS	Analysis Batch:	240-50954	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932881.D
Dilution:	25	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2012 2212			Final Weight/Volume:	5 mL
Prep Date:	07/16/2012 2212				
Leach Date:	N/A				

MSD Lab Sample ID:	240-13052-G-2 MSD	Analysis Batch:	240-50954	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932882.D
Dilution:	25	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2012 2236			Final Weight/Volume:	5 mL
Prep Date:	07/16/2012 2236				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Bromomethane	75	75	10 - 186	1	30		
Carbon disulfide	101	99	57 - 147	2	30		
Carbon tetrachloride	90	89	59 - 129	1	30		
Chlorobenzene	95	93	80 - 110	3	30		
Chloroethane	85	81	21 - 165	2	30		
Chloroform	91	89	76 - 118	2	30		
Chloromethane	111	106	33 - 132	4	30		
cis-1,2-Dichloroethene	94	95	70 - 120	1	30		
cis-1,3-Dichloropropene	88	87	51 - 110	2	30		
Dibromochloromethane	88	88	56 - 118	0	30		
Dibromomethane	102	98	77 - 121	5	30		
Dichlorodifluoromethane	78	74	17 - 128	5	30		
Diisopropyl ether	104	102	73 - 118	2	30		
Ethylbenzene	94	94	75 - 116	0	30		
Hexachlorobutadiene	82	86	27 - 132	5	30		
Isopropylbenzene	92	90	68 - 116	2	30		
Methyl tert-butyl ether	101	99	46 - 144	2	30		
Methylene Chloride	97	96	63 - 128	1	30		
m-Xylene & p-Xylene	97	95	75 - 117	2	30		
Naphthalene	75	77	15 - 158	3	30		
n-Butylbenzene	98	100	56 - 127	3	30		
n-Propylbenzene	98	98	64 - 124	1	30		
o-Xylene	96	93	76 - 116	3	30		
p-Isopropyltoluene	98	99	64 - 122	1	30		
sec-Butylbenzene	97	99	60 - 119	3	30		
Styrene	102	100	71 - 117	2	30		
tert-Butyl alcohol	135	118	70 - 130	14	30	F	
tert-Butylbenzene	92	93	61 - 119	2	30		
Tetrachloroethene	90	87	70 - 117	3	30		
Toluene	102	102	78 - 114	0	30		
trans-1,2-Dichloroethene	104	102	80 - 119	1	30		
trans-1,3-Dichloropropene	90	90	46 - 116	1	30		
Trichloroethene	93	92	66 - 120	1	30		

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-50954

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	240-13052-D-2 MS	Analysis Batch:	240-50954	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932881.D
Dilution:	25	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2012 2212			Final Weight/Volume:	5 mL
Prep Date:	07/16/2012 2212				
Leach Date:	N/A				

MSD Lab Sample ID:	240-13052-G-2 MSD	Analysis Batch:	240-50954	Instrument ID:	A3UX9
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UX932882.D
Dilution:	25	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	07/16/2012 2236			Final Weight/Volume:	5 mL
Prep Date:	07/16/2012 2236				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Trichlorofluoromethane	87	84	46 - 157	4	30		
Vinyl acetate	88	90	43 - 157	2	30		
Vinyl chloride	83	85	49 - 130	3	30		
Xylenes, Total	97	94	76 - 116	2	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	81	80	63 - 129
4-Bromofluorobenzene (Surr)	87	90	66 - 117
Dibromofluoromethane (Surr)	81	81	75 - 121
Toluene-d8 (Surr)	92	92	74 - 115

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-50954

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	240-13052-D-2 MS	Units:	ug/L	MSD Lab Sample ID:	240-13052-G-2 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	25			Dilution:	25
Analysis Date:	07/16/2012 2212			Analysis Date:	07/16/2012 2236
Prep Date:	07/16/2012 2212			Prep Date:	07/16/2012 2236
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
1,1,1,2-Tetrachloroethane	25	U	500	500	418		420	
1,1,1-Trichloroethane	90		500	500	550		543	
1,1,2,2-Tetrachloroethane	25	U	500	500	578		585	
1,1,2-Trichloro-1,2,2-trichfluoroethane	25	U	500	500	430		448	
1,1-Dichloroethane	80		500	500	600		595	
1,1-Dichloroethene	24	J	500	500	483		505	
1,1-Dichloropropene	25	U	500	500	508		485	
1,2,3-Trichlorobenzene	25	U	500	500	348		383	
1,2,3-Trichloropropane	25	U	500	500	535		545	
1,2,3-Trimethylbenzene	130	U	500	500	490		495	
1,2,4-Trichlorobenzene	25	U	500	500	365		378	
1,2,4-Trimethylbenzene	25	U	500	500	465		475	
1,2-Dibromo-3-Chloropropane	130	U	500	500	420		455	
1,2-Dibromoethane	25	U	500	500	490		488	
1,2-Dichlorobenzene	25	U	500	500	468		470	
1,2-Dichloroethane	25	U	500	500	443		438	
1,2-Dichloropropane	25	U	500	500	525		523	
1,3-Dichlorobenzene	25	U	500	500	468		473	
1,3-Dichloropropane	25	U	500	500	530		528	
1,4-Dichlorobenzene	25	U	500	500	458		460	
2,2-Dichloropropane	25	U	500	500	460		443	
2-Butanone	130	U	1000	1000	1210		1150	
2-Chloroethyl vinyl ether	250	U	500	500	78.0	J	57.5	J
2-Chlorotoluene	25	U	500	500	475		488	
2-Hexanone	130	U	1000	1000	1310		1300	
4-Chlorotoluene	25	U	500	500	478		483	
4-Methyl-2-pentanone	130	U	1000	1000	1220		1210	
Acetone	130	U	1000	1000	1090		1120	
Benzene	25	U	500	500	520		513	
Bromobenzene	25	U	500	500	493		500	
Bromochloromethane	25	U	500	500	585		490	
Bromodichloromethane	25	U	500	500	445		440	
Bromoform	25	U	500	500	405		413	
Bromomethane	25	U	500	500	373		375	
Carbon disulfide	25	U	500	500	505		495	
Carbon tetrachloride	25	U	500	500	450		445	
Chlorobenzene	25	U	500	500	475		463	
Chloroethane	890		500	500	1310		1290	
Chloroform	25	U	500	500	455		445	
Chloromethane	25	U	500	500	553		530	
cis-1,2-Dichloroethene	25	U	500	500	470		473	
cis-1,3-Dichloropropene	25	U	500	500	440		433	
Dibromochloromethane	25	U	500	500	438		438	

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-50954

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	240-13052-D-2 MS	Units:	ug/L	MSD Lab Sample ID:	240-13052-G-2 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	25			Dilution:	25
Analysis Date:	07/16/2012 2212			Analysis Date:	07/16/2012 2236
Prep Date:	07/16/2012 2212			Prep Date:	07/16/2012 2236
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual
Dibromomethane	25	U	500	500	510		488
Dichlorodifluoromethane	25	U	500	500	388		368
Diisopropyl ether	130	U	500	500	520		508
Ethylbenzene	25	U	500	500	470		470
Hexachlorobutadiene	25	U	500	500	408		430
Isopropylbenzene	25	U	500	500	460		450
Methyl tert-butyl ether	130	U	500	500	505		495
Methylene Chloride	15	J	500	500	498		495
m-Xylene & p-Xylene	50	U	1000	1000	970		950
Naphthalene	25	U	500	500	373		385
n-Butylbenzene	25	U	500	500	488		500
n-Propylbenzene	25	U	500	500	490		488
o-Xylene	25	U	500	500	480		465
p-Isopropyltoluene	25	U	500	500	490		495
sec-Butylbenzene	25	U	500	500	483		495
Styrene	25	U	500	500	510		500
tert-Butyl alcohol	500	U	10000	10000	13500	F	11800
tert-Butylbenzene	25	U	500	500	458		465
Tetrachloroethene	25	U	500	500	450		435
Toluene	25	U	500	500	510		510
trans-1,2-Dichloroethene	25	U	500	500	518		510
trans-1,3-Dichloropropene	25	U	500	500	448		450
Trichloroethene	25	U	500	500	463		458
Trichlorofluoromethane	25	U	500	500	433		418
Vinyl acetate	50	U	500	500	440		448
Vinyl chloride	13	U	500	500	413		425
Xylenes, Total	50	U	1500	1500	1450		1420

HOLDTIME

SDG 240-13166-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HGF	UG/L	MSA-SW44A-071212	240-13166-25	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW41D-071212	240-13166-20	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW42A-071212	240-13166-5	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW42B-071212	240-13166-6	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW42C-071212	240-13166-7	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW42D-071212	240-13166-8	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW43A-071212	240-13166-21	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW41C-071212	240-13166-19	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW43C-071212	240-13166-23	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW43D-071212	240-13166-24	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW37A-071212	240-13166-1	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW44C-071212	240-13166-27	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW44D-071212	240-13166-28	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW45A-071212	240-13166-29	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW45B-071212	240-13166-30	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HGF	UG/L	MSA-SW45C-071212	240-13166-31	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW45D-071212	240-13166-32	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW43B-071212	240-13166-22	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW38B-071212	240-13166-14	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW44B-071212	240-13166-26	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW41B-071212	240-13166-18	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW37B-071212	240-13166-2	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW37C-071212	240-13166-3	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW38A-071212	240-13166-13	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW38C-071212	240-13166-15	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW38D-071212	240-13166-16	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW39A-071212	240-13166-33	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW40C-071212	240-13166-11	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW41A-071212	240-13166-17	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW37D-071212	240-13166-4	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW40D-071212	240-13166-12	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW40B-071212	240-13166-10	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW40A-071212	240-13166-9	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HGF	UG/L	MSA-SW39D-071212	240-13166-36	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW39C-071212	240-13166-35	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW39B-071212	240-13166-34	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
MF	UG/L	MSA-SW39C-071212	240-13166-35	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW37A-071212	240-13166-1	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW41C-071212	240-13166-19	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW41A-071212	240-13166-17	NM	7/12/2012	7/13/2012	7/21/2012	1	8	9
MF	UG/L	MSA-SW40D-071212	240-13166-12	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW40C-071212	240-13166-11	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW40B-071212	240-13166-10	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW40A-071212	240-13166-9	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW39D-071212	240-13166-36	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW41B-071212	240-13166-18	NM	7/12/2012	7/13/2012	7/21/2012	1	8	9
MF	UG/L	MSA-SW39B-071212	240-13166-34	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW39A-071212	240-13166-33	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW38D-071212	240-13166-16	NM	7/12/2012	7/13/2012	7/21/2012	1	8	9
MF	UG/L	MSA-SW38C-071212	240-13166-15	NM	7/12/2012	7/13/2012	7/21/2012	1	8	9
MF	UG/L	MSA-SW38B-071212	240-13166-14	NM	7/12/2012	7/13/2012	7/21/2012	1	8	9

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
MF	UG/L	MSA-SW38A-071212	240-13166-13	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW37D-071212	240-13166-4	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW37B-071212	240-13166-2	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW42B-071212	240-13166-6	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW37C-071212	240-13166-3	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW44D-071212	240-13166-28	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW42A-071212	240-13166-5	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW41D-071212	240-13166-20	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW45D-071212	240-13166-32	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW45C-071212	240-13166-31	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW45A-071212	240-13166-29	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW44C-071212	240-13166-27	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW44B-071212	240-13166-26	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW42D-071212	240-13166-8	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW43D-071212	240-13166-24	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW43C-071212	240-13166-23	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW43B-071212	240-13166-22	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW43A-071212	240-13166-21	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
MF	UG/L	MSA-SW44A-071212	240-13166-25	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW45B-071212	240-13166-30	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW42C-071212	240-13166-7	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
OV	UG/L	MSA-SW43A-071212	240-13166-21	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW41C-071212	240-13166-19	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW42D-071212	240-13166-8	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW42C-071212	240-13166-7	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW42B-071212	240-13166-6	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW41D-071212	240-13166-20	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW43B-071212	240-13166-22	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW45B-071212	240-13166-30	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW42A-071212	240-13166-5	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW43C-071212	240-13166-23	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW43D-071212	240-13166-24	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW44A-071212	240-13166-25	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW44B-071212	240-13166-26	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW44C-071212	240-13166-27	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW41B-071212	240-13166-18	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/L	MSA-SW45A-071212	240-13166-29	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW38D-071212	240-13166-16	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW45C-071212	240-13166-31	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW45D-071212	240-13166-32	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW44D-071212	240-13166-28	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW38B-071212	240-13166-14	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	TB-071212	240-13166-37	NM	7/12/2012	7/15/2012	7/15/2012	3	0	3
OV	UG/L	EL-SW01A-071212	240-13166-38	NM	7/12/2012	7/15/2012	7/15/2012	3	0	3
OV	UG/L	EL-SW01B-071212	240-13166-39	NM	7/12/2012	7/15/2012	7/15/2012	3	0	3
OV	UG/L	EL-SW01C-071212	240-13166-40	NM	7/12/2012	7/15/2012	7/15/2012	3	0	3
OV	UG/L	EL-SW01D-071212	240-13166-41	NM	7/12/2012	7/16/2012	7/16/2012	4	0	4
OV	UG/L	MSA-SW37A-071212	240-13166-1	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW37B-071212	240-13166-2	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW37C-071212	240-13166-3	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW39B-071212	240-13166-34	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW38A-071212	240-13166-13	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW41A-071212	240-13166-17	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW38C-071212	240-13166-15	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/L	MSA-SW39A-071212	240-13166-33	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW39C-071212	240-13166-35	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW39D-071212	240-13166-36	NM	7/12/2012	7/15/2012	7/15/2012	3	0	3
OV	UG/L	MSA-SW40A-071212	240-13166-9	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW40B-071212	240-13166-10	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW40C-071212	240-13166-11	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW40D-071212	240-13166-12	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW37D-071212	240-13166-4	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1

Tetra Tech **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE:** **July 27, 2012**

FROM: **MEGAN CARSON** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION- SELECT DISSOLVED METALS**
LOCKHEED-MSA
SDG 240-13166-1

SAMPLES: 36/Waters/

MSA-SW37A-071212	MSA-SW37B-071212
MSA-SW37C-071212	MSA-SW37D-071212
MSA-SW38A-071212	MSA-SW38B-071212
MSA-SW38C-071212	MSA-SW38D-071212
MSA-SW39A-071212	MSA-SW39B-071212
MSA-SW39C-071212	MSA-SW39D-071212
MSA-SW40A-071212	MSA-SW40B-071212
MSA-SW40C-071212	MSA-SW40D-071212
MSA-SW41A-071212	MSA-SW41B-071212
MSA-SW41C-071212	MSA-SW41D-071212
MSA-SW42A-071212	MSA-SW42B-071212
MSA-SW42C-071212	MSA-SW42D-071212
MSA-SW43A-071212	MSA-SW43B-071212
MSA-SW43C-071212	MSA-SW43D-071212
MSA-SW44A-071212	MSA-SW44B-071212
MSA-SW44C-071212	MSA-SW44D-071212
MSA-SW45A-071212	MSA-SW45B-071212
MSA-SW45C-071212	MSA-SW45D-071212

Overview

The sample set for Lockheed MSA, SDG 240-13166-1, consists of thirty six (6) aqueous environmental samples. This SDG contained no field duplicate pairs.

All samples were analyzed for select dissolved metals. The samples were collected by Tetra Tech on July 12th, 2012 and analyzed by TestAmerica. Metals analyses were conducted using methods 6020A. Mercury analyses were conducted using method 7470A.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, MS tuning, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, ICP internal standard recoveries, laboratory control sample recoveries, matrix spike recoveries, laboratory duplicate results, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems-

- None.

Minor Problems-

- The following contaminants were detected in preparation and calibration blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Zinc [1]	2.8 ug/L	14 ug/L
Molybdenum [2]	0.32 ug/L	1.6 ug/L
Thallium [2]	0.39 ug/L	1.95 ug/L

[1] Maximum concentration found in a preparation blank affecting sample in 50728.
[2] Maximum concentration found in a calibration blank affecting samples analyzed on 7/20/12 and 7/21/12.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level were qualified (B) for blank contamination.

- The CRDL standard analyzed on 7/20/12/12 had a percent recovery > 110% for cadmium, copper, and nickel. All samples were affected. Positive copper and nickel results < 2X CRDL were qualified as either biased high (K) or estimated (J) due to conflicting directional bias. No validation action was warranted for non-detected cadmium results.

- Samples MSA-SW37B-071212, MSA-SW38A-071212, and MSA-SW39D-071212 had a percent recovery > 125% for internal standard scandium. Positive results for cobalt, copper, nickel, and vanadium were qualified as either biased high (K) or estimated (J). Zinc results were not qualified as results were either non-detected or previously qualified for blank contamination.
- Samples MSA-SW37D-071212, MSA-SW38A-071212, MSA-SW38C-071212, MSA-SW38D-071212, MSA-SW39A-071212, MSA-SW39B-071212, MSA-SW39C-071212, MSA-SW39D-071212, MSA-SW40A-071212, MSA-SW40B-071212, MSA-SW40C-071212, MSA-SW40D-071212, MSA-SW41A-071212, MSA-SW41B-071212, MSA-SW42A-071212, MSA-SW42D-071212, MSA-SW44D-071212, MSA-SW45A-071212, and MSA-SW45B-071212 had a percent recovery < 60% for internal standard lithium. Non-detected beryllium results were qualified as biased low (UL).

Notes

Positive results greater than MDL but less than the RL were qualified as estimated (J).

The continuing calibration analyzed on 7/20/12 at 22:50 had a percent recovery > 110% for beryllium. Samples MSA-SW37A-071212, MSA-SW37B-071212, MSA-SW37C-071212, MSA-SW37D-071212, MSA-SW38A-071212, MSA-SW40A-071212, MSA-SW40B-071212, MSA-SW40C-071212, MSA-SW40D-071212, MSA-SW42A-071212, MSA-SW42B-071212, MSA-SW42C-071212, and MSA-SW42D-071212 were affected. No validation action was warranted as sample results were non-detected.

The matrix spike for preparation batch 50728 had a percent recovery greater than the upper quality control limit for chromium. Samples in preparation batch 50728 were affected. No validation action was warranted as all sample results were non-detected.

The CRDL standards analyzed on 7/16/12 and 7/17/12 had percent recoveries > 110% for mercury. All

samples were affected. No validation action was warranted as sample results were non-detected.

Executive Summary

Laboratory Performance: Preparation and calibration blank contamination resulted on the qualification of sample results. CRDL standard non-compliances resulted in the qualification of sample results.

Other Factors Affecting Data Quality: Internal standard non-compliances resulted in the qualification of sample results.

The data for these analyses were reviewed with reference to the Region III modifications to the National Functional Guidelines for Inorganic Data Validation (April 1993).

Tetra Tech
Megan Carson
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	ICP PDS Recovery Noncompliance; MSA's r < 0.995
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (i.e., base-time drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	RPD between columns/detectors >40% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient r < 0.995
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is less than sample activity
Z1	=	Tentatively Identified Compound considered presumptively present
Z2	=	Tentatively Identified Compound column bleed

PROJ_NO: 04021	NSAMPLE	MSA-SW37A-071212			MSA-SW37B-071212			MSA-SW37C-071212			MSA-SW37D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-1			240-13166-2			240-13166-3			240-13166-4		
FRACTION: MF	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.26	J	P	0.27	J	P	0.29	J	P	0.24	J	P
ARSENIC		2.6	J	P	2.8	J	P	2.8	J	P	2.7	J	P
BARIUM		48			47			48			46		
BERYLLIUM		0.2	U		0.2	U		0.2	U		0.2	UL	N
CADMIUM		0.13	U		0.13	U		0.13	U		0.13	U	
CHROMIUM		0.71	U		0.71	U		0.71	U		0.71	U	
COBALT		0.33	J	P	0.31	J	NP	0.33	J	P	0.26	J	P
COPPER		3.6	K	C	3.8	K	CN	3.6	K	C	3.4	K	C
LEAD		0.18	U		0.18	U		0.18	U		0.18	U	
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		2	J	P	2.1	J	P	1.9	J	P	1.7	J	P
NICKEL		1.6	J	CP	2.5	K	CN	1.6	J	CP	1.4	J	CP
SELENIUM		0.57	U		0.59	J	P	0.57	U		0.57	U	
SILVER		0.08	U		0.08	U		0.08	U		0.08	U	
THALLIUM		0.14	U		0.54	B	A	0.21	B	A	0.14	U	
TUNGSTEN		0.37	U		0.47	J	P	0.37	U		0.37	U	
VANADIUM		1.2	J	P	1.1	J	NP	1.4	J	P	1	J	P
ZINC		59			3.4	B	A	2.3	U		2.3	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW38A-071212			MSA-SW38B-071212			MSA-SW38C-071212			MSA-SW38D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-13			240-13166-14			240-13166-15			240-13166-16		
FRACTION: MF	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.2	J	P	0.22	J	P	0.22	J	P	0.22	J	P
ARSENIC		2.4	J	P	2.4	J	P	2.5	J	P	2.6	J	P
BARIUM		45			48			46			49		
BERYLLIUM		0.2	UL	N	0.2	U		0.2	UL	N	0.2	UL	N
CADMIUM		0.13	U		0.13	U		0.13	U		0.13	U	
CHROMIUM		0.71	U		0.71	U		0.71	U		0.71	U	
COBALT		0.24	J	NP	0.25	J	P	0.23	J	P	0.26	J	P
COPPER		3.1	K	CN	3.2	K	C	3	K	C	3.3	K	C
LEAD		0.18	U		0.18	U		0.18	U		0.18	U	
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.6	J	P	1.8	J	P	1.7	J	P	1.8	J	P
NICKEL		1.3	J	CNP	1.6	J	CP	1.4	J	CP	1.5	J	CP
SELENIUM		0.57	U		0.57	U		0.57	U		0.57	U	
SILVER		0.08	U		0.08	U		0.08	U		0.08	U	
THALLIUM		0.14	U		0.14	U		0.14	U		0.14	U	
TUNGSTEN		0.37	U		0.37	U		0.37	U		0.37	U	
VANADIUM		0.97	J	NP	1.2	J	P	1.1	J	P	1	J	P
ZINC		2.3	U		4.1	B	A	2.3	U		2.3	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW39A-071212			MSA-SW39B-071212			MSA-SW39C-071212			MSA-SW39D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-33			240-13166-34			240-13166-35			240-13166-36		
FRACTION: MF	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.22	J	P	0.21	J	P	0.2	J	P	0.2	J	P
ARSENIC		2.5	J	P	2.4	J	P	2.4	J	P	2.5	J	P
BARIUM		48			51			51			53		
BERYLLIUM		0.2	UL	N	0.2	UL	N	0.2	UL	N	0.2	UL	N
CADMIUM		0.13	U		0.13	U		0.13	U		0.13	U	
CHROMIUM		0.71	U		0.71	U		0.71	U		0.71	U	
COBALT		0.22	J	P	0.25	J	P	0.24	J	P	0.25	J	NP
COPPER		3.3	K	C	3.1	K	C	3	K	C	2.9	K	CN
LEAD		0.18	U		0.18	U		0.18	U		0.18	U	
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		2.6	J	P	2.2	J	P	2.1	J	P	2	J	P
NICKEL		1.5	J	CP	1.5	J	CP	1.5	J	CP	1.5	J	CNP
SELENIUM		0.57	U		0.57	U		0.57	U		0.57	U	
SILVER		0.08	U		0.08	U		0.08	U		0.08	U	
THALLIUM		0.14	U		0.14	U		0.14	U		0.14	U	
TUNGSTEN		0.37	U		0.37	U		0.37	U		0.37	U	
VANADIUM		0.98	J	P	1	J	P	1.2	J	P	1.3	J	NP
ZINC		2.3	U		2.9	J	P	3.7	J	P	2.3	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW40A-071212			MSA-SW40B-071212			MSA-SW40C-071212			MSA-SW40D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-9			240-13166-10			240-13166-11			240-13166-12		
FRACTION: MF	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.24	J	P	0.23	J	P	0.22	J	P	0.22	J	P
ARSENIC		2.7	J	P	2.6	J	P	2.5	J	P	2.5	J	P
BARIUM		48			47			45			47		
BERYLLIUM		0.2	UL	N	0.2	UL	N	0.2	UL	N	0.2	UL	N
CADMIUM		0.13	U		0.13	U		0.13	U		0.13	U	
CHROMIUM		0.71	U		0.71	U		0.71	U		0.71	U	
COBALT		0.32	J	P	0.27	J	P	0.24	J	P	0.24	J	P
COPPER		4			3.4	K	C	3.5	K	C	3.6	K	C
LEAD		0.18	U		0.18	U		0.18	U		0.18	U	
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.8	J	P	1.7	J	P	1.7	J	P	1.7	J	P
NICKEL		3.5	K	C	1.4	J	CP	1.4	J	CP	1.6	J	CP
SELENIUM		0.57	U		0.57	U		0.57	U		0.57	U	
SILVER		0.08	U		0.08	U		0.08	U		0.08	U	
THALLIUM		0.14	U		0.14	U		0.14	U		0.14	U	
TUNGSTEN		0.37	U		0.37	U		0.37	U		0.37	U	
VANADIUM		1	J	P	1.2	J	P	1.2	J	P	1.2	J	P
ZINC		2.8	B	A	2.3	U		2.3	B	A	3.5	B	A

PROJ_NO: 04021	NSAMPLE	MSA-SW41A-071212			MSA-SW41B-071212			MSA-SW41C-071212			MSA-SW41D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-17			240-13166-18			240-13166-19			240-13166-20		
FRACTION: MF	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.22	J	P	0.21	J	P	0.25	J	P	0.26	J	P
ARSENIC		2.5	J	P	2.6	J	P	2.5	J	P	2.7	J	P
BARIUM		47			49			46			47		
BERYLLIUM		0.2	UL	N	0.2	UL	N	0.2	U		0.2	U	
CADMIUM		0.13	U		0.13	U		0.13	U		0.13	U	
CHROMIUM		0.71	U		0.71	U		0.71	U		0.71	U	
COBALT		0.26	J	P	0.27	J	P	0.22	J	P	0.25	J	P
COPPER		3.2	K	C	3.3	K	C	3.2	K	C	3.4	K	C
LEAD		0.18	U		0.18	U		0.18	U		0.18	U	
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.7	J	P	1.8	J	P	2	J	P	1.9	J	P
NICKEL		1.4	J	CP	1.6	J	CP	1.5	J	CP	1.5	J	CP
SELENIUM		0.57	U		0.57	U		0.57	U		0.57	U	
SILVER		0.08	U		0.08	U		0.08	U		0.08	U	
THALLIUM		0.14	U		0.14	U		0.4	B	A	0.56	B	A
TUNGSTEN		0.37	U		0.37	U		0.38	J	P	0.43	J	P
VANADIUM		1.2	J	P	1	J	P	1.1	J	P	1.1	J	P
ZINC		2.9	B	A	2.9	B	A	2.3	U		2.6	J	P

PROJ_NO: 04021	NSAMPLE	MSA-SW42A-071212			MSA-SW42B-071212			MSA-SW42C-071212			MSA-SW42D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-5			240-13166-6			240-13166-7			240-13166-8		
FRACTION: MF	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.24	J	P	0.25	J	P	0.23	J	P	0.23	J	P
ARSENIC		2.7	J	P	2.6	J	P	2.5	J	P	2.7	J	P
BARIUM		49			47			45			47		
BERYLLIUM		0.2	UL	N	0.2	U		0.2	U		0.2	UL	N
CADMIUM		0.13	U		0.13	U		0.13	U		0.13	U	
CHROMIUM		0.71	U		0.71	U		0.71	U		0.71	U	
COBALT		0.31	J	P	0.37	J	P	0.3	J	P	0.26	J	P
COPPER		3.5	K	C	3.6	K	C	3.8	K	C	3.4	K	C
LEAD		0.18	U		0.18	U		0.18	U		0.18	U	
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.8	J	P	1.8	J	P	1.7	J	P	1.7	J	P
NICKEL		1.5	J	CP	3.7	K	C	2.4	K	C	1.6	J	CP
SELENIUM		0.57	U		0.57	U		0.57	U		0.57	U	
SILVER		0.08	U		0.08	U		0.08	U		0.08	U	
THALLIUM		0.14	U		0.14	U		0.14	U		0.14	U	
TUNGSTEN		0.37	U		0.37	U		0.37	U		0.37	U	
VANADIUM		1.1	J	P	1.4	J	P	1	J	P	1.2	J	P
ZINC		2.3	U		3	B	A	2.8	B	A	3.8	B	A

PROJ_NO: 04021	NSAMPLE	MSA-SW43A-071212			MSA-SW43B-071212			MSA-SW43C-071212			MSA-SW43D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-21			240-13166-22			240-13166-23			240-13166-24		
FRACTION: MF	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.21	J	P	0.21	J	P	0.23	J	P	0.22	J	P
ARSENIC		2.5	J	P	2.6	J	P	2.5	J	P	2.6	J	P
BARIUM		45			46			49			48		
BERYLLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
CADMIUM		0.13	U		0.13	U		0.13	U		0.13	U	
CHROMIUM		0.71	U		0.71	U		0.71	U		0.71	U	
COBALT		0.23	J	P	0.25	J	P	0.24	J	P	0.24	J	P
COPPER		3.3	K	C	3.4	K	C	3.3	K	C	3.3	K	C
LEAD		0.18	U		0.18	U		0.18	U		0.18	U	
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.7	J	P	1.7	J	P	1.9	J	P	1.7	J	P
NICKEL		1.4	J	CP	1.6	J	CP	1.7	J	CP	1.5	J	CP
SELENIUM		0.57	U		0.57	U		0.57	U		0.57	U	
SILVER		0.08	U		0.08	U		0.08	U		0.08	U	
THALLIUM		0.19	B	A	0.14	U		0.14	U		0.14	U	
TUNGSTEN		0.37	U		0.37	U		0.37	U		0.37	U	
VANADIUM		1	J	P	1.2	J	P	1.1	J	P	1.1	J	P
ZINC		2.3	U		10	J	P	5.5	J	P	2.3	U	

PROJ_NO: 04021	NSAMPLE	MSA-SW44A-071212			MSA-SW44B-071212			MSA-SW44C-071212			MSA-SW44D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-25			240-13166-26			240-13166-27			240-13166-28		
FRACTION: MF	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.21	J	P	0.21	J	P	0.21	J	P	0.21	J	P
ARSENIC		2.6	J	P	2.6	J	P	2.7	J	P	2.5	J	P
BARIUM		48			51			51			50		
BERYLLIUM		0.2	U		0.2	U		0.2	U		0.2	UL	N
CADMIUM		0.13	U		0.13	U		0.13	U		0.13	U	
CHROMIUM		0.71	U		0.71	U		0.71	U		0.71	U	
COBALT		0.33	J	P	0.27	J	P	0.28	J	P	0.22	J	P
COPPER		4			3.5	K	C	3.5	K	C	3.1	K	C
LEAD		0.33	J	P	0.18	U		0.18	U		0.18	U	
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.7	J	P	1.7	J	P	1.7	J	P	1.8	J	P
NICKEL		1.6	J	CP	1.5	J	CP	1.6	J	CP	1.6	J	CP
SELENIUM		0.57	U		0.57	U		0.57	U		0.57	U	
SILVER		0.08	U		0.08	U		0.08	U		0.08	U	
THALLIUM		0.14	U		0.14	U		0.14	U		0.14	U	
TUNGSTEN		0.37	U		0.37	U		0.37	U		0.37	U	
VANADIUM		1.5	J	P	1.1	J	P	1.3	J	P	1.1	J	P
ZINC		3.3	J	P	2.7	J	P	2.4	J	P	3.4	J	P

PROJ_NO: 04021	NSAMPLE	MSA-SW45A-071212			MSA-SW45B-071212			MSA-SW45C-071212			MSA-SW45D-071212		
SDG: 240-13166-1	LAB_ID	240-13166-29			240-13166-30			240-13166-31			240-13166-32		
FRACTION: MF	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.2	J	P	0.18	J	P	0.21	J	P	0.21	J	P
ARSENIC		2.4	J	P	2.5	J	P	2.3	J	P	2.4	J	P
BARIUM		47			50			50			51		
BERYLLIUM		0.2	UL	N	0.2	UL	N	0.2	U		0.2	U	
CADMIUM		0.13	U		0.13	U		0.13	U		0.13	U	
CHROMIUM		0.71	U		0.71	U		0.71	U		0.71	U	
COBALT		0.2	J	P	0.25	J	P	0.25	J	P	0.25	J	P
COPPER		3.1	K	C	3.1	K	C	3.2	K	C	3.2	K	C
LEAD		0.18	U		0.18	U		0.18	U		0.18	U	
MERCURY		0.12	U		0.12	U		0.12	U		0.12	U	
MOLYBDENUM		1.6	J	P	1.7	J	P	8.1	J	P	3.6	J	P
NICKEL		1.5	J	CP	1.6	J	CP	1.5	J	CP	1.5	J	CP
SELENIUM		0.57	U		0.57	U		0.57	U		0.57	U	
SILVER		0.08	U		0.08	U		0.08	U		0.08	U	
THALLIUM		0.14	U		0.14	U		0.21	B	A	0.14	U	
TUNGSTEN		0.37	U		0.37	U		0.54	J	P	0.37	U	
VANADIUM		1.1	J	P	1.1	J	P	1.2	J	P	1.1	J	P
ZINC		2.9	J	P	3.5	J	P	2.3	U		2.3	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37A-071212 Lab Sample ID: 240-13166-1

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 08:36

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.26	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.6	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	48	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U	^	1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.33	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.6	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	2.0	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.6	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	59	20	2.3	ug/L		B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37B-071212 Lab Sample ID: 240-13166-2

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 08:42

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.27	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.8	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	47	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U	^	1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.31	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.8	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	2.1	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	2.5	2.0	0.20	ug/L			1	6020
7782-49-2	Selenium	0.59	5.0	0.57	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.54	2.0	0.14	ug/L	J		1	6020
7440-62-2	Vanadium	1.1	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	3.4	20	2.3	ug/L	J	B	1	6020
7440-33-7	Tungsten	0.47	10	0.37	ug/L	J		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37C-071212 Lab Sample ID: 240-13166-3

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 08:45

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.29	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.8	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	48	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U	^	1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.33	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.6	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.9	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.6	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.21	2.0	0.14	ug/L	J		1	6020
7440-62-2	Vanadium	1.4	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37D-071212 Lab Sample ID: 240-13166-4

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 08:48

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.24	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.7	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	46	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U	^	1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.26	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.4	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.7	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.4	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.0	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38A-071212 Lab Sample ID: 240-13166-13

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 10:38

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.20	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.4	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	45	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U	^	1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.24	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.1	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.6	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.3	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	0.97	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38B-071212 Lab Sample ID: 240-13166-14

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 10:37

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.22	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.4	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	48	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.25	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.2	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.8	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.6	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	4.1	20	2.3	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38C-071212 Lab Sample ID: 240-13166-15

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 10:43

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.22	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.5	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	46	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.23	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.0	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.7	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.4	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38D-071212 Lab Sample ID: 240-13166-16

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 10:47

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.22	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.6	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	49	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.26	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.3	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.8	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.5	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.0	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39A-071212 Lab Sample ID: 240-13166-33

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 12:02

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.22	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.5	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	48	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.22	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.3	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	2.6	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.5	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	0.98	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39B-071212 Lab Sample ID: 240-13166-34

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 12:06

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.21	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.4	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	51	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.25	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.1	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	2.2	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.5	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.0	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	2.9	20	2.3	ug/L	J		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39C-071212 Lab Sample ID: 240-13166-35

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 12:10

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.20	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.4	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	51	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.24	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.0	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	2.1	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.5	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	3.7	20	2.3	ug/L	J		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39D-071212 Lab Sample ID: 240-13166-36

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 12:14

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.20	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.5	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	53	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.25	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	2.9	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	2.0	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.5	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.3	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40A-071212 Lab Sample ID: 240-13166-9

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 09:09

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.24	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.7	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	48	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U	^	1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.32	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	4.0	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.8	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	3.5	2.0	0.20	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.0	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	2.8	20	2.3	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40B-071212 Lab Sample ID: 240-13166-10

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 09:13

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.23	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.6	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	47	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U	^	1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.27	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.4	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.7	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.4	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40C-071212 Lab Sample ID: 240-13166-11

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 09:16

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.22	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.5	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	45	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U	^	1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.24	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.5	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.7	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.4	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	2.3	20	2.3	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40D-071212 Lab Sample ID: 240-13166-12

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 09:19

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.22	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.5	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	47	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U	^	1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.24	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.6	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.7	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.6	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	3.5	20	2.3	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41A-071212 Lab Sample ID: 240-13166-17

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 10:55

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.22	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.5	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	47	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.26	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.2	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.7	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.4	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	2.9	20	2.3	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41B-071212 Lab Sample ID: 240-13166-18

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 10:58

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.21	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.6	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	49	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.27	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.3	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.8	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.6	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.0	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	2.9	20	2.3	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41C-071212 Lab Sample ID: 240-13166-19

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 11:01

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.25	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.5	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	46	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.22	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.2	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	2.0	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.5	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.40	2.0	0.14	ug/L	J		1	6020
7440-62-2	Vanadium	1.1	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	0.38	10	0.37	ug/L	J		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41D-071212 Lab Sample ID: 240-13166-20

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 11:05

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.26	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.7	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	47	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.25	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.4	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.9	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.5	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.56	2.0	0.14	ug/L	J		1	6020
7440-62-2	Vanadium	1.1	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	2.6	20	2.3	ug/L	J		1	6020
7440-33-7	Tungsten	0.43	10	0.37	ug/L	J		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42A-071212 Lab Sample ID: 240-13166-5

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 08:54

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.24	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.7	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	49	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U	^	1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.31	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.5	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.8	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.5	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42B-071212 Lab Sample ID: 240-13166-6

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 08:57

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.25	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.6	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	47	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U	^	1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.37	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.6	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.8	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	3.7	2.0	0.20	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.4	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	3.0	20	2.3	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42C-071212 Lab Sample ID: 240-13166-7

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 09:01

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.23	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.5	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	45	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U	^	1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.30	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.8	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.7	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	2.4	2.0	0.20	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.0	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	2.8	20	2.3	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42D-071212 Lab Sample ID: 240-13166-8

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 09:04

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.23	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.7	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	47	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U	^	1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.26	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.4	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.7	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.6	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	3.8	20	2.3	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43A-071212 Lab Sample ID: 240-13166-21

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 11:13

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.21	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.5	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	45	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.23	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.3	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.7	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.4	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.19	2.0	0.14	ug/L	J		1	6020
7440-62-2	Vanadium	1.0	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43B-071212 Lab Sample ID: 240-13166-22

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 11:17

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.21	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.6	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	46	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.25	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.4	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.7	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.6	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	10	20	2.3	ug/L	J		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43C-071212 Lab Sample ID: 240-13166-23

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 11:20

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.23	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.5	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	49	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.24	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.3	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.9	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.7	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	5.5	20	2.3	ug/L	J		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43D-071212 Lab Sample ID: 240-13166-24

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 11:24

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.22	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.6	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	48	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.24	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.3	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.7	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.5	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44A-071212 Lab Sample ID: 240-13166-25

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 11:28

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.21	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.6	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	48	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.33	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	4.0	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	0.33	1.0	0.18	ug/L	J		1	6020
7439-98-7	Molybdenum	1.7	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.6	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.5	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	3.3	20	2.3	ug/L	J		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44B-071212 Lab Sample ID: 240-13166-26

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 11:32

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.21	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.6	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	51	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.27	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.5	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.7	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.5	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	2.7	20	2.3	ug/L	J		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44C-071212 Lab Sample ID: 240-13166-27

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 11:36

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.21	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.7	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	51	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.28	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.5	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.7	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.6	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.3	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	2.4	20	2.3	ug/L	J		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44D-071212 Lab Sample ID: 240-13166-28

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 11:39

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.21	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.5	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	50	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.22	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.1	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.8	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.6	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	3.4	20	2.3	ug/L	J		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45A-071212 Lab Sample ID: 240-13166-29

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 11:45

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.20	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.4	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	47	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.20	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.1	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.6	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.5	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	2.9	20	2.3	ug/L	J		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45B-071212 Lab Sample ID: 240-13166-30

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 11:50

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.18	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.5	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	50	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.25	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.1	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	1.7	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.6	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	3.5	20	2.3	ug/L	J		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45C-071212 Lab Sample ID: 240-13166-31

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 11:52

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.21	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.3	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	50	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.25	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.2	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	8.1	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.5	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	0.21	2.0	0.14	ug/L	J		1	6020
7440-62-2	Vanadium	1.2	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	0.54	10	0.37	ug/L	J		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45D-071212 Lab Sample ID: 240-13166-32

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG ID.:

Matrix: Water Date Sampled: 07/12/2012 11:55

Reporting Basis: WET Date Received: 07/13/2012 07:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.21	2.0	0.13	ug/L	J		1	6020
7440-38-2	Arsenic	2.4	5.0	0.40	ug/L	J		1	6020
7440-39-3	Barium	51	5.0	0.19	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.20	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.13	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.71	ug/L	U		1	6020
7440-48-4	Cobalt	0.25	1.0	0.058	ug/L	J		1	6020
7440-50-8	Copper	3.2	2.0	0.29	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.18	ug/L	U		1	6020
7439-98-7	Molybdenum	3.6	10	0.093	ug/L	J		1	6020
7440-02-0	Nickel	1.5	2.0	0.20	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.57	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.080	ug/L	U		1	6020
7440-28-0	Thallium	2.0	2.0	0.14	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	20	0.44	ug/L	J		1	6020
7440-66-6	Zinc	20	20	2.3	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	0.37	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.12	ug/L	U		1	7470A

APPENDIX C

SUPPORT DOCUMENTATION

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Tony Adamarese	Site Contact: Stu Cameron	Lab Contact: Pat Omers	COC No:
Address: 20251 Century Blvd Ste 200	Telephone: (301) 233-8250	Telephone: (703) 342-8389	Telephone: (330) 497-9896	1 of 5 COCs
City/State/Zip: Germantown, MD 20874	Email:		Analyses	
Phone: (301) 528-5552		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: MSA SW Sampling	Method of Shipment/Carrier:			
Project Number: 112IC04021	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Preservation: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	VOCs	Dissolved Metals	Sample Specific Notes / Special Instructions:
MSA-SW37A-071212	7/12/12	0836		X					1	3					X	X	
MSA-SW37B-071212		0842															
MSA-SW37C-071212		0845															
MSA-SW37D-071212		0848															
MSA-SW42A-071212		0854															
MSA-SW42B-071212		0857															
MSA-SW42C-071212		0901															
MSA-SW42D-071212		0904															
MSA-SW40A-071212		0909															
MSA-SW40B-071212		0913															

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	7-12-12/1430			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Terry Burns	TA	7/13/12 0745

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TAL-0018 (1008)

07/23/2012

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Tony Aprancage	Site Contact: Stu Cameron	Lab Contact: Pat Omega	COC No:
Address: 20251 Century Blvd Ste 210	Telephone: (301) 233-8230	Telephone: (703) 342-8884	Telephone: (330) 497-9396	2 of 5 COCs
City/State/Zip: Germantown MD 20874	Email:		Analyses	
Phone: (301) 528-5552		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: MSA SW Sampling	Method of Shipment/Carrier:			
Project Number: 112IC04021	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	VOCs	Dissolved Metals	Sample Specific Notes / Special Instructions:
MSA-SW40C-071212	7/12/12	0916		X					1	3					X	X	
MSA-SW40D-071212		0919															
MSA-SW38A-071212		1038															
MSA-SW38B-071212		1037															
MSA-SW38C-071212		1043															
MSA-SW38D-071212		1047															
MSA-SW41A-071212		1055															
MSA-SW41B-071212		1058															
MSA-SW41C-071212		1101															
MSA-SW41D-071212		1105															

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TETRA TECH	7-12-12 / 1451			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA	7/13/12-0745

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TAL-0018 (1008)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact			
Company Name: Tetra Tech	Client Project Manager: Tony Aparicio	Site Contact: Stu Cameron	Lab Contact: Pat Omeara
Address: 20251 Century Blvd Ste 210	Telephone: (301) 233-8330	Telephone: (703) 342-8389	Telephone: (330)497-9396
City/State/Zip: Germantown MD 20874	Email:		
Phone: (301)528-5552		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	
Project Name: MSA SW Sampling	Method of Shipment/Carrier:		
Project Number: 112FC04021	Shipping/Tracking No:		
PO #			

COC No: 3 of 5 COCs

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Preservation: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Analyses: VOCs	Dissolved Metals	Sample Specific Notes / Special Instructions:
MSA-SW43A-071212	7/12/12	1113		X					1	3					X	X	
MSA-SW43B-071212		1117															
MSA-SW43C-071212		1120															
MSA-SW43D-071212		1124															
MSA-SW44A-071212		1128															
MSA-SW44B-071212		1132															
MSA-SW44C-071212		1136															
MSA-SW44D-071212		1139															
MSA-SW45A-071212		1145															
MSA-SW45B-071212		1150															

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	7-12-12/1430			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA	7/13/12 0740

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TAL-0018 (1008)

07/23/2012

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Tony Aponavage	Site Contact: Stu Cannon	Lab Contact: Pat Omera	COC No:
Address: 20251 Century Blvd Ste 200	Telephone: (301) 233-8280	Telephone: (703) 342-8389	Telephone: (330) 497-9396	4 of 5 COCs
City/State/Zip: Germantown MD 20874	Email:	Site/Project Comments (i.e. alternate EDD format, etc.)	Analyses	
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: MSA SW Sampling	Method of Shipment/Carrier:			
Project Number: 112IC04021	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Additional Metals (1)	Additional Metals (2)	VOCs	Dissolved Metals	Sample Specific Notes / Special Instructions:
MSA-SW45C-071212	7/12/12	1152		X					1	3							X	X	
MSA-SW45D-071212		1155																	
MSA-SW39A-071212		1202																	
MSA-SW39B-071212		1206																	
MSA-SW39C-071212		1217																	
MSA-SW39D-071212		1214																	
TB-071212		—								2									

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	7-12-12/1430			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA	7/13/12 0745

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TAL-0018 (1008)

07/23/2012

CASE NARRATIVE

Client: Tetra Tech, Inc

Project: MSA Surface Water

Report Number: 240-13166-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 07/13/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.6 and 4.6 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples MSA-SW37A-071212 (240-13166-1), MSA-SW37B-071212 (240-13166-2), MSA-SW37C-071212 (240-13166-3), MSA-SW37D-071212 (240-13166-4), MSA-SW42A-071212 (240-13166-5), MSA-SW42B-071212 (240-13166-6), MSA-SW42C-071212 (240-13166-7), MSA-SW42D-071212 (240-13166-8), MSA-SW40A-071212 (240-13166-9), MSA-SW40B-071212 (240-13166-10), MSA-SW40C-071212 (240-13166-11), MSA-SW40D-071212 (240-13166-12), MSA-SW38A-071212 (240-13166-13), MSA-SW38B-071212 (240-13166-14), MSA-SW38C-071212 (240-13166-15), MSA-SW38D-071212 (240-13166-16), MSA-SW41A-071212 (240-13166-17), MSA-SW41B-071212 (240-13166-18), MSA-SW41C-071212 (240-13166-19), MSA-SW41D-071212 (240-13166-20), MSA-SW43A-071212 (240-13166-21), MSA-SW43B-071212 (240-13166-22), MSA-SW43C-071212 (240-13166-23), MSA-SW43D-071212 (240-13166-24), MSA-SW44A-071212 (240-13166-25), MSA-SW44B-071212 (240-13166-26), MSA-SW44C-071212 (240-13166-27), MSA-SW44D-071212 (240-13166-28), MSA-SW45A-071212 (240-13166-29), MSA-SW45B-071212 (240-13166-30), MSA-SW45C-071212 (240-13166-31), MSA-SW45D-071212 (240-13166-32), MSA-SW39A-071212 (240-13166-33), MSA-SW39B-071212 (240-13166-34), MSA-SW39C-071212 (240-13166-35), MSA-SW39D-071212 (240-13166-36), TB-071212 (240-13166-37), EL-SW01A-071212 (240-13166-38), EL-SW01B-071212 (240-13166-39), EL-SW01C-071212 (240-13166-40) and EL-SW01D-071212 (240-13166-41) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 07/13/2012, 07/14/2012, 07/15/2012 and 07/16/2012.

Methylene Chloride was detected in method blank MB 240-50787/4 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Methylene Chloride was detected in method blank MB 240-50806/4 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

1,2,3-Trimethylbenzene and Hexachlorobutadiene were detected in method blank MB 240-50806/4 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Hexachlorobutadiene and Methylene Chloride were detected in method blank MB 240-50954/4 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The laboratory control sample (LCS) for batch 50787 exceeded control limits for the following analytes: 2-hexanone, and 1,1,2,2-tetrachloroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The laboratory control sample (LCS) for batch 50806 exceeded control limits for the following analytes: 2-hexanone, and 1,1,2,2-tetrachloroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The laboratory control sample (LCS) for batch 50954 exceeded control limits for the following analytes: 2-hexanone, 2-butanone, 2-methyl-2-propanol, 4-methyl-2-pentanone, and 1,1,2,2-tetrachloroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

tert-Butyl alcohol failed the recovery criteria high for the MS of sample 240-13052-2 in batch 240-50954.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 50787.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 50806.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)

Samples MSA-SW37A-071212 (240-13166-1), MSA-SW37B-071212 (240-13166-2), MSA-SW37C-071212 (240-13166-3), MSA-SW37D-071212 (240-13166-4), MSA-SW42A-071212 (240-13166-5), MSA-SW42B-071212 (240-13166-6), MSA-SW42C-071212 (240-13166-7), MSA-SW42D-071212 (240-13166-8), MSA-SW40A-071212 (240-13166-9), MSA-SW40B-071212 (240-13166-10), MSA-SW40C-071212 (240-13166-11), MSA-SW40D-071212 (240-13166-12), MSA-SW38A-071212 (240-13166-13), MSA-SW38B-071212 (240-13166-14), MSA-SW38C-071212 (240-13166-15), MSA-SW38D-071212 (240-13166-16), MSA-SW41A-071212 (240-13166-17), MSA-SW41B-071212 (240-13166-18), MSA-SW41C-071212 (240-13166-19), MSA-SW41D-071212 (240-13166-20), MSA-SW43A-071212 (240-13166-21), MSA-SW43B-071212 (240-13166-22), MSA-SW43C-071212 (240-13166-23), MSA-SW43D-071212 (240-13166-24), MSA-SW44A-071212 (240-13166-25), MSA-SW44B-071212 (240-13166-26), MSA-SW44C-071212 (240-13166-27), MSA-SW44D-071212 (240-13166-28), MSA-SW45A-071212 (240-13166-29), MSA-SW45B-071212 (240-13166-30), MSA-SW45C-071212 (240-13166-31), MSA-SW45D-071212 (240-13166-32), MSA-SW39A-071212 (240-13166-33), MSA-SW39B-071212 (240-13166-34), MSA-SW39C-071212 (240-13166-35) and MSA-SW39D-071212 (240-13166-36) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 07/13/2012 and analyzed on 07/20/2012 and 07/21/2012.

Zinc was detected in method blank MB 240-50728/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Chromium failed the recovery criteria high for the MS/MSD of sample MSA-SW37A-071212 (240-13166-1) in batch 240-51574.

The continuing calibration verification (CCV) for beryllium (be) associated with batch 50728 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.
MSA-SW37A-071212 (240-13166-1), MSA-SW37B-071212 (240-13166-2), MSA-SW37C-071212 (240-13166-3), MSA-SW37D-071212 (240-13166-4), MSA-SW38A-071212 (240-13166-13), MSA-SW40A-071212 (240-13166-9), MSA-SW40B-071212 (240-13166-10), MSA-SW40C-071212 (240-13166-11), MSA-SW40D-071212 (240-13166-12), MSA-SW42A-071212 (240-13166-5), MSA-SW42B-071212 (240-13166-6), MSA-SW42C-071212 (240-13166-7), MSA-SW42D-071212 (240-13166-8)

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)

Samples MSA-SW37A-071212 (240-13166-1), MSA-SW37B-071212 (240-13166-2), MSA-SW37C-071212 (240-13166-3), MSA-SW37D-071212 (240-13166-4), MSA-SW42A-071212 (240-13166-5), MSA-SW42B-071212 (240-13166-6), MSA-SW42C-071212 (240-13166-7), MSA-SW42D-071212 (240-13166-8), MSA-SW40A-071212 (240-13166-9), MSA-SW40B-071212 (240-13166-10), MSA-SW40C-071212 (240-13166-11), MSA-SW40D-071212 (240-13166-12), MSA-SW38A-071212 (240-13166-13), MSA-SW38B-071212 (240-13166-14), MSA-SW38C-071212 (240-13166-15), MSA-SW38D-071212 (240-13166-16), MSA-SW41A-071212 (240-13166-17), MSA-SW41B-071212 (240-13166-18), MSA-SW41C-071212 (240-13166-19), MSA-SW41D-071212 (240-13166-20), MSA-SW43A-071212 (240-13166-21), MSA-SW43B-071212 (240-13166-22), MSA-SW43C-071212 (240-13166-23), MSA-SW43D-071212 (240-13166-24), MSA-SW44A-071212 (240-13166-25), MSA-SW44B-071212 (240-13166-26), MSA-SW44C-071212 (240-13166-27), MSA-SW44D-071212 (240-13166-28), MSA-SW45A-071212 (240-13166-29), MSA-SW45B-071212 (240-13166-30), MSA-SW45C-071212 (240-13166-31), MSA-SW45D-071212 (240-13166-32), MSA-SW39A-071212 (240-13166-33), MSA-SW39B-071212 (240-13166-34),

MSA-SW39C-071212 (240-13166-35) and MSA-SW39D-071212 (240-13166-36) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 07/13/2012 and analyzed on 07/16/2012 and 07/17/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

MSA-SW37A-071212

240-13166-d-1-a, 7/20/2012 22:01:47 QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
x		74.399%	0.006	M 359.700
%RSD		2.560	203.200	M 0.209
Run	Time	23Na	25Mg	27Al
		ppb	ppb	ppb
x		TM 964900.000	M 119000.000	23.500
%RSD		TM 0.702	M 0.782	1.548
Run	Time	35Cl	39K	43Ca
		ppb	ppb	ppb
x		T 0.000	T 37680.000	50200.000
%RSD		T 0.000	T 0.391	0.219
Run	Time	45Sc	45Sc	47Ti
		ppb	ppb	ppb
x		T 106.912%	112.280%	0.151
%RSD		T 1.114	1.339	114.000
Run	Time	51V	52Cr	53Cr
		ppb	ppb	ppb
x		1.246	-0.109	11.640
%RSD		8.421	36.940	5.121
Run	Time	55Mn	56Fe	59Co
		ppb	ppb	ppb
x		89.050	4.037	0.332
%RSD		0.231	4.383	1.594
Run	Time	60Ni	65Cu	66Zn
		ppb	ppb	ppb
x		1.563	3.630	58.810
%RSD		3.916	1.004	1.714
Run	Time	72Ge	75As	78Se
		ppb	ppb	ppb
x		98.411%	2.646	-0.487
%RSD		1.244	4.127	7.165
Run	Time	78Se	88Sr	95Mo
		ppb	ppb	ppb
x		0.222	TM 869.300	1.954
%RSD		13.500	TM 0.785	3.506
Run	Time	105Pd	107Ag	109Ag
		ppb	ppb	ppb
x		0.000	-0.002	-0.099
%RSD		0.000	28.510	655.400
Run	Time	111Cd	115In	118Sn
		ppb	ppb	ppb
x		0.011	95.658%	0.089
%RSD		65.010	1.776	9.421
Run	Time	121Sb	137Ba	159Tb
		ppb	ppb	ppb
x		0.255	48.110	0.000
%RSD		1.598	0.914	0.000
Run	Time	165Ho	182W	205Tl
		ppb	ppb	ppb
x		96.292%	0.203	0.107
%RSD		1.383	9.867	4.564
Run	Time	208Pb	209Bi	
		ppb	ppb	
x		0.051	0.000	
%RSD		6.903	0.000	

reported as 59 mg/L

TestAmerica North Canton Sample Receipt Form/Narrative Login # :_____

Client Tetra Tech Site Name MSA By: Jerry Burner (Signature)

Cooler Received on 7/13/12 Opened on 7/13/12

FedEx 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other_____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other Multiple

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF 0°C) Observed Sample Temp._____°C	Corrected Sample Temp._____°C	
IR GUN# 4G	(CF –1°C) Observed Sample Temp._____°C	Corrected Sample Temp._____°C	X Multiple on Back
IR GUN# 5G	(CF –1°C) Observed Sample Temp._____°C	Corrected Sample Temp._____°C	
IR GUN# 8	(CF 0°C) Observed Sample Temp._____°C	Corrected Sample Temp._____°C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity_____	Yes	No	
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No	NA
-Were custody seals on the bottle(s)?	Yes	No	
3. Shippers' packing slip attached to the cooler(s)?	Yes	No	
4. Did custody papers accompany the sample(s)?	Yes	No	
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No	
6. Did all bottles arrive in good condition (Unbroken)?	Yes	No	
7. Could all bottle labels be reconciled with the COC?	Yes	No	
8. Were correct bottle(s) used for the test(s) indicated?	Yes	No	
9. Sufficient quantity received to perform indicated analyses?	Yes	No	
10. Were sample(s) at the correct pH upon receipt?	Yes	No	NA
11. Were VOAs on the COC?	Yes	No	
12. Were air bubbles >6 mm in any VOA vials?	Yes	No	NA
13. Was a trip blank present in the cooler(s)?	Yes	No	

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s)_____ were received after the recommended holding time had expired.

Sample(s)_____ were received in a broken container.

Sample(s)_____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 110410-HNO3; Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 - NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preserved added to sample(s)? _____

Client ID	pH	Date	Initials
37A	<2	7.13.12	AS
37B	<2		
37C	<2		
37D	<2		
42A	<2		
42B	<2		
42C	<2		
42D	<2		
40A	<2		
B	<2		
C	<2		
D	<2		
38A	<2		
B	<2		
C	<2		
D	<2		
41A	<2		
B	<2		
C	<2		
D	<2		
43A	<2		
B	<2		
C	<2		
D	<2		
44A	<2		
B	<2		
C	<2		
D	<2		
45A	<2		
B	<2		
C	<2		
D	<2		
39A	<2		
B	<2		
C	<2		
D	<2		

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant
Client cooler	4.6	3.6	56	ICE
1	5.6	4.6	1	1

Login Sample Receipt Checklist

Client: Tetra Tech, Inc

Job Number: 240-13166-1

Login Number: 13166
List Number: 1
Creator: Sutek, Nick

List Source: TestAmerica Canton

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

HOLDTIME

SDG 240-13166-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HGF	UG/L	MSA-SW44A-071212	240-13166-25	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW41D-071212	240-13166-20	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW42A-071212	240-13166-5	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW42B-071212	240-13166-6	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW42C-071212	240-13166-7	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW42D-071212	240-13166-8	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW43A-071212	240-13166-21	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW41C-071212	240-13166-19	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW43C-071212	240-13166-23	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW43D-071212	240-13166-24	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW37A-071212	240-13166-1	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW44C-071212	240-13166-27	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW44D-071212	240-13166-28	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW45A-071212	240-13166-29	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW45B-071212	240-13166-30	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HGF	UG/L	MSA-SW45C-071212	240-13166-31	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW45D-071212	240-13166-32	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW43B-071212	240-13166-22	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW38B-071212	240-13166-14	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW44B-071212	240-13166-26	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW41B-071212	240-13166-18	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW37B-071212	240-13166-2	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW37C-071212	240-13166-3	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW38A-071212	240-13166-13	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW38C-071212	240-13166-15	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW38D-071212	240-13166-16	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW39A-071212	240-13166-33	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW40C-071212	240-13166-11	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW41A-071212	240-13166-17	NM	7/12/2012	7/13/2012	7/17/2012	1	4	5
HGF	UG/L	MSA-SW37D-071212	240-13166-4	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW40D-071212	240-13166-12	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW40B-071212	240-13166-10	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW40A-071212	240-13166-9	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HGF	UG/L	MSA-SW39D-071212	240-13166-36	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW39C-071212	240-13166-35	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
HGF	UG/L	MSA-SW39B-071212	240-13166-34	NM	7/12/2012	7/13/2012	7/16/2012	1	3	4
MF	UG/L	MSA-SW39C-071212	240-13166-35	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW37A-071212	240-13166-1	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW41C-071212	240-13166-19	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW41A-071212	240-13166-17	NM	7/12/2012	7/13/2012	7/21/2012	1	8	9
MF	UG/L	MSA-SW40D-071212	240-13166-12	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW40C-071212	240-13166-11	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW40B-071212	240-13166-10	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW40A-071212	240-13166-9	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW39D-071212	240-13166-36	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW41B-071212	240-13166-18	NM	7/12/2012	7/13/2012	7/21/2012	1	8	9
MF	UG/L	MSA-SW39B-071212	240-13166-34	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW39A-071212	240-13166-33	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW38D-071212	240-13166-16	NM	7/12/2012	7/13/2012	7/21/2012	1	8	9
MF	UG/L	MSA-SW38C-071212	240-13166-15	NM	7/12/2012	7/13/2012	7/21/2012	1	8	9
MF	UG/L	MSA-SW38B-071212	240-13166-14	NM	7/12/2012	7/13/2012	7/21/2012	1	8	9

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
MF	UG/L	MSA-SW38A-071212	240-13166-13	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW37D-071212	240-13166-4	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW37B-071212	240-13166-2	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW42B-071212	240-13166-6	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW37C-071212	240-13166-3	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW44D-071212	240-13166-28	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW42A-071212	240-13166-5	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW41D-071212	240-13166-20	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW45D-071212	240-13166-32	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW45C-071212	240-13166-31	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW45A-071212	240-13166-29	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW44C-071212	240-13166-27	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW44B-071212	240-13166-26	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW42D-071212	240-13166-8	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW43D-071212	240-13166-24	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW43C-071212	240-13166-23	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW43B-071212	240-13166-22	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW43A-071212	240-13166-21	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
MF	UG/L	MSA-SW44A-071212	240-13166-25	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW45B-071212	240-13166-30	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
MF	UG/L	MSA-SW42C-071212	240-13166-7	NM	7/12/2012	7/13/2012	7/20/2012	1	7	8
OV	UG/L	MSA-SW43A-071212	240-13166-21	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW41C-071212	240-13166-19	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW42D-071212	240-13166-8	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW42C-071212	240-13166-7	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW42B-071212	240-13166-6	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW41D-071212	240-13166-20	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW43B-071212	240-13166-22	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW45B-071212	240-13166-30	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW42A-071212	240-13166-5	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
OV	UG/L	MSA-SW43C-071212	240-13166-23	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW43D-071212	240-13166-24	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW44A-071212	240-13166-25	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW44B-071212	240-13166-26	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW44C-071212	240-13166-27	NM	7/12/2012	7/14/2012	7/14/2012	2	0	2
OV	UG/L	MSA-SW41B-071212	240-13166-18	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-13166-1

SDG Number:

Matrix: Water Instrument ID: I8

Method: 6020 MDL Date: 02/09/2010 15:53

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.13
Arsenic	75.00	5	0.4
Barium	137.00	5	0.19
Beryllium	9.00	1	0.2
Cadmium	111.00	1	0.13
Chromium	52.00	2	0.71
Cobalt	59.00	1	0.058
Copper	65.00	2	0.29
Lead	208.00	1	0.18
Molybdenum	95.00	10	0.093
Nickel	60.00	2	0.2
Selenium	78.00	5	0.57
Silver	107.00	1	0.08
Thallium	205.00	2	0.14
Tungsten	182.00	10	0.37
Vanadium	51.00	20	0.44
Zinc	66.00	20	2.3

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-13166-1

SDG Number:

Matrix: Water Instrument ID: I8

Method: 6020 XMDL Date: 02/09/2010 15:53

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.13
Arsenic	75.00	5	0.4
Barium	137.00	5	0.19
Beryllium	9.00	1	0.2
Cadmium	111.00	1	0.13
Chromium	52.00	2	0.71
Cobalt	59.00	1	0.058
Copper	65.00	2	0.29
Lead	208.00	1	0.18
Molybdenum	95.00	10	0.093
Nickel	60.00	2	0.2
Selenium	78.00	5	0.57
Silver	107.00	1	0.08
Thallium	205.00	2	0.14
Tungsten	182.00	10	0.37
Vanadium	51.00	20	0.44
Zinc	66.00	20	2.3

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-13166-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A MDL Date: 02/08/2010 16:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-13166-1

SDG Number:

Matrix: Water Instrument ID: H1

Method: 7470A XMDL Date: 02/08/2010 16:06

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.12

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-13166-1

SDG No.:

Instrument ID: I8 Date: 06/18/2012 15:26

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		2000	6020
Arsenic		10000	6020
Barium		10000	6020
Beryllium		10000	6020
Cadmium		10000	6020
Chromium		10000	6020
Cobalt		10000	6020
Copper		10000	6020
Lead		10000	6020
Molybdenum		2000	6020
Nickel		10000	6020
Selenium		10000	6020
Silver		2000	6020
Thallium		10000	6020
Vanadium		10000	6020
Zinc		10000	6020
Tungsten		5000	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-13166-1

SDG No.:

Instrument ID: H1 Date: 04/01/2011 10:45

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-50729/1-A	07/13/2012 12:45	50729		100	100
LCS 240-50729/2-A	07/13/2012 12:45	50729		100	100
240-13166-1	07/13/2012 12:45	50729		100	100
240-13166-2	07/13/2012 12:45	50729		100	100
240-13166-2 MS	07/13/2012 12:45	50729		100	100
240-13166-2 MSD	07/13/2012 12:45	50729		100	100
240-13166-3	07/13/2012 12:45	50729		100	100
240-13166-4	07/13/2012 12:45	50729		100	100
240-13166-5	07/13/2012 12:45	50729		100	100
240-13166-6	07/13/2012 12:45	50729		100	100
240-13166-7	07/13/2012 12:45	50729		100	100
240-13166-8	07/13/2012 12:45	50729		100	100
240-13166-9	07/13/2012 12:45	50729		100	100
240-13166-10	07/13/2012 12:45	50729		100	100
240-13166-11	07/13/2012 12:45	50729		100	100
240-13166-12	07/13/2012 12:45	50729		100	100
240-13166-13	07/13/2012 12:45	50729		100	100
240-13166-14	07/13/2012 12:45	50729		100	100
240-13166-15	07/13/2012 12:45	50729		100	100
240-13166-16	07/13/2012 12:45	50729		100	100
240-13166-17	07/13/2012 12:45	50729		100	100
240-13166-18	07/13/2012 12:45	50729		100	100

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-50729/1-A

Instrument Code: H1 Batch No.: 51048

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-SW37B-071212 MS
Lab ID: 240-13166-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-13166-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.950		0.20	U	1.00	95	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-SW37B-071212 MSD
Lab ID: 240-13166-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-13166-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.993		1.00	99	69-134	4	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-50729/2-A

Lab Name: TestAmerica Canton Job No.: 240-13166-1

Sample Matrix: Water LCS Source: MTHGICVW_00339

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.99		100	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-50733/1-A	07/13/2012 12:45	50733		100	100
LCS 240-50733/2-A	07/13/2012 12:45	50733		100	100
240-13166-19	07/13/2012 12:45	50733		100	100
240-13166-20	07/13/2012 12:45	50733		100	100
240-13166-20 MS	07/13/2012 12:45	50733		100	100
240-13166-20 MSD	07/13/2012 12:45	50733		100	100
240-13166-21	07/13/2012 12:45	50733		100	100
240-13166-22	07/13/2012 12:45	50733		100	100
240-13166-23	07/13/2012 12:45	50733		100	100
240-13166-24	07/13/2012 12:45	50733		100	100
240-13166-25	07/13/2012 12:45	50733		100	100
240-13166-26	07/13/2012 12:45	50733		100	100
240-13166-27	07/13/2012 12:45	50733		100	100
240-13166-28	07/13/2012 12:45	50733		100	100
240-13166-29	07/13/2012 12:45	50733		100	100
240-13166-30	07/13/2012 12:45	50733		100	100
240-13166-31	07/13/2012 12:45	50733		100	100
240-13166-32	07/13/2012 12:45	50733		100	100
240-13166-33	07/13/2012 12:45	50733		100	100
240-13166-34	07/13/2012 12:45	50733		100	100
240-13166-35	07/13/2012 12:45	50733		100	100
240-13166-36	07/13/2012 12:45	50733		100	100

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-50733/1-A

Instrument Code: H1 Batch No.: 51087

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-SW41D-071212 MS
Lab ID: 240-13166-20 MS
Lab Name: TestAmerica Canton
Job No.: 240-13166-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.976		0.20	U	1.00	98	69-134		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-SW41D-071212 MSD
Lab ID: 240-13166-20 MSD
Lab Name: TestAmerica Canton
Job No.: 240-13166-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.965		1.00	97	69-134	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-50733/2-A

Lab Name: TestAmerica Canton Job No.: 240-13166-1

Sample Matrix: Water LCS Source: MTHGICVW_00339

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.04		101	81	123		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-50728/1-A	07/13/2012 10:06	50728		50	50
LCS 240-50728/2-A	07/13/2012 10:06	50728		50	50
240-13166-1	07/13/2012 10:06	50728		50	50
240-13166-1 MS	07/13/2012 10:06	50728		50	50
240-13166-1 MSD	07/13/2012 10:06	50728		50	50
240-13166-2	07/13/2012 10:06	50728		50	50
240-13166-3	07/13/2012 10:06	50728		50	50
240-13166-4	07/13/2012 10:06	50728		50	50
240-13166-5	07/13/2012 10:06	50728		50	50
240-13166-6	07/13/2012 10:06	50728		50	50
240-13166-7	07/13/2012 10:06	50728		50	50
240-13166-8	07/13/2012 10:06	50728		50	50
240-13166-9	07/13/2012 10:06	50728		50	50
240-13166-10	07/13/2012 10:06	50728		50	50
240-13166-11	07/13/2012 10:06	50728		50	50
240-13166-12	07/13/2012 10:06	50728		50	50
240-13166-13	07/13/2012 10:06	50728		50	50
240-13166-14	07/13/2012 10:06	50728		50	50
240-13166-15	07/13/2012 10:06	50728		50	50
240-13166-16	07/13/2012 10:06	50728		50	50
240-13166-17	07/13/2012 10:06	50728		50	50
240-13166-18	07/13/2012 10:06	50728		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-50728/1-A

Instrument Code: I8 Batch No.: 51574

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	5.0	U		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	2.0	U		6020
7440-48-4	Cobalt	1.0	U		6020
7440-50-8	Copper	2.0	U		6020
7439-92-1	Lead	1.0	U		6020
7439-98-7	Molybdenum	10	U		6020
7440-02-0	Nickel	2.0	U		6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	2.0	U		6020
7440-62-2	Vanadium	20	U		6020
7440-66-6	Zinc	2.80	J		6020
7440-33-7	Tungsten	10	U		6020

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-SW37A-071212 MS Lab ID: 240-13166-1 MS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	97.9		0.26	J	100	98	44-153		6020
Arsenic	928		2.6	J	1000	92	82-123		6020
Barium	993		48		1000	94	45-144		6020
Beryllium	924		1.0	U	1000	92	77-124	^	6020
Cadmium	884		1.0	U	1000	88	78-117		6020
Chromium	1120		2.0	U	1000	112	72-110	F	6020
Cobalt	1060		0.33	J	1000	106	67-114		6020
Copper	888		3.6		1000	88	60-123		6020
Lead	958		1.0	U	1000	96	73-115		6020
Molybdenum	101		2.0	J	100	99	80-110		6020
Nickel	855		1.6	J	1000	85	72-111		6020
Selenium	873		5.0	U	1000	87	72-148		6020
Silver	87.3		1.0	U	100	87	10-139		6020
Thallium	230		2.0	U	250	92	69-117		6020
Vanadium	1040		1.2	J	1000	104	70-112		6020
Zinc	933		59		1000	87	49-156		6020
Tungsten	87.3		10	U	100	87	43-133		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-SW37A-071212 MSD
Lab ID: 240-13166-1 MSD
Lab Name: TestAmerica Canton
Job No.: 240-13166-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	98.8		100	99	44-153	1	20		6020
Arsenic	939		1000	94	82-123	1	20		6020
Barium	1000		1000	95	45-144	1	20		6020
Beryllium	950		1000	95	77-124	3	20	^	6020
Cadmium	900		1000	90	78-117	2	20		6020
Chromium	1140		1000	114	72-110	2	20	F	6020
Cobalt	1090		1000	109	67-114	3	20		6020
Copper	904		1000	90	60-123	2	20		6020
Lead	961		1000	96	73-115	0	20		6020
Molybdenum	104		100	102	80-110	3	20		6020
Nickel	909		1000	91	72-111	6	20		6020
Selenium	883		1000	88	72-148	1	20		6020
Silver	88.8		100	89	10-139	2	20		6020
Thallium	234		250	94	69-117	2	20		6020
Vanadium	1060		1000	106	70-112	2	20		6020
Zinc	955		1000	90	49-156	2	20		6020
Tungsten	88.9		100	89	43-133	2	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-50728/2-A

Lab Name: TestAmerica Canton Job No.: 240-13166-1

Sample Matrix: Water LCS Source: MTICPMSB_00008

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	102		102	80	120		6020
Arsenic	1000	958		96	80	120		6020
Barium	1000	962		96	80	120		6020
Beryllium	1000	1050		105	80	120		6020
Cadmium	1000	999		100	80	120		6020
Chromium	1000	1080		108	80	120		6020
Cobalt	1000	1070		107	80	120		6020
Copper	1000	985		98	80	120		6020
Lead	1000	1090		109	80	120		6020
Molybdenum	100	95.9		96	80	120		6020
Nickel	1000	963		96	80	120		6020
Selenium	1000	972		97	80	120		6020
Silver	100	103		103	80	120		6020
Thallium	250	252		101	80	120		6020
Vanadium	1000	978		98	80	120		6020
Zinc	1000	1010		101	80	120		6020
Tungsten	100	88.4		88	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-13166-1

SDG No:

Lab Name: TestAmerica Canton Job No: 240-13166-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.26	J	10	U	NC		6020
Arsenic	2.6	J	4.00	J	NC		6020
Barium	48		49.0		2.08		6020
Beryllium	1.0	U	5.0	U	NC	^	6020
Cadmium	1.0	U	5.0	U	NC		6020
Chromium	2.0	U	10	U	NC		6020
Cobalt	0.33	J	0.290	J	NC		6020
Copper	3.6		4.20	J	NC		6020
Lead	1.0	U	5.0	U	NC		6020
Molybdenum	2.0	J	1.74	J	NC		6020
Nickel	1.6	J	1.99	J	NC		6020
Selenium	5.0	U	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	2.0	U	10	U	NC		6020
Vanadium	1.2	J	2.35	J	NC		6020
Zinc	59		69.0	J	NC		6020
Tungsten	10	U	50	U	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-50732/1-A	07/13/2012 10:22	50732		50	50
LCS 240-50732/2-A	07/13/2012 10:22	50732		50	50
240-13166-19	07/13/2012 10:22	50732		50	50
240-13166-19 MS	07/13/2012 10:22	50732		50	50
240-13166-19 MSD	07/13/2012 10:22	50732		50	50
240-13166-20	07/13/2012 10:22	50732		50	50
240-13166-21	07/13/2012 10:22	50732		50	50
240-13166-22	07/13/2012 10:22	50732		50	50
240-13166-23	07/13/2012 10:22	50732		50	50
240-13166-24	07/13/2012 10:22	50732		50	50
240-13166-25	07/13/2012 10:22	50732		50	50
240-13166-26	07/13/2012 10:22	50732		50	50
240-13166-27	07/13/2012 10:22	50732		50	50
240-13166-28	07/13/2012 10:22	50732		50	50
240-13166-29	07/13/2012 10:22	50732		50	50
240-13166-30	07/13/2012 10:22	50732		50	50
240-13166-31	07/13/2012 10:22	50732		50	50
240-13166-32	07/13/2012 10:22	50732		50	50
240-13166-33	07/13/2012 10:22	50732		50	50
240-13166-34	07/13/2012 10:22	50732		50	50
240-13166-35	07/13/2012 10:22	50732		50	50
240-13166-36	07/13/2012 10:22	50732		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-50732/1-A

Instrument Code: I8 Batch No.: 51574

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	5.0	U		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	2.0	U		6020
7440-48-4	Cobalt	1.0	U		6020
7440-50-8	Copper	2.0	U		6020
7439-92-1	Lead	1.0	U		6020
7439-98-7	Molybdenum	10	U		6020
7440-02-0	Nickel	2.0	U		6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	2.0	U		6020
7440-62-2	Vanadium	20	U		6020
7440-66-6	Zinc	20	U		6020
7440-33-7	Tungsten	10	U		6020

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-SW41C-071212 MS
Lab ID: 240-13166-19 MS
Lab Name: TestAmerica Canton
Job No.: 240-13166-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	94.2		0.25	J	100	94	44-153		6020
Arsenic	908		2.5	J	1000	91	82-123		6020
Barium	962		46		1000	92	45-144		6020
Beryllium	887		1.0	U	1000	89	77-124		6020
Cadmium	867		1.0	U	1000	87	78-117		6020
Chromium	937		2.0	U	1000	94	72-110		6020
Cobalt	1040		0.22	J	1000	104	67-114		6020
Copper	867		3.2		1000	86	60-123		6020
Lead	948		1.0	U	1000	95	73-115		6020
Molybdenum	99.4		2.0	J	100	97	80-110		6020
Nickel	867		1.5	J	1000	87	72-111		6020
Selenium	879		5.0	U	1000	88	72-148		6020
Silver	86.9		1.0	U	100	87	10-139		6020
Thallium	226		0.40	J	250	90	69-117		6020
Vanadium	961		1.1	J	1000	96	70-112		6020
Zinc	863		20	U	1000	86	49-156		6020
Tungsten	85.3		0.38	J	100	85	43-133		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-SW41C-071212 MSD
Lab ID: 240-13166-19 MSD
Lab Name: TestAmerica Canton
Job No.: 240-13166-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	92.8		100	93	44-153	2	20		6020
Arsenic	903		1000	90	82-123	1	20		6020
Barium	951		1000	90	45-144	1	20		6020
Beryllium	878		1000	88	77-124	1	20		6020
Cadmium	856		1000	86	78-117	1	20		6020
Chromium	929		1000	93	72-110	1	20		6020
Cobalt	1030		1000	103	67-114	1	20		6020
Copper	860		1000	86	60-123	1	20		6020
Lead	933		1000	93	73-115	2	20		6020
Molybdenum	99.1		100	97	80-110	0	20		6020
Nickel	850		1000	85	72-111	2	20		6020
Selenium	864		1000	86	72-148	2	20		6020
Silver	86.5		100	86	10-139	1	20		6020
Thallium	225		250	90	69-117	1	20		6020
Vanadium	953		1000	95	70-112	1	20		6020
Zinc	853		1000	85	49-156	1	20		6020
Tungsten	84.8		100	84	43-133	1	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-13166-19

SDG No:

Lab Name: TestAmerica Canton Job No: 240-13166-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.25	J	10	U	NC		6020
Arsenic	2.5	J	3.99	J	NC		6020
Barium	46		48.2		4.7 NC		6020
Beryllium	1.0	U	5.0	U	NC		6020
Cadmium	1.0	U	5.0	U	NC		6020
Chromium	2.0	U	10	U	NC		6020
Cobalt	0.22	J	0.305	J	NC		6020
Copper	3.2		3.83	J	NC		6020
Lead	1.0	U	5.0	U	NC		6020
Molybdenum	2.0	J	1.31	J	NC		6020
Nickel	1.5	J	1.66	J	NC		6020
Selenium	5.0	U	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.40	J	10	U	NC		6020
Vanadium	1.1	J	2.35	J	NC		6020
Zinc	20	U	100	U	NC		6020
Tungsten	0.38	J	50	U	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-50732/2-A

Lab Name: TestAmerica Canton Job No.: 240-13166-1

Sample Matrix: Water LCS Source: MTICPMSB_00008

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	98.9		99	80	120		6020
Arsenic	1000	954		95	80	120		6020
Barium	1000	943		94	80	120		6020
Beryllium	1000	936		94	80	120		6020
Cadmium	1000	987		99	80	120		6020
Chromium	1000	1020		102	80	120		6020
Cobalt	1000	1070		107	80	120		6020
Copper	1000	983		98	80	120		6020
Lead	1000	1090		109	80	120		6020
Molybdenum	100	94.6		95	80	120		6020
Nickel	1000	925		92	80	120		6020
Selenium	1000	997		100	80	120		6020
Silver	100	101		101	80	120		6020
Thallium	250	250		100	80	120		6020
Vanadium	1000	944		94	80	120		6020
Zinc	1000	1020		102	80	120		6020
Tungsten	100	87.5		88	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 07/16/2012 15:57 End Date: 07/16/2012 17:51

Lab Sample ID	D / F	Type	Time	Analytes																				
				Hg																				
IC 240-50896/1-A			15:57	X																				
IC 240-50896/2-A			15:58	X																				
IC 240-50896/3-A			15:59	X																				
IC 240-50896/4-A			16:01	X																				
IC 240-50896/5-A			16:02	X																				
IC 240-50896/6-A			16:03	X																				
ICV 240-50896/7-A	1		16:05	X																				
ICB 240-50896/8-A	1		16:06	X																				
CRA 240-50896/9-A	1		16:08	X																				
CCVL 240-50896/10-A	1		16:10	X																				
CCB 240-50896/11-A	1		16:11	X																				
MB 240-50729/1-A	1	T	16:12	X																				
LCS 240-50729/2-A	1	T	16:14	X																				
240-13166-1	1	D	16:15	X																				
240-13166-2	1	D	16:17	X																				
240-13166-2 MS	1	D	16:18	X																				
240-13166-2 MSD	1	D	16:19	X																				
240-13166-3	1	D	16:21	X																				
240-13166-4	1	D	16:22	X																				
240-13166-5	1	D	16:23	X																				
240-13166-6	1	D	16:25	X																				
CCV 240-50896/12-A	1		16:26	X																				
CCB 240-50896/11-A	1		16:28	X																				
240-13166-7	1	D	16:29	X																				
240-13166-8	1	D	16:31	X																				
240-13166-9	1	D	16:32	X																				
240-13166-10	1	D	16:34	X																				
240-13166-11	1	D	16:35	X																				
240-13166-12	1	D	16:37	X																				
240-13166-13	1	D	16:38	X																				
240-13166-14	1	D	16:40	X																				
240-13166-15	1	D	16:41	X																				
240-13166-16	1	D	16:44	X																				
CCV 240-50896/12-A	1		16:45	X																				
CCB 240-50896/11-A	1		16:47	X																				
ZZZZZZ			16:48																					
ZZZZZZ			16:50																					
ZZZZZZ			16:51																					
ZZZZZZ			16:53																					
ZZZZZZ			16:54																					
ZZZZZZ			16:56																					
ZZZZZZ			16:57																					

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 07/16/2012 15:57 End Date: 07/16/2012 17:51

Lab Sample ID	D / F	Type	Time	Analytes
				Hg
ZZZZZZ			16:58	
ZZZZZZ			17:00	
ZZZZZZ			17:01	
CCV 240-50896/12-A			17:03	
CCB 240-50896/11-A			17:04	
ZZZZZZ			17:06	
ZZZZZZ			17:07	
ZZZZZZ			17:09	
ZZZZZZ			17:10	
ZZZZZZ			17:12	
ZZZZZZ			17:13	
ZZZZZZ			17:15	
ZZZZZZ			17:16	
ZZZZZZ			17:18	
ZZZZZZ			17:19	
CCV 240-50896/12-A	1		17:22	X
CCB 240-50896/11-A	1		17:23	X
240-13166-33	1	D	17:25	X
240-13166-34	1	D	17:26	X
240-13166-35	1	D	17:28	X
240-13166-36	1	D	17:29	X
ZZZZZZ			17:30	
ZZZZZZ			17:32	
ZZZZZZ			17:33	
ZZZZZZ			17:34	
ZZZZZZ			17:36	
ZZZZZZ			17:37	
CCV 240-50896/12-A	1		17:38	X
CCB 240-50896/11-A	1		17:40	X
ZZZZZZ			17:41	
ZZZZZZ			17:42	
ZZZZZZ			17:44	
ZZZZZZ			17:45	
ZZZZZZ			17:46	
ZZZZZZ			17:48	
CCV 240-50896/12-A			17:49	
CCB 240-50896/11-A			17:51	

Prep Types
D = Dissolved
T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

ICV Source: MTHGICVW_00340 Concentration Units: ug/L

CCV Source: MTHGCALW_00222

Analyte	ICV 240-50896/7-A 07/16/2012 16:05				CCVL 240-50896/10-A 07/16/2012 16:10				CCV 240-50896/12-A 07/16/2012 16:26			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.55		2.50	102	5.23		5.00	105	5.18		5.00	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

ICV Source: MTHGICVW_00340 Concentration Units: ug/L

CCV Source: MTHGCALW_00222

Analyte	CCV 240-50896/12-A 07/16/2012 16:45				CCV 240-50896/12-A 07/16/2012 17:22				CCV 240-50896/12-A 07/16/2012 17:38			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.27		5.00	105	5.32		5.00	106	5.24		5.00	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Method: 7470A Instrument ID: H1

Lab Sample ID: CRA 240-50896/9-A 7/16/12 1608 Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00222

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.234		117	50-150

Lab Sample ID: CRA 240-50896/9-A 7/17/12 10:04 Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00222

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.245		122	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-50896/8-A 07/16/2012 16:06		CCB 240-50896/11-A 07/16/2012 16:11		CCB 240-50896/11-A 07/16/2012 16:28		CCB 240-50896/11-A 07/16/2012 16:47	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U	0.20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-50896/11-A 07/16/2012 17:23		CCB 240-50896/11-A 07/16/2012 17:40					
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U				

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 07/17/2012 09:52 End Date: 07/17/2012 15:27

Lab Sample ID	D / F	Type	Time	Analytes																				
				Hg																				
IC 240-50896/1-A			09:52	X																				
IC 240-50896/2-A			09:54	X																				
IC 240-50896/3-A			09:55	X																				
IC 240-50896/4-A			09:56	X																				
IC 240-50896/5-A			09:58	X																				
IC 240-50896/6-A			09:59	X																				
ICV 240-50896/7-A	1		10:02	X																				
ICB 240-50896/8-A	1		10:04	X																				
CRA 240-50896/9-A	1		10:06	X																				
CCV 240-50896/12-A			11:14																					
CCB 240-50896/11-A			11:15																					
CCV 240-50896/12-A			11:19																					
CCB 240-50896/11-A			11:21																					
ZZZZZZ			11:22																					
ZZZZZZ			11:24																					
ZZZZZZ			11:25																					
ZZZZZZ			11:26																					
ZZZZZZ			11:28																					
ZZZZZZ			11:29																					
CCV 240-50896/12-A			11:31																					
CCB 240-50896/11-A			11:32																					
CCV 240-50896/12-A	1		14:50	X																				
CCB 240-50896/11-A	1		14:51	X																				
MB 240-50733/1-A	1	T	14:53	X																				
LCS 240-50733/2-A	1	T	14:55	X																				
240-13166-19	1	D	14:56	X																				
240-13166-20	1	D	14:58	X																				
240-13166-20 MS	1	D	14:59	X																				
240-13166-20 MSD	1	D	15:01	X																				
240-13166-21	1	D	15:02	X																				
240-13166-22	1	D	15:04	X																				
240-13166-23	1	D	15:05	X																				
240-13166-24	1	D	15:06	X																				
CCV 240-50896/12-A	1		15:08	X																				
CCB 240-50896/11-A	1		15:09	X																				
240-13166-25	1	D	15:10	X																				
240-13166-26	1	D	15:12	X																				
240-13166-27	1	D	15:13	X																				
240-13166-28	1	D	15:15	X																				
240-13166-29	1	D	15:16	X																				
240-13166-30	1	D	15:18	X																				
240-13166-31	1	D	15:19	X																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Instrument ID: H1 Method: 7470A

Start Date: 07/17/2012 09:52 End Date: 07/17/2012 15:27

Lab Sample ID	D / F	Type	Time	Analytes																				
				Hg																				
240-13166-32	1	D	15:22	X																				
240-13166-17	1	D	15:23	X																				
240-13166-18	1	D	15:24	X																				
CCV 240-50896/12-A	1		15:26	X																				
CCB 240-50896/11-A	1		15:27	X																				

Prep Types

D = Dissolved

T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

ICV Source: MTHGICVW_00340 Concentration Units: ug/L

CCV Source: MTHGCALW_00222

Analyte	ICV 240-50896/7-A 07/17/2012 10:02				CCV 240-50896/12-A 07/17/2012 14:50				CCV 240-50896/12-A 07/17/2012 15:08			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.52		2.50	101	5.13		5.00	103	5.25		5.00	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

ICV Source: MTHGICVW_00340 Concentration Units: ug/L

CCV Source: MTHGCALW_00222

Analyte	CCV 240-50896/12-A 07/17/2012 15:26											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.15		5.00	103								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-50896/8-A 07/17/2012 10:04		CCB 240-50896/11-A 07/17/2012 14:51		CCB 240-50896/11-A 07/17/2012 15:09		CCB 240-50896/11-A 07/17/2012 15:27	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U	0.20	U

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 07/20/2012 10:29 End Date: 07/21/2012 00:35

Lab Sample ID	D/F	Type	Time	Analytes																		
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
ICIS 240-51574/1			10:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD2 240-51574/2 IC	1		10:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD3 240-51574/3 IC	1		10:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD4 240-51574/4 IC	1		10:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICV 240-51574/5	1		10:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICB 240-51574/6	1		10:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CRI 240-51574/7	1		11:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSA 240-51574/8	1		11:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSAB 240-51574/9	1		11:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-51574/10			11:21																				
CCB 240-51574/11			11:28																				
ZZZZZZ			11:34																				
ZZZZZZ			11:39																				
ZZZZZZ			11:46																				
ZZZZZZ			11:52																				
ZZZZZZ			11:58																				
ZZZZZZ			12:05																				
ZZZZZZ			12:12																				
ZZZZZZ			12:19																				
ZZZZZZ			12:25																				
ZZZZZZ			12:30																				
CCV 240-51574/22			12:36																				
CCB 240-51574/23			12:43																				
ZZZZZZ			12:49																				
ZZZZZZ			12:54																				
ZZZZZZ			13:00																				
ZZZZZZ			13:05																				
ZZZZZZ			13:11																				
ZZZZZZ			13:16																				
ZZZZZZ			13:21																				
ZZZZZZ			13:27																				
ZZZZZZ			13:32																				
ZZZZZZ			13:38																				
CCV 240-51574/34			13:43																				
CCB 240-51574/35			13:51																				
ZZZZZZ			13:56																				
ZZZZZZ			14:02																				
ZZZZZZ			14:07																				
ZZZZZZ			14:13																				
ZZZZZZ			14:20																				
ZZZZZZ			14:25																				
ZZZZZZ			14:31																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 07/20/2012 10:29 End Date: 07/21/2012 00:35

Lab Sample ID	D/F	Type	Time	Analytes																				
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
ZZZZZZ			14:38																				
ZZZZZZ			14:45																				
ZZZZZZ			14:52																				
CCV 240-51574/46			14:57																				
CCB 240-51574/47			15:04																				
ZZZZZZ			15:10																				
ZZZZZZ			15:15																				
ZZZZZZ			15:21																				
ZZZZZZ			15:26																				
ZZZZZZ			15:32																				
ZZZZZZ			15:37																				
ZZZZZZ			15:43																				
ZZZZZZ			15:48																				
ZZZZZZ			15:54																				
ZZZZZZ			15:59																				
CCV 240-51574/58			16:05																				
CCB 240-51574/59			16:12																				
ZZZZZZ			16:18																				
ZZZZZZ			16:23																				
ZZZZZZ			16:29																				
ZZZZZZ			16:34																				
ZZZZZZ			16:40																				
ZZZZZZ			16:47																				
ZZZZZZ			16:53																				
ZZZZZZ			17:00																				
ZZZZZZ			17:07																				
ZZZZZZ			17:13																				
CCV 240-51574/70			17:18																				
CCB 240-51574/71			17:26																				
ZZZZZZ			17:31																				
ZZZZZZ			17:37																				
ZZZZZZ			17:42																				
ZZZZZZ			17:48																				
ZZZZZZ			17:53																				
ZZZZZZ			17:59																				
ZZZZZZ			18:04																				
ZZZZZZ			18:10																				
ZZZZZZ			18:15																				
ZZZZZZ			18:21																				
CCV 240-51574/82	1		18:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-51574/83	1		18:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			18:39																				

ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 07/20/2012 10:29 End Date: 07/21/2012 00:35

Lab Sample ID	D / F	Type	Time	Analytes																		
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
MB 240-50732/1-A	1	R	18:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
LCS 240-50732/2-A	1	R	18:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-19	1	D	18:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-19 SD	5	D	19:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-19 MS	1	D	19:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-19 MSD	1	D	19:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-20	1	D	19:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-21	1	D	19:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-22	1	D	19:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-51574/94	1		19:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-51574/95	1		19:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-23	1	D	19:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-24	1	D	19:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-25	1	D	20:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-26	1	D	20:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-27	1	D	20:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-28	1	D	20:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-29	1	D	20:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-30	1	D	20:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-51574/104	1		20:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-51574/105	1		20:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSA 240-51574/106	1		20:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSAB 240-51574/107	1		20:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-31	1	D	21:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-32	1	D	21:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-33	1	D	21:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-34	1	D	21:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-35	1	D	21:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-36	1	D	21:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MB 240-50728/1-A	1	R	21:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
LCS 240-50728/2-A	1	R	21:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-51574/116	1		21:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-51574/117	1		21:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-1	1	D	22:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-1 SD	5	D	22:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-1 MS	1	D	22:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-1 MSD	1	D	22:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-2	1	D	22:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-3	1	D	22:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-4	1	D	22:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-5	1	D	22:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-51574/126	1		22:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Instrument ID: I8 Method: 6020

Start Date: 07/20/2012 10:29 End Date: 07/21/2012 00:35

Lab Sample ID	D / F	Type	Time	Analytes																		
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
CCB 240-51574/127	1		22:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-6	1	D	23:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-7	1	D	23:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-8	1	D	23:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-9	1	D	23:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-10	1	D	23:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-11	1	D	23:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-12	1	D	23:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-13	1	D	23:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-51574/136	1		23:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-51574/137	1		23:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-14	1	D	00:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-15	1	D	00:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-16	1	D	00:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-17	1	D	00:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
240-13166-18	1	D	00:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 240-51574/143	1		00:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 240-51574/144	1		00:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			

Prep Types

D = Dissolved

R = Total Recoverable

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

ICV Source: MTMSICVW_00015 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00043

Analyte	ICV 240-51574/5 07/20/2012 10:50				CCV 240-51574/82 07/20/2012 18:26				CCV 240-51574/94 07/20/2012 19:40			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	82.8		80.0	104	100		100	100	99.8		100	100
Arsenic	80.0		80.0	100	98.6		100	99	99.1		100	99
Barium	80.3		80.0	100	98.4		100	98	99.0		100	99
Beryllium	80.7		80.0	101	95.7		100	96	108		100	108
Cadmium	81.5		80.0	102	100		100	100	100		100	100
Chromium	79.2		80.0	99	97.2		100	97	97.1		100	97
Cobalt	80.0		80.0	100	98.1		100	98	97.5		100	98
Copper	82.1		80.0	103	99.5		100	100	99.6		100	100
Lead	77.7		80.0	97	97.9		100	98	97.2		100	97
Molybdenum	82.0		80.0	103	100		100	100	101		100	101
Nickel	81.7		80.0	102	98.3		100	98	98.2		100	98
Selenium	81.9		80.0	102	99.6		100	100	99.5		100	100
Silver	82.8		80.0	103	99.7		100	100	100		100	100
Thallium	73.4		80.0	92	99.1		100	99	98.6		100	99
Tungsten	74.0		80.0	93	93.5		100	94	93.3		100	93
Vanadium	78.5		80.0	98	97.4		100	97	97.6		100	98
Zinc	83.2		80.0	104	101		100	101	101		100	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

ICV Source: MTMSICVW_00015 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00043

Analyte	CCV 240-51574/104 07/20/2012 20:37				CCV 240-51574/116 07/20/2012 21:49				CCV 240-51574/126 07/20/2012 22:50			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	101		100	101	102		100	102	102		100	102
Arsenic	98.1		100	98	98.3		100	98	97.9		100	98
Barium	99.7		100	100	98.8		100	99	99.1		100	99
Beryllium	110		100	110	102		100	102	113		100	113
Cadmium	100		100	100	102		100	102	101		100	101
Chromium	96.4		100	96	96.9		100	97	96.4		100	96
Cobalt	96.1		100	96	97.1		100	97	96.2		100	96
Copper	98.0		100	98	98.6		100	99	98.5		100	98
Lead	96.2		100	96	96.2		100	96	96.3		100	96
Molybdenum	99.8		100	100	101		100	101	101		100	101
Nickel	97.2		100	97	98.4		100	98	97.2		100	97
Selenium	98.7		100	99	98.9		100	99	97.5		100	97
Silver	99.8		100	100	101		100	101	101		100	101
Thallium	97.7		100	98	101		100	101	99.2		100	99
Tungsten	92.3		100	92	93.6		100	94	93.4		100	93
Vanadium	96.0		100	96	97.0		100	97	96.9		100	97
Zinc	100		100	100	101		100	101	100		100	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

ICV Source: MTMSICVW_00015 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00043

Analyte	CCV 240-51574/136 07/20/2012 23:47				CCV 240-51574/143 07/21/2012 00:28							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	102		100	102	102		100	102				
Arsenic	98.3		100	98	98.6		100	99				
Barium	99.5		100	100	99.9		100	100				
Beryllium	110		100	110	110		100	110				
Cadmium	101		100	101	101		100	101				
Chromium	96.9		100	97	96.7		100	97				
Cobalt	96.3		100	96	96.3		100	96				
Copper	98.3		100	98	98.4		100	98				
Lead	96.4		100	96	96.8		100	97				
Molybdenum	99.8		100	100	101		100	101				
Nickel	96.9		100	97	97.9		100	98				
Selenium	97.9		100	98	98.3		100	98				
Silver	100		100	100	100		100	100				
Thallium	100		100	100	101		100	101				
Tungsten	93.5		100	94	93.3		100	93				
Vanadium	97.3		100	97	96.6		100	97				
Zinc	100		100	100	101		100	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Method: 6020 Instrument ID: I8

Lab Sample ID: CRI 240-51574/7 Concentration Units: ug/L

CRQL Check Standard Source: MTMSCRIW_00020

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	2.00	2.03		102	50-150
Arsenic	2.00	2.03	J	101	50-150
Barium	1.00	1.00	J	100	50-150
Beryllium	1.00	1.08		108	50-150
Cadmium	0.500	0.575	J	115	50-150
Chromium	2.00	2.16		108	50-150
Cobalt	1.00	0.992	J	99	50-150
Copper	2.00	2.25		113	50-150
Lead	1.00	0.999	J	100	50-150
Molybdenum	10.0	9.89	J	99	50-150
Nickel	2.00	2.60		130	50-150
Selenium	2.00	2.10	J	105	50-150
Silver	0.500	0.534	J	107	50-150
Thallium	1.00	1.03	J	103	50-150
Vanadium	5.00	4.74	J	95	50-150
Zinc	10.0	10.9	J	109	50-150
Tungsten	10.0	8.96	J	90	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-51574/6 07/20/2012 10:57		CCB 240-51574/83 07/20/2012 18:33		CCB 240-51574/95 07/20/2012 19:47		CCB 240-51574/105 07/20/2012 20:44	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Molybdenum	10	0.220	J	0.121	J	0.144	J	0.115	J
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.310	J	0.199	J	0.323	J	0.213	J
Tungsten	10	10	U	10	U	10	U	10	U
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-51574/117 07/20/2012 21:56		CCB 240-51574/127 07/20/2012 22:57		CCB 240-51574/137 07/20/2012 23:54		CCB 240-51574/144 07/21/2012 00:35	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Molybdenum	10	0.321	J	0.199	J	0.176	J	0.137	J
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.394	J	0.301	J	0.214	J	0.221	J
Tungsten	10	10	U	10	U	10	U	10	U
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: ICSA 240-51574/8 Instrument ID: I8

Lab File ID: I8072012B.csv ICS Source: MTMSICSAW_00015

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.159**	
Arsenic		**0.372**	
Barium		**0.0960**	
Beryllium		**0.0200**	
Cadmium		**0.109**	
Chromium		**0.520**	
Cobalt		**0.0930**	
Copper		**0.715**	
Lead		**0.132**	
Molybdenum	**1000**	**1022**	**102**
Nickel		**0.439**	
Selenium		**0.0390**	
Silver		**0.0390**	
Thallium		**0.0850**	
Tungsten		**0.188**	
Vanadium		**0.0660**	
Zinc		**1.66**	
Aluminum	*50000*	*55730*	*111*
Boron		*-0.696*	
Calcium	*50000*	*51370*	*103*
Iron	*50000*	*49890*	*100*
Magnesium	*50000*	*52030*	*104*
Manganese		*0.0290*	
Potassium	*50000*	*52540*	*105*
Sodium	*50000*	*51980*	*104*
Strontium		*0.146*	
Tin		*0.0870*	
Titanium	*1000*	*1055*	*106*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: ICSAB 240-51574/9 Instrument ID: I8

Lab File ID: I8072012B.csv ICS Source: MTMSICSABW_00015

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**99.1**	**99**
Arsenic	**100**	**95.9**	**96**
Barium	**100**	**99.2**	**99**
Beryllium	**100**	**101**	**101**
Cadmium	**100**	**98.8**	**99**
Chromium	**100**	**95.2**	**95**
Cobalt	**100**	**95.2**	**95**
Copper	**100**	**95.9**	**96**
Lead	**100**	**99.1**	**99**
Molybdenum	**1100**	**1101**	**100**
Nickel	**100**	**96.9**	**97**
Selenium	**100**	**96.8**	**97**
Silver	**100**	**98.4**	**98**
Thallium	**100**	**102**	**102**
Tungsten	**100**	**92.7**	**93**
Vanadium	**100**	**94.3**	**94**
Zinc	**100**	**100**	**100**
Aluminum	*50000*	*53900*	*108*
Boron	*100*	*97.6*	*98*
Calcium	*50000*	*50380*	*101*
Iron	*50000*	*48570*	*97*
Magnesium	*50000*	*50410*	*101*
Manganese	*100*	*102*	*102*
Potassium	*50000*	*51480*	*103*
Sodium	*50000*	*50050*	*100*
Strontium	*100*	*93.0*	*93*
Tin	*100*	*97.8*	*98*
Titanium	*1100*	*1122*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: ICSA 240-51574/106 Instrument ID: I8

Lab File ID: I8072012B.csv ICS Source: MTMSICSAW_00015

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.142**	
Arsenic		**0.431**	
Barium		**0.0960**	
Beryllium		**0.0240**	
Cadmium		**0.0740**	
Chromium		**0.479**	
Cobalt		**0.0960**	
Copper		**0.716**	
Lead		**0.137**	
Molybdenum	**1000**	**996**	**100**
Nickel		**0.435**	
Selenium		**0.0920**	
Silver		**0.0340**	
Thallium		**0.0510**	
Tungsten		**0.0560**	
Vanadium		**0.124**	
Zinc		**1.60**	
Aluminum	*50000*	*56110*	*112*
Boron		*0.415*	
Calcium	*50000*	*49570*	*99*
Iron	*50000*	*50310*	*101*
Magnesium	*50000*	*53030*	*106*
Manganese		*0.0490*	
Potassium	*50000*	*53410*	*107*
Sodium	*50000*	*51210*	*102*
Strontium		*0.174*	
Tin		*0.106*	
Titanium	*1000*	*1045*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

Lab Sample ID: ICSAB 240-51574/107 Instrument ID: I8

Lab File ID: I8072012B.csv ICS Source: MTMSICSABW_00015

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**100**	**100**
Arsenic	**100**	**95.1**	**95**
Barium	**100**	**98.6**	**99**
Beryllium	**100**	**101**	**101**
Cadmium	**100**	**98.1**	**98**
Chromium	**100**	**94.3**	**94**
Cobalt	**100**	**93.4**	**93**
Copper	**100**	**93.8**	**94**
Lead	**100**	**98.8**	**99**
Molybdenum	**1100**	**1076**	**98**
Nickel	**100**	**94.9**	**95**
Selenium	**100**	**95.6**	**96**
Silver	**100**	**96.4**	**96**
Thallium	**100**	**101**	**101**
Tungsten	**100**	**90.6**	**91**
Vanadium	**100**	**93.6**	**94**
Zinc	**100**	**101**	**101**
Aluminum	*50000*	*54410*	*109*
Boron	*100*	*94.5*	*94*
Calcium	*50000*	*48070*	*96*
Iron	*50000*	*49140*	*98*
Magnesium	*50000*	*51520*	*103*
Manganese	*100*	*99.5*	*99*
Potassium	*50000*	*52360*	*105*
Sodium	*50000*	*49560*	*99*
Strontium	*100*	*92.7*	*93*
Tin	*100*	*97.7*	*98*
Titanium	*1100*	*1127*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 07/20/2012 End Date: 07/21/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li	Q	Element Sc 45	Q	Element Sc	Q	Element Ge 72	Q	Element In 115	Q
STD2 240-51574/2 IC	10:34	99		97		100		97		97	
STD3 240-51574/3 IC	10:39	90		98		99		94		95	
STD4 240-51574/4 IC	10:44	99		101		104		105		103	
ICV 240-51574/5	10:50	98		100		103		100		99	
ICB 240-51574/6	10:57	108		107		107		106		106	
CRI 240-51574/7	11:02	110		107		106		104		103	
ICSA 240-51574/8	11:07	94		91		94		93		95	
ICSAB 240-51574/9	11:12	85		92		97		97		98	
CCV 240-51574/82	18:26	99		86		89		86		88	
CCB 240-51574/83	18:33	113		94		91		91		93	
MB 240-50732/1-A	18:44	113		92		90		90		92	
LCS 240-50732/2-A	18:50	106		86		89		87		91	
240-13166-19	18:57	93		99		100		88		90	
240-13166-19 SD	19:03	103		106		106		100		99	
240-13166-19 MS	19:08	70		88		90		80		82	
240-13166-19 MSD	19:15	68		88		89		79		82	
240-13166-20	19:23	78		110		109		96		95	
240-13166-21	19:29	73		112		110		96		95	
240-13166-22	19:34	67		110		109		95		95	
CCV 240-51574/94	19:40	75		92		98		95		96	
CCB 240-51574/95	19:47	101		101		98		98		99	
240-13166-23	19:53	79		106		106		93		93	
240-13166-24	19:58	67		108		109		95		94	
240-13166-25	20:04	65		107		109		96		95	
240-13166-26	20:09	62		109		111		96		96	
240-13166-27	20:15	60		109		112		97		95	
240-13166-28	20:20	59		110		113		99		96	
240-13166-29	20:26	59		112		115		100		98	
240-13166-30	20:31	59		115		118		102		100	
CCV 240-51574/104	20:37	66		95		103		100		100	
CCB 240-51574/105	20:44	87		103		104		103		104	
ICSA 240-51574/106	20:50	78		88		93		93		95	
ICSAB 240-51574/107	20:55	77		88		94		93		95	
240-13166-31	21:03	72		110		114		101		97	
240-13166-32	21:08	61		114		117		102		98	
240-13166-33	21:14	57		114		120		103		100	
240-13166-34	21:19	55		117		122	* OK	105		102	
240-13166-35	21:25	53		120		125	* OK	108		104	
240-13166-36	21:30	51		124	OK	131	*	113		106	
MB 240-50728/1-A	21:36	76		113		120		117		113	
LCS 240-50728/2-A	21:41	76		89		100		98		100	
CCV 240-51574/116	21:49	83		97		99		96		96	

60-125%

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 07/20/2012 End Date: 07/21/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li	Q	Element Sc	Q	Element Sc	Q	Element Ge	Q	Element In	Q
CCB 240-51574/117	21:56	90		98		100		100		99	
240-13166-1	22:01	74		107		112		98		96	
240-13166-1 SD	22:07	83		108		114		108		104	
240-13166-1 MS	22:12	58		91		96		86		87	
240-13166-1 MSD	22:20	56		97		102		90		90	
240-13166-2	22:27	64		125	* OK	128	*	112		107	
240-13166-3	22:33	61		123	* OK	122	* OK	106		102	
240-13166-4	22:39	57		119		123	* OK	106		102	
240-13166-5	22:44	56		118		123	* OK	107		102	
CCV 240-51574/126	22:50	62		93		105		102		100	
CCB 240-51574/127	22:57	85		101		103		103		102	
240-13166-6	23:03	71		108		114		100		96	
240-13166-7	23:08	60		110		115		101		97	
240-13166-8	23:14	58		113		119		104		100	
240-13166-9	23:19	55		117		123	* OK	107		102	
240-13166-10	23:25	54		119		124	* OK	108		102	
240-13166-11	23:31	55		119		125	* OK	108		104	
240-13166-12	23:36	54		118		123	* OK	107		102	
240-13166-13	23:42	55		119		128	*	110		105	
CCV 240-51574/136	23:47	63		94		106		103		101	
CCB 240-51574/137	23:54	84		101		105		105		104	
240-13166-14	00:00	67		108		115		101		97	
240-13166-15	00:06	59		109		116		102		97	
240-13166-16	00:11	55		111		119		103		98	
240-13166-17	00:17	54		114		121	* OK	106		100	
240-13166-18	00:22	54		118		124	* OK	108		102	
CCV 240-51574/143	00:28	62		92		105		101		100	
CCB 240-51574/144	00:35	82		100		104		104		103	

~~AL 27~~
Be 9
Cr 51
Co 58
Cu 65
Ni 58
V 51
Zn 65

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 07/20/2012 End Date: 07/21/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho 165	Q	Element Bi	Q	Element	Q	Element	Q
STD2 240-51574/2 IC	10:34			100							
STD3 240-51574/3 IC	10:39			97							
STD4 240-51574/4 IC	10:44			104							
ICV 240-51574/5	10:50			101							
ICB 240-51574/6	10:57			105							
CRI 240-51574/7	11:02			103							
ICSA 240-51574/8	11:07			98							
ICSAB 240-51574/9	11:12			100							
CCV 240-51574/82	18:26			92							
CCB 240-51574/83	18:33			94							
MB 240-50732/1-A	18:44			94							
LCS 240-50732/2-A	18:50			94							
240-13166-19	18:57			92							
240-13166-19 SD	19:03			100							
240-13166-19 MS	19:08			87							
240-13166-19 MSD	19:15			88							
240-13166-20	19:23			96							
240-13166-21	19:29			96							
240-13166-22	19:34			95							
CCV 240-51574/94	19:40			97							
CCB 240-51574/95	19:47			99							
240-13166-23	19:53			94							
240-13166-24	19:58			95							
240-13166-25	20:04			95							
240-13166-26	20:09			95							
240-13166-27	20:15			95							
240-13166-28	20:20			96							
240-13166-29	20:26			97							
240-13166-30	20:31			99							
CCV 240-51574/104	20:37			101							
CCB 240-51574/105	20:44			104							
ICSA 240-51574/106	20:50			97							
ICSAB 240-51574/107	20:55			97							
240-13166-31	21:03			97							
240-13166-32	21:08			98							
240-13166-33	21:14			100							
240-13166-34	21:19			101							
240-13166-35	21:25			102							
240-13166-36	21:30			104							
MB 240-50728/1-A	21:36			110							
LCS 240-50728/2-A	21:41			103							
CCV 240-51574/116	21:49			100							

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-13166-1

SDG No.:

ICP-MS Instrument ID: I8 Start Date: 07/20/2012 End Date: 07/21/2012

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
CCB 240-51574/117	21:56			99							
240-13166-1	22:01			96							
240-13166-1 SD	22:07			103							
240-13166-1 MS	22:12			91							
240-13166-1 MSD	22:20			95							
240-13166-2	22:27			106							
240-13166-3	22:33			102							
240-13166-4	22:39			101							
240-13166-5	22:44			102							
CCV 240-51574/126	22:50			103							
CCB 240-51574/127	22:57			102							
240-13166-6	23:03			96							
240-13166-7	23:08			97							
240-13166-8	23:14			100							
240-13166-9	23:19			101							
240-13166-10	23:25			101							
240-13166-11	23:31			102							
240-13166-12	23:36			101							
240-13166-13	23:42			102							
CCV 240-51574/136	23:47			101							
CCB 240-51574/137	23:54			104							
240-13166-14	00:00			97							
240-13166-15	00:06			95							
240-13166-16	00:11			97							
240-13166-17	00:17			100							
240-13166-18	00:22			100							
CCV 240-51574/143	00:28			101							
CCB 240-51574/144	00:35			103							

Tetra Tech, Inc. **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE:** **JULY 27, 2012**

FROM: **MICHELLE L. ALLEN** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
SDG R1204494

SAMPLES: 36/Aqueous/Hexavalent Chromium

MSA-SW37A-071212	MSA-SW37B-071212	MSA-SW37C-071212
MSA-SW37D-071212	MSA-SW38A-071212	MSA-SW38B-071212
MSA-SW38C-071212	MSA-SW38D-071212	MSA-SW39A-071212
MSA-SW39B-071212	MSA-SW39C-071212	MSA-SW39D-071212
MSA-SW40A-071212	MSA-SW40B-071212	MSA-SW40C-071212
MSA-SW40D-071212	MSA-SW41A-071212	MSA-SW41B-071212
MSA-SW41C-071212	MSA-SW41D-071212	MSA-SW42A-071212
MSA-SW42B-071212	MSA-SW42C-071212	MSA-SW42D-071212
MSA-SW43A-071212	MSA-SW43B-071212	MSA-SW43C-071212
MSA-SW43D-071212	MSA-SW44A-071212	MSA-SW44B-071212
MSA-SW44C-071212	MSA-SW44D-071212	MSA-SW45A-071212
MSA-SW45B-071212	MSA-SW45C-071212	MSA-SW45D-071212

Overview

The sample set for LMC – MSA, SDG R1204494 consisted of thirty-six (36) aqueous environmental samples. All thirty-six (36) aqueous samples were analyzed for hexavalent chromium. No field duplicate pair was included in the sample delivery group (SDG).

The samples were collected by Tetra Tech, Inc. on July 12, 2012 and analyzed by Columbia Analytical Services, Inc. All analyses were conducted in accordance with EPA Method 218.6 analytical and reporting protocols.

The data contained in these SDGs were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibrations, laboratory method blank results, blank spike results, laboratory duplicate results, matrix spike/matrix spike duplicate recoveries, chromatographic resolution, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were noted.

Minor

- The laboratory analyzed all the environmental samples outside the 24 hour holding time. Positive results reported for hexavalent chromium below the Method Reporting Limit (MRL) limit but above the Method Detection Limit (MDL) were qualified as estimated, (J), due to conflicting directional bias. The positive results reported above the MRL and non-detected results reported for hexavalent chromium in the affected samples were qualified biased low, (L) and (UL), respectively.

- Positive results reported below the MRL but above the MDL were qualified as estimated, (J).

Notes

All samples were properly preserved to a pH of 9.3 -9.7.

Non-detected results were reported to the Method Reporting Limit (MRL).

Executive Summary

Laboratory Performance: All samples were analyzed outside the 24 hour holding time.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Inorganic Data Validation (April 1993) and EPA Method 218.6. The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Allen
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Quality Assurance Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

PROJ_NO: 04021	NSAMPLE	MSA-SW37A-071212			MSA-SW37B-071212			MSA-SW37C-071212			MSA-SW37D-071212		
SDG: R1204494	LAB_ID	R1204494-001			R1204494-002			R1204494-003			R1204494-004		
FRACTION: MISC	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.038	L	H	0.047	L	H	0.04	L	H	0.037	L	H

PROJ_NO: 04021	NSAMPLE	MSA-SW38A-071212			MSA-SW38B-071212			MSA-SW38C-071212			MSA-SW38D-071212		
SDG: R1204494	LAB_ID	R1204494-013			R1204494-014			R1204494-015			R1204494-016		
FRACTION: MISC	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.015	J	HP	0.02	UL	H	0.014	J	HP	0.02	UL	H

PROJ_NO: 04021	NSAMPLE	MSA-SW39A-071212			MSA-SW39B-071212			MSA-SW39C-071212			MSA-SW39D-071212		
SDG: R1204494	LAB_ID	R1204494-033			R1204494-034			R1204494-035			R1204494-036		
FRACTION: MISC	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.02	UL	H	0.02	UL	H	0.011	J	HP	0.02	UL	H

PROJ_NO: 04021	NSAMPLE	MSA-SW40A-071212			MSA-SW40B-071212			MSA-SW40C-071212			MSA-SW40D-071212		
SDG: R1204494	LAB_ID	R1204494-009			R1204494-010			R1204494-011			R1204494-012		
FRACTION: MISC	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.029	L	H	0.03	L	H	0.031	L	H	0.033	L	H

PROJ_NO: 04021	NSAMPLE	MSA-SW41A-071212			MSA-SW41B-071212			MSA-SW41C-071212			MSA-SW41D-071212		
SDG: R1204494	LAB_ID	R1204494-017			R1204494-018			R1204494-019			R1204494-020		
FRACTION: MISC	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.013	J	HP	0.018	J	HP	0.01	J	HP	0.02	UL	H

PROJ_NO: 04021	NSAMPLE	MSA-SW42A-071212			MSA-SW42B-071212			MSA-SW42C-071212			MSA-SW42D-071212		
SDG: R1204494	LAB_ID	R1204494-005			R1204494-006			R1204494-007			R1204494-008		
FRACTION: MISC	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.035	L	H	0.046	L	H	0.02	J	HP	0.041	L	H

PROJ_NO: 04021	NSAMPLE	MSA-SW43A-071212			MSA-SW43B-071212			MSA-SW43C-071212			MSA-SW43D-071212		
SDG: R1204494	LAB_ID	R1204494-021			R1204494-022			R1204494-023			R1204494-024		
FRACTION: MISC	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.02	J	HP	0.012	J	HP	0.02	UL	H	0.02	UL	H

PROJ_NO: 04021	NSAMPLE	MSA-SW44A-071212			MSA-SW44B-071212			MSA-SW44C-071212			MSA-SW44D-071212		
SDG: R1204494	LAB_ID	R1204494-025			R1204494-026			R1204494-027			R1204494-028		
FRACTION: MISC	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.011	J	HP	0.013	J	HP	0.02	UL	H	0.02	UL	H

PROJ_NO: 04021	NSAMPLE	MSA-SW45A-071212			MSA-SW45B-071212			MSA-SW45C-071212			MSA-SW45D-071212		
SDG: R1204494	LAB_ID	R1204494-029			R1204494-030			R1204494-031			R1204494-032		
FRACTION: MISC	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.02	UL	H	0.02	UL	H	0.014	J	HP	0.02	UL	H

Appendix B

Results as Reported by the Laboratory

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 0836
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW37A-071212		
Lab Code:	R1204494-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.038**		µg/L	0.020	0.010	1	NA	7/13/12 10:30	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 0842
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW37B-071212		
Lab Code:	R1204494-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.047		µg/L	0.020	0.010	1	NA	7/13/12 10:39	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 0845
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW37C-071212		
Lab Code:	R1204494-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.040		µg/L	0.020	0.010	1	NA	7/13/12 10:47	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 0848
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW37D-071212		
Lab Code:	R1204494-004	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.037**		µg/L	0.020	0.010	1	NA	7/13/12 10:56	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1038
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW38A-071212		
Lab Code:	R1204494-013	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.015**	J	µg/L	0.020	0.010	1	NA	7/13/12 12:51	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1037
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW38B-071212		
Lab Code:	R1204494-014	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	7/13/12 18:38	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1043
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW38C-071212		
Lab Code:	R1204494-015	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.014**	J	µg/L	0.020	0.010	1	NA	7/13/12 13:09	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1047
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW38D-071212		
Lab Code:	R1204494-016	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	7/13/12 13:17	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1202
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW39A-071212		
Lab Code:	R1204494-033	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	7/13/12 17:36	

Client: Tetra Tech NUS, Inc.
Project: MSA Surface Water/112IC04021 - 02
Sample Matrix: Water

Service Request: R1204494
Date Collected: 7/12/12 1206
Date Received: 7/13/12

Sample Name: MSA-SW39B-071212
Lab Code: R1204494-034

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	7/13/12 17:45	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1210
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW39C-071212		
Lab Code:	R1204494-035	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.011	J	µg/L	0.020	0.010	1	NA	7/13/12 17:54	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1214
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW39D-071212		
Lab Code:	R1204494-036	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	7/13/12 18:03	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 0909
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW40A-071212		
Lab Code:	R1204494-009	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.029**		µg/L	0.020	0.010	1	NA	7/13/12 11:40	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 0913
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW40B-071212		
Lab Code:	R1204494-010	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.030**		µg/L	0.020	0.010	1	NA	7/13/12 12:07	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 0916
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW40C-071212		
Lab Code:	R1204494-011	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.031		µg/L	0.020	0.010	1	NA	7/13/12 12:33	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 0919
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW40D-071212		
Lab Code:	R1204494-012	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.033**		µg/L	0.020	0.010	1	NA	7/13/12 12:42	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1055
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW41A-071212		
Lab Code:	R1204494-017	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.013**	J	µg/L	0.020	0.010	1	NA	7/13/12 13:26	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1058
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW41B-071212		
Lab Code:	R1204494-018	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.018**	J	µg/L	0.020	0.010	1	NA	7/13/12 13:53	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1101
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW41C-071212		
Lab Code:	R1204494-019	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.010**	J	µg/L	0.020	0.010	1	NA	7/13/12 14:13	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1105
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW41D-071212		
Lab Code:	R1204494-020	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	7/13/12 14:22	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 0854
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW42A-071212		
Lab Code:	R1204494-005	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.035		µg/L	0.020	0.010	1	NA	7/13/12 11:05	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 0857
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW42B-071212		
Lab Code:	R1204494-006	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.046		µg/L	0.020	0.010	1	NA	7/13/12 11:14	

Client: Tetra Tech NUS, Inc.
Project: MSA Surface Water/112IC04021 - 02
Sample Matrix: Water

Service Request: R1204494
Date Collected: 7/12/12 0901
Date Received: 7/13/12

Sample Name: MSA-SW42C-071212
Lab Code: R1204494-007

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	J	µg/L	0.020	0.010	1	NA	7/13/12 11:23	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 0904
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW42D-071212		
Lab Code:	R1204494-008	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.041		µg/L	0.020	0.010	1	NA	7/13/12 11:32	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1113
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW43A-071212		
Lab Code:	R1204494-021	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.020**	**J**	µg/L	0.020	0.010	1	NA	7/13/12 14:57	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1117
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW43B-071212		
Lab Code:	R1204494-022	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.012**	J	µg/L	0.020	0.010	1	NA	7/13/12 15:06	

Client: Tetra Tech NUS, Inc.
Project: MSA Surface Water/112IC04021 - 02
Sample Matrix: Water

Service Request: R1204494
Date Collected: 7/12/12 1120
Date Received: 7/13/12

Sample Name: MSA-SW43C-071212
Lab Code: R1204494-023

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	7/13/12 15:15	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1124
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW43D-071212		
Lab Code:	R1204494-024	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	7/13/12 15:24	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1128
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW44A-071212		
Lab Code:	R1204494-025	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.011	J	µg/L	0.020	0.010	1	NA	7/13/12 15:50	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1132
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW44B-071212		
Lab Code:	R1204494-026	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.013**	J	µg/L	0.020	0.010	1	NA	7/13/12 15:59	

Client: Tetra Tech NUS, Inc.
Project: MSA Surface Water/112IC04021 - 02
Sample Matrix: Water

Service Request: R1204494
Date Collected: 7/12/12 1136
Date Received: 7/13/12

Sample Name: MSA-SW44C-071212
Lab Code: R1204494-027

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	7/13/12 16:08	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1139
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW44D-071212		
Lab Code:	R1204494-028	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	7/13/12 16:17	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1145
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW45A-071212		
Lab Code:	R1204494-029	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	7/13/12 16:26	

Client: Tetra Tech NUS, Inc.
Project: MSA Surface Water/112IC04021 - 02
Sample Matrix: Water

Service Request: R1204494
Date Collected: 7/12/12 1150
Date Received: 7/13/12

Sample Name: MSA-SW45B-071212
Lab Code: R1204494-030

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	7/13/12 16:34	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1152
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW45C-071212		
Lab Code:	R1204494-031	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.014**	J	µg/L	0.020	0.010	1	NA	7/13/12 17:01	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12 1155
Sample Matrix:	Water	**Date Received:**	7/13/12
Sample Name:	MSA-SW45D-071212		
Lab Code:	R1204494-032	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	7/13/12 17:10	

Appendix C

Support Documentation

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 2022

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 4

Project Name: MSA SW Sampling	Project Number: 112IC04021
Project Manager: Tony Apanavage	Report CC:
Company/Address: Tetra Tech, 20251 Century Blvd Ste 200, Germantown MD 20874	
Phone #: (301) 528-5551	Email: Tony.Apanavage@tetratech.com
Sampler's Signature: [signature]	Sampler's Printed Name: Stuart Cameron

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ∘ 8260 ∘ 624 ∘ CLP	GC/MS SVOAs ∘ 8270 ∘ 625	GC VOAs ∘ 8021 ∘ 601/602	PESTICIDES ∘ 8081 ∘ 608	PCBs ∘ 8082 ∘ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Hexavalent Chromium							REMARKS/ ALTERNATE DESCRIPTION
MSA-SW40D-071212		7/12/12	0919	AQ	1								X							
MSA-SW38A-071212		↓	1038	↓	↓								↓							
MSA-SW38B-071212		↓	1037	↓	↓								↓							
MSA-SW38C-071212		↓	1043	↓	↓								↓							
MSA-SW38D-071212		↓	1047	↓	↓								↓							
MSA-SW41A-071212		↓	1055	↓	↓								↓							
MSA-SW41B-071212		↓	1058	↓	↓								↓							
MSA-SW41C-071212		↓	1101	↓	↓								↓							
MSA-SW41D-071212		↓	1105	↓	↓								↓							
MSA-SW43A-071212		↓	1113	↓	↓								↓							
MSA-SW43B-071212		↓	1117	↓	↓								↓							

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day

REQUESTED REPORT DATE
_____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ____ Yes ____ No

INVOICE INFORMATION
PO #
BILL TO:

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
[signature]	[signature]				
Signature: Stuart Cameron	Signature: Daniel Ward	Signature	Signature	Signature	Signature
Printed Name: Tetra Tech	Printed Name: ALS	Printed Name	Printed Name	Printed Name	Printed Name
Firm: 7-12-12/1430	Firm: 7/13/12/0755	Firm	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

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Columbia Analytical Services™ CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

0947

1565 Jefferson Rd., Bldg. 300, Suite 360, Rochester, NY 14623 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 3 OF 4

Project Name: MSA SW Sampling	Project Number: 112ICO4021
Project Manager: Tony Aprahamian	Report CC:
Company/Address: Terra Tech 20251 Century Blvd Ste 200 Germantown MD, 20874	
Phone #: (301) 528-5552	E-mail: Tony.Aprahamian@terratech.com
Sampler's Signature:	Sampler's Printed Name: Stuart Cameron

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ CLP	GC/MS SVOA's ☐ 8270 ☐ 625	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608	PCB's ☐ 8082 ☐ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Hexavalent Chromium	REMARKS/ ALTERNATE DESCRIPTION
MSA-SW43C-071212		7/12/12	1120	AQ	1								X	
MSA-SW43D-071212			1124											
MSA-SW44A-071212			1128											
MSA-SW44B-071212			1132											
MSA-SW44C-071212			1136											
MSA-SW44D-071212			1139											
MSA-SW45A-071212			1145											
MSA-SW45B-071212			1150											
MSA-SW45C-071212			1152											
MSA-SW45D-071212			1155											

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____1 day _____2 day _____3 day
_____4 day _____ 5 day
_____Standard
REQUESTED REPORT DATE

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data
Edata _____ Yes _____ No

INVOICE INFORMATION
PO #:
BILL TO:

STATE WHERE SAMPLES WERE COLLECTED:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Stuart Cameron	Printed Name: ALS	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: Terra Tech	Firm: 7/13/12 /0755	Firm:	Firm:	Firm:	Firm:
Date/Time: 7/12/12 - 1430	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:

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SCOC Rev. 7/2011

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 2021

ALS Environmental

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax)

Project Name: MSA SW Sampling	Project Number: 112IC04021
Project Manager: Tony Apanavage	Report CC:
Company/Address: Tetra Tech 2025 Century Blvd Ste 200 Germantown MD 20874	
Phone #: (301) 528-5552	Email: Tony.Apanavage@tetratech.com
Sampler's Signature:	Sampler's Printed Name: Stuart Gmeon

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ◦ 8260 ◦ 624 ◦ CLP	GC/MS SVOAs ◦ 8270 ◦ 625	GC VOAs ◦ 8021 ◦ 601/602	PESTICIDES ◦ 8081 ◦ 608	PCBs ◦ 8082 ◦ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Hexavalent Chromium									
MSA-SW37A-071212		7/12/12	0836	AQ	1								X									
MSA-SW37B-071212			0842										X									
MSA-SW37C-071212			0845																			
MSA-SW37D-071212			0848																			
MSA-SW42A-071212			0854																			
MSA-SW42B-071212			0857																			
MSA-SW42C-071212			0901																			
MSA-SW42D-071212			0904																			
MSA-SW40A-071212			0909																			
MSA-SW40B-071212			0913																			
MSA-SW40C-071212			0916																			

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS

Metals Samples must be analyzed within 24 hrs of Sample time

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS

_____ RUSH (SURCHARGES APPLY)

_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day

REQUESTED REPORT DATE

_____

REPORT REQUIREMENTS

_____ I. Results Only

_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

_____ III. Results + QC and Calibration Summaries

_____ IV. Data Validation Report with Raw Data

Edata _____ Yes _____

INVOICE INFORMATION

PO #

BILL TO:

R1204494 5

Tetra Tech NUS, Inc.
MSA Surface Water

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature	Signature: Daniel Ward	Signature	Signature	Signature	
Printed Name: Stuart Gmeon	Printed Name: ALS	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Tetra Tech	Firm: 7/13/12 / 0755	Firm	Firm	Firm	Firm
Date/Time: 7/12/12 - 1430	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

0948

1565 Jefferson Rd., Bldg. 300, Suite 360, Rochester, NY 14623 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 4 OF 4

Project Name: MSA SW Sampling
Project Number: 112IC04021
Project Manager: Tony Apanavage
Report CC:
Company/Address: Tetra Tech
20251 Century Blvd Ste 200
Germantown MD, 20874
Phone #: (301) 528-5552
E-mail: Tony.Apanavage@tetratech.com
Sampler's Signature: [signature]
Sampler's Printed Name: Stuart Cameron

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ CLP	GC/MS SVOA's ☐ 8270 ☐ 625	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608	PCB's ☐ 8082 ☐ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Hexavalent Chromium							REMARKS/ ALTERNATE DESCRIPTION
MSA-SW39A-071212		7/12/12	1202	AQ									X							
MSA-SW39B-071212		↓	1206	↓									↓							
MSA-SW39C-071212		↓	1210	↓									↓							
MSA-SW39D-071212		↓	1214	↓									↓							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
____ Standard

REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ____ Yes ____ No

INVOICE INFORMATION
PO #:
BILL TO:

STATE WHERE SAMPLES WERE COLLECTED:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
[signature]	[signature]				
Signature: Stuart Cameron	Signature: Daniel Ward	Signature	Signature	Signature	Signature
Printed Name: Tetra Tech	Printed Name: ALS	Printed Name	Printed Name	Printed Name	Printed Name
Firm: 7/12/12 - 1430	Firm: 7/13/12 / 0755	Firm	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return To Originator

SCOC Rev. 7/2011

Cooler Receipt and Preservation Check Form

Project/Client Tetratech Folder Number R12-4494

Cooler received on 7/13/12 by: dh COURIER: ALS UPS ~~FEDEX~~ VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO (N/A)
5.	Were (Ice) or Ice packs present?	(YES)	NO
6.	Where did the bottles originate?	(ALS/ROC),	CLIENT
7.	Temperature of cooler(s) upon receipt:	0.7°	

Is the temperature within 0° - 6° C?:	(Yes)	Yes	Yes	Yes	Yes
If No, Explain Below	No	No	No	No	No

Date/Time Temperatures Taken: 7/13/12/0757

Thermometer ID: IR GUN#3 / IR (GUN#4) Reading From: (Temp Blank) / Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location R-002 by dh on 7/13/12 at 0800
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: MKP 7/13/12

Cooler Breakdown: Date: 7/13/12 Time: 0846 by: AWA

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated		(N/A)

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 061812-2Y

Other Comments:

PC Secondary Review: MKP 7/23/12

H:\SMODOCS\Cooler Receipt 5.doc

*significant air bubbles: VOA > 5-6 mm ; WC >1 in. diameter

July 23, 2012

Service Request No: R1204494

Ms. Samantha Brenner
Tetra Tech NUS,Inc.
20251 Century Blvd. Ste. 200
Germantown, MD 20874-7114

Laboratory Results for: MSA Surface Water/112IC04021 - 02

Dear Ms. Brenner:

Enclosed are the results of the sample(s) submitted to our laboratory on July 13, 2012. For your reference, these analyses have been assigned our service request number **R1204494**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7469. You may also contact me via email at Mike.Perry@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Michael Perry
Laboratory Manager

CC: Amy Thomson

Columbia Analytical Services

ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623
PHONE 585-288-5380 | FAX 585-288-8475
Columbia Analytical Services, Inc.
Part of the ALS Group A Campbell Brothers Limited Company
www.caslab.com • www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client:	Tetra Tech NUS, Inc.	**Service Request No.:**	R1204494
Project:	MSA Surface Water	**Project Number:**	112IC04021-02
Sample Matrix:	Water	**Date Received:**	7/13/12

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 7/12/12 and received at CAS in good condition at a cooler temperature of 0.7 °C as noted on the cooler receipt and preservation check form. The samples were immediately preserved to a pH of 9.3 – 9.7 and stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the CAS CLP Batching sheets for a cross-reference between Client ID and CAS Job # and analyses requested. All samples were filtered in the field.

Hexavalent Chromium Analysis – 218.6

Thirty-six water samples were analyzed for Dissolved CR+6 by EPA method 218.6, low level. Values detected between the MDL and PQL have been flagged with a "J" as estimated.

Note: Not all samples were analyzed within 24 hours of sampling. However, as mentioned, all samples were pH adjusted and all samples were analyzed within 48 hours of collection.

All the initial and continuing calibration criteria of 95 – 105 % were met.

The Blank Spike (LCS) recovery was within QC limits.

A Matrix Spike/Matrix Spike duplicate was analyzed on samples MSA-SW40B, and MSA-SW41D. The recoveries and RPD's were all within QC limits.

The Laboratory Blank associated with these samples was free of contamination.

No other analytical or QC problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

CAS ASP/CLP Batching Form/Login Sheet

Client Proj #: 112IC04021 - 02	Batch Complete: Yes		Date Revised:
Submission: R1204494	Diskette Requested: No		Date Due: 7/27/12
Client: Tetra Tech NUS, Inc.	Date: 7/16/12		Protocol: MCAWW
Client Rep: MPERRY	Custody Seal: Present/Absent:		Shipping No.:
Project: MSA Surface Water	Chain of Custody: Present/Absent:		SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1204494-001	MSA-SW37A-071212	Water	218.6	7/12/12	7/13/12			
R1204494-002	MSA-SW37B-071212	Water	218.6	7/12/12	7/13/12			
R1204494-003	MSA-SW37C-071212	Water	218.6	7/12/12	7/13/12			
R1204494-004	MSA-SW37D-071212	Water	218.6	7/12/12	7/13/12			
R1204494-005	MSA-SW42A-071212	Water	218.6	7/12/12	7/13/12			
R1204494-006	MSA-SW42B-071212	Water	218.6	7/12/12	7/13/12			
R1204494-007	MSA-SW42C-071212	Water	218.6	7/12/12	7/13/12			
R1204494-008	MSA-SW42D-071212	Water	218.6	7/12/12	7/13/12			
R1204494-009	MSA-SW40A-071212	Water	218.6	7/12/12	7/13/12			
R1204494-010QC	MSA-SW40B-071212	Water	218.6	7/12/12	7/13/12			
R1204494-011	MSA-SW40C-071212	Water	218.6	7/12/12	7/13/12			
R1204494-012	MSA-SW40D-071212	Water	218.6	7/12/12	7/13/12			
R1204494-013	MSA-SW38A-071212	Water	218.6	7/12/12	7/13/12			
R1204494-014	MSA-SW38B-071212	Water	218.6	7/12/12	7/13/12			
R1204494-015	MSA-SW38C-071212	Water	218.6	7/12/12	7/13/12			
R1204494-016	MSA-SW38D-071212	Water	218.6	7/12/12	7/13/12			
R1204494-017	MSA-SW41A-071212	Water	218.6	7/12/12	7/13/12			
R1204494-018	MSA-SW41B-071212	Water	218.6	7/12/12	7/13/12			
R1204494-019	MSA-SW41C-071212	Water	218.6	7/12/12	7/13/12			
R1204494-020QC	MSA-SW41D-071212	Water	218.6	7/12/12	7/13/12			
R1204494-021	MSA-SW43A-071212	Water	218.6	7/12/12	7/13/12			
R1204494-022	MSA-SW43B-071212	Water	218.6	7/12/12	7/13/12			
R1204494-023	MSA-SW43C-071212	Water	218.6	7/12/12	7/13/12			
R1204494-024	MSA-SW43D-071212	Water	218.6	7/12/12	7/13/12			
R1204494-025	MSA-SW44A-071212	Water	218.6	7/12/12	7/13/12			
R1204494-026	MSA-SW44B-071212	Water	218.6	7/12/12	7/13/12			
R1204494-027	MSA-SW44C-071212	Water	218.6	7/12/12	7/13/12			
R1204494-028	MSA-SW44D-071212	Water	218.6	7/12/12	7/13/12			
R1204494-029	MSA-SW45A-071212	Water	218.6	7/12/12	7/13/12			
R1204494-030	MSA-SW45B-071212	Water	218.6	7/12/12	7/13/12			
R1204494-031	MSA-SW45C-071212	Water	218.6	7/12/12	7/13/12			
R1204494-032	MSA-SW45D-071212	Water	218.6	7/12/12	7/13/12			
R1204494-033	MSA-SW39A-071212	Water	218.6	7/12/12	7/13/12			
R1204494-034	MSA-SW39B-071212	Water	218.6	7/12/12	7/13/12			
R1204494-035	MSA-SW39C-071212	Water	218.6	7/12/12	7/13/12			
R1204494-036	MSA-SW39D-071212	Water	218.6	7/12/12	7/13/12			

Folder Comments:

Columbia Analytical Services

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REPORT QUALIFIERS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.

ACCREDITED IN ACCORDANCE WITH nelac

CAS/Rochester Lab ID # for State Certifications[1]

NELAP Accredited
Connecticut ID # PH0556
Delaware Accredited
DoD ELAP #65817
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Nebraska Accredited
Nevada ID # NY-00032
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
North Carolina #676
Pennsylvania ID# 68-786
Rhode Island ID # 158
Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at www.caslab.com.

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
6/29/12 0925	EB R1204159-001	~~7199~~ 218.6 RL 218.6 LL 218.7	~~Water~~ Drinking Water	6/28/12 1800	Yes ~~No~~ Field	—	—	8.41	9.13	CMW 6/29/12 1057	Buffer	WC11202ZE
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
7/12/12 0855	R1204464-001	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/11/12 0800	Yes No ~~Field~~	—	—	9.39	—	CMW 7/12/12 1300	Buffer	—
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
7/12/12 0740	R1204445-016	~~7199~~ 218.6 RL 218.6 LL 218.7	~~Water~~ Drinking Water	7/11/12 1655	Yes ~~No~~ Field	—	—	8.57	9.43	CMW 7/12/12 1303	Buffer	WC11202ZE
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
7/13/12 0755	R1204494-001 MSA-SW378-071212	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 0836	Yes No ~~Field~~	—	—	7,868	9,332	DPW 7/13/12 0828	Buffer	WC11202ZE
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R1204494-002 MSA-SW378-071212	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 0842	Yes No ~~Field~~	—	—	7,885	9,331	DPW 7/13/12 0836	Buffer	WC11202ZE
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R1204494-003 MSA-SW378-071212	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 0845	Yes No ~~Field~~	—	—	7,893	9,316	DPW 7/13/12 0845	Buffer	WC11202ZE
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R1204494-004 MSA-SW378-071212	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 0848	Yes No ~~Field~~	—	—	7,941	9,368	DPW 7/13/12 0852	Buffer	WC11202ZE
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R1204494-005 MSA-SW484-071212	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 0854	Yes No ~~Field~~	—	—	7,907	DPW 7/12/12 9,316	DPW 7/13/12 0900	Buffer	WC11202ZE
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

0066

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
7/13/12 0755	R12-4494 -006 MSA-SW12B-071212	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 0850	Yes No ~~Field~~	—	—	7.877	9.340	7/13/12 DPW 0908	Buffer	WC112022E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -007 MSA-SW12C-071212	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 0901	Yes No ~~Field~~	—	—	7.784	9.328	7/13/12 DPW 1015	Buffer	WC112022E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -008 MSA-SW12D-071212	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 0904	Yes No ~~Field~~	—	—	7.910	9.300	7/13/12 DPW 1023	Buffer	WC112022E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -009 MSA-SW10A-071212	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 0909	Yes No ~~Field~~	—	—	7.979	9.410	7/13/12 DPW 1034	Buffer	WC112022E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -010	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 0913	Yes No ~~Field~~	—	—	7.915	9.537	7/13/12 DPW 1045	Buffer	WC112022E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -011	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 0916	Yes No ~~Field~~	—	—	7.944	9.537	7/13/12 DPW 1054	Buffer	WC112022E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -012	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 0919	Yes No ~~Field~~	—	—	7.823	9.488	7/13/12 DPW 1107	Buffer	WC112022E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -013	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 1038	Yes No ~~Field~~	—	—	7.8080	9.547	7/13/12 DPW 1115	Buffer	WC112022E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
7/13/17 0755	R12-4494 -014	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/17 1037	Yes No ~~Field~~	—	—	7.841	9.567	7/13/17 DRW 1121	Buffer	WC11202Z5
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -015	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/17 1043	Yes No ~~Field~~	—	—	8.126	9.441	7/13/17 DRW 1130	Buffer	WC11202ZE
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -016	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/17 1047	Yes No ~~Field~~	—	—	8.061	9.480	7/13/17 DRW 1139	Buffer	WC11202ZE
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -017	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/17 1055	Yes No ~~Field~~	—	—	8.090	9.365 +DRW 7/13/17	7/13/17 DRW 1150	Buffer	WC11202ZE
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -018	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/17 1058	Yes No ~~Field~~	—	—	8.109	9.426	7/13/17 DRW 1200	Buffer	WC11202ZE
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -019	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/17 1101	Yes No ~~Field~~	—	—	8.153	9.419	7/13/17 DRW 1214	Buffer	WC11202ZE
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -020	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/17 1105	Yes No ~~Field~~	—	—	8.163	9.355	7/13/17 DRW 1220	Buffer	WC11202ZE
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -021	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/17 1113	Yes No ~~Field~~	—	—	8.153	9.361	7/13/17 DRW 1230	Buffer	WC11202Z5
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
7/13/12 0755	R12-4494 -022	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 1117 dlw 7/13/12	Yes No ~~Field~~	—	—	8.234	9.332	7/13/12 dlw 1244	Buffer	WC11202 2E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -023	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	~~7/12/12~~ 7/12/12 1120	Yes No ~~Field~~	—	—	8,185	9,340	7/13/12 dlw 1252	Buffer	WC11202 2E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -024	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 1124	Yes No ~~Field~~	—	—	8,164	9,305	7/13/12 dlw 1305	Buffer	WC11202 2E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -025	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 1128	Yes No ~~Field~~	—	—	8,063	9,424	7/13/12 dlw 1440	Buffer	WC11202 2E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -026	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 1132	Yes No ~~Field~~	—	—	8,213	9,428	7/13/12 dlw 1451	Buffer	WC11202 2E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	dlw 7/13/12
	R12-4494 -027	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 1136	Yes No ~~Field~~	—	—	8,184	9,302	7/13/12 dlw 1510	Buffer	~~WC11202~~ WC11202 2E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -028	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ ~~Drinking Water~~ dlw 7/13/12	7/12/12 1139	Yes No ~~Field~~	—	—	8,168	9,353	7/13/12 dlw 1530	Buffer	WC11202 2E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	R12-4494 -029	7199 ~~218.6 RL~~ 218.6 LL 218.7	~~Water~~ Drinking Water	7/12/12 1145	Yes No ~~Field~~	—	—	8,106	9,455	7/13/12 1545	Buffer	WC11202 2E
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
7/13/12 0755	R1204494-030	7199 218.6 RL 218.6 LL 218.7	(Water) Drinking Water	7/12/12 1150	Yes No (Field)	—	—	8.105	9.316	CMW 7/13/12 1550	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC11203ZE
	R1204494-031	7199 218.6 RL 218.6 LL 218.7	(Water) Drinking Water	7/12/12 1152	Yes No (Field)	—	—	8.091	9.367	CMW 7/13/12 1552	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC11203ZE
	R1204494-032	7199 218.6 RL 218.6 LL 218.7	(Water) Drinking Water	7/12/12 1155	Yes No (Field)	—	—	8.117	9.314	CMW 7/13/12 1553	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC11203ZE
	R1204494-033	7199 218.6 RL 218.6 LL 218.7	(Water) Drinking Water	7/12/12 1202	Yes No (Field)	—	—	8.044	9.352	CMW 7/13/12 1555	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC11203ZE
	R1204494-034	7199 218.6 RL 218.6 LL 218.7	(Water) Drinking Water	7/12/12 1206	Yes No (Field)	—	—	8.131	9.336	CMW 7/13/12 1556	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC11203ZE
	R1204494-035	7199 218.6 RL 218.6 LL 218.7	(Water) Drinking Water	7/12/12 1210	Yes No (Field)	—	—	8.221	9.336	CMW 7/13/12 1558	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC11203ZE
	R1204494-036	7199 218.6 RL 218.6 LL 218.7	(Water) Drinking Water	7/12/12 1214	Yes No (Field)	—	—	8.195	9.370	CMW 7/13/12 1600	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	WC11203ZE
		7199 218.6 RL 218.6 LL 218.7	Water Drinking Water		Yes No Field						Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

Sample Dilutions

Analyst: CWoods Date: 7/13/12

Instrument: ICP Analysis: 218.6 LL

	Sample ID	1st Dilution				2nd Dilution			3nd Dilution		
		mL's of Sample	mL's of Diluent	Matrix of Diluent	Dilution Factor	mL's of 1st Dilution	mL's of Diluent	Dilution Factor	mL's of 2nd Dilution	mL's of Diluent	Dilution Factor
1	R1204494-014	5	5	Buffered DI	2						
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
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27											
28											

CW 7/13/12

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1204494-MB1	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	7/13/12 10:12	

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1204494-MB2	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	7/13/12 13:44	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
QA/QC Report

Client:	Tetra Tech NUS, Inc.	**Service Request:**	R1204494
Project:	MSA Surface Water/112IC04021 - 02	**Date Collected:**	7/12/12
Sample Matrix:	Water	**Date Received:**	7/13/12
		Date Analyzed:	7/13/12

Matrix Spike Summary
General Chemistry Parameters

Sample Name:	MSA-SW40B-071212	**Units:**	µg/L
Lab Code:	R1204494-010	**Basis:**	NA

Analytical Method: 218.6

		MSA-SW40B-071212MS Matrix Spike R1204494-010MS1			MSA-SW40B-071212DMS Duplicate Matrix Spike R1204494-010DMS1					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Chromium, Hexavalent, Dissolved	0.030	0.219	0.200	95	0.224	0.200	97	90 - 110	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Tetra Tech NUS, Inc.
Project: MSA Surface Water/112IC04021 - 02
Sample Matrix: Water

Service Request: R1204494
Date Collected: 7/12/12
Date Received: 7/13/12
Date Analyzed: 7/13/12

Matrix Spike Summary
General Chemistry Parameters

Sample Name: MSA-SW41D-071212
Lab Code: R1204494-020

Units: µg/L
Basis: NA

Analytical Method: 218.6

Analyte Name	Sample Result	MSA-SW41D-071212MS Matrix Spike R1204494-020MS2 Result	Spike Amount	% Rec	MSA-SW41D-071212DMS Duplicate Matrix Spike R1204494-020DMS2 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Chromium, Hexavalent, Dissolved	ND	0.193	0.200	96	0.195	0.200	97	90 - 110	1	20

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Tetra Tech NUS, Inc.
Project: MSA Surface Water/112IC04021 - 02
Sample Matrix: Water

Service Request: R1204494
Date Analyzed: 7/13/12

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1204494-LCS1 Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6	0.216	0.200	108	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Tetra Tech NUS, Inc.
Project: MSA Surface Water/112IC04021 - 02
Sample Matrix: Water

Service Request: R1204494
Date Analyzed: 7/13/12

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1204494-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6	0.200	0.200	100	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

07-13-12 IC#8 218.6 LL Analyst: CWoods Pipets: 01 Blue Wcy Spiderman

Injection Number	Injection Name	Type	Level	Volume (µL)	Processing Method	Inject Time	Dilution
1	STANDARD 1	Calibration Standard	01	1000.00	8-071312	13/07/12 09:02	1.0000
2	STANDARD 2	Calibration Standard	02	1000.00	8-071312	13/07/12 09:10	1.0000
3	STANDARD 3	Calibration Standard	03	1000.00	8-071312	13/07/12 09:19	1.0000
4	STANDARD 4	Calibration Standard	04	1000.00	8-071312	13/07/12 09:28	1.0000
5	STANDARD 5	Calibration Standard	05	1000.00	8-071312	13/07/12 09:37	1.0000
6	STANDARD 6	Calibration Standard	06	1000.00	8-071312	13/07/12 09:46	1.0000
7	STANDARD 7	Calibration Standard	07	1000.00	8-071312	13/07/12 09:54	1.0000
8	ICV	Unknown		1000.00	8-071312	13/07/12 10:03	1.0000
9	ICB	Unknown		1000.00	8-071312	13/07/12 10:12	1.0000
10	LCS	Unknown		1000.00	8-071312	13/07/12 10:21	1.0000
11	R1204494-001	Unknown		1000.00	8-071312	13/07/12 10:30	1.0000
12	R1204494-002	Unknown		1000.00	8-071312	13/07/12 10:39	1.0000
13	R1204494-003	Unknown		1000.00	8-071312	13/07/12 10:47	1.0000
14	R1204494-004	Unknown		1000.00	8-071312	13/07/12 10:56	1.0000
15	R1204494-005	Unknown		1000.00	8-071312	13/07/12 11:05	1.0000
16	R1204494-006	Unknown		1000.00	8-071312	13/07/12 11:14	1.0000
17	R1204494-007	Unknown		1000.00	8-071312	13/07/12 11:23	1.0000
18	R1204494-008	Unknown		1000.00	8-071312	13/07/12 11:32	1.0000
19	R1204494-009	Unknown		1000.00	8-071312	13/07/12 11:40	1.0000
20	CCV	Unknown		1000.00	8-071312	13/07/12 11:49	1.0000
21	CCB	Unknown		1000.00	8-071312	13/07/12 11:58	1.0000
22	R1204494-010	Unknown		1000.00	8-071312	13/07/12 12:07	1.0000
23	R1204494-010 MS	Unknown		1000.00	8-071312	13/07/12 12:16	1.0000
24	R1204494-010 MSD	Unknown		1000.00	8-071312	13/07/12 12:24	1.0000
25	R1204494-011	Unknown		1000.00	8-071312	13/07/12 12:33	1.0000
26	R1204494-012	Unknown		1000.00	8-071312	13/07/12 12:42	1.0000
27	R1204494-013	Unknown		1000.00	8-071312	13/07/12 12:51	1.0000
28	R1204494-014	Unknown		1000.00	8-071312	13/07/12 13:00	1.0000
29	R1204494-015	Unknown		1000.00	8-071312	13/07/12 13:09	1.0000
30	R1204494-016	Unknown		1000.00	8-071312	13/07/12 13:17	1.0000
31	R1204494-017	Unknown		1000.00	8-071312	13/07/12 13:26	1.0000
32	CCV	Unknown		1000.00	8-071312	13/07/12 13:35	1.0000
33	CCB	Unknown		1000.00	8-071312	13/07/12 13:44	1.0000
34	R1204494-018	Unknown		1000.00	8-071312	13/07/12 13:53	1.0000
35	R1204494-019	Unknown		1000.00	8-071312	13/07/12 14:13	1.0000

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Reviewed & Approved
By: CL
Date: 7/16/12

36	R1204494-020	Unknown	1000.00	8-071312	13/07/12 14:22	1.0000
37	R1204494-020 MS	Unknown	1000.00	8-071312	13/07/12 14:31	1.0000
38	R1204494-020 MSD	Unknown	1000.00	8-071312	13/07/12 14:40	1.0000
39	LCS	Unknown	1000.00	8-071312	13/07/12 14:48	1.0000
40	R1204494-021	Unknown	1000.00	8-071312	13/07/12 14:57	1.0000
41	R1204494-022	Unknown	1000.00	8-071312	13/07/12 15:06	1.0000
42	R1204494-023	Unknown	1000.00	8-071312	13/07/12 15:15	1.0000
43	R1204494-024	Unknown	1000.00	8-071312	13/07/12 15:24	1.0000
44	CCV	Unknown	1000.00	8-071312	13/07/12 15:33	1.0000
45	CCB	Unknown	1000.00	8-071312	13/07/12 15:41	1.0000
46	R1204494-025	Unknown	1000.00	8-071312	13/07/12 15:50	1.0000
47	R1204494-026	Unknown	1000.00	8-071312	13/07/12 15:59	1.0000
48	R1204494-027	Unknown	1000.00	8-071312	13/07/12 16:08	1.0000
49	R1204494-028	Unknown	1000.00	8-071312	13/07/12 16:17	1.0000
50	R1204494-029	Unknown	1000.00	8-071312	13/07/12 16:26	1.0000
51	R1204494-030	Unknown	1000.00	8-071312	13/07/12 16:34	1.0000
52	R1204494-030 MS	Unknown	1000.00	8-071312	13/07/12 16:43	1.0000
53	R1204494-030 MSD	Unknown	1000.00	8-071312	13/07/12 16:52	1.0000
54	R1204494-031	Unknown	1000.00	8-071312	13/07/12 17:01	1.0000
55	R1204494-032	Unknown	1000.00	8-071312	13/07/12 17:10	1.0000
56	CCV	Unknown	1000.00	8-071312	13/07/12 17:19	1.0000
57	CCB	Unknown	1000.00	8-071312	13/07/12 17:27	1.0000
58	R1204494-033	Unknown	1000.00	8-071312	13/07/12 17:36	1.0000
59	R1204494-034	Unknown	1000.00	8-071312	13/07/12 17:45	1.0000
60	R1204494-035	Unknown	1000.00	8-071312	13/07/12 17:54	1.0000
61	R1204494-036	Unknown	1000.00	8-071312	13/07/12 18:03	1.0000
62	R1204494-036 MS	Unknown	1000.00	8-071312	13/07/12 18:11	1.0000 CRT 11612
63	R1204494-036 MSD	Unknown	1000.00	8-071312	13/07/12 18:20	1.0000
64	R1204494-014	Unknown	1000.00	8-071312	13/07/12 18:29	~~1.0000~~ 2.00
65	R1204494-014	Unknown	1000.00	8-071312	13/07/12 18:38	~~2.0000~~ 1.00
66	CCV	Unknown	1000.00	8-071312	13/07/12 18:47	1.0000
67	CCB	Unknown	1000.00	8-071312	13/07/12 18:56	1.0000

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Client: Tetra Tech NUS, Inc. **Service Request:** R1204494
Project: MSA Surface Water/112IC04021 - 02

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 **Units:** µg/L

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	300258	RQ1207949-08	7/13/12 10:03	0.500	0.507	101	95 - 105
CCV2	300258	RQ1207949-07	7/13/12 11:49	0.500	0.494	99	95 - 105
CCV3	300258	RQ1207949-06	7/13/12 13:35	0.500	0.485	97	95 - 105
CCV4	300259	RQ1207950-05	7/13/12 13:35	0.500	0.485	97	95 - 105
CCV5	300258	RQ1207949-05	7/13/12 15:33	0.500	0.504	101	95 - 105
CCV6	300259	RQ1207950-06	7/13/12 15:33	0.500	0.504	101	95 - 105
CCV7	300259	RQ1207950-08	7/13/12 17:19	0.500	0.505	101	95 - 105
CCV8	300259	RQ1207950-07	7/13/12 18:47	0.500	0.506	101	95 - 105

Client: Tetra Tech NUS, Inc. **Service Request:** R1204494
Project: MSA Surface Water/112IC04021 - 02

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 **Units:** µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	300258	RQ1207949-12	7/13/12 10:12	0.010	0.020	0.020	U
CCB2	300258	RQ1207949-11	7/13/12 11:58	0.010	0.020	0.020	U
CCB3	300258	RQ1207949-10	7/13/12 13:44	0.010	0.020	0.020	U
CCB4	300259	RQ1207950-09	7/13/12 13:44	0.010	0.020	0.020	U
CCB5	300258	RQ1207949-09	7/13/12 15:41	0.010	0.020	0.020	U
CCB6	300259	RQ1207950-12	7/13/12 15:41	0.010	0.020	0.020	U
CCB7	300259	RQ1207950-11	7/13/12 17:27	0.010	0.020	0.020	U
CCB8	300259	RQ1207950-10	7/13/12 18:56	0.010	0.020	0.020	U

Calibration Batch Report

Sequence:	071312	Injection Volume (uL):	1,000.00
Processing Method:	8-071312	Calibration Type:	Quad, WithOffset
Corr. Coefficient:	99.969	Instrument Method:	Cr(VI) w AS40

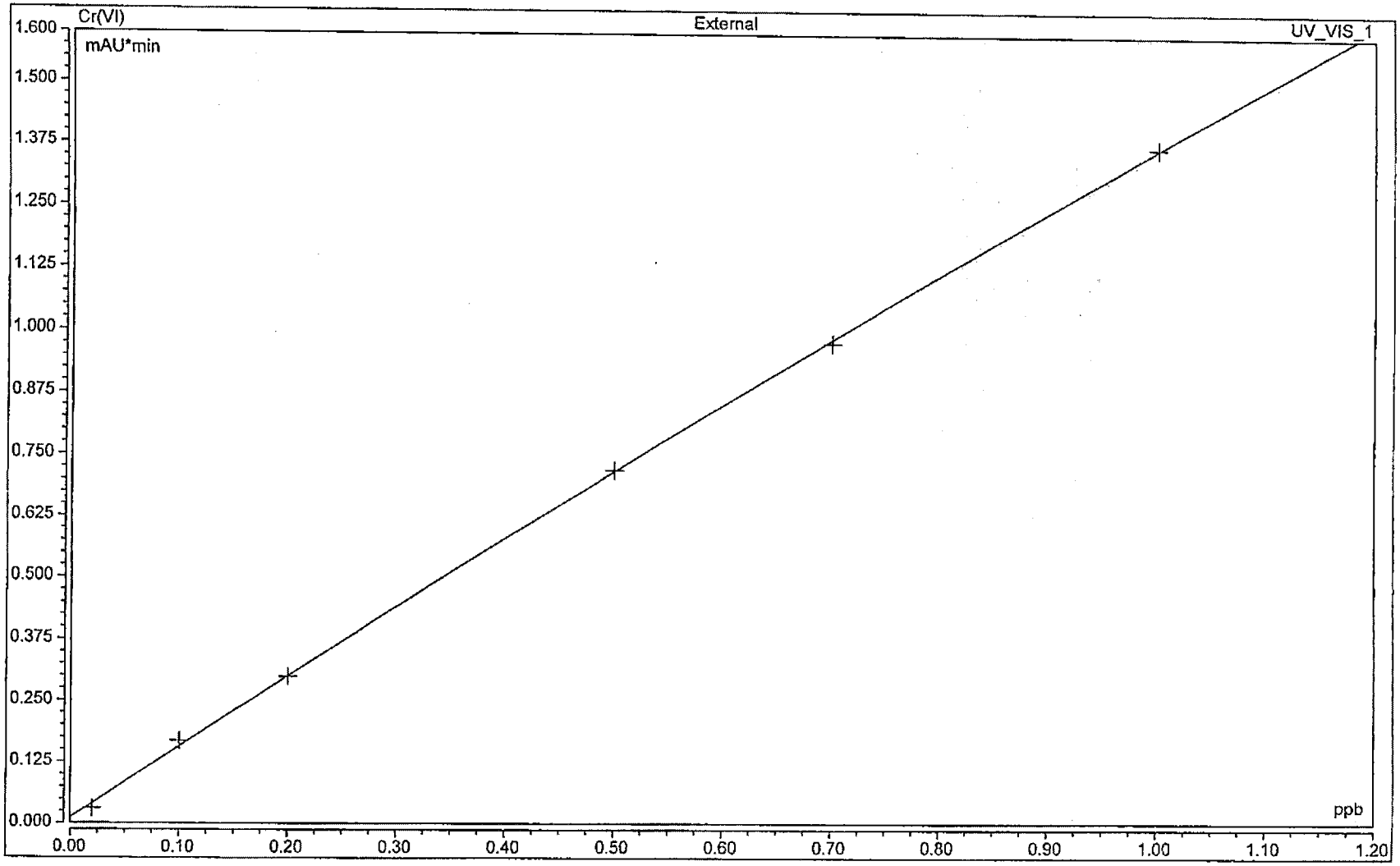
Calibration Summary

Injection Name Cr(VI)	Ret Time min Cr(VI)	Area mAU*min Cr(VI)	Height mAU Cr(VI)	Amount ppb Cr(VI)
	UV_VIS_1	UV_VIS_1	UV_VIS_1	UV_VIS_1
STANDARD 1	n.a.	n.a.	n.a.	n.a.
STANDARD 2	7.487	0.0307	0.143	0.014
STANDARD 3	7.463	0.1677	0.644	0.108
STANDARD 4	7.457	0.2989	1.176	0.199
STANDARD 5	7.450	0.7203	2.797	0.502
STANDARD 6	7.453	0.9793	3.824	0.695
STANDARD 7	7.450	1.3751	5.422	1.002
Average	7.460			
Rel. Std. Dev.	0.187 %			

Detection Parameters

Ret. Time min	Param. Name	Param. Value	Inj. Type	Channel
0.000	Inhibit Integration	On	Any	All Channels
6.000	Valley To Valley	On	Any	All Channels
6.000	Inhibit Integration	Off	Any	All Channels
6.000	Minimum Area	0.0200 [Signal*min]	Any	All Channels
6.000	Minimum Height	0.010 [Signal]	Any	All Channels
6.000	Peak Slice	10.00 [s]	Any	All Channels

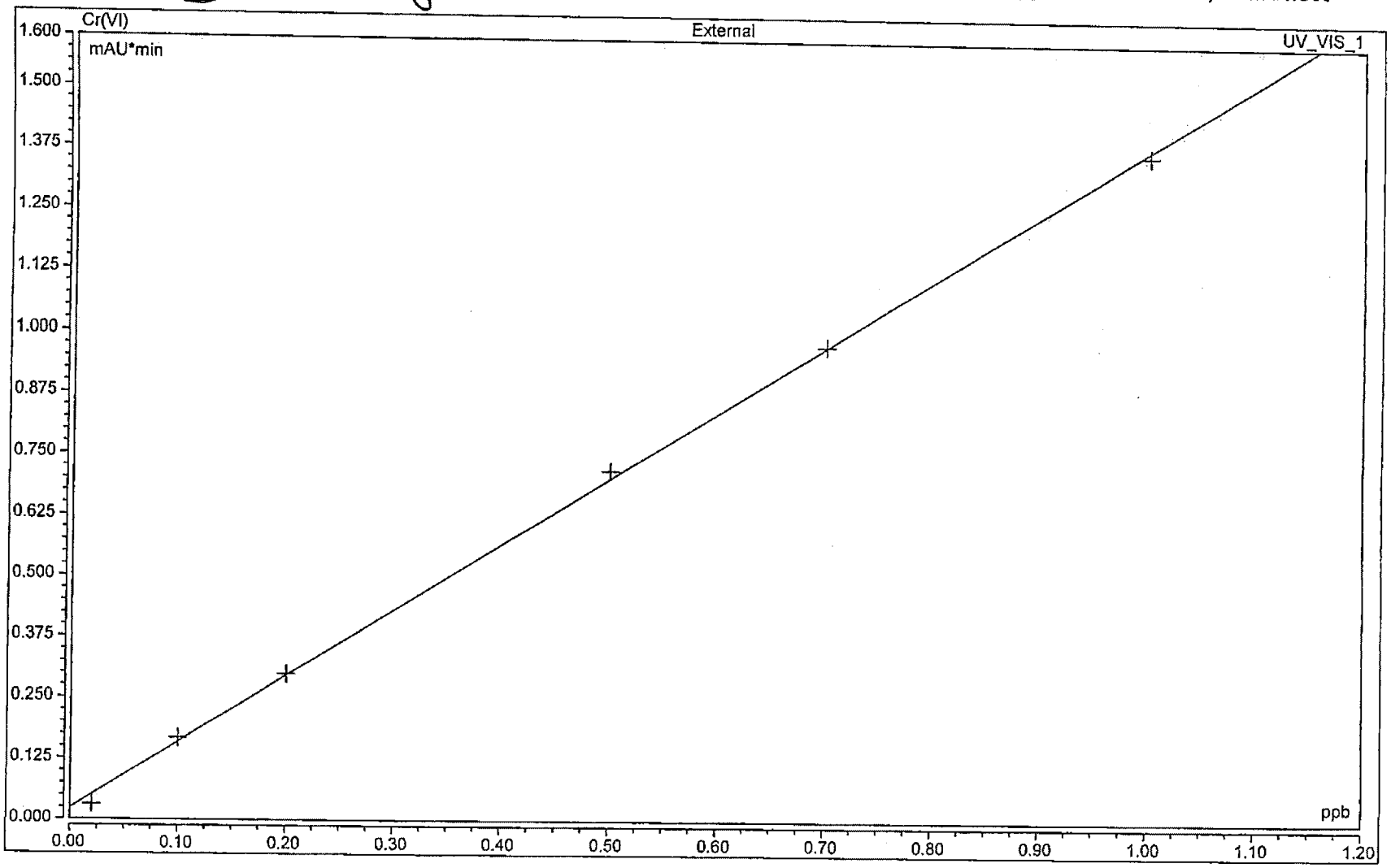
Processing Method: 8-071312
Correlation Coefficient: 99.969
Calibration Type: Quad, WithOffset



Chromeleon (c) Dionex 1996-2009
Version 7.1.1.1127

For Linearity Check Only CMW 7/16/12

Processing Method: 8-071312
Correlation Coefficient: 99.969
Calibration Type: Lin, WithOffset



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Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 300258 **Method/Testcode:** 218.6/Cr6 D

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1207949-08	Chromium, Hexavalent, Dissolved	CCV		Water	0.51 µg/L	10 mL	0.507 µg/L	1					7/13/12 10:03:00	N	IV
RQ1207949-12	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 10:12:00	N	IV
RQ1207949-13	Chromium, Hexavalent, Dissolved	MB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 10:12:00	N	IV
RQ1207949-14	Chromium, Hexavalent, Dissolved	LCS		Water	0.22 µg/L	10 mL	0.216 µg/L	1	0.010	0.020	108		7/13/12 10:21:00	N	IV
R1204494-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.04 µg/L	10 mL	0.038 µg/L	1	0.010	0.020			7/13/12 10:30:00	N	IV
R1204494-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.05 µg/L	10 mL	0.047 µg/L	1	0.010	0.020			7/13/12 10:39:00	N	IV
R1204494-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.04 µg/L	10 mL	0.040 µg/L	1	0.010	0.020			7/13/12 10:47:00	N	IV
R1204494-004	Chromium, Hexavalent, Dissolved	N/A		Water	0.04 µg/L	10 mL	0.037 µg/L	1	0.010	0.020			7/13/12 10:56:00	N	IV
R1204494-005	Chromium, Hexavalent, Dissolved	N/A		Water	0.04 µg/L	10 mL	0.035 µg/L	1	0.010	0.020			7/13/12 11:05:00	N	IV
R1204494-006	Chromium, Hexavalent, Dissolved	N/A		Water	0.05 µg/L	10 mL	0.046 µg/L	1	0.010	0.020			7/13/12 11:14:00	N	IV
R1204494-007	Chromium, Hexavalent, Dissolved	N/A		Water	0.02 µg/L	10 mL	0.020 µg/L J	1	0.010	0.020			7/13/12 11:23:00	N	IV
R1204494-008	Chromium, Hexavalent, Dissolved	N/A		Water	0.04 µg/L	10 mL	0.041 µg/L	1	0.010	0.020			7/13/12 11:32:00	N	IV
R1204494-009	Chromium, Hexavalent, Dissolved	N/A		Water	0.03 µg/L	10 mL	0.029 µg/L	1	0.010	0.020			7/13/12 11:40:00	N	IV
RQ1207949-07	Chromium, Hexavalent, Dissolved	CCV		Water	0.49 µg/L	10 mL	0.494 µg/L	1					7/13/12 11:49:00	N	IV
RQ1207949-11	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 11:58:00	N	IV
R1204494-010	Chromium, Hexavalent, Dissolved	N/A		Water	0.03 µg/L	10 mL	0.030 µg/L	1	0.010	0.020			7/13/12 12:07:00	Y	IV
RQ1207949-01	Chromium, Hexavalent, Dissolved	MS	R1204494-010	Water	0.22 µg/L	10 mL	0.219 µg/L	1	0.010	0.020	95		7/13/12 12:16:00	N	IV
RQ1207949-02	Chromium, Hexavalent, Dissolved	DMS	R1204494-010	Water	0.22 µg/L	10 mL	0.224 µg/L	1	0.010	0.020	97	2	7/13/12 12:24:00	N	IV
R1204494-011	Chromium, Hexavalent, Dissolved	N/A		Water	0.03 µg/L	10 mL	0.031 µg/L	1	0.010	0.020			7/13/12 12:33:00	N	IV
R1204494-012	Chromium, Hexavalent, Dissolved	N/A		Water	0.03 µg/L	10 mL	0.033 µg/L	1	0.010	0.020			7/13/12 12:42:00	N	IV
R1204494-013	Chromium, Hexavalent, Dissolved	N/A		Water	0.02 µg/L	10 mL	0.015 µg/L J	1	0.010	0.020			7/13/12 12:51:00	N	IV
R1204494-015	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.014 µg/L J	1	0.010	0.020			7/13/12 13:09:00	N	IV
R1204494-016	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 13:17:00	N	IV
R1204494-017	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.013 µg/L J	1	0.010	0.020			7/13/12 13:26:00	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 300258 **Method/Testcode:** 218.6/Cr6 D

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1207949-06	Chromium, Hexavalent, Dissolved	CCV		Water	0.49 µg/L	10 mL	0.485 µg/L	1					7/13/12 13:35:00	N	IV
RQ1207949-10	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 13:44:00	N	IV
R1204494-018	Chromium, Hexavalent, Dissolved	N/A		Water	0.02 µg/L	10 mL	0.018 µg/L J	1	0.010	0.020			7/13/12 13:53:00	N	IV
R1204494-019	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.010 µg/L J	1	0.010	0.020			7/13/12 14:13:00	N	IV
R1204494-020	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 14:22:00	Y	IV
RQ1207949-03	Chromium, Hexavalent, Dissolved	MS	R1204494-020	Water	0.19 µg/L	10 mL	0.193 µg/L	1	0.010	0.020	96		7/13/12 14:31:00	N	IV
RQ1207949-04	Chromium, Hexavalent, Dissolved	DMS	R1204494-020	Water	0.19 µg/L	10 mL	0.195 µg/L	1	0.010	0.020	97	1	7/13/12 14:40:00	N	IV
RQ1207949-05	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 µg/L	10 mL	0.504 µg/L	1					7/13/12 15:33:00	N	IV
RQ1207949-09	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 15:41:00	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 300259 **Method/Testcode:** 218.6/Cr6 D

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1207950-05	Chromium, Hexavalent, Dissolved	CCV		Water	0.49 µg/L	10 mL	0.485 µg/L	1					7/13/12 13:35:00	N	IV
RQ1207950-09	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 13:44:00	N	IV
RQ1207950-13	Chromium, Hexavalent, Dissolved	MB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 13:44:00	N	IV
RQ1207950-14	Chromium, Hexavalent, Dissolved	LCS		Water	0.20 µg/L	10 mL	0.200 µg/L	1	0.010	0.020	100		7/13/12 14:48:00	N	IV
R1204494-021	Chromium, Hexavalent, Dissolved	N/A		Water	0.02 µg/L	10 mL	0.020 µg/L J	1	0.010	0.020			7/13/12 14:57:00	N	IV
R1204494-022	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.012 µg/L J	1	0.010	0.020			7/13/12 15:06:00	N	IV
R1204494-023	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 15:15:00	N	IV
R1204494-024	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 15:24:00	N	IV
RQ1207950-06	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 µg/L	10 mL	0.504 µg/L	1					7/13/12 15:33:00	N	IV
RQ1207950-12	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 15:41:00	N	IV
R1204494-025	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.011 µg/L J	1	0.010	0.020			7/13/12 15:50:00	N	IV
R1204494-026	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.013 µg/L J	1	0.010	0.020			7/13/12 15:59:00	N	IV
R1204494-027	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 16:08:00	N	IV
R1204494-028	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 16:17:00	N	IV
R1204494-029	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 16:26:00	N	IV
R1204494-030	Chromium, Hexavalent, Dissolved	N/A		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 16:34:00	N	IV
RQ1207950-01	Chromium, Hexavalent, Dissolved	MS	R1204494-030	Water	0.20 µg/L	10 mL	0.199 µg/L	1	0.010	0.020	100		7/13/12 16:43:00	N	IV
RQ1207950-02	Chromium, Hexavalent, Dissolved	DMS	R1204494-030	Water	0.20 µg/L	10 mL	0.199 µg/L	1	0.010	0.020	100	<1	7/13/12 16:52:00	N	IV
R1204494-031	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.014 µg/L J	1	0.010	0.020			7/13/12 17:01:00	N	IV
R1204494-032	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 17:10:00	N	IV
RQ1207950-08	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 µg/L	10 mL	0.505 µg/L	1					7/13/12 17:19:00	N	IV
RQ1207950-11	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 17:27:00	N	IV
R1204494-033	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 17:36:00	N	IV
R1204494-034	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 17:45:00	N	IV

/ indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 300259 **Method/Testcode:** 218.6/Cr6 D

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
R1204494-035	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.011 µg/L J	1	0.010	0.020			7/13/12 17:54:00	N	IV
R1204494-036	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 18:03:00	N	IV
RQ1207950-03	Chromium, Hexavalent, Dissolved	MS	R1204494-036	Water	0.20 µg/L	10 mL	0.200 µg/L	1	0.010	0.020	100		7/13/12 18:11:00	N	IV
RQ1207950-04	Chromium, Hexavalent, Dissolved	DMS	R1204494-036	Water	0.18 µg/L	10 mL	0.183 µg/L	1	0.010	0.020	92	9	7/13/12 18:20:00	N	IV
R1204494-014	Chromium, Hexavalent, Dissolved	N/A		Water	0.01 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 18:38:00	N	IV
RQ1207950-07	Chromium, Hexavalent, Dissolved	CCV		Water	0.51 µg/L	10 mL	0.506 µg/L	1					7/13/12 18:47:00	N	IV
RQ1207950-10	Chromium, Hexavalent, Dissolved	CCB		Water	0.01 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			7/13/12 18:56:00	N	IV

f indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

HOLDTIME

SDG R1204494

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MSA-SW39A-071212	R1204494-033	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW37A-071212	R1204494-001	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW40D-071212	R1204494-012	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW40C-071212	R1204494-011	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW40B-071212	R1204494-010	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW40A-071212	R1204494-009	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW39D-071212	R1204494-036	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW41B-071212	R1204494-018	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW39B-071212	R1204494-034	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW41C-071212	R1204494-019	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW38D-071212	R1204494-016	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW38C-071212	R1204494-015	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW38B-071212	R1204494-014	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW38A-071212	R1204494-013	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW37D-071212	R1204494-004	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MSA-SW37C-071212	R1204494-003	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW37B-071212	R1204494-002	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW39C-071212	R1204494-035	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW43C-071212	R1204494-023	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW45C-071212	R1204494-031	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW45B-071212	R1204494-030	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW45A-071212	R1204494-029	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW44D-071212	R1204494-028	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW44C-071212	R1204494-027	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW44B-071212	R1204494-026	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW41A-071212	R1204494-017	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW43D-071212	R1204494-024	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW45D-071212	R1204494-032	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW43B-071212	R1204494-022	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW43A-071212	R1204494-021	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW42D-071212	R1204494-008	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW42C-071212	R1204494-007	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW42B-071212	R1204494-006	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
CR6	UG/L	MSA-SW42A-071212	R1204494-005	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW41D-071212	R1204494-020	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1
CR6	UG/L	MSA-SW44A-071212	R1204494-025	NM	7/12/2012	7/13/2012	7/13/2012	1	0	1

APPENDIX C—CHEMICAL RESULTS DATA TABLE

LOCATION	EL-SW01A	EL-SW01B
SAMPLE ID	EL-SW01A-071212	EL-SW01B-071212
SAMPLE DATE	20120712	20120712
MATRIX	SW	SW
VOLATILES (ug/l)		
1,1,1,2-TETRACHLOROETHANE	0.23 U	0.23 U
1,1,1-TRICHLOROETHANE	0.22 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	0.18 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	0.28 U
1,1-DICHLOROETHANE	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.13 U	0.13 U
1,2,3-TRICHLOROBENZENE	0.17 U	0.17 U
1,2,3-TRICHLOROPROPANE	0.43 U	0.43 U
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.0059 U
1,2,4-TRICHLOROBENZENE	0.15 U	0.15 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U
1,2-DIBROMOETHANE	0.24 U	0.24 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U
1,3-DICHLOROPROPANE	0.16 U	0.16 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U
2,2-DICHLOROPROPANE	0.13 U	0.13 U
2-BUTANONE	0.57 UR	0.57 UR
2-CHLOROETHYL VINYL ETHER	0.99 U	0.99 U
2-CHLOROTOLUENE	0.11 U	0.11 U
2-HEXANONE	0.41 U	0.41 U
4-CHLOROTOLUENE	0.18 U	0.18 U
4-ISOPROPYLTOLUENE	0.12 U	0.12 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U
ACETONE	1.1 U	1.1 U
BENZENE	0.13 U	0.13 U
BROMOBENZENE	0.13 U	0.13 U
BROMOCHLOROMETHANE	0.29 U	0.29 U
BROMODICHLOROMETHANE	0.15 U	0.15 U
BROMOFORM	0.64 U	0.64 U
BROMOMETHANE	0.41 U	0.41 U
CARBON DISULFIDE	0.13 U	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U
CHLOROBENZENE	0.15 U	0.15 U
CHLORODIBROMOMETHANE	0.18 U	0.18 U
CHLOROETHANE	0.29 U	0.29 U
CHLOROFORM	0.16 U	0.16 U
CHLOROMETHANE	0.3 U	0.3 U
CIS-1,2-DICHLOROETHENE	0.17 U	0.17 U
CIS-1,3-DICHLOROPROPENE	0.14 U	0.14 U
DIBROMOMETHANE	0.28 U	0.28 U
DICHLORODIFLUOROMETHANE	0.31 U	0.31 U
DIISOPROPYL ETHER	1.5 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.11 U	0.11 U
ETHYLBENZENE	0.17 U	0.17 U
HEXACHLOROBUTADIENE	0.3 U	0.3 U
ISOPROPYLBENZENE	0.13 U	0.13 U
M+P-XYLENES	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U
METHYLENE CHLORIDE	0.33 U	0.33 U
NAPHTHALENE	0.24 U	0.24 U
N-BUTYLBENZENE	0.12 U	0.12 U
N-PROPYLBENZENE	0.14 U	0.14 U
O-XYLENE	0.14 U	0.14 U
SEC-BUTYLBENZENE	0.13 U	0.13 U
STYRENE	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U
TERT-BUTYLBENZENE	0.13 U	0.13 U
TERTIARY-BUTYL ALCOHOL	3.9 UR	3.9 UR
TETRACHLOROETHENE	0.29 U	0.29 U
TOLUENE	0.13 U	0.26 J
TOTAL XYLENES	0.28 U	0.28 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.19 U	0.19 U
TRICHLOROETHENE	0.22 J	0.28 J
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U

VINYL ACETATE	0.19 UR	0.19 UR
VINYL CHLORIDE	0.22 U	0.22 U
FILTERED METALS (ug/l)		
ANTIMONY	NA	NA
ARSENIC	NA	NA
BARIUM	NA	NA
BERYLLIUM	NA	NA
CADMIUM	NA	NA
CHROMIUM	NA	NA
COBALT	NA	NA
COPPER	NA	NA
LEAD	NA	NA
MERCURY	NA	NA
MOLYBDENUM	NA	NA
NICKEL	NA	NA
SELENIUM	NA	NA
SILVER	NA	NA
THALLIUM	NA	NA
TUNGSTEN	NA	NA
VANADIUM	NA	NA
ZINC	NA	NA
MISCELLANEOUS PARAMETERS (ug/l)		
HEXAVALENT CHROMIUM	NA	NA

EL-SW01C EL-SW01C-071212	EL-SW01D EL-SW01D-071212	MSA-SW-37A MSA-SW37A-071212	MSA-SW-37B MSA-SW37B-071212	MSA-SW-37C MSA-SW37C-071212
20120712	20120712	20120712	20120712	20120712
SW	SW	SW	SW	SW
0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.57 UR	0.57 UR	0.57 UR	0.57 UR	0.57 UR
0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.21 J	0.21 J	0.17 U	0.17 U	0.18 J
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U

0.19 UR	0.19 UR	0.19 UR	0.19 UR	0.19 UR
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
NA	NA	0.26 J	0.27 J	0.29 J
NA	NA	2.6 J	2.8 J	2.8 J
NA	NA	48	47	48
NA	NA	0.2 U	0.2 U	0.2 U
NA	NA	0.13 U	0.13 U	0.13 U
NA	NA	0.71 U	0.71 U	0.71 U
NA	NA	0.33 J	0.31 J	0.33 J
NA	NA	3.6 K	3.8 K	3.6 K
NA	NA	0.18 U	0.18 U	0.18 U
NA	NA	0.12 U	0.12 U	0.12 U
NA	NA	2 J	2.1 J	1.9 J
NA	NA	1.6 J	2.5 K	1.6 J
NA	NA	0.57 U	0.59 J	0.57 U
NA	NA	0.08 U	0.08 U	0.08 U
NA	NA	0.14 U	0.54 B	0.21 B
NA	NA	0.37 U	0.47 J	0.37 U
NA	NA	1.2 J	1.1 J	1.4 J
NA	NA	59	3.4 B	2.3 U
NA	NA	0.038 L	0.047 L	0.04 L

MSA-SW-37D MSA-SW37D-071212 20120712 SW	MSA-SW-38A MSA-SW38A-071212 20120712 SW	MSA-SW-38B MSA-SW38B-071212 20120712 SW	MSA-SW-38C MSA-SW38C-071212 20120712 SW	MSA-SW-38D MSA-SW38D-071212 20120712 SW
0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.57 UR	0.57 UR	0.57 UR	0.57 UR	0.57 UR
0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
0.17 U	3.2	0.17 U	0.17 U	0.17 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.25 J	0.37 J	0.25 J	0.26 J	0.23 J
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U

0.19 UR	0.19 UR	0.19 UR	0.19 UR	0.19 UR
0.22 U	8.7	0.22 U	0.22 U	0.22 U
0.24 J	0.2 J	0.22 J	0.22 J	0.22 J
2.7 J	2.4 J	2.4 J	2.5 J	2.6 J
46	45	48	46	49
0.2 UL	0.2 UL	0.2 U	0.2 UL	0.2 UL
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
0.26 J	0.24 J	0.25 J	0.23 J	0.26 J
3.4 K	3.1 K	3.2 K	3 K	3.3 K
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1.7 J	1.6 J	1.8 J	1.7 J	1.8 J
1.4 J	1.3 J	1.6 J	1.4 J	1.5 J
0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1 J	0.97 J	1.2 J	1.1 J	1 J
2.3 U	2.3 U	4.1 B	2.3 U	2.3 U
0.037 L	0.015 J	0.02 UL	0.014 J	0.02 UL

MSA-SW-39A MSA-SW39A-071212 20120712 SW	MSA-SW-39B MSA-SW39B-071212 20120712 SW	MSA-SW-39C MSA-SW39C-071212 20120712 SW	MSA-SW-39D MSA-SW39D-071212 20120712 SW	MSA-SW-40A MSA-SW40A-071212 20120712 SW
0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.57 UR	0.57 UR	0.57 UR	0.57 UR	0.57 UR
0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.13 U	0.13 U	0.13 U	0.18 J	0.13 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U

0.19 UR	0.19 UR	0.19 UR	0.19 UR	0.19 UR
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.22 J	0.21 J	0.2 J	0.2 J	0.24 J
2.5 J	2.4 J	2.4 J	2.5 J	2.7 J
48	51	51	53	48
0.2 UL	0.2 UL	0.2 UL	0.2 UL	0.2 UL
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
0.22 J	0.25 J	0.24 J	0.25 J	0.32 J
3.3 K	3.1 K	3 K	2.9 K	4
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
2.6 J	2.2 J	2.1 J	2 J	1.8 J
1.5 J	1.5 J	1.5 J	1.5 J	3.5 K
0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
0.98 J	1 J	1.2 J	1.3 J	1 J
2.3 U	2.9 J	3.7 J	2.3 U	2.8 B
0.02 UL	0.02 UL	0.011 J	0.02 UL	0.029 L

MSA-SW-40B MSA-SW40B-071212 20120712 SW	MSA-SW-40C MSA-SW40C-071212 20120712 SW	MSA-SW-40D MSA-SW40D-071212 20120712 SW	MSA-SW-41A MSA-SW41A-071212 20120712 SW	MSA-SW-41B MSA-SW41B-071212 20120712 SW
0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.57 UR	0.57 UR	0.57 UR	0.57 UR	0.57 UR
0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
0.17 U	0.17 U	0.17 U	0.65 J	0.17 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.17 U	0.2 J	0.26 J	0.64 J	0.39 J
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U

0.19 UR	0.19 UR	0.19 UR	0.19 UR	0.19 UR
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.23 J	0.22 J	0.22 J	0.22 J	0.21 J
2.6 J	2.5 J	2.5 J	2.5 J	2.6 J
47	45	47	47	49
0.2 UL	0.2 UL	0.2 UL	0.2 UL	0.2 UL
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
0.27 J	0.24 J	0.24 J	0.26 J	0.27 J
3.4 K	3.5 K	3.6 K	3.2 K	3.3 K
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1.7 J	1.7 J	1.7 J	1.7 J	1.8 J
1.4 J	1.4 J	1.6 J	1.4 J	1.6 J
0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1.2 J	1.2 J	1.2 J	1.2 J	1 J
2.3 U	2.3 B	3.5 B	2.9 B	2.9 B
0.03 L	0.031 L	0.033 L	0.013 J	0.018 J

MSA-SW-41C MSA-SW41C-071212	MSA-SW-41D MSA-SW41D-071212	MSA-SW-42A MSA-SW42A-071212	MSA-SW-42B MSA-SW42B-071212	MSA-SW-42C MSA-SW42C-071212
20120712	20120712	20120712	20120712	20120712
SW	SW	SW	SW	SW
0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.57 UR	0.57 UR	0.57 UR	0.57 UR	0.57 UR
0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.22 J	0.35 J	0.17 U	0.17 U	0.18 J
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U

0.19 UR	0.19 UR	0.19 UR	0.19 UR	0.19 UR
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.25 J	0.26 J	0.24 J	0.25 J	0.23 J
2.5 J	2.7 J	2.7 J	2.6 J	2.5 J
46	47	49	47	45
0.2 U	0.2 U	0.2 UL	0.2 U	0.2 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
0.22 J	0.25 J	0.31 J	0.37 J	0.3 J
3.2 K	3.4 K	3.5 K	3.6 K	3.8 K
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
2 J	1.9 J	1.8 J	1.8 J	1.7 J
1.5 J	1.5 J	1.5 J	3.7 K	2.4 K
0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
0.4 B	0.56 B	0.14 U	0.14 U	0.14 U
0.38 J	0.43 J	0.37 U	0.37 U	0.37 U
1.1 J	1.1 J	1.1 J	1.4 J	1 J
2.3 U	2.6 J	2.3 U	3 B	2.8 B
0.01 J	0.02 UL	0.035 L	0.046 L	0.02 J

MSA-SW-42D MSA-SW42D-071212	MSA-SW-43A MSA-SW43A-071212	MSA-SW-43B MSA-SW43B-071212	MSA-SW-43C MSA-SW43C-071212	MSA-SW-43D MSA-SW43D-071212
20120712	20120712	20120712	20120712	20120712
SW	SW	SW	SW	SW
0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.57 UR	0.57 UR	0.57 UR	0.57 UR	0.57 UR
0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
0.17 U	0.28 J	0.17 U	0.17 U	0.17 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.22 J	0.33 J	0.31 J	0.17 J	0.23 J
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U

0.19 UR	0.19 UR	0.19 UR	0.19 UR	0.19 UR
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.23 J	0.21 J	0.21 J	0.23 J	0.22 J
2.7 J	2.5 J	2.6 J	2.5 J	2.6 J
47	45	46	49	48
0.2 UL	0.2 U	0.2 U	0.2 U	0.2 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
0.26 J	0.23 J	0.25 J	0.24 J	0.24 J
3.4 K	3.3 K	3.4 K	3.3 K	3.3 K
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1.7 J	1.7 J	1.7 J	1.9 J	1.7 J
1.6 J	1.4 J	1.6 J	1.7 J	1.5 J
0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
0.14 U	0.19 B	0.14 U	0.14 U	0.14 U
0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1.2 J	1 J	1.2 J	1.1 J	1.1 J
3.8 B	2.3 U	10 J	5.5 J	2.3 U
0.041 L	0.02 J	0.012 J	0.02 UL	0.02 UL

MSA-SW-44A MSA-SW44A-071212 20120712 SW	MSA-SW-44B MSA-SW44B-071212 20120712 SW	MSA-SW-44C MSA-SW44C-071212 20120712 SW	MSA-SW-44D MSA-SW44D-071212 20120712 SW	MSA-SW-45A MSA-SW45A-071212 20120712 SW
0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.57 UR	0.57 UR	0.57 UR	0.57 UR	0.57 UR
0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
0.067 U	0.067 U	0.067 U	0.067 U	0.067 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR
0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
0.25 J	0.22 J	0.17 U	0.17 U	0.17 J
0.21 U	0.21 U	0.21 U	0.21 U	0.21 U

0.19 UR	0.19 UR	0.19 UR	0.19 UR	0.19 UR
0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
0.21 J	0.21 J	0.21 J	0.21 J	0.2 J
2.6 J	2.6 J	2.7 J	2.5 J	2.4 J
48	51	51	50	47
0.2 U	0.2 U	0.2 U	0.2 UL	0.2 UL
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
0.33 J	0.27 J	0.28 J	0.22 J	0.2 J
4	3.5 K	3.5 K	3.1 K	3.1 K
0.33 J	0.18 U	0.18 U	0.18 U	0.18 U
0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1.7 J	1.7 J	1.7 J	1.8 J	1.6 J
1.6 J	1.5 J	1.6 J	1.6 J	1.5 J
0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1.5 J	1.1 J	1.3 J	1.1 J	1.1 J
3.3 J	2.7 J	2.4 J	3.4 J	2.9 J
0.011 J	0.013 J	0.02 UL	0.02 UL	0.02 UL

MSA-SW-45B MSA-SW45B-071212 20120712 SW	MSA-SW-45C MSA-SW45C-071212 20120712 SW	MSA-SW-45D MSA-SW45D-071212 20120712 SW	QC TB-071212 20120712 QC
0.23 U	0.23 U	0.23 U	0.23 U
0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U
0.28 U	0.28 U	0.28 U	0.28 U
0.15 U	0.15 U	0.15 U	0.15 U
0.19 U	0.19 U	0.19 U	0.19 U
0.13 U	0.13 U	0.13 U	0.13 U
0.17 U	0.17 U	0.17 U	0.17 U
0.43 U	0.43 U	0.43 U	0.43 U
0.0059 U	0.0059 U	0.0059 U	0.0059 U
0.15 U	0.15 U	0.15 U	0.15 U
0.12 U	0.12 U	0.12 U	0.12 U
0.67 U	0.67 U	0.67 U	0.67 U
0.24 U	0.24 U	0.24 U	0.24 U
0.13 U	0.13 U	0.13 U	0.13 U
0.22 U	0.22 U	0.22 U	0.22 U
0.18 U	0.18 U	0.18 U	0.18 U
0.14 U	0.14 U	0.14 U	0.14 U
0.16 U	0.16 U	0.16 U	0.16 U
0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U
0.57 UR	0.57 UR	0.57 UR	0.57 UR
0.99 U	0.99 U	0.99 U	0.99 U
0.11 U	0.11 U	0.11 U	0.11 U
0.41 U	0.41 U	0.41 U	0.41 U
0.18 U	0.18 U	0.18 U	0.18 U
0.12 U	0.12 U	0.12 U	0.12 U
0.32 U	0.32 U	0.32 U	0.32 U
1.1 U	1.1 U	1.1 U	1.1 U
0.13 U	0.13 U	0.13 U	0.13 U
1.1 U	1.1 U	1.1 U	1.1 U
0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U
0.29 U	0.29 U	0.29 U	0.29 U
0.15 U	0.15 U	0.15 U	0.15 U
0.64 U	0.64 U	0.64 U	0.64 U
0.41 U	0.41 U	0.41 U	0.41 U
0.13 U	0.13 U	0.13 U	0.13 U
0.13 U	0.13 U	0.13 U	0.13 U
0.15 U	0.15 U	0.15 U	0.15 U
0.18 U	0.18 U	0.18 U	0.18 U
0.29 U	0.29 U	0.29 U	0.29 U
0.16 U	0.16 U	0.16 U	0.16 U
0.3 U	0.3 U	0.3 U	0.3 U
0.17 U	0.17 U	0.17 U	0.17 U
0.14 U	0.14 U	0.14 U	0.14 U
0.28 U	0.28 U	0.28 U	0.28 U
0.31 U	0.31 U	0.31 U	0.31 U
1.5 U	1.5 U	1.5 U	1.5 U
0.11 U	0.11 U	0.11 U	0.11 U
0.17 U	0.17 U	0.17 U	0.17 U
0.3 U	0.3 U	0.3 U	0.3 U
0.13 U	0.13 U	0.13 U	0.13 U
0.24 U	0.24 U	0.24 U	0.24 U
0.17 U	0.17 U	0.17 U	0.17 U
0.33 U	0.33 U	0.33 U	0.33 U
0.24 U	0.24 U	0.24 U	0.24 U
0.12 U	0.12 U	0.12 U	0.12 U
0.14 U	0.14 U	0.14 U	0.14 U
0.14 U	0.14 U	0.14 U	0.14 U
0.13 U	0.13 U	0.13 U	0.13 U
0.11 U	0.11 U	0.11 U	0.11 U
0.067 U	0.067 U	0.067 U	0.067 U
0.13 U	0.13 U	0.13 U	0.13 U
3.9 UR	3.9 UR	3.9 UR	3.9 UR
0.29 U	0.29 U	0.29 U	0.29 U
0.15 J	0.14 J	0.13 U	0.13 U
0.28 U	0.28 U	0.28 U	0.28 U
0.19 U	0.19 U	0.19 U	0.19 U
0.19 U	0.19 U	0.19 U	0.19 U
0.17 U	0.17 U	0.17 U	0.17 U
0.21 U	0.21 U	0.21 U	0.21 U

0.19 UR	0.19 UR	0.19 UR	0.19 UR
0.22 U	0.22 U	0.22 U	0.22 U
0.18 J	0.21 J	0.21 J	NA
2.5 J	2.3 J	2.4 J	NA
50	50	51	NA
0.2 UL	0.2 U	0.2 U	NA
0.13 U	0.13 U	0.13 U	NA
0.71 U	0.71 U	0.71 U	NA
0.25 J	0.25 J	0.25 J	NA
3.1 K	3.2 K	3.2 K	NA
0.18 U	0.18 U	0.18 U	NA
0.12 U	0.12 U	0.12 U	NA
1.7 J	8.1 J	3.6 J	NA
1.6 J	1.5 J	1.5 J	NA
0.57 U	0.57 U	0.57 U	NA
0.08 U	0.08 U	0.08 U	NA
0.14 U	0.21 B	0.14 U	NA
0.37 U	0.54 J	0.37 U	NA
1.1 J	1.2 J	1.1 J	NA
3.5 J	2.3 U	2.3 U	NA
0.02 UL	0.014 J	0.02 UL	NA

U - Not detected at listed detection limit.
B - Laboratory blank contamination.
J - Positive result is considered estimated as a result of technical noncompliance.
L - Positive result is considered estimated biased low.
UL - Nondetect result is considered estimated biased low.
K - Positive result is considered estimated biased high.
UR - Rejected nondetect result due to technical noncompliance.
ug/l - micrograms per liter.