Lockheed Martin Corporation
6801 Rockledge Drive
MP CCT 246
Bethesda, MD 20817
Telephone (301) 548-2223

LOCKHEED MARTIN

October 24, 2019

VIA OVERNIGHT CARRIER

Mr. Brian Dietz
Program Administrator
Land Restoration Program
Land and Materials Administration
Maryland Department of the Environment
1800 Washington Road, Suite 625
Baltimore, Maryland 21230

Re: Transmittal of the Technical Memorandum: June 2019 Surface Water Sampling Results for Frog Mortar Creek
Martin State Airport, 701 Wilson Point Road, Middle River, Maryland

Dear Mr. Dietz:

For your information, please find enclosed two hard copies with CDs of the above-referenced document. This technical memorandum presents sampling results for surface water samples collected in Frog Mortar Creek adjacent to the Dump Road Area at Martin State Airport in Middle River, Maryland. This technical memorandum presents the analytical results for surface water samples collected from Frog Mortar Creek.

If you have any questions or require any additional information please contact me by phone at 301-548-2223, or via e-mail at charles.trione@lmco.com.

Sincerely,

Charles Trione
Project Lead, Environmental Remediation
Lockheed Martin Corporation

cc: (via email without enclosure)
Anuradha Mohanty, MDE
Christine Kline, Lockheed Martin
Norm Varney, Lockheed Martin
Michael Martin, Tetra Tech
Peter Shilland, CDM Smith

cc: (via Secure Information Exchange)
Jann Richardson, Lockheed Martin

cc: (via mail with CD enclosure)
Pete Lekas, EA Environmental

cc: (via shipping courier; with enclosures)
Mark Williams, MAA
Al Pollard, Martin State Airport

TECHNICAL MEMORANDUM: JUNE 2019 SURFACE WATER SAMPLING RESULTS FOR FROG MORTAR CREEK MARTIN STATE AIRPORT 701 WILSON POINT ROAD MIDDLE RIVER, MARYLAND

Prepared for:
Lockheed Martin Corporation

Prepared by:
Tetra Tech, Inc.

October 2019

Approved by:

Revision: 0

Michael Martin, P.G.
Regional Manager

Josh Mullis
Project Scientist

TABLE OF CONTENTS

Section	Page
Table of Contents	**i**
List of FIGURES	**ii**
List of TABLES	**ii**
Appendices	**ii**
Acronyms and Abbreviations	**iii**
Section 1 Introduction	**1-1**
Section 2 Site Background and Previous Investigations	**2-1**
Section 3 Investigation Approach and Methodology	**3-1**
3.1 Surface Water Sampling	3-1
3.1.1 Surface Water Sampling and Chemical Analyses	3-1
3.1.2 Documentation	3-4
3.1.3 Sample Nomenclature and Handling	3-4
3.1.4 Equipment Decontamination	3-5
3.1.5 Waste Management	3-5
3.2 Data Management	3-6
3.2.1 Data Tracking and Control	3-6
3.2.2 Sample Information	3-6
3.2.3 Project Data Compilation	3-7
3.2.4 Geographic Information System	3-7
3.3 Data Review	3-7
Section 4 Results	**4-1**
4.1 Surface Water Data and Screening Criteria	4-1
4.2 Surface Water Sampling Results	4-3
4.2.1 Volatile Organic Compounds	4-4
4.2.2 Metals	4-5
4.2.3 Hexavalent Chromium	4-6
Section 5 Summary	**5-1**
Section 6 References	**6-1**

TABLE OF CONTENTS (CONTINUED)

LIST OF FIGURES

Figure 1-1 Martin State Airport, Dump Road Area and Frog Mortar Creek Location Map
Figure 2-1 Martin State Airport and Surrounding Features
Figure 2-2 Site Features and Areas of Concern, Dump Road Area
Figure 3-1 June 2019 Surface Water Sampling Locations, Frog Mortar Creek
Figure 4-1 Concentrations of Trichloroethene in Surface Water Samples, June 2019, Frog Mortar Creek
Figure 4-2 Concentrations of cis-1,2-Dichloroethene in Surface Water Samples, June 2019, Frog Mortar Creek
Figure 4-3 Concentrations of Vinyl Chloride in Surface Water Samples, June 2019, Frog Mortar Creek
Figure 4-4 Concentrations of Trichloroethene, cis-1,2-Dichloroethene, and Vinyl Chloride along Surface Water Sampling Transects for June 2018, March 2019, and June 2019, Frog Mortar Creek

LIST OF TABLES

Table 3-1 List of Samples and Chemical Analyses for Surface Water—June 2019
Table 4-1 Statistical Summary of Analytes Detected in Surface Water Samples—June 2019
Table 4-2 Detected Analytes and Screening-Level Exceedances in Surface Water Samples—June 2019
Table 4-3 Comparison of Primary Volatile Organic Compound Results Detected in Surface Water for the June 2018, March 2019, and June 2019 Sampling Rounds

APPENDICES

Appendix A—Field Measurements for Water Quality and Surface-Water-Sample Log Sheets
Appendix B—Data-Validation Reports
Appendix C—Chemical-Results Data Table
Appendix D—Biotic Ligand Model Calculations and EPA 2016 BLM Fact Sheet

ACRONYMS AND ABBREVIATIONS

AWQC	ambient water quality criteria
BTAG	Biological Technical Advisory Group
BLM	biotic ligand model
BTEX	benzene, toluene, ethylbenzene, and xylenes
cis-1,2-DCE	*cis*-1,2-dichloroethene
COMAR	Code of Maryland Regulations
cVOC	chlorinated volatile organic compound
DOC	dissolved organic carbon
DRA	Dump Road Area
ESH	environment, safety and health
EL	Edwards Lane
ESWS	ecological surface-water screening level
GIS	geographic information system
IDW	investigation derived waste
Lockheed Martin	Lockheed Martin Corporation
MAA	Maryland Aviation Administration
MDE	Maryland Department of the Environment
MDANG	Maryland Air National Guard
mg/L	milligram(s) per liter
MSA	Martin State Airport
µg/L	microgram(s) per liter
NOAA	National Oceanic and Atmospheric Administration
NRWQC	national recommended water quality criteria
PDF	portable document format
PPE	personal protective equipment
SVOC	semivolatile organic compound

TB	trip blank
TCE	trichloroethene
Tetra Tech	Tetra Tech, Inc.
USEPA	United States Environmental Protection Agency
VC	vinyl chloride
VOC	volatile organic compound

SECTION 1
INTRODUCTION

On behalf of Lockheed Martin Corporation (Lockheed Martin), Tetra Tech, Inc., (Tetra Tech) has prepared this technical memorandum presenting sampling results for surface water samples collected in Frog Mortar Creek adjacent to the Dump Road Area (DRA) at Martin State Airport (MSA) in Middle River, Maryland (see Figure 1-1). Surface water was sampled according to the *2019 Surface Water Sampling Work Plan* (Tetra Tech, 2019a). This technical memorandum presents the analytical results for surface water samples collected from Frog Mortar Creek on June 12, 2019.

This investigation obtained additional chemical and spatial-distribution data for volatile organic compounds (VOCs) and metals in creek surface water that might emanate from a groundwater plume at the Dump Road Area of Martin State Airport, and chemical and spatial-distribution data for volatile organic compounds possibly originating from upgradient sources. Results herein are compared to screening levels intended to protect human health and the environment. These data will provide information to:

- evaluate the interaction between Frog Mortar Creek and shallow groundwater in the Dump Road Area
- assess possible localized seepage of contaminated groundwater to creek surface water, using sampling locations for nine established western-shoreline transects, four single-sampling locations between transects, and one eastern-shoreline transect
- assess human health risks for recreational users of Frog Mortar Creek
- update modeling for shallow-groundwater flow patterns and groundwater discharge to Frog Mortar Creek

This technical memorandum is organized as follows:

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

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

Section 4—Results: Presents the investigation results.

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

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

SECTION 2
SITE BACKGROUND AND PREVIOUS INVESTIGATIONS

Martin State Airport (MSA) is at 701 Wilson Point Road in Middle River, Maryland, bounded by Frog Mortar Creek to the east and Stansbury Creek to the west (Figure 2-1); both are tidal tributaries of the Chesapeake Bay. The Maryland Aviation Administration (MAA) currently operates MSA on behalf of the Maryland Department of Transportation. The current MSA property (approximately 775 acres) consists of an administration building (the Main Terminal building), aircraft hangars, a 7,000-foot-long runway, and several taxiways. MAA manages more than 130,000 square feet of heated hangar space and 190 smaller aircraft hangars. MSA hosts the Maryland State Police aviation unit, Baltimore County Police aviation and marine units, the Baltimore City Police aviation unit, and the Glenn L. Martin Museum. A portion of MSA is leased to the United States Air Force for use by the Maryland Air National Guard (MDANG). MSA is also home to several commercial tenants that provide fuels and lubricants, helicopter avionics repair, and flight instruction (MAA, 2018).

The area under investigation is Frog Mortar Creek, which is east of and adjacent to the Dump Road Area (DRA) site at MSA (Figures 2-1 and 2-2). The DRA currently consists mostly of open meadows, mowed grass, and heavily wooded areas (as modified by the construction of the extraction and treatment system noted below); however, it also includes a portion of Taxiway Tango and extends to the airport runway. Taxiway Tango is a concrete and asphalt taxiway currently used by MDANG for military aircraft operations. The airport runway is also used by state-owned and private aircraft.

An extraction and treatment system for DRA groundwater was constructed in 2017 and is currently operational at the DRA site. This extraction and treatment system consists of 16 groundwater extraction wells, underground piping, and a building that houses components to treat groundwater containing volatile organic compounds (VOCs), semi-volatile organic

compounds (SVOCs), and metals detected at concentrations above Maryland Department of the Environment (MDE) groundwater standards. The wells and underground piping pump groundwater from the surficial aquifer to the aboveground treatment building, creating a "hydraulic barrier" that captures groundwater and prevents such contaminants from migrating off-site. The treatment building is 60-feet-wide and 170-feet-long (10,200 square feet) and is near Frog Mortar Creek in the eastern-central portion of the DRA (Figure 2-2). Treated groundwater is tested routinely and subsequently discharged to Frog Mortar Creek via an MDE-permitted outfall.

Detailed environmental studies have been conducted at the DRA since 1991, when MAA removed drums discovered near Taxiway Tango (Figure 2-2). Subsequent environmental studies at MSA have demonstrated that soil, pond sediment, and groundwater at the DRA have been impacted by VOCs, SVOCs, and metals resulting from historical dumping and backfilling. The following constituents (including several metals) have been detected in DRA groundwater at concentrations exceeding state groundwater standards:

- ***chlorinated VOCs*** (cVOCs)—including trichloroethene (TCE), *cis*-1,2-dichloroethene (*cis*-1,2-DCE), and vinyl chloride (VC)
- ***petroleum-related VOCs***—such as benzene, toluene, ethylbenzene, and xylenes (BTEX)
- ***1,4-dioxane***—Maryland does not have a groundwater standard for this compound, but concentrations at the site have exceeded standards proposed or promulgated by other states.
- ***metals***—arsenic, barium, beryllium, cadmium, chromium, copper, hexavalent chromium (in two wells, in 2008 only), iron, lead, manganese, mercury, nickel, selenium, thallium, vanadium, and zinc

Frog Mortar Creek is hydraulically downgradient of and receives groundwater discharging from the DRA. The constituents listed above have been detected in surface water samples collected from Frog Mortar Creek. Surface water samples have been collected from Frog Mortar Creek since 1997, and multiple rounds of samples have been collected annually since 2010. Studies at Frog Mortar Creek from 1997–2017, and details of the area's physical setting, land use, physiography, and surface/subsurface conditions (i.e., soils, hydrology, and geology), are

summarized in the *2018 Surface Water Sampling Report for Frog Mortar Creek* (Tetra Tech, 2019b), and therefore are not repeated herein.

SECTION 3
INVESTIGATION APPROACH AND METHODOLOGY

Previous surface-water sampling data for Frog Mortar Creek support the need for ongoing monitoring to assess the extent to which surface water is affected by groundwater discharged from the Dump Road Area (DRA). The June 2019 data will support this ongoing effort and will also be used to assess the effectiveness of the extraction, containment, and treatment system. The chlorinated volatile organic compounds (cVOCs) trichloroethene (TCE), *cis*-1,2-dichloroethene (*cis*-1,2-DCE), and vinyl chloride (VC), and several metals, have previously been detected in Frog Mortar Creek surface water samples at concentrations exceeding ecological and/or human health screening-criteria; these analytes have also been detected in groundwater at the DRA.

Detected chemical concentrations in surface water obtained from Frog Mortar Creek were evaluated by comparing them to United States Environmental Protection Agency (USEPA) or Maryland screening levels and site-specific screening levels. These screening criteria include USEPA national recommended water quality criteria (NRWQC), Maryland ambient water quality criteria (AWQC), USEPA Biological Technical Advisory Group (BTAG) surface water screening-benchmarks, and site-specific screening levels for swimming developed by Lockheed Martin Corporation (Lockheed Martin). The June 2019 sampling is the second of six surface-water sampling rounds planned for 2019. The June sampling round assessed water quality during the early summer season, when water recreational use would be expected in Frog Mortar Creek.

3.1 SURFACE WATER SAMPLING

3.1.1 Surface Water Sampling and Chemical Analyses

Forty-four surface water samples were collected from Frog Mortar Creek adjacent to the DRA site on June 12, 2019. Sampling locations are shown in Figure 3-1. Four samples were collected along each of nine transects spaced approximately 350 feet apart along the western shoreline of

the creek; these transects are designated 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 eastern shoreline of the creek at 3301 Edwards Lane (EL); this transect is designated EL-SW01 (see Figure 3-1). Four additional near-shore samples were collected between transects MSA-SW42 and MSA-SW40 (MSA-SW46A), MSA-SW40 and MSA-SW38 (MSA-SW47A), MSA-SW38 and MSA-SW41 (MSA-SW48A), and MSA-SW41 and MSA-SW43 (MSA-SW49A). These four locations were first sampled in July 2015 to assess constituent concentrations between transects exhibiting the highest VOC concentrations, and were also included in the June 2019 sampling round.

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). All samples were collected approximately one foot below the water surface. All sampling locations were surveyed in the Maryland State Plane North American Datum 1983 (in feet), using a handheld global positioning system receiver.

Table 3-1 outlines the sampling and chemical analysis program. Western-shoreline transect samples (MSA-SW37 through MSA-SW45) were analyzed for the following constituents:

- VOCs, by SW846 Method 8260C
  (including Freon 113 [1,1,2-trichloro-1,2,2-trifluoroethane],
  Freon 22 [chlorodifluoromethane], and tentatively identified compounds)
- dissolved metals (filtered in the field), by SW846 Methods 6020/7470A
- hardness, by Standard Method SM 2340B
- hexavalent chromium, by USEPA Method 218.6
- dissolved organic carbon (DOC), by USEPA Method 9060; collected at all "B" transect locations

The last bullet (above) describes newly added samples to the June 2019 round, collected at the "B" locations within each transect (including the Edwards Lane transect). These samples provide

the DOC data required to run the biotic ligand model (BLM), which is used to calculate the (aquatic life freshwater) screening level for copper.

Historically, concentrations of metals (other than arsenic and barium) above screening criteria have been found predominantly in areas adjacent to or near the western shoreline. Additionally, metal concentrations (except barium) in eastern shoreline-transect samples (i.e., EL-SW01A–D) collected in 2012 were less than the screening criteria; therefore, the eastern shoreline-transect samples were not analyzed for metals and were analyzed only for VOCs. Hexavalent chromium and total chromium have been detected in DRA groundwater; therefore, all western-shoreline samples except SW46A–SW49A were also analyzed for hexavalent chromium. SW46A–SW49A were sampled for VOCs only, as they were added to the sampling program to target areas between transects exhibiting high VOC concentrations. Water quality parameters (including temperature, pH, specific conductance, salinity, turbidity, dissolved oxygen, and oxidation-reduction potential) were measured and recorded at the time of sampling, as was the water depth at all surface-water sampling locations. Sampling information was documented on sample log sheets (see Appendix A).

Water depth measurements were also obtained from the staff gauge at 3301 Edwards Lane before sampling (0.80 meters [2.62 feet] at 0742 hours) and after sampling (1.0 meters [3.28 feet] at 1354 hours). Mean tidal-flux in the Middle River, Maryland, area is approximately 1.6 feet (National Oceanic and Atmospheric Administration [NOAA], 2015). A 2011 study by Lockheed Martin sought to ascertain the effects of tides and sampling depths on contaminant concentrations in Frog Mortar Creek (Tetra Tech, 2012). The tidal phase relative to the time of sample collection appears to influence the VOC concentrations detected, particularly in the samples collected 50 feet from shore. In general, VOC concentrations in "B-series" samples (collected 50 feet from shore) were greater at low tide than at high tide, irrespective of sampling depth. Therefore, during this sampling round, all samples were collected during low tide.

Samples were collected as grab samples from approximately one foot below the water surface using the direct-fill sampling technique. VOC samples were collected using a stainless steel discrete-interval sampler (also known as 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 the water was removed through a valve to fill three laboratory-cleaned, hydrochloric-acid preserved, 40-milliliter sample vials. The discrete-interval sampler was cleaned after each use by rinsing it with distilled water over the creek. No decontamination fluids were collected during this sampling.

Hexavalent chromium samples were collected in pre-cleaned bottles containing a buffer solution. Each bottle was filtered in the field using a peristaltic pump. Hexavalent chromium samples were expedited to the laboratory so they could be analyzed within the prescribed 24-hour (since collection) holding time. Field-filtered metals samples (i.e., samples for metals other than hexavalent chromium) were collected using a peristaltic pump and preserved to the appropriate pH level in the field with nitric acid. Field-filtered DOC samples were collected using a peristaltic pump and preserved to the appropriate pH level in the field with sulfuric acid. No duplicates were collected during this sampling round. 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 site field activities. Sample documentation includes completed chain of custody forms and surface-water-specific sample log-sheets. Chain of custody 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 analysis requested. Sample-custody procedures document sample acquisition and integrity. June 2019 log sheets for surface water samples are in Appendix A. Chain of custody forms and data-validation reports are in Appendix B (on compact disc).

3.1.3 Sample Nomenclature and Handling

Surface water samples collected from transects MSA-SW37 through MSA-SW49A are identified with a unique sample-identification tag. Surface water samples are labeled with an “MSA-SW” prefix, followed by the sample transect number, the profile location (“A,” “B,” “C,” or “D”), and the six-digit sampling date. Similarly, surface water samples collected from Edwards Lane transects are identified with an “EL-SW01” prefix, the profile location (“A,” “B,” “C,” or “D”), and the six-digit sampling date. For example, the surface water sample collected on

June 12, 2019 from MSA-SW37A would be labeled "MSA-SW37A-061219." The trip blank was labeled with a "TB" prefix followed by the sample's six-digit submittal date (e.g., TB-061219).

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. Chain of custody 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(s) responsible for maintaining custody, until the sample containers could be 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. Both dedicated and disposable equipment was used for surface water sampling, to reduce the need for decontamination and eliminate potential cross-contamination of samples. The discrete-interval sampler was cleaned after each use by rinsing with distilled water. Equipment was cleaned over the (creek) water after each sample had been collected. No decontamination fluids were collected during sampling.

3.1.5 Waste Management

Investigation derived waste (IDW) consists of personal protective equipment (PPE) and disposable equipment (filters, tubing, etc.) generated during field sampling. PPE IDW was brushed off, placed in trash bags along with the disposable equipment, 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 chain of custody 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 sampling. The field operations leader began and coordinated sample tracking before mobilizing the sampling team to the field. Preprinted sample-container labels generated before fieldwork began were 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.

During field sampling, the field operations leader forwarded the chain of custody to a designated project assistant and to the laboratory. The project assistant confirmed that the chain of custody provided the information required by the work plan. This allowed early detection of errors made in the field so that adjustments could be made before sample analyses.

After successful completion of all requested analyses, the laboratory submitted an electronic deliverable for each sample delivery group. 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 analyses requested for this project were performed.

3.2.2 Sample Information

Data from field measurements were recorded using appropriate sample log sheets and were summarized in tabular form, as were the raw instrument-data from the laboratory. The field operations leader verified field data; laboratory data were verified by the group supervisor and then by the laboratory's quality control/documentation department. Sample log sheets are in Appendix A.

3.2.3 Project Data Compilation

The analytical laboratory generated an Adobe Acrobat® 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 consists of a relational database and geographic information system (GIS) to manage environmental information pertaining to Martin State Airport (MSA) housed in the environment, safety and health (ESH) GIS system. The relational database stores chemical, geological, hydrogeological, and other environmental data collected during environmental investigations. The GIS, created from the relational database, 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 from this investigation were incorporated into the ESH GIS system.

3.3 DATA REVIEW

Data from the laboratory were entered into a sample database and evaluated against risk-based criteria. Data were validated (to evaluate data completeness, holding times, calibrations, precision, accuracy, laboratory and field-blank contamination, and detection limits) concurrent with the data evaluation. These reviews were based on USEPA national functional guidelines for both inorganic and organic data review (USEPA, 2017a, b) and the specifics of the analytical methods used. Data from this sampling event consist of chemical results for surface water samples. Data-validation reports and chain of custody forms are in Appendix B (on compact disc) as PDF files. A table with all analytical data for June 2019 Frog Mortar Creek surface water samples, including non-detects, is in Appendix C.

Collectively, these data are acceptable for their intended uses (site characterization and risk assessment), except for data qualified as unreliable (UR or R flags). The data qualifiers (i.e., flags) listed below were applied to the chemical results presented in this report. Several

flags appear in the chemical-results tables in Section 4, and all flags appear in Appendices B and C:

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

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

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

UR The analyte was not detected, but the result is unreliable due to deficiencies in satisfying quality control criteria.

SECTION 4
RESULTS

4.1 SURFACE WATER DATA AND SCREENING CRITERIA

Validated chemical data from the Frog Mortar Creek surface water samples collected in June 2019 were used to generate a statistical summary table (Table 4-1) and a table summarizing positive detections of chemical analytes (Table 4-2). Samples collected from western transects were analyzed for volatile organic compounds (VOCs) (including fuel-related compounds such as benzene, toluene, ethylbenzene, and xylenes [BTEX] and tentatively identified compounds), dissolved (i.e., filtered) metals, hexavalent chromium, and hardness. Samples from locations SW46A, SW47A, SW48A, and SW49A and the eastern-shoreline-transect samples (e.g., EL-SW01) were analyzed for VOCs only, for the reasons described in Section 3.1.1. Dissolved organic carbon (DOC) was analyzed at "B" locations within each transect, including the eastern-shoreline transect. Table 4-2 compares surface-water sampling results to several applicable screening criteria, including:

- United States 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, 2002, 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 [COMAR], 2016)
- USEPA 2016 Estuarine/Marine biotic ligand model (BLM) for acute and chronic dissolved copper (USEPA 2016)
- site-specific screening levels for swimming developed for trichloroethene (TCE), *cis*-1,2-dichloroethene (*cis*-1,2-DCE), and vinyl chloride (VC)

NRWQC, AWQC, and most BTAG screening levels for metals represent concentrations of dissolved metals in the water column; therefore, only dissolved-metals analyses were performed.

BTAG screening levels for arsenic, mercury, molybdenum, selenium, and thallium are based on total metals concentrations. Since only dissolved metals were analyzed during this sampling round, results for these metals, are not directly comparable to BTAG criteria. The NRWQC and BTAG screening values for six dissolved metals (cadmium, chromium, lead, nickel, silver, and zinc) were adjusted using the methodology in the National Recommended Water Quality Criteria (USEPA, 2016) and Region III Biological Technical Advisory Group Freshwater Screening Benchmarks (USEPA, 2006). That method recommends adjusting the criteria for these metals using the lowest site-specific hardness (for each round) if it is less than 400 milligrams per liter (mg/L). If site-specific data indicate a hardness greater than 400 mg/L, the method recommends adjusting the criteria using a hardness of 400 mg/L. The lowest hardness value for June 2019 was 63 mg/L, so the screening levels have been adjusted based on this hardness.

As stated above, USEPA has revised the criterion for screening dissolved copper in estuarine/marine environments; it now requires calculation based on the biotic ligand model (BLM) (USEPA, 2016b). The BLM uses temperature, pH, salinity, copper concentrations, and dissolved organic carbon (DOC) concentrations to determine the dissolved copper criterion. During each sampling round in Frog Mortar Creek, the water quality parameters of temperature, pH, and salinity were collected at each sampling point. Therefore, BLM-calculated dissolved copper criteria are readily available, by running each data set (36 sample sites; eastern shoreline and near-shore discreet locations do not include metals analysis) and using the geomean of the calculated criterion. When analyzing March 2019 samples, because DOC had not been actively sampled or analyzed during scheduled Frog Mortar Creek sampling, the DOC concentration used for the BLM calculation was obtained from historical USEPA data for Frog Mortar Creek, collected at sampling location XIF8958 on six occasions in 2000 (location XIF8958 is adjacent to the southern portion of the Dump Road Area) (NWQMC, 2019). The dissolved organic carbon concentrations from the 2000 sampling event were averaged, and the resulting concentration (3.68 mg/L) was used as the DOC value in the BLM. To improve the accuracy of the BLM, ten DOC samples were added to the sampling program, and samples were collected at all "B" transect locations in June 2019.

The new BLM-generated criterion for dissolved copper is compared to copper concentrations detected during the current sampling round in Table 4-2. The resulting modeled criterion

(4.7 µg/L) is more stringent than the previously used NRWQC and BTAG values, and resulted in 31 exceedances in June 2019 (see Table 4-2). Calculations for average DOC at Frog Mortar Creek, the BLM model output, and the USEPA fact sheet for the 2016 estuarine/marine BLM are in Appendix D.

TCE, *cis*-1,2-DCE, and VC results are also compared to site-specific screening levels developed by Lockheed Martin Corporation (Lockheed Martin) at the request of the Maryland Department of the Environment (MDE); these values are used to assess risks posed to recreational users of Frog Mortar Creek. These screening levels were developed to protect the health of swimmers near the Dump Road Area (DRA) shoreline, assuming that they have long-term exposure to surface water (i.e., assumed four hours of swimming per day, 70 days per year, for 30 years). These swimming criteria are used because they provide the most conservative (i.e., most protective of human health) screening levels for Frog Mortar Creek.

Gray shading in Table 4-2 indicates a result that exceeds one or more of the constituent's surface-water screening criteria. Figures 4-1 through 4-3 show the concentrations of TCE, *cis*-1,2-DCE, and VC (respectively) detected in June 2019 Frog Mortar Creek samples. A table summarizing analytical data, including non-detect results and detection limits, is attached as Appendix C.

4.2 SURFACE WATER SAMPLING RESULTS

Five VOCs and eleven metals were detected in the June 2019 surface water samples; their analytical results are summarized below and in Tables 4-1 and 4-2. Table 4-3 and Figure 4-4 compare June 2019 results for TCE, *cis*-1,2-DCE, and VC to results from the previous sampling round (March 2019) and the sampling round from one year ago (June 2018). Since most data discussed herein share the "MSA" prefix, it is dropped when referring to transects or samples (e.g., "SW39" refers to transect MSA-SW39), to improve readability. Any discussion related to samples collected from the Edwards Lane transect (e.g., EL-SW01A) will be similarly identified (i.e., SW01A–SW01D) in the text. In addition, many of the lower VOC detections are estimated (i.e., *J*-qualified); these qualifiers (flags) are also dropped in the following discussion, to improve readability (see Table 4-2 for these details).

4.2.1 Volatile Organic Compounds

The most frequently detected chlorinated VOC (cVOC) in March 2019 was chloroform, which was detected in four of 44 samples. Vinyl chloride was detected at two locations at low estimated concentrations (each at 0.29*J* micrograms per liter [µg/L]), while TCE and *cis*-1,2-DCE were not detected in any sample. The average and maximum VC concentrations detected in June 2019 (Table 4-3 and Figure 4-4) are lower than those detected during the last round of sampling (March 2019) and lower than those detected the previous year (June 2018). As shown in Tables 4-1 through 4-3, TCE and *cis*-1,2-DCE were nondetect in June 2019, so their maximum and average concentrations are therefore lower than those from the previous event (March 2019), and (for *cis*-1,2-DCE only, as TCE was also nondetect in last year's [June 2018] sampling round) lower than those for the previous year (June 2018).

June 2019 cVOC concentrations (see Figures 4-1 through 4-4) continue to be lower as compared to previous years. As both *cis*-1,2-DCE and TCE were nondetect, neither cVOC exceeds its lowest screening level (i.e., their respective swimming criteria of 300 µg/L and 10 µg/L). VC was detected twice (at SW37A and SW37B) at the same concentration (0.29 µg/L); this concentration is also less than the swimming screening criterion (0.7 µg/L) for VC.

In previous sampling, surface water samples from transects SW38, SW40, and SW41 (all on the western shore of Frog Mortar Creek) have typically had the highest TCE concentrations. TCE results from June 2019 differ from previous trends from this year, as TCE was not detected in any June 2019 sample, but are similar to those from last year at this time, as TCE was also not detected in June 2018. The highest of the five March 2019 detections of TCE (0.27 µg/L) occurred between transects SW41 and SW43 at the near-shore location SW49A.

As stated earlier, *cis*-1,2-DCE was also nondetect in June 2019 (see Table 4-1; Figures 4-2 and 4-4). *cis*-1,2-DCE was detected in 10 of 44 samples with a maximum concentration of 0.33 µg/L in June 2018, and was detected in 30 of 44 samples with a maximum of 2.1 µg/L in March 2019 (Table 4-3).

When detected in previous rounds, the distributions of TCE and *cis*-1,2-DCE tend to decrease with increased distance from the shore in the higher concentration transects. This trend was not observed in June 2019, as neither TCE nor *cis*-1,2-DCE was detected in any sample.

VC was detected at a lower frequency (in two of 44 samples) in the current round as compared to the previous year (in three of 44 samples in June 2018) and the previous sampling round (in 11 of 44 samples in March 2019). VC exceeded its lowest (swimming) screening level at three locations during the previous round (March 2019), but no exceedances were detected during the June 2018 sampling round.

The four remaining VOCs (acetone, carbon disulfide, chloroform, and toluene) detected during the current round (June 2019) were at concentrations less than their respective screening levels.

4.2.2 Metals

Barium is ubiquitous in creek samples, and has been detected in (varying) narrow concentration ranges in all samples collected in the creek since its surface water was first analyzed for barium in 2010. Consistent with historical results, dissolved barium concentrations (5.7 µg/L–7.7 µg/L) at all sampled locations during this sampling round exceed its lowest screening level (4 µg/L) protective of ecological receptors. The highest barium concentration (7.7 µg/L) was south-central to the DRA at sampling location SW43A. Barium concentrations in June 2019 are lower than those detected last round (range of 14 µg/L to 17 µg/L in March 2019) and lower than those detected last year (range of 11 µg/L to 12 µg/L in June 2018).

Arsenic was detected during this round with concentrations ranging from 1.2 µg/L to 2.5 µg/L, with the highest concentration also reported at SW43A (Table 4-1). All arsenic detections exceed the human health consumption-of-organism-only criterion (0.14 µg/L). Arsenic concentrations have been consistently lower than the range of arsenic background concentrations (2.2–3.9 µg/L) detected in samples collected as part of Lockheed Martin's larger-scale 2007–2008 Frog Mortar Creek investigation (Tetra Tech, 2009).

Eight other metals (chromium, cobalt, lead, molybdenum, nickel, thallium, vanadium, and zinc) were detected at low concentrations in June 2019, with two of four thallium detections (0.52 µg/L at SW37A, and 0.55 µg/L at SW42A) exceeding its human health-consumption of

organisms criterion (0.47 µg/L), and one (17 µg/L at SW40B) of three lead detections exceeding its ecological surface water screening level (1.52 µg/L). Twenty-nine copper concentrations exceeded its BLM-calculated chronic NRWQC and ecological surface water screening criteria (both are 4.7 µg/L), while two additional copper detections (7.2 µg/L at SW40A, and 7.3 µg/L at SW43A) exceeded the previous criteria and copper's BLM-calculated (higher) acute NRWQC criterion of 7.1 µg/L. All other detected metals concentrations were below their respective screening criteria.

4.2.3 Hexavalent Chromium

Hexavalent chromium has been detected in DRA groundwater, and therefore is included in the surface water monitoring program each sampling round. However, it was not detected in the June 2019 sampling round, nor was it detected in 2018. Hexavalent chromium was detected in Frog Mortar Creek samples during one event in 2016 (March), as well as in three events in 2017 (July, August, and September). Intermittent low concentrations of hexavalent chromium were detected in Frog Mortar Creek samples before March 2016, within narrow concentration ranges (e.g., 0.028–0.085 µg/L in March 2015, and 0.12–0.16 µg/L in June 2015). The absence of hexavalent chromium detections in June 2019 is consistent with previous sampling results.

SECTION 5
SUMMARY

The Lockheed Martin Corporation June 2019 Frog Mortar Creek surface-water investigation results are summarized below:

- Surface water samples were collected on June 12, 2019, and chemically analyzed to assess concentrations of chemical constituents in Frog Mortar Creek, and particularly to evaluate creek surface-water quality near the Dump Road Area (DRA). Each sample was collected at approximately one foot below the water surface.

- Samples were collected along each of nine transects spaced approximately 350 feet apart (for 36 samples) along the western shoreline of Frog Mortar Creek, and from one transect along the eastern shoreline (4 samples). 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). In addition to the samples collected along transects, four single-point shoreline samples were collected, including SW46A (between transects SW42 and SW40), SW47A (between transects SW40 and SW38), SW48A (between transects SW38 and SW41), and SW49A (between transects SW41 and SW43).

- Frog Mortar Creek samples collected along the western shoreline were analyzed for volatile organic compounds (VOCs), dissolved (filtered) metals, hexavalent chromium, and hardness. Samples SW46A through SW49A, and those collected along the eastern shoreline, were only analyzed for volatile organic compounds.

- Dissolved organic carbon (DOC) samples were added to the sampling program at all "B" transect locations, providing current data that was used as input to the biotic ligand model (BLM), which calculated the screening criterion for copper.

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

- Sampling results were screened against (1) United States Environmental Protection Agency Region 3 Biological Technical Advisory Group (BTAG) ecological screening-benchmarks for freshwater; (2) United States Environmental Protection Agency national recommended water quality criteria (NRWQC) for acute and chronic aquatic-organism exposures and for human health aquatic-organism-consumption; (3) Maryland ambient water quality criteria (AWQC) for acute and chronic aquatic-organism exposures and for

human health aquatic-organism-consumption; (4) site-specific screening levels developed to evaluate risks to recreational swimmers from exposure to the three most frequently detected volatile organic compounds in surface water: trichloroethene (TCE), *cis*-1,2-dichloroethene (*cis*-1,2-DCE), and vinyl chloride (VC); and (5) the 2016 United States Environmental Protection Agency estuarine/marine biotic ligand model (BLM) for dissolved copper.

- Chlorinated volatile organic compounds (vinyl chloride and chloroform) and 11 metals, excluding hexavalent chromium, were detected in the June 2019 surface water samples. Detected concentrations of all volatile organic compounds and most metals (except arsenic, barium, copper, lead, and thallium) were less than human health consumption-of-organism and ecological screening levels.

- Trichloroethene and *cis*-1,2-dichloroethene were not detected during the June 2019 sampling round (see Figures 4-1 and 4-2).

- Vinyl chloride was detected in two of 44 samples, with the detections occurring at SW37A and SW37B (both at 0.29 µg/L) (see Figure 4-3). These concentrations do not exceed its site-specific swimming criterion (0.7 µg/L).

- The maximum and average vinyl chloride concentrations detected in June 2019 are lower than those detected during the last round of sampling (March 2019) and are lower than those detected during the previous year's (June 2018) sampling event. As trichloroethene and *cis*-1,2-dichloroethene were not detected in June 2019, the round's maximum and average concentrations for these two analytes could not be calculated. Note that trichloroethene was also not detected in June 2018, but was detected in five samples during the previous (March 2019) sampling round. *cis*-1,2-Dichlorothene was detected in 10 of 44 samples during the previous year (June 2018), and was detected in 30 of 44 samples during the previous sampling round (March 2019).

- Trichloroethene, *cis*-1,2-dichloroethene, and vinyl chloride were not detected on the eastern shoreline. These results are consistent with previous data indicating that volatile organic compound concentrations in this area of Frog Mortar Creek are below their respective site-specific swimming criteria.

- Dissolved barium exceeded its ecological screening level in all 36 samples collected in June 2019. Historical sampling has demonstrated that barium is ubiquitous in creek samples; the June 2019 concentrations (5.7 µg/L–7.7 µg/L) are lower than those detected in March 2019 (14 µg/L–17 µg/L), as well as those detected last year in June 2018 (11 µg/L–12 µg/L).

- Arsenic was detected in all 36 samples in which it was analyzed for during this round, with concentrations ranging from 1.2 µg/L to 2.5 µg/L. These results are slightly lower than or similar to the lower end of the range of typical background arsenic concentrations (2.2 µg/L–3.9 µg/L) established during Lockheed Martin's larger-scale 2007–2008 Frog Mortar Creek investigation.

- Eight other metals (chromium, cobalt, lead, molybdenum, nickel, thallium, vanadium, and zinc) were detected at low concentrations in June 2019. Most copper and beryllium concentrations slightly exceeded their respective surface water screening criteria, while one of three lead detections (17 µg/L at SW40B), and two of four thallium detections (0.55 µg/L at SW42A, and 0.52 µg/L at SW37A), exceeded their respective lowest screening criteria (1.52 µg/L for lead, and 0.47 µg/L for thallium). Exceedances are uncommon for these latter metals, as they are rarely detected in Frog Mortar Creek, and if detected, rarely exceed their respective screening levels.

- Twenty-nine copper concentrations slightly exceeded the biotic ligand model-calculated chronic national recommended water quality criteria and ecological surface water screening criterion (both are 4.7 µg/L), while an additional two copper detections exceeded the previous criteria and the model-calculated acute criterion of 7.1 µg/L.

- Dissolved hexavalent chromium was not detected in any sample collected in June 2019. Hexavalent chromium was not detected in any of the six sampling events in 2018, but was detected in July, August, and September 2017.

SECTION 6
REFERENCES

Code of Maryland Regulations (COMAR), 2016. "Numerical Criteria for Toxic Substances in Surface Waters." COMAR Title 26, Subtitle 08, Chapter 02, Regulation 03. http://www.dsd.state.md.us/comar/comarhtml/26/26.08.02.03-2.htm.

Maryland Aviation Administration (MAA), 2018. Martin State Airport Website: http://www.martinstateairport.com/index.php.

National Oceanic and Atmospheric Administration (NOAA), 2015. *Exceedance Probability Level and Tide Datums, 8574680, Baltimore, Maryland.* Mean-high high-water (MHHW) and mean-low low-water (MLLW) measurements near Baltimore, Maryland, 1983–2001: http://tidesandcurrents.noaa.gov/est/stickdiagram.shtml?stnid=8574680.

National Oceanic and Atmospheric Administration (NOAA), 2016. National Centers for Environmental Information, Washington, D.C., *State of the Climate Reports:* https://www.ncdc.noaa.gov/sotc/drought/201608 or https://www.ncdc.noaa.gov/sotc/drought/201609.

Tetra Tech, Inc. (Tetra Tech), 2009. *Frog Mortar Creek Surface Water and Sediment Investigation Report Phases I, II, and III, Lockheed Martin, Martin State Airport, Middle River, Maryland.* Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. May.

Tetra Tech, Inc. (Tetra Tech), 2012. *2011 Surface Water Sampling Report, Frog Mortar Creek, Martin State Airport, 701 Wilson Point Road, Middle River, Maryland.* Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. March.

Tetra Tech, Inc. (Tetra Tech), 2018. *2017 Surface Water Sampling Report for Frog Mortar Creek, Martin State Airport, 701 Wilson Point Road, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. March.

Tetra Tech, Inc. (Tetra Tech), 2019a. *2019 Surface Water Sampling Work Plan, Martin State Airport, 701 Wilson Point Road, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. January.

Tetra Tech, Inc. (Tetra Tech), 2019b. *2018 Surface Water Sampling Report for Frog Mortar Creek, Martin State Airport, 701 Wilson Point Road, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. April.

United States Environmental Protection Agency (USEPA), 2002. *National Recommended Water Quality Criteria: 2002*. U.S. Environmental Protection Agency, Office of Water, Office of Science and Technology. November.

United States Environmental Protection Agency (USEPA) 2006. *Region III Biological Technical Advisory Group Freshwater Screening Benchmarks*. August.

United States Environmental Protection Agency (USEPA) 2009. *National Recommended Water Quality Criteria*. U.S. Environmental Protection Agency, Office of Water, Office of Science and Technology: http://water.epa.gov/scitech/swguidance/standards/current/index.cfm or http://water.epa.gov/scitech/swguidance/standards/current/ upload/nrwqc-2009.p.

United States Environmental Protection Agency (USEPA), 2016a. *National Recommended Water Quality Criteria*. U.S. Environmental Protection Agency, Office of Water, Office of Science and Technology: https://www.epa.gov/wqc/national-recommended-water-quality-criteria.

United States Environmental Protection Agency (USEPA), 2016b. *Biotic Ligand Model (BLM) for acute and chronic estuarine/marine dissolved copper.* U.S. Environmental Protection Agency, Office of Water, Office of Science and Technology: https://www.epa.gov/wqc/aquatic-life-criteria-copper

United States Environmental Protection Agency (USEPA), 2017a. *National Functional Guidelines for Inorganic Superfund Methods Data Review,* EPA-540-R-2017-001. 138 pp.

United States Environmental Protection Agency (USEPA), 2017b. *National Functional Guidelines for Organic Superfund Methods Data Review,* EPA-540-R-2017-002. 250 pp.

United States Geological Survey (USGS), Environmental Protection Agency (EPA), National Water Quality Monitoring Council (NWQMC), 2019. "*Water Quality Portal: Water Quality Data".* MDE Site XIF8958. Retrieved 10 April 2019. https://www.waterqualitydata.us/portal/#siteid=MDE_FIELDSERVICES_WQX-XIF8958&mimeType=csv.

FIGURES

Figure 1-1 Martin State Airport, Dump Road Area and Frog Mortar Creek Location Map

Figure 2-1 Martin State Airport and Surrounding Features

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

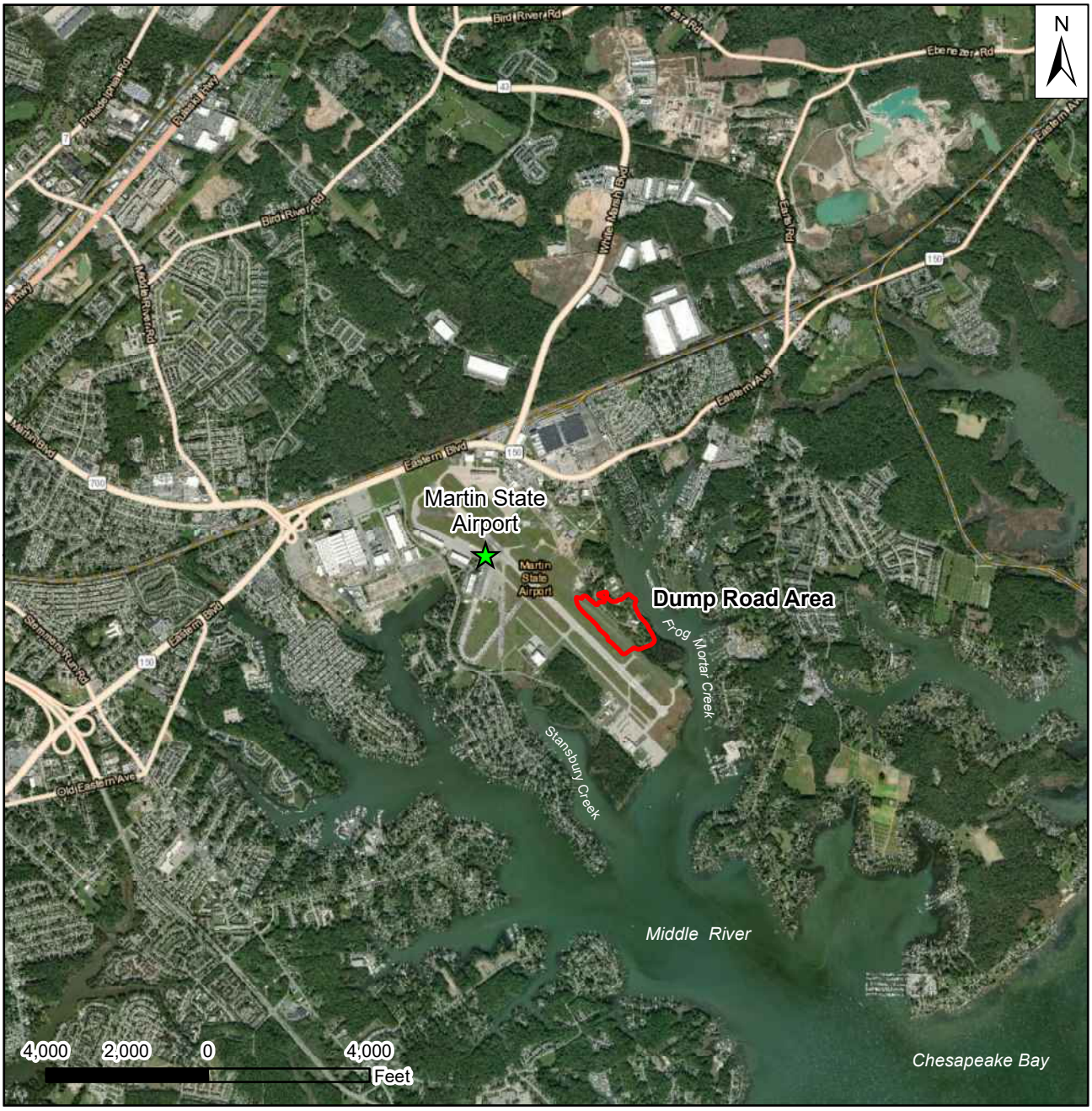
Figure 3-1 June 2019 Surface Water Sampling Locations, Frog Mortar Creek

Figure 4-1 Concentrations of Trichloroethene in Surface Water Samples, June 2019, Frog Mortar Creek

Figure 4-2 Concentrations of cis-1,2-Dichloroethene in Surface Water Samples, June 2019, Frog Mortar Creek

Figure 4-3 Concentrations of Vinyl Chloride in Surface Water Samples, June 2019, Frog Mortar Creek

Figure 4-4 Concentrations of Trichloroethene, cis-1,2-Dichloroethene, and Vinyl Chloride along Surface Water Sampling Transects for June 2018, March 2019, and June 2019, Frog Mortar Creek



Aerial photograph provided by ESRI's ArcGIS Online World Imagery map service (© 2017 ESRI and its data suppliers).

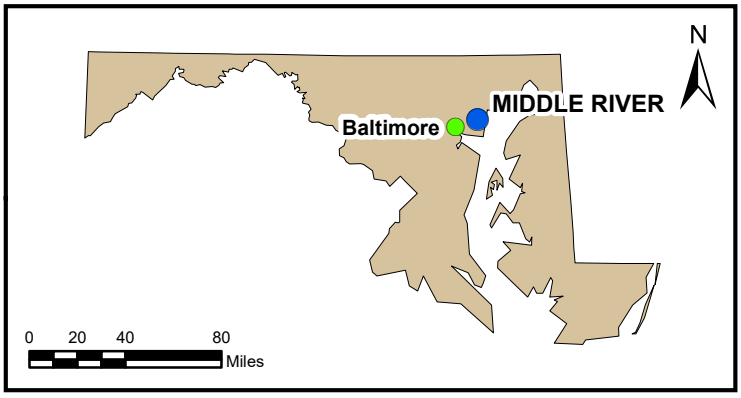


FIGURE 1-1
MARTIN STATE AIRPORT
DUMP ROAD AREA AND FROG MORTAR CREEK LOCATION MAP

Lockheed Martin, Martin State Airport
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
09/10/18	JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_sitemap_dec2015.mxd)
09/10/18 -- JEE



2017 aerial photograph provided by the State of Maryland.

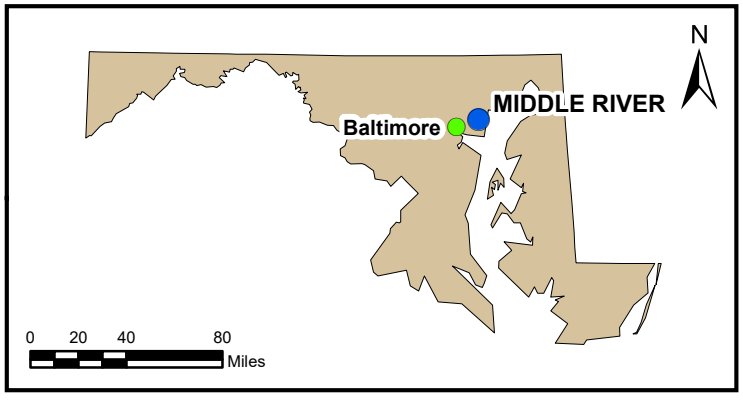


FIGURE 2-1

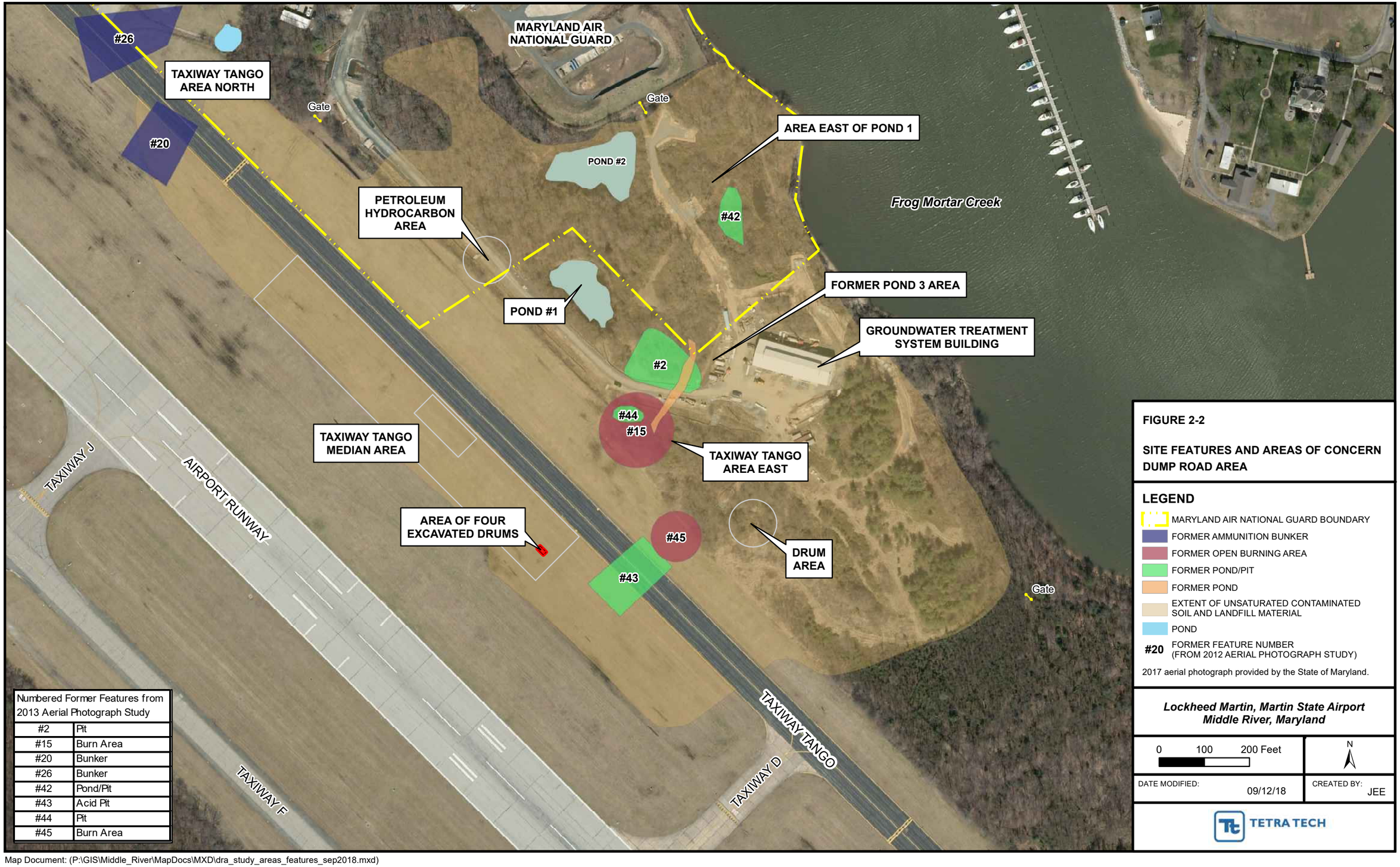
MARTIN STATE AIRPORT AND SURROUNDING FEATURES

Lockheed Martin, Martin State Airport
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
09/12/18	JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\msa_sitemap_sep2018.mxd)
09/12/18 -- JEE



Numbered Former Features from 2013 Aerial Photograph Study	
#2	Pit
#15	Burn Area
#20	Bunker
#26	Bunker
#42	Pond/Pit
#43	Acid Pit
#44	Pit
#45	Burn Area

FIGURE 2-2

SITE FEATURES AND AREAS OF CONCERN
DUMP ROAD AREA

LEGEND

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

2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 09/12/18

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\dra_study_areas_features_sep2018.mxd)
09/12/18 -- JEE



FIGURE 3-1

JUNE 2019 SURFACE WATER SAMPLING LOCATIONS FROG MORTAR CREEK

LEGEND

- SURFACE WATER SAMPLING LOCATION
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- OUTLINE OF FORMER COVE
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL - DUMP ROAD AREA
- POND

Samples collected June 12, 2019.
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 150 300 Feet

N

DATE MODIFIED: 08/06/19

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\fmc_sw_samplocs_201906.mxd)
08/06/19 -- SP



FIGURE 4-1

CONCENTRATIONS OF TRICHLOROETHENE IN SURFACE WATER SAMPLES, JUNE 2019 FROG MORTAR CREEK

LEGEND

- SURFACE WATER SAMPLE LOCATION
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- OUTLINE OF FORMER COVE
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL - DUMP ROAD AREA
- POND

(0.44) = TRICHLOROETHENE CONCENTRATION
J = ESTIMATED VALUE
- - = NOT DETECTED
CONCENTRATION IN MICROGRAMS PER LITER (UG/L)

SCREENING LEVELS FOR TRICHLOROETHENE
ECOLOGICAL SURFACE WATER: 21 UG/L
HUMAN HEALTH
(CONSUMPTION OF ORGANISM): 70 UG/L
SITE SPECIFIC SWIMMING: 10 UG/L

SAMPLES COLLECTED JUNE 12, 2019.
2017 AERIAL PHOTOGRAPH PROVIDED BY THE STATE OF MARYLAND.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 150 300 Feet

N

DATE MODIFIED: 08/06/19

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\fmc_sw_tce_results_201906.mxd)
08/06/19 -- SP



FIGURE 4-2

CONCENTRATIONS OF CIS-1,2-DICHLOROETHENE IN SURFACE WATER SAMPLES, JUNE 2019 FROG MORTAR CREEK

LEGEND

- SURFACE WATER SAMPLE LOCATION
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- OUTLINE OF FORMER COVE
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL - DUMP ROAD AREA
- POND

(0.26) = CIS-1,2-DICHLOROETHENE CONCENTRATION
J = ESTIMATED VALUE
- - = NOT DETECTED
CONCENTRATION IN MICROGRAMS PER LITER (UG/L)

SCREENING LEVELS FOR CIS-1,2-DICHLOROETHENE
ECOLOGICAL SURFACE WATER: 590 UG/L
HUMAN HEALTH
(CONSUMPTION OF ORGANISM): NONE
SITE SPECIFIC SWIMMING: 300 UG/L

SAMPLES COLLECTED JUNE 12, 2019.
2017 AERIAL PHOTOGRAPH PROVIDED BY THE STATE OF MARYLAND.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 150 300 Feet

N

DATE MODIFIED: 08/06/19

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\fmc_sw_cis12dce_results_201906.mxd)
08/06/19 -- SP



FIGURE 4-3

CONCENTRATIONS OF VINYL CHLORIDE IN SURFACE WATER SAMPLES, JUNE 2019 FROG MORTAR CREEK

LEGEND

- SURFACE WATER SAMPLE LOCATION
- GROUNDWATER MONITORING WELL
- ABANDONED WELL
- OUTLINE OF FORMER COVE
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL - DUMP ROAD AREA
- POND

(0.49) = VINYL CHLORIDE CONCENTRATION
J = ESTIMATED VALUE
-- = NOT DETECTED
CONCENTRATION IN MICROGRAMS PER LITER (UG/L)

SCREENING LEVELS FOR VINYL CHLORIDE
ECOLOGICAL SURFACE WATER: 930 UG/L
HUMAN HEALTH
(CONSUMPTION OF ORGANISM): 16 UG/L
SITE SPECIFIC SWIMMING: 0.7 UG/L

SAMPLES COLLECTED JUNE 12, 2019.
2017 AERIAL PHOTOGRAPH PROVIDED BY THE STATE OF MARYLAND.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 150 300 Feet

N

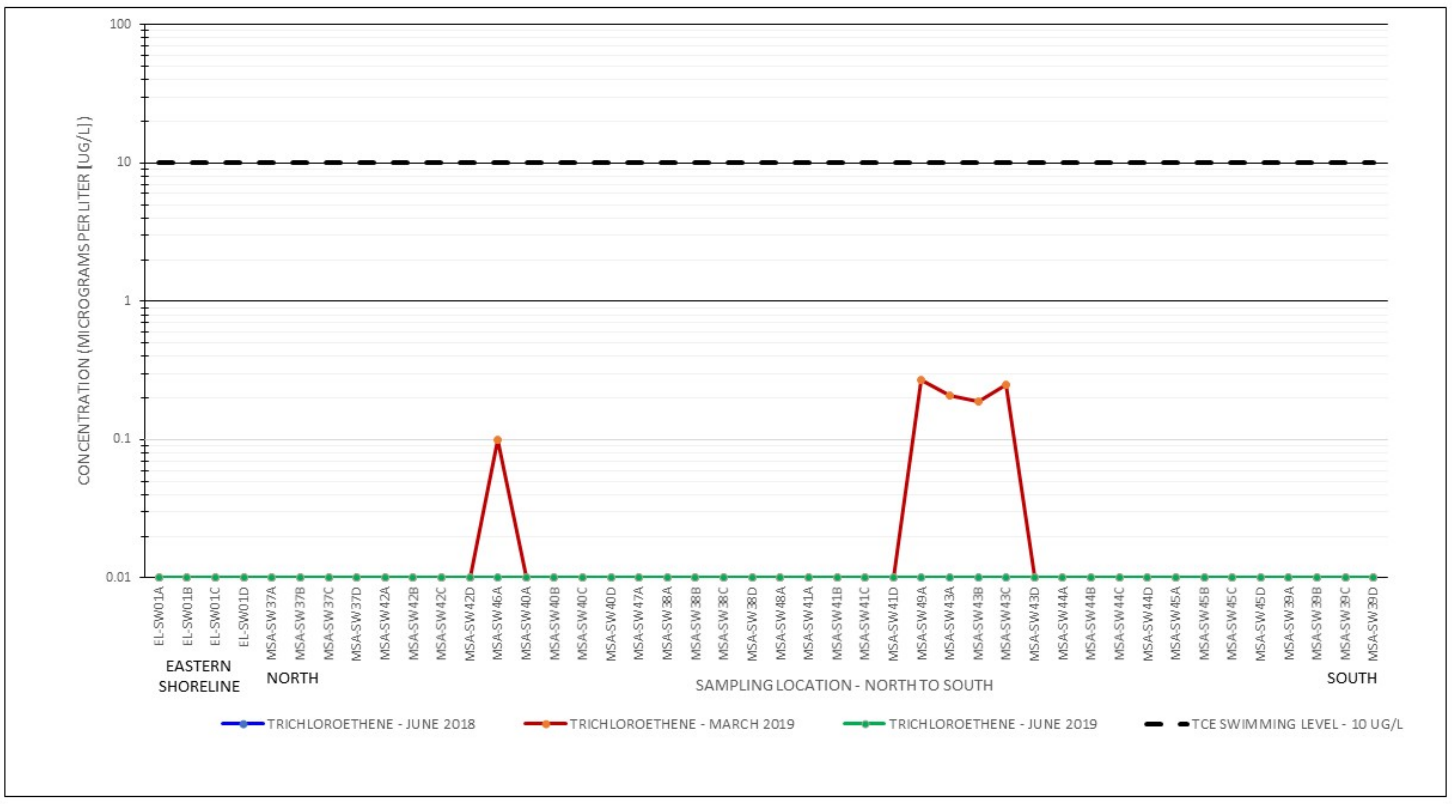
DATE MODIFIED: 08/06/19

CREATED BY: JEE

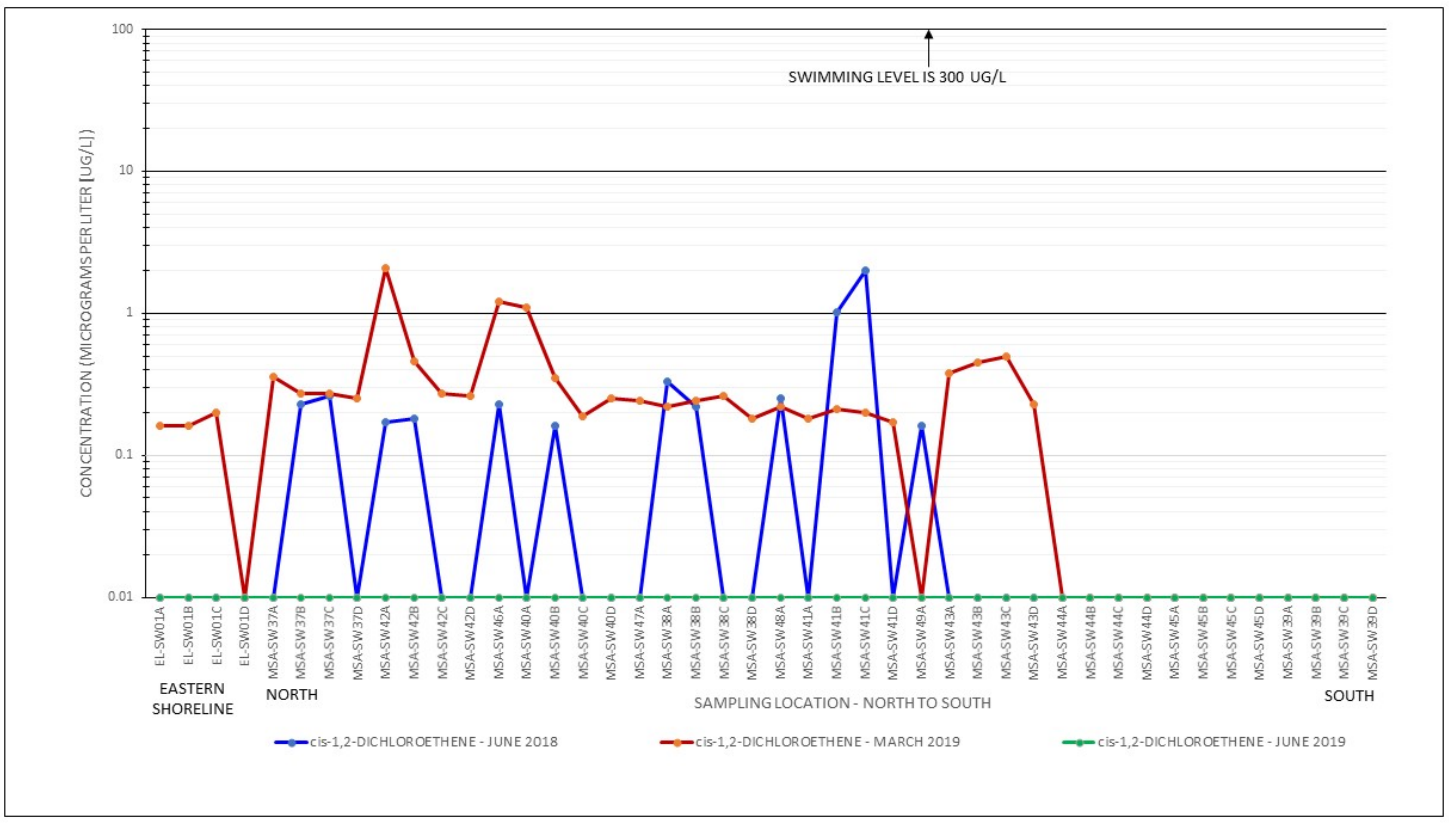
TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\fmc_sw_VC_results_201906.mxd)
08/06/19 -- SP

TRICHLOROETHENE



CIS-1,2-DICHLOROETHENE



VINYL CHLORIDE

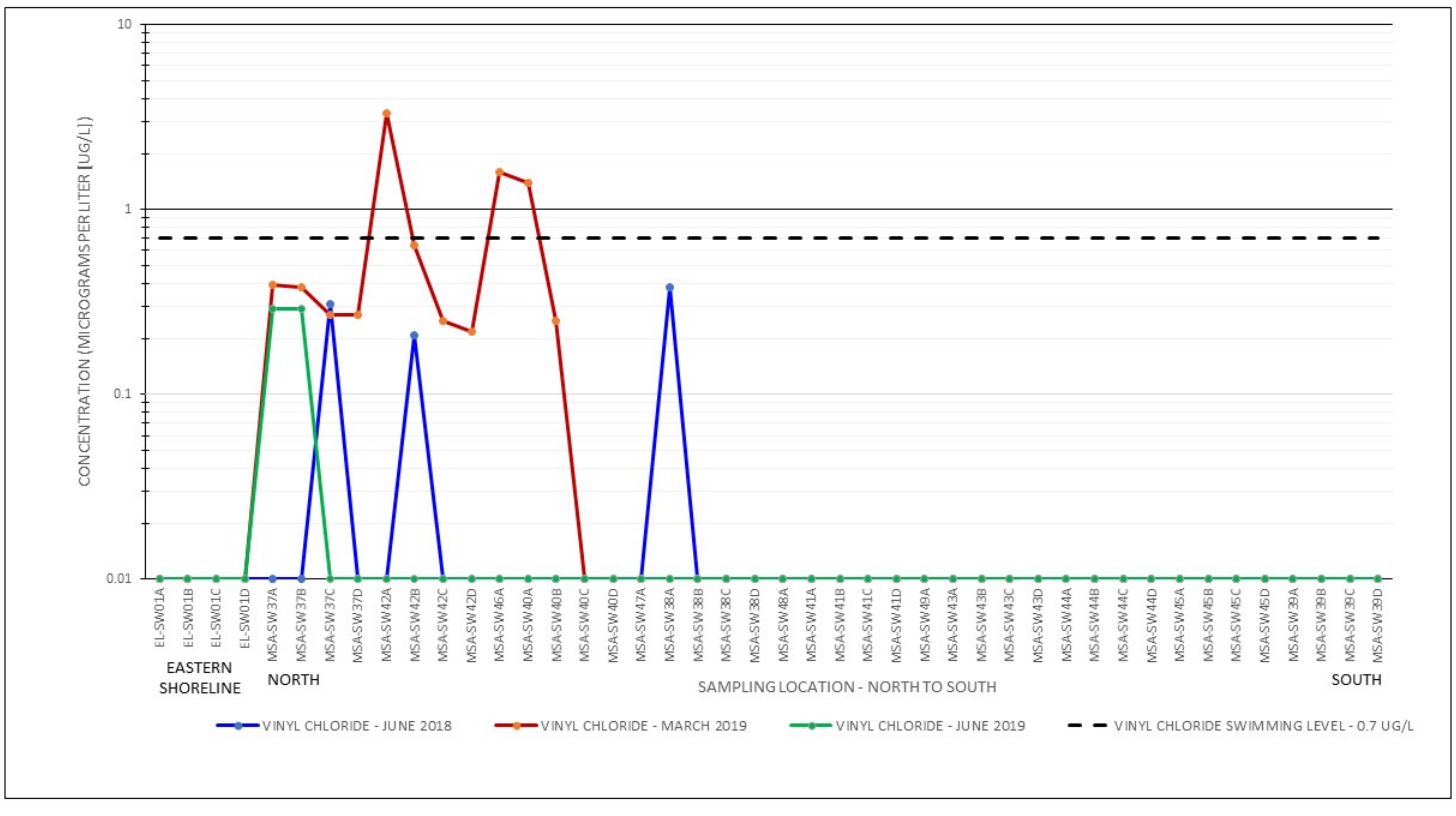


FIGURE 4-4

CONCENTRATIONS OF TRICHLOROETHENE, cis-1,2-DICHLOROETHENE AND VINYL CHLORIDE ALONG SURFACE WATER SAMPLING TRANSECTS FOR JUNE 2018, MARCH 2019, AND JUNE 2019 FROG MORTAR CREEK

Lockheed Martin, Martin State Airport Middle River, Maryland

DATE MODIFIED:	CREATED BY:
09/07/18	JEE

TETRA TECH

TABLES

Table 3-1 List of Samples and Chemical Analyses for Surface Water—June 2019

Table 4-1 Summary of Analytes Detected in Surface Water Samples—June 2019

Table 4-2 Detected Analytes and Screening-Level Exceedances in Surface Water Samples—June 2019

Table 4-3 Comparison of Primary Volatile Organic Compound Results Detected in Surface Water for the June 2018, March 2019, and June 2019 Sampling Rounds

Table 3-1

List of Samples and Chemical Analyses for Surface Water-June 2019
Frog Mortar Creek, Middle River, Maryland

	Analyses Performed[1] (Method)			
	Volatile Organic Compounds[2]	Dissolved Metals	Hexavalent Chromium	Hardness
Sample Location ID	(USEPA 8260C)	(USEPA 6020/7470A)	(USEPA 218.6)	(SM 2340B)
MSA-SW37A	X	X	X	X
MSA-SW37B	X	X	X	X
MSA-SW37C	X	X	X	X
MSA-SW37D	X	X	X	X
MSA-SW38A	X	X	X	X
MSA-SW38B	X	X	X	X
MSA-SW38C	X	X	X	X
MSA-SW38D	X	X	X	X
MSA-SW39A	X	X	X	X
MSA-SW39B	X	X	X	X
MSA-SW39C	X	X	X	X
MSA-SW39D	X	X	X	X
MSA-SW40A	X	X	X	X
MSA-SW40B	X	X	X	X
MSA-SW40C	X	X	X	X
MSA-SW40D	X	X	X	X
MSA-SW41A	X	X	X	X
MSA-SW41B	X	X	X	X
MSA-SW41C	X	X	X	X
MSA-SW41D	X	X	X	X
MSA-SW42A	X	X	X	X
MSA-SW42B	X	X	X	X
MSA-SW42C	X	X	X	X
MSA-SW42D	X	X	X	X
MSA-SW43A	X	X	X	X
MSA-SW43B	X	X	X	X
MSA-SW43C	X	X	X	X
MSA-SW43D	X	X	X	X
MSA-SW44A	X	X	X	X
MSA-SW44B	X	X	X	X
MSA-SW44C	X	X	X	X
MSA-SW44D	X	X	X	X
MSA-SW45A	X	X	X	X
MSA-SW45B	X	X	X	X
MSA-SW45C	X	X	X	X
MSA-SW45D	X	X	X	X
MSA-SW46A	X			
MSA-SW47A	X			
MSA-SW48A	X			
MSA-SW49A	X			
EL-SW01A	X			
EL-SW01B	X			
EL-SW01C	X			
EL-SW01D	X			

1 Temperature, pH, specific conductance, salinity, turbidity, dissolved oxygen, and oxidation-reduction potentia sample was measured and recorded in the field

2 Includes Freon 113 (1,1,2-trichloro-1,2,2-trifluoroethane), Freon 22 (chlorodifluoromethane), and tentatively identified compounds

SM - standard method

Table 4-1

Statistical Summary of Analytes Detected in Surface Water Samples—June 2019
Frog Mortar Creek, Middle River, Maryland

Parameter	June 2019 Frog Mortar Creek Surface Water Samples										
	Frequency of Detection		Minimum Concentration Detected	Maximum Concentration Detected	Sample of Maximum Concentration Detected	Location of Maximum Concentration Detected	Average of Detected Results	Average of All Results	Minimum Concentration Nondetects	Maximum Concentration Nondetects	StdDev
	Number	Percent									
Volatile organic compounds (µg/L)											
ACETONE	3/44	7	10 J	17 J	MSA-SW39C-061219	MSA-SW39C	12.666666	3.379545	5.4	5.4	2.669167586
CARBON DISULFIDE	1/44	2	0.56 J	0.56 J	MSA-SW45A-061219	MSA-SW45A	0.56	0.149545	0.28	0.28	0.063317382
CHLOROFORM	4/44	9	0.13 J	0.19 J	MSA-SW38A47A-061219	MSA-SW38A,47A	0.1725	0.074772	0.13	0.13	0.032168787
TOLUENE	1/44	2	0.17 J	0.17 J	MSA-SW40D-061219	MSA-SW40D	0.17	0.072272	0.14	0.14	0.015075567
VINYL CHLORIDE	2/44	5	0.29 J	0.29 J	MSA-SW37A, 37B--61219	MSA-SW37A, MSA-SW37B	0.29	0.108636	0.2	0.2	0.04003434
Volatile tentatively identified compounds (µg/L)											
ACENAPHTHENE	1/1	100	14 NJ	14 NJ	MSA-SW37A-061219	MSA-SW37A	14	14	NULL	NULL	NULL
HEXANAL	1/1	100	2.4 NJ	2.4 NJ	MSA-SW45A-061219	MSA-SW45A	2.4	2.4	NULL	NULL	NULL
Dissolved (filtered) metals (µg/L)											
ARSENIC	36/36	100	1.2 J	2.5 J	MSA-SW43A-061219	MSA-SW43A	1.922222	1.922222	NULL	NULL	0.292878435
BARIUM	36/36	100	5.7	7.7	MSA-SW43A-061219	MSA-SW43A	6.355555	6.355555	NULL	NULL	0.398170419
CHROMIUM	3/36	8	1 J	1.6 J	MSA-SW41D-061219	MSA-SW41D	1.266666	0.554722	0.98	0.98	0.229626854
COBALT	17/36	47	0.19 J	0.59 J	MSA-SW43A-061219	MSA-SW43A	0.261764	0.17375	0.19	0.19	0.109279295
COPPER	36/36	100	4.5	7.3	MSA-SW43A-061219	MSA-SW43A	5.258333	5.258333	NULL	NULL	0.656995325
LEAD	3/36	8	0.8 J	17	MSA-SW40B-061219	MSA-SW40B	6.263333	0.728194	0.45	0.45	2.793876506
MOLYBDENUM	8/36	22	1.1 J	1.6 J	MSA-SW37A-061219	MSA-SW37A	1.2875	0.713888	1.1	1.1	0.324832069
NICKEL	25/36	69	1.5 J	2.5	MSA-SW43A-061219	MSA-SW43A	1.908	1.554166	1.5	1.5	0.582650961
THALLIUM	4/36	11	0.43 J	0.55 J	MSA-SW42A-061219	MSA-SW42A	0.485	0.142777	0.2	0.2	0.123926502
VANADIUM	28/36	78	0.85 J	1.9 J	MSA-SW43A-061219	MSA-SW43A	1.062142	0.917222	0.82	0.82	0.33775402
ZINC	1/36	3	20	20	MSA-SW42A-061219	MSA-SW42A	20	7.847222	15	15	2.083333333
Miscellaneous (mg/L)											
CALCIUM hardness as $CaCO_3$	36/36	100	16	21	MSA-SW37A-061219	MSA-SW37A	19.111111	19.111111	NULL	NULL	1.089633694
DISSOLVED ORGANIC CARBON	10/10	100	4.3	5.9	EL-SW01B-061219	EL-SW01B	4.9	4.9	NULL	NULL	0.466666667
HARDNESS as $CACO_3$	36/36	100	63	71	MSA-SW37A,40A,B,41A-061219	MSA-SW37A,40A,B,41A	68.5	68.5	NULL	NULL	1.874642823
MAGNESIUM hardness as $CaCO_3$	36/36	100	46	51	MSA-SW40B,41A,45C-061219	MSA-SW40B,41A,45C	49.444444	49.444444	NULL	NULL	0.998411437

-- Value not applicable because analyte was detected in all samples.
All samples were collected on June 12, 2019
For non-detects, 1/2 sample quantitation limit was used as proxy.
1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
N = not detected
µg/L - micrograms per liter
mg/L - milligrams per liter

Associated Samples:

EL-SW01A-061219
EL-SW01B-061219
EL-SW01C-061219
EL-SW01D-061219
MSA-SW37A-061219
MSA-SW37B-061219
MSA-SW37C-061219
MSA-SW37D-061219
MSA-SW38A-061219
MSA-SW38B-061219
MSA-SW38C-061219
MSA-SW38D-061219
MSA-SW39A-061219
MSA-SW39B-061219
MSA-SW39C-061219
MSA-SW39D-061219
MSA-SW40A-061219
MSA-SW40B-061219
MSA-SW40C-061219
MSA-SW40D-061219
MSA-SW41A-061219
MSA-SW41B-061219
MSA-SW41C-061219
MSA-SW41D-061219
MSA-SW42A-061219
MSA-SW42B-061219
MSA-SW42C-061219
MSA-SW42D-061219
MSA-SW43A-061219
MSA-SW43B-061219
MSA-SW43C-061219
MSA-SW43D-061219
MSA-SW44A-061219
MSA-SW44B-061219
MSA-SW44C-061219
MSA-SW44D-061219
MSA-SW45A-061219
MSA-SW45B-061219
MSA-SW45C-061219
MSA-SW45D-061219
MSA-SW46A-061219
MSA-SW47A-061219
MSA-SW48A-061219
MSA-SW49A-061219

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—June 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	National Recommended Water Quality Criteria[1]		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	EL-SW01A EL-SW01A-061219 20190612	EL-SW01B EL-SW01B-061219 20190612	EL-SW01C EL-SW01C-061219 20190612	EL-SW01D EL-SW01D-061219 20190612	MSA-SW37A MSA-SW37A-061219 20190612
	Acute	Chronic								
Volatile organic compounds (µg/L)										
ACETONE	NA	NA	1500	NA	NA	--	--	--	--	--
CARBON DISULFIDE	NA	NA	0.92	NA	NA	--	--	--	--	--
CHLOROFORM	NA	NA	1.8	2000	NA	--	--	--	--	--
TOLUENE	NA	NA	2	1500	NA	--	--	--	--	--
VINYL CHLORIDE	NA	NA	930	24	0.75	--	--	--	--	0.29 J
Tentatively identified compounds-volatiles (µg/L)										
ACENAPHTHENE	NA	NA	NA	NA	NA	--	--	--	--	14 NJ
HEXANAL	NA	NA	NA	NA	NA	--	--	--	--	--
Dissolved (filtered) metals (µg/L)										
ARSENIC	340	150	NA	0.14	NA	--	--	--	--	2.3 J
BARIUM	NA	NA	4	NA	NA	--	--	--	--	7
CHROMIUM[5]	390.26	50.76	50.76	NA	NA	--	--	--	--	--
COBALT	NA	NA	23	NA	NA	--	--	--	--	0.29 J
COPPER[6]	7.1	4.7	4.7	NA	NA	--	--	--	--	6
LEAD[5]	38.92	1.52	1.52	NA	NA	--	--	--	--	--
MOLYBDENUM	NA	NA	NA	NA	NA	--	--	--	--	1.6 J
NICKEL[5]	316.74	35.18	35.18	4600	NA	--	--	--	--	2
THALLIUM	NA	NA	NA	0.47	NA	--	--	--	--	0.52 J
VANADIUM	NA	NA	20	NA	NA	--	--	--	--	1.2 J
ZINC[5]	79.22	79.87	79.87	26000	NA	--	--	--	--	--
Miscellaneous parameters (mg/L)										
CALCIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	--	--	--	--	21
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	--	5.9	--	--	--
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	--	--	--	--	71
MAGNESIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	--	--	--	--	50

-- Value not applicable because analyte was detected in all samples.
All samples were collected on June 12, 2019

For non-detects, 1/2 sample quantitation limit was used as proxy.
1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
N = not detected
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—June 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	National Recommended Water Quality Criteria[1]		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MSA-SW37B | MSA-SW37B-061219 | 20190612	MSA-SW37C | MSA-SW37C-061219 | 20190612	MSA-SW37D | MSA-SW37D-061219 | 20190612	MSA-SW38A | MSA-SW38A-061219 | 20190612	MSA-SW38B | MSA-SW38B-061219 | 20190612
	Acute	Chronic								
Volatile organic compounds (µg/L)										
ACETONE	NA	NA	1500	NA	NA	--	--	--	--	--
CARBON DISULFIDE	NA	NA	0.92	NA	NA	--	--	--	--	--
CHLOROFORM	NA	NA	1.8	2000	NA	--	--	--	0.19 J	0.18 J
TOLUENE	NA	NA	2	1500	NA	--	--	--	--	--
VINYL CHLORIDE	NA	NA	930	24	0.75	0.29 J	--	--	--	--
Tentatively identified compounds-volatiles (µg/L)										
ACENAPHTHENE	NA	NA	NA	NA	NA	--	--	--	--	--
HEXANAL	NA	NA	NA	NA	NA	--	--	--	--	--
Dissolved (filtered) metals (µg/L)										
ARSENIC	340	150	NA	0.14	NA	1.8 J	1.7 J	1.8 J	1.8 J	2 J
BARIUM	NA	NA	4	NA	NA	6.2	6.3	6.1	5.7	6.3
CHROMIUM[5]	390.26	50.76	50.76	NA	NA	--	--	--	--	--
COBALT	NA	NA	23	NA	NA	--	0.21 J	--	--	--
COPPER[6]	7.1	4.7	4.7	NA	NA	4.9	5.6	4.9	4.5	4.8
LEAD[5]	38.92	1.52	1.52	NA	NA	--	--	--	--	--
MOLYBDENUM	NA	NA	NA	NA	NA	1.4 J	1.1 J	1.1 J	--	--
NICKEL[5]	316.74	35.18	35.18	4600	NA	1.8 J	2.3	1.7 J	1.6 J	--
THALLIUM	NA	NA	NA	0.47	NA	0.43 J	--	--	--	--
VANADIUM	NA	NA	20	NA	NA	0.97 J	0.98 J	0.96 J	0.94 J	--
ZINC[5]	79.22	79.87	79.87	26000	NA	--	--	--	--	--
Miscellaneous parameters (mg/L)										
CALCIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	20	19	20	18	20
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	4.9	--	--	--	5.1
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	70	69	68	64	69
MAGNESIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	50	50	49	46	49

-- Value not applicable because analyte was detected in all samples.
All samples were collected on June 12, 2019

For non-detects, 1/2 sample quantitation limit was used as proxy.
1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
N = not detected
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—June 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION / SAMPLE ID / SAMPLE DATE	National Recommended Water Quality Criteria[1]		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MSA-SW38C | MSA-SW38C-061219 | 20190612	MSA-SW38D | MSA-SW38D-061219 | 20190612	MSA-SW39A | MSA-SW39A-061219 | 20190612	MSA-SW39B | MSA-SW39B-061219 | 20190612	MSA-SW39C | MSA-SW39C-061219 | 20190612
	Acute	Chronic								
Volatile organic compounds (µg/L)										
ACETONE	NA	NA	1500	NA	NA	--	--	--	11 J	17 J
CARBON DISULFIDE	NA	NA	0.92	NA	NA	--	--	--	--	--
CHLOROFORM	NA	NA	1.8	2000	NA	--	--	--	--	--
TOLUENE	NA	NA	2	1500	NA	--	--	--	--	--
VINYL CHLORIDE	NA	NA	930	24	0.75	--	--	--	--	--
Tentatively identified compounds-volatiles (µg/L)										
ACENAPHTHENE	NA	NA	NA	NA	NA	--	--	--	--	--
HEXANAL	NA	NA	NA	NA	NA	--	--	--	--	--
Dissolved (filtered) metals (µg/L)										
ARSENIC	340	150	NA	0.14	NA	1.7 J	2 J	1.9 J	1.8 J	2.1 J
BARIUM	NA	NA	4	NA	NA	6.2	6.8	6.3	6.3	6.5
CHROMIUM[5]	390.26	50.76	50.76	NA	NA	--	--	--	--	--
COBALT	NA	NA	23	NA	NA	--	0.2 J	--	0.2 J	0.23 J
COPPER[6]	7.1	4.7	4.7	NA	NA	5	5.8	4.9	4.9	5.3
LEAD[5]	38.92	1.52	1.52	NA	NA	--	--	--	--	--
MOLYBDENUM	NA	NA	NA	NA	NA	--	--	--	--	--
NICKEL[5]	316.74	35.18	35.18	4600	NA	--	1.9 J	1.5 J	--	1.6 J
THALLIUM	NA	NA	NA	0.47	NA	--	--	--	--	--
VANADIUM	NA	NA	20	NA	NA	0.91 J	1.4 J	1 J	1 J	1.2 J
ZINC[5]	79.22	79.87	79.87	26000	NA	--	--	--	--	--
Miscellaneous parameters (mg/L)										
CALCIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	19	19	18	18	18
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	--	--	--	4.7	--
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	68	69	67	67	67
MAGNESIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	49	50	49	49	49

-- Value not applicable because analyte was detected in all samples.
All samples were collected on June 12, 2019

For non-detects, 1/2 sample quantitation limit was used as proxy.
1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
N = not detected
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—June 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	National Recommended Water Quality Criteria[1]		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MSA-SW39D MSA-SW39D-061219 20190612	MSA-SW40A MSA-SW40A-061219 20190612	MSA-SW40B MSA-SW40B-061219 20190612	MSA-SW40C MSA-SW40C-061219 20190612	MSA-SW40D MSA-SW40D-061219 20190612
	Acute	Chronic								
Volatile organic compounds (µg/L)										
ACETONE	NA	NA	1500	NA	NA	--	--	--	--	--
CARBON DISULFIDE	NA	NA	0.92	NA	NA	--	--	--	--	--
CHLOROFORM	NA	NA	1.8	2000	NA	--	--	--	--	--
TOLUENE	NA	NA	2	1500	NA	--	--	--	--	0.17 J
VINYL CHLORIDE	NA	NA	930	24	0.75	--	--	--	--	--
Tentatively identified compounds-volatiles (µg/L)										
ACENAPHTHENE	NA	NA	NA	NA	NA	--	--	--	--	--
HEXANAL	NA	NA	NA	NA	NA	--	--	--	--	--
Dissolved (filtered) metals (µg/L)										
ARSENIC	340	150	NA	0.14	NA	2 J	2.4 J	2.2 J	2.1 J	1.9 J
BARIUM	NA	NA	4	NA	NA	5.7	7.4	6.1	6.4	6.3
CHROMIUM[5]	390.26	50.76	50.76	NA	NA	--	--	1 J	--	--
COBALT	NA	NA	23	NA	NA	--	0.43 J	--	--	--
COPPER[6]	7.1	4.7	4.7	NA	NA	4.6	7.2	6.5	5.2	5.5
LEAD[5]	38.92	1.52	1.52	NA	NA	--	0.8 J	17	--	--
MOLYBDENUM	NA	NA	NA	NA	NA	--	--	--	--	--
NICKEL[5]	316.74	35.18	35.18	4600	NA	2.2	2.2	2.2	--	--
THALLIUM	NA	NA	NA	0.47	NA	--	--	--	--	--
VANADIUM	NA	NA	20	NA	NA	--	1.4 J	1.1 J	0.85 J	0.86 J
ZINC[5]	79.22	79.87	79.87	26000	NA	--	--	--	--	--
Miscellaneous parameters (mg/L)										
CALCIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	16	20	20	20	19
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	--	--	4.8	--	--
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	63	71	71	69	68
MAGNESIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	47	50	51	49	49

-- Value not applicable because analyte was detected in all samples.
All samples were collected on June 12, 2019

For non-detects, 1/2 sample quantitation limit was used as proxy.
1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
N = not detected
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—June 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION / SAMPLE ID / SAMPLE DATE	National Recommended Water Quality Criteria[1] Acute	National Recommended Water Quality Criteria[1] Chronic	Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MSA-SW41A | MSA-SW41A-061219 | 20190612	MSA-SW41B | MSA-SW41B-061219 | 20190612	MSA-SW41C | MSA-SW41C-061219 | 20190612	MSA-SW41D | MSA-SW41D-061219 | 20190612	MSA-SW42A | MSA-SW42A-061219 | 20190612
Volatile organic compounds (µg/L)										
ACETONE	NA	NA	1500	NA	NA	--	--	--	--	--
CARBON DISULFIDE	NA	NA	0.92	NA	NA	--	--	--	--	--
CHLOROFORM	NA	NA	1.8	2000	NA	0.13 J	--	--	--	--
TOLUENE	NA	NA	2	1500	NA	--	--	--	--	--
VINYL CHLORIDE	NA	NA	930	24	0.75	--	--	--	--	--
Tentatively identified compounds-volatiles (µg/L)										
ACENAPHTHENE	NA	NA	NA	NA	NA	--	--	--	--	--
HEXANAL	NA	NA	NA	NA	NA	--	--	--	--	--
Dissolved (filtered) metals (µg/L)										
ARSENIC	340	150	NA	0.14	NA	1.8 J	2.3 J	2.2 J	1.7 J	2.4 J
BARIUM	NA	NA	4	NA	NA	6.5	6.5	6.3	6.5	6.6
CHROMIUM[5]	390.26	50.76	50.76	NA	NA	--	--	--	1.6 J	--
COBALT	NA	NA	23	NA	NA	--	--	0.26 J	0.26 J	0.3 J
COPPER[6]	7.1	4.7	4.7	NA	NA	5.2	5	5.6	5.4	5.9
LEAD[5]	38.92	1.52	1.52	NA	NA	--	--	--	--	--
MOLYBDENUM	NA	NA	NA	NA	NA	--	--	--	1.1 J	1.5 J
NICKEL[5]	316.74	35.18	35.18	4600	NA	--	--	2	2	--
THALLIUM	NA	NA	NA	0.47	NA	--	--	--	--	0.55 J
VANADIUM	NA	NA	20	NA	NA	1 J	--	1.1 J	0.96 J	1.1 J
ZINC[5]	79.22	79.87	79.87	26000	NA	--	--	--	--	20
Miscellaneous parameters (mg/L)										
CALCIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	20	20	19	20	20
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	--	5	--	--	--
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	71	70	69	69	69
MAGNESIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	51	50	50	50	49

-- Value not applicable because analyte was detected in all samples.
All samples were collected on June 12, 2019

For non-detects, 1/2 sample quantitation limit was used as proxy.
1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
N = not detected
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—June 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	National Recommended Water Quality Criteria[1]		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MSA-SW42B MSA-SW42B-061219 20190612	MSA-SW42C MSA-SW42C-061219 20190612	MSA-SW42D MSA-SW42D-061219 20190612	MSA-SW43A MSA-SW43A-061219 20190612	MSA-SW43B MSA-SW43B-061219 20190612
	Acute	Chronic								
Volatile organic compounds (µg/L)										
ACETONE	NA	NA	1500	NA	NA	--	--	--	--	--
CARBON DISULFIDE	NA	NA	0.92	NA	NA	--	--	--	--	--
CHLOROFORM	NA	NA	1.8	2000	NA	--	--	--	--	--
TOLUENE	NA	NA	2	1500	NA	--	--	--	--	--
VINYL CHLORIDE	NA	NA	930	24	0.75	--	--	--	--	--
Tentatively identified compounds-volatiles (µg/L)										
ACENAPHTHENE	NA	NA	NA	NA	NA	--	--	--	--	--
HEXANAL	NA	NA	NA	NA	NA	--	--	--	--	--
Dissolved (filtered) metals (µg/L)										
ARSENIC	340	150	NA	0.14	NA	1.9 J	2 J	2.2 J	2.5 J	1.7 J
BARIUM	NA	NA	4	NA	NA	6.4	6	6.2	7.7	6.3
CHROMIUM[5]	390.26	50.76	50.76	NA	NA	--	--	--	1.2 J	--
COBALT	NA	NA	23	NA	NA	--	--	0.21 J	0.59 J	0.21 J
COPPER[6]	7.1	4.7	4.7	NA	NA	4.8	4.9	5.3	7.3	5.3
LEAD[5]	38.92	1.52	1.52	NA	NA	--	--	--	0.99 J	--
MOLYBDENUM	NA	NA	NA	NA	NA	1.4 J	1.1 J	--	--	--
NICKEL[5]	316.74	35.18	35.18	4600	NA	1.7 J	1.6 J	2	2.5	1.8 J
THALLIUM	NA	NA	NA	0.47	NA	0.44 J	--	--	--	--
VANADIUM	NA	NA	20	NA	NA	--	1.1 J	--	1.9 J	--
ZINC[5]	79.22	79.87	79.87	26000	NA	--	--	--	--	--
Miscellaneous parameters (mg/L)										
CALCIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	20	20	20	19	19
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	4.6	--	--	--	5.3
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	70	70	70	69	69
MAGNESIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	50	50	50	49	50

-- Value not applicable because analyte was detected in all samples.
All samples were collected on June 12, 2019

For non-detects, 1/2 sample quantitation limit was used as proxy.
1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
N = not detected
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—June 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	National Recommended Water Quality Criteria[1]		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MSA-SW43C | MSA-SW43C-061219 | 20190612	MSA-SW43D | MSA-SW43D-061219 | 20190612	MSA-SW44A | MSA-SW44A-061219 | 20190612	MSA-SW44B | MSA-SW44B-061219 | 20190612	MSA-SW44C | MSA-SW44C-061219 | 20190612
	Acute	Chronic								
Volatile organic compounds (µg/L)										
ACETONE	NA	NA	1500	NA	NA	--	--	--	--	--
CARBON DISULFIDE	NA	NA	0.92	NA	NA	--	--	--	--	--
CHLOROFORM	NA	NA	1.8	2000	NA	--	--	--	--	--
TOLUENE	NA	NA	2	1500	NA	--	--	--	--	--
VINYL CHLORIDE	NA	NA	930	24	0.75	--	--	--	--	--
Tentatively identified compounds-volatiles (µg/L)										
ACENAPHTHENE	NA	NA	NA	NA	NA	--	--	--	--	--
HEXANAL	NA	NA	NA	NA	NA	--	--	--	--	--
Dissolved (filtered) metals (µg/L)										
ARSENIC	340	150	NA	0.14	NA	1.2 J	2 J	2.2 J	1.7 J	1.8 J
BARIUM	NA	NA	4	NA	NA	6.4	6.4	6.2	6.1	6.1
CHROMIUM[5]	390.26	50.76	50.76	NA	NA	--	--	--	--	--
COBALT	NA	NA	23	NA	NA	--	--	0.23 J	--	0.22 J
COPPER[6]	7.1	4.7	4.7	NA	NA	4.9	5	5	4.5	5.1
LEAD[5]	38.92	1.52	1.52	NA	NA	--	--	--	--	--
MOLYBDENUM	NA	NA	NA	NA	NA	--	--	--	--	--
NICKEL[5]	316.74	35.18	35.18	4600	NA	--	--	2.1	--	1.8 J
THALLIUM	NA	NA	NA	0.47	NA	--	--	--	--	--
VANADIUM	NA	NA	20	NA	NA	--	0.9 J	0.85 J	--	0.95 J
ZINC[5]	79.22	79.87	79.87	26000	NA	--	--	--	--	--
Miscellaneous parameters (mg/L)										
CALCIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	20	20	19	17	18
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	--	--	--	4.3	--
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	70	69	69	65	67
MAGNESIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	50	49	50	48	49

-- Value not applicable because analyte was detected in all samples.
All samples were collected on June 12, 2019

For non-detects, 1/2 sample quantitation limit was used as proxy.
1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
N = not detected
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—June 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	National Recommended Water Quality Criteria[1]		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MSA-SW44D | MSA-SW44D-061219 | 20190612	MSA-SW45A | MSA-SW45A-061219 | 20190612	MSA-SW45B | MSA-SW45B-061219 | 20190612	MSA-SW45C | MSA-SW45C-061219 | 20190612	MSA-SW45D | MSA-SW45D-061219 | 20190612
	Acute	Chronic								
Volatile organic compounds (µg/L)										
ACETONE	NA	NA	1500	NA	NA	--	--	--	--	--
CARBON DISULFIDE	NA	NA	0.92	NA	NA	--	0.56 J	--	--	--
CHLOROFORM	NA	NA	1.8	2000	NA	--	--	--	--	--
TOLUENE	NA	NA	2	1500	NA	--	--	--	--	--
VINYL CHLORIDE	NA	NA	930	24	0.75	--	--	--	--	--
Tentatively identified compounds-volatiles (µg/L)										
ACENAPHTHENE	NA	NA	NA	NA	NA	--	--	--	--	--
HEXANAL	NA	NA	NA	NA	NA	--	2.4 NJ	--	--	--
Dissolved (filtered) metals (µg/L)										
ARSENIC	340	150	NA	0.14	NA	1.6 J	2 J	1.5 J	1.4 J	1.6 J
BARIUM	NA	NA	4	NA	NA	6	6.6	6.2	6.4	5.8
CHROMIUM[5]	390.26	50.76	50.76	NA	NA	--	--	--	--	--
COBALT	NA	NA	23	NA	NA	--	0.22 J	--	0.2 J	--
COPPER[6]	7.1	4.7	4.7	NA	NA	4.7	5.2	5.1	5	4.5
LEAD[5]	38.92	1.52	1.52	NA	NA	--	--	--	--	--
MOLYBDENUM	NA	NA	NA	NA	NA	--	--	--	--	--
NICKEL[5]	316.74	35.18	35.18	4600	NA	1.8 J	--	2.1	2	1.8 J
THALLIUM	NA	NA	NA	0.47	NA	--	--	--	--	--
VANADIUM	NA	NA	20	NA	NA	0.86 J	1.3 J	0.96 J	1 J	0.99 J
ZINC[5]	79.22	79.87	79.87	26000	NA	--	--	--	--	--
Miscellaneous parameters (mg/L)										
CALCIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	19	19	18	19	17
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	--	--	4.4	--	--
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	69	68	67	69	66
MAGNESIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	50	50	49	51	49

-- Value not applicable because analyte was detected in all samples.
All samples were collected on June 12, 2019

For non-detects, 1/2 sample quantitation limit was used as proxy.
1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
N = not detected
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-2

Detected Analytes and Screening-Level Exceedances in Surface Water Samples—June 2019
Frog Mortar Creek, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	National Recommended Water Quality Criteria[1]		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MSA-SW46A | MSA-SW46A-061219 | 20190612	MSA-SW47A | MSA-SW47A-061219 | 20190612	MSA-SW48A | MSA-SW48A-061219 | 20190612	MSA-SW49A | MSA-SW49A-061219 | 20190612
	Acute	Chronic							
Volatile organic compounds (µg/L)									
ACETONE	NA	NA	1500	NA	NA	--	--	--	--
CARBON DISULFIDE	NA	NA	0.92	NA	NA	--	--	--	--
CHLOROFORM	NA	NA	1.8	2000	NA	--	0.19 J	--	--
TOLUENE	NA	NA	2	1500	NA	--	--	--	--
VINYL CHLORIDE	NA	NA	930	24	0.75	--	--	--	--
Tentatively identified compounds-volatiles (µg/L)									
ACENAPHTHENE	NA	NA	NA	NA	NA	--	--	--	--
HEXANAL	NA	NA	NA	NA	NA	--	--	--	--
Dissolved (filtered) metals (µg/L)									
ARSENIC	340	150	NA	0.14	NA	--	--	--	--
BARIUM	NA	NA	4	NA	NA	--	--	--	--
CHROMIUM[5]	390.26	50.76	50.76	NA	NA	--	--	--	--
COBALT	NA	NA	23	NA	NA	--	--	--	--
COPPER[6]	7.1	4.7	4.7	NA	NA	--	--	--	--
LEAD[5]	38.92	1.52	1.52	NA	NA	--	--	--	--
MOLYBDENUM	NA	NA	NA	NA	NA	--	--	--	--
NICKEL[5]	316.74	35.18	35.18	4600	NA	--	--	--	--
THALLIUM	NA	NA	NA	0.47	NA	--	--	--	--
VANADIUM	NA	NA	20	NA	NA	--	--	--	--
ZINC[5]	79.22	79.87	79.87	26000	NA	--	--	--	--
Miscellaneous parameters (mg/L)									
CALCIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	--	--	--	--
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	--	--	--	--
HARDNESS as $CaCO_3$	NA	NA	NA	NA	NA	--	--	--	--
MAGNESIUM hardness as $CaCO_3$	NA	NA	NA	NA	NA	--	--	--	--

-- Value not applicable because analyte was detected in all samples.
All samples were collected on June 12, 2019

For non-detects, 1/2 sample quantitation limit was used as proxy.
1/2 the detection limit was used to calculate statistics for B qualified data.
J - estimated value
N = not detected
µg/L - micrograms per liter
mg/L - milligrams per liter

Table 4-3

Comparison of Primary Volatile Organic Compound Results Detected in Surface Water for the June 2018, March 2019, and June 2019 Sampling Rounds
Frog Mortar Creek, Middle River, Maryland

Location ID	Trichloroethene concentrations (µg/L)			*cis* -1,2-Dichloroethene concentrations (µg/L)			Vinyl chloride concentrations (µg/L)		
	June 7, 2018	Mar 05, 2019	June 12, 2019	June 7, 2018	Mar 05, 2019	June 12, 2019	June 7, 2018	Mar 05, 2019	June 12, 2019
Average-Detections	**NA**	**0.204**	**NA**	**0.219**	**0.39333**	**NA**	**0.3**	**0.81545**	**0.29**
Average-All Samples[(1)]	**NA**	**0.0675**	**NA**	**0.1156**	**0.29364**	**NA**	**0.11364**	**0.27886**	**0.10864**
Maximum Concentration	**NA**	**0.27 J**	**NA**	**0.33 J**	**2.1**	**NA**	**0.38 J**	**3.3**	**0.29 J**
No. of Detections/Samples	**NA**	**5/44**	**NA**	**10/44**	**30/44**	**NA**	**3/44**	**11/44**	**2/44**
EL-SW01A	--	--	--	--	0.16 J	--	--	--	--
EL-SW01B	--	--	--	--	0.16 J	--	--	--	--
EL-SW01C	--	--	--	--	--	--	--	--	--
EL-SW01D	--	--	--	--	--	--	--	--	--
MSA-SW37A	--	--	--	--	0.36 J	--	--	0.39 J	0.29 J
MSA-SW37B	--	--	--	0.23 J	0.27 J	--	--	0.38 J	0.29 J
MSA-SW37C	--	--	--	0.26 J	0.27 J	--	0.31 J	0.27 J	--
MSA-SW37D	--	--	--	--	0.25 J	--	--	0.27 J	--
MSA-SW38A	--	--	--	0.33 J	0.22 J	--	0.38 J	--	--
MSA-SW38B	--	--	--	0.22 J	0.24 J	--	--	--	--
MSA-SW38C	--	--	--	--	0.26 J	--	--	--	--
MSA-SW38D	--	--	--	--	0.18 J	--	--	--	--
MSA-SW39A	--	--	--	--	--	--	--	--	--
MSA-SW39B	--	--	--	--	--	--	--	--	--
MSA-SW39C	--	--	--	--	--	--	--	--	--
MSA-SW39D	--	--	--	--	--	--	--	--	--
MSA-SW40A	--	--	--	--	1.1	--	--	1.4	--
MSA-SW40B	--	--	--	0.16 J	0.35 J	--	--	0.25 J	--
MSA-SW40C	--	--	--	--	0.19 J	--	--	--	--
MSA-SW40D	--	--	--	--	0.25 J	--	--	--	--
MSA-SW41A	--	--	--	--	0.18 J	--	--	--	--
MSA-SW41B	--	--	--	--	0.21 J	--	--	--	--
MSA-SW41C	--	--	--	--	0.2 J	--	--	--	--
MSA-SW41D	--	--	--	--	0.17 J	--	--	--	--
MSA-SW42A	--	--	--	0.17 J	2.1	--	--	3.3	--
MSA-SW42B	--	--	--	0.18 J	0.46 J	--	0.21 J	0.64	--
MSA-SW42C	--	--	--	--	0.27 J	--	--	0.25 J	--
MSA-SW42D	--	--	--	--	0.26 J	--	--	0.22 J	--
MSA-SW43A	--	0.21 J	--	--	0.38 J	--	--	--	--
MSA-SW43B	--	0.19 J	--	--	0.45 J	--	--	--	--
MSA-SW43C	--	0.25 J	--	--	0.5 J	--	--	--	--
MSA-SW43D	--	--	--	--	0.23 J	--	--	--	--
MSA-SW44A	--	--	--	--	--	--	--	--	--
MSA-SW44B	--	--	--	--	--	--	--	--	--
MSA-SW44C	--	--	--	--	--	--	--	--	--
MSA-SW44D	--	--	--	--	--	--	--	--	--
MSA-SW45A	--	--	--	--	--	--	--	--	--
MSA-SW45B	--	--	--	--	--	--	--	--	--
MSA-SW45C	--	--	--	--	--	--	--	--	--
MSA-SW45D	--	--	--	--	--	--	--	--	--
MSA-SW46A	--	0.1 J	--	0.23 J	1.2	--	--	1.6	--
MSA-SW47A	--	--	--	--	0.24 J	--	--	--	--
MSA-SW48A	--	--	--	0.25 J	0.22 J	--	--	--	--
MSA-SW49A	--	0.27 J	--	0.16 J		--	--	--	--

Averages were calculated using 1/2 sample quantitation limit (nondetects) and 1/2 the detection limit (B-qualified dat -- = non-detect concentration J - estimated value µg/L - micrograms per liter

APPENDICES

Appendix A—Field Measurements for Water Quality and Surface-Water-Sample Log Sheets

Appendix B—Data-Validation Reports

Appendix C—Chemical-Results Data Table

Appendix D—Biotic Ligand Model Calculations and EPA 2016 BLM Fact Sheet

APPENDIX A—FIELD MEASUREMENTS FOR WATER QUALITY AND SURFACE-WATER-SAMPLE LOG SHEETS

Water Quality Field Parameters-June 2019
Frog Mortar Creek
Lockheed Martin, Martin State Airport, Middle River Maryland

Sample ID		Date	Time	pH	Specific conductance (S.C.)	Temperature (Temp.)	Turbidity	Dissolved oxygen (DO)	Salinity	Oxidation-reduction potential (ORP)	Water Depth
Location	Date ID	mo/day/year	24-hour units	Standard unit (S.U.)	MilliSiemens per centimeter (mS/cm)	Degrees Celsius (°C)	Nephelometric turbidity unit (NTU)	Milligrams per liter (mg/L)	Parts per thousand (ppt)	MilliVolts (mV)	Meters (m)
EL-SW01A	-061219	6/12/2019	0752	6.85	0.63	23.60	7.71	9.12	0.30	201.00	0.30
EL-SW01B	-061219	6/12/2019	0800	7.02	0.63	24.00	8.09	8.95	0.3	215	0.9
EL-SW01C	-061219	6/12/2019	0816	7.15	0.63	24.18	8.72	9.04	0.3	227	1.1
EL-SW01D	-061219	6/12/2019	0821	7.18	0.63	24.18	9.60	9.16	0.3	227	1.6
MSA-SW37A	-061219	6/12/2019	1321	7.72	0.52	25.18	8.20	9.94	0.3	194	0.6
MSA-SW37B	-061219	6/12/2019	1330	7.86	0.51	25.23	8.97	9.50	0.3	193	1.1
MSA-SW37C	-061219	6/12/2019	1339	7.84	0.51	25.08	7.78	9.11	0.3	195	>1.6
MSA-SW37D	-061219	6/12/2019	1347	7.84	0.51	25.10	7.70	9.71	0.3	194	>1.6
MSA-SW38A	-061219	6/12/2019	1202	7.57	0.52	24.53	7.68	8.90	0.3	200	0.6
MSA-SW38B	-061219	6/12/2019	1210	7.62	0.52	24.50	7.61	9.86	0.3	198	1.3
MSA-SW38C	-061219	6/12/2019	1212	7.59	0.51	24.56	7.93	9.44	0.3	201	1.4
MSA-SW38D	-061219	6/12/2019	1218	7.59	0.51	24.58	8.05	9.57	0.3	202	>1.6
MSA-SW39A	-061219	6/12/2019	0830	7.24	0.506	23.08	8.55	8.96	0.2	208	0.7
MSA-SW39B	-061219	6/12/2019	0851	7.39	0.51	23.98	7.51	9.24	0.2	191	1.0
MSA-SW39C	-061219	6/12/2019	0903	7.41	0.497	23.99	9.19	8.94	0.2	187	1.3
MSA-SW39D	-061219	6/12/2019	0908	7.36	0.49	24.00	8.70	8.67	0.2	187	>1.6
MSA-SW40A	-061219	6/12/2019	1226	7.67	0.52	24.82	10.09	9.35	0.3	127	0.4
MSA-SW40B	-061219	6/12/2019	1230	7.76	0.52	24.74	8.99	9.52	0.3	191	0.9
MSA-SW40C	-061219	6/12/2019	1236	7.64	0.52	24.74	8.43	9.82	0.3	196	1.1
MSA-SW40D	-061219	6/12/2019	1248	7.62	0.51	24.66	8.69	10.21	0.3	194	>1.6
MSA-SW41A	-061219	6/12/2019	1134	7.51	0.52	24.34	7.77	9.04	0.3	202	0.5
MSA-SW41B	-061219	6/12/2019	1139	7.53	0.52	24.45	7.64	8.40	0.3	197	0.8
MSA-SW41C	-061219	6/12/2019	1145	7.53	0.51	24.45	7.85	10.13	0.3	198	1.5
MSA-SW41D	-061219	6/12/2019	1151	7.48	0.51	24.42	7.93	9.42	0.3	202	>1.6
MSA-SW42A	-061219	6/12/2019	1256	7.72	0.52	25.06	10.49	9.07	0.3	193	0.6
MSA-SW42B	-061219	6/12/2019	1300	7.78	0.51	24.85	7.57	9.79	0.3	190	1.3
MSA-SW42C	-061219	6/12/2019	1307	7.71	0.52	24.84	8.00	9.65	0.3	195	>1.6
MSA-SW42D	-061219	6/12/2019	1313	7.68	0.51	24.94	8.31	9.61	0.3	196	>1.6
MSA-SW43A	-061219	6/12/2019	1106	7.40	0.51	24.33	7.53	8.95	0.3	204	0.5
MSA-SW43B	-061219	6/12/2019	1110	7.50	0.51	24.42	6.91	10.19	0.3	191	1.2
MSA-SW43C	-061219	6/12/2019	1119	7.51	0.51	24.39	6.21	9.48	0.3	196	>1.6
MSA-SW43D	-061219	6/12/2019	1123	7.56	0.51	24.38	8.56	9.21	0.3	195	>1.6
MSA-SW44A	-061219	6/12/2019	1038	7.45	0.50	24.28	9.78	9.47	0.2	194	0.4
MSA-SW44B	-061219	6/12/2019	10452	7.37	0.50	24.27	7.74	9.21	0.2	200	1.0
MSA-SW44C	-061219	6/12/2019	1052	7.40	0.50	24.27	9.04	8.93	0.2	203	>1.6
MSA-SW44D	-061219	6/12/2019	1100	7.48	0.50	24.24	7.92	8.93	0.2	201	>1.6
MSA-SW45A	-061219	6/12/2019	1015	7.26	0.50	24.13	9.29	8.86	0.2	193	0.5
MSA-SW45B	-061219	6/12/2019	1020	7.36	0.50	24.15	8.13	8.56	0.2	191	1.1
MSA-SW45C	-061219	6/12/2019	1026	7.36	0.49	24.12	8.46	8.98	0.2	194	>1.6
MSA-SW45D	-061219	6/12/2019	1032	7.32	0.49	24.15	8.84	9.23	0.2	200	>1.6
MSA-SW46A	-061219	6/12/2019	1253	7.66	0.52	24.90	8.53	9.28	0.3	193	0.7
MSA-SW47A	-061219	6/12/2019	1256	7.61	0.52	24.66	7.56	9.07	0.3	201	0.7
MSA-SW48A	-061219	6/12/2019	1300	7.53	0.52	24.34	10.64	9.79	0.3	201	0.5
MSA-SW49A	-061219	6/12/2019	1307	7.49	0.51	24.36	7.73	9.65	0.3	201	0.7

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: EL-SW01A -061219
Sample Location: EL-SW01A
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019								
Time:	0752	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Depth:	1 ft below water	**clear**	**6.85**	**0.627**	**23.60**	**7.71**	**9.12**	**0.3**	**201**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL pH<2	3 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

Water depth 0.3 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: EL-SW01B -061219
Sample Location: EL-SW01B
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	0800								
Depth:	1 ft below water	**clear**	**7.02**	**0.631**	**24**	**8.09**	**8.95**	**0.3**	**215**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
DOC	Sulfuric Acid	3- 40 mL amber vials-filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.9 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: EL-SW01C -061219
Sample Location: EL-SW01C
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	0816								
Depth:	1 ft below water	**clear**	**7.15**	**0.632**	**24.18**	**8.72**	**9.04**	**0.3**	**227**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL pH<2	3 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

Water depth 1.1 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: EL-SW01D -061219
Sample Location: EL-SW01D
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	0821								
Depth:	1 ft below water	**clear**	**7.18**	**0.627**	**24.18**	**9.6**	**9.16**	**0.3**	**227**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL pH<2	3 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

Water depth 1.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW37A -061219
Sample Location: MSA-SW37A
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1321								
Depth:	1 ft below water	**clear**	**7.72**	**0.515**	**25.18**	**8.2**	**9.94**	**0.3**	**194**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW37B -061219
Sample Location: MSA-SW37B
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1330								
Depth:	1 ft below water	**clear**	**7.86**	**0.513**	**25.23**	**8.97**	**9.5**	**0.3**	**193**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes
DOC	Sulfuric Acid	3- 40 mL amber vials-filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.1 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW37C -061219
Sample Location: MSA-SW37C
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1339								
Depth:	1 ft below water	**clear**	**7.84**	**0.514**	**25.08**	**7.78**	**9.11**	**0.3**	**195**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth >1.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW37D -061219
Sample Location: MSA-SW37D
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1347								
Depth:	1 ft below water	**clear**	**7.84**	**0.509**	**25.1**	**7.7**	**9.71**	**0.3**	**194**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth >1.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW38A -061219
Sample Location: MSA-SW38A
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1202								
Depth:	1 ft below water	**clear**	**7.57**	**0.522**	**24.53**	**#REF!**	**8.90**	**0.3**	**200**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW38B -061219
Sample Location: MSA-SW38B
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1210								
Depth:	1 ft below water	**clear**	**7.62**	**0.519**	**24.50**	**7.68**	**9.86**	**0.3**	**198**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes
DOC	Sulfuric Acid	3- 40 mL amber vials-filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.3 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW38C -061219
Sample Location: MSA-SW38C
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1212								
Depth:	1 ft below water	**clear**	**7.59**	**0.514**	**24.56**	**7.61**	**9.44**	**0.3**	**201**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.4 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW38D -061219
Sample Location: MSA-SW38D
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1218								
Depth:	1 ft below water	**clear**	**7.59**	**0.51**	**24.58**	**7.93**	**9.57**	**0.3**	**202**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth >1.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW39A -061219
Sample Location: MSA-SW39A
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	0830								
Depth:	1 ft below water	**clear**	**7.24**	**0.51**	**23.08**	**8.05**	**8.96**	**0.2**	**208**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.7 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW39B -061219
Sample Location: MSA-SW39B
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019								
Time:	0851	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Depth:	1 ft below water	**clear**	**7.39**	**0.51**	**23.98**	**7.51**	**9.24**	**0.2**	**191**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes
DOC	Sulfuric Acid	3- 40 mL amber vials-filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.0 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW39C -061219
Sample Location: MSA-SW39C
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019								
Time:	0903	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Depth:	1 ft below water	**clear**	**7.41**	**0.50**	**23.99**	**9.19**	**8.94**	**0.2**	**187**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.3 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW39D -061219
Sample Location: MSA-SW39D
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	0908								
Depth:	1 ft below water	**clear**	**7.36**	**0.497**	**24**	**8.7**	**8.67**	**0.2**	**187**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth >1.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW40A -061219
Sample Location: MSA-SW40A
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1226								
Depth:	1 ft below water	**clear**	**7.67**	**0.52**	**24.82**	**10.09**	**9.35**	**0.3**	**127**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.4 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW40B -061219
Sample Location: MSA-SW40B
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1230								
Depth:	1 ft below water	**clear**	**7.76**	**0.52**	**24.74**	**8.99**	**9.52**	**0.3**	**191**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes
DOC	Sulfuric Acid	3- 40 mL amber vials-filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.9 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW40C -061219
Sample Location: MSA-SW40C
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1236								
Depth:	1 ft below water	**clear**	**7.64**	**0.52**	**24.74**	**8.43**	**9.82**	**0.3**	**196**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.1 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW40D -061219
Sample Location: MSA-SW40D
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1248								
Depth:	1 ft below water	**clear**	**7.62**	**0.51**	**24.66**	**8.69**	**10.21**	**0.3**	**194**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth >1.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW41A -061219
Sample Location: MSA-SW41A
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1134								
Depth:	1 ft below water	**clear**	**7.51**	**0.52**	**24.34**	**7.77**	**9.04**	**0.3**	**202**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.5 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW41B -061219
Sample Location: MSA-SW41B
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019								
Time:	1139	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Depth:	1 ft below water	**clear**	**7.53**	**0.52**	**24.45**	**7.64**	**8.40**	**0.3**	**197**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes
DOC	Sulfuric Acid	3- 40 mL amber vials-filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.8 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW41C -061219
Sample Location: MSA-SW41C
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1145								
Depth:	1 ft below water	**clear**	**7.53**	**0.51**	**24.45**	**7.85**	**10.13**	**0.3**	**198**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.5 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW41D -061219
Sample Location: MSA-SW41D
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019								
Time:	1151	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Depth:	1 ft below water	**clear**	**7.48**	**0.51**	**24.42**	**7.93**	**9.42**	**0.3**	**202**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth >1.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW42A -061219
Sample Location: MSA-SW42A
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1256								
Depth:	1 ft below water	**clear**	**7.72**	**0.52**	**25.06**	**10.49**	**9.07**	**0.3**	**193**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW42B -061219
Sample Location: MSA-SW42B
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1300								
Depth:	1 ft below water	**clear**	**7.78**	**0.51**	**24.85**	**7.57**	**9.79**	**0.3**	**190**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes
DOC	Sulfuric Acid	3- 40 mL amber vials-filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.3 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW42C -061219
Sample Location: MSA-SW42C
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1307								
Depth:	1 ft below water	**clear**	**7.71**	**0.52**	**24.84**	**8.00**	**9.65**	**0.3**	**195**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth >1.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW42D -061219
Sample Location: MSA-SW42D
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1313								
Depth:	1 ft below water	**clear**	**7.68**	**0.51**	**24.94**	**8.31**	**9.61**	**0.3**	**196**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth >1.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW43A -061219
Sample Location: MSA-SW43A
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1106								
Depth:	1 ft below water	**clear**	**7.40**	**0.51**	**24.33**	**7.53**	**8.95**	**0.3**	**204**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.5 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW43B -061219
Sample Location: MSA-SW43B
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1110								
Depth:	1 ft below water	**clear**	**7.50**	**0.51**	**24.42**	**6.91**	**10.19**	**0.3**	**191**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes
DOC	Sulfuric Acid	3- 40 mL amber vials-filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.2 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW43C -061219
Sample Location: MSA-SW43C
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1119								
Depth:	1 ft below water	**clear**	**7.51**	**0.51**	**24.39**	**6.21**	**9.48**	**0.3**	**196**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth >1.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW43D -061219
Sample Location: MSA-SW43D
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1123								
Depth:	1 ft below water	**clear**	**7.56**	**0.51**	**24.38**	**8.56**	**9.21**	**0.3**	**195**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth >1.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW44A -061219
Sample Location: MSA-SW44A
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1038								
Depth:	1 ft below water	**clear**	**7.45**	**0.50**	**24.28**	**9.78**	**9.47**	**0.2**	**194**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.4 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW44B -061219
Sample Location: MSA-SW44B
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	10452								
Depth:	1 ft below water	**clear**	**7.37**	**0.50**	**24.27**	**7.74**	**9.21**	**0.2**	**200**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes
DOC	Sulfuric Acid	3- 40 mL amber vials-filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW44C -061219
Sample Location: MSA-SW44C
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1052								
Depth:	1 ft below water	**clear**	**7.40**	**0.50**	**24.27**	**9.04**	**8.93**	**0.2**	**203**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth >1.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW44D -061219
Sample Location: MSA-SW44D
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1100								
Depth:	1 ft below water	**clear**	**7.48**	**0.50**	**24.24**	**7.92**	**8.93**	**0.2**	**201**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth >1.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW45A -061219
Sample Location: MSA-SW45A
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019								
Time:	1015	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Depth:	1 ft below water	**clear**	**7.26**	**0.50**	**24.13**	**9.29**	**8.86**	**0.2**	**193**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth 0.5 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW45B -061219
Sample Location: MSA-SW45B
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1020								
Depth:	1 ft below water	**clear**	**7.36**	**0.50**	**24.15**	**8.13**	**8.56**	**0.2**	**191**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes
DOC	Sulfuric Acid	3- 40 mL amber vials-filtered	Yes

OBSERVATIONS / NOTES:

Water depth 1.1 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW45C -061219
Sample Location: MSA-SW45C
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1026								
Depth:	1 ft below water	**clear**	**7.36**	**0.49**	**24.12**	**8.46**	**8.98**	**0.2**	**194**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth >1.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW45D -061219
Sample Location: MSA-SW45D
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1032								
Depth:	1 ft below water	**clear**	**7.32**	**0.49**	**24.15**	**8.84**	**9.23**	**0.2**	**200**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs + TICs	HCL pH<2	3 - 40 mL glass vials	Yes
Dissolved metals + Hardness	HNO_3 pH<2	1 - 500 mL plastic filtered	Yes
Dissolved Hexavalent chromium	cr6 buffer	1 - 250 mL plastic filtered	Yes

OBSERVATIONS / NOTES:

Water depth >1.6 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW46A -061219
Sample Location: MSA-SW46A
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1253								
Depth:	1 ft below water	**clear**	**7.66**	**0.52**	**24.90**	**8.53**	**9.28**	**0.3**	**193**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL pH<2	3 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

Water depth 0.7 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW47A -061219
Sample Location: MSA-SW47A
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1256								
Depth:	1 ft below water	**clear**	**7.61**	**0.52**	**24.66**	**7.56**	**9.07**	**0.3**	**201**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL pH<2	3 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

Water depth 0.7 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW48A -061219
Sample Location: MSA-SW48A
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1300								
Depth:	1 ft below water	**clear**	**7.53**	**0.52**	**24.34**	**10.64**	**9.79**	**0.3**	**201**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL pH<2	3 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

Water depth 0.5 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Frog Mortar Creek, Martin State Airport
Project No.: 112IC08735

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MSA-SW49A -061219
Sample Location: MSA-SW49A
Sampled By: J. Mullis
C.O.C. No.:

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

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	6/12/2019	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1307								
Depth:	1 ft below water	**clear**	**7.49**	**0.51**	**24.36**	**7.73**	**9.65**	**0.3**	**201**
Method:	Grab								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL pH<2	3 - 40 mL glass vials	Yes

OBSERVATIONS / NOTES:

Water depth 0.7 meters

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

APPENDIX B—DATA-VALIDATION REPORTS

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **S. BRENNER** **DATE:** **JULY 31, 2019**

FROM: **J.SAMCHUCK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC & INORGANIC DATA VALIDATION – VOC/DISSOLVED METALS/ HARDNESS**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
FROG MORTAR CREEK SURFACE WATER SAMPLING
SDG 240-114245-1

SAMPLES: 45/Aqueous/VOC

EL-SW01A-061219	EL-SW01B-061219	EL-SW01C-061219
EL-SW01D-061219	MSA-SW37A-061219	MSA-SW37B-061219
MSA-SW37C-061219	MSA-SW37D-061219	MSA-SW38A-061219
MSA-SW38B-061219	MSA-SW38C-061219	MSA-SW38D-061219
MSA-SW39A-061219	MSA-SW39B-061219	MSA-SW39C-061219
MSA-SW39D-061219	MSA-SW40A-061219	MSA-SW40B-061219
MSA-SW40C-061219	MSA-SW40D-061219	MSA-SW41A-061219
MSA-SW41B-061219	MSA-SW41C-061219	MSA-SW41D-061219
MSA-SW42A-061219	MSA-SW42B-061219	MSA-SW42C-061219
MSA-SW42D-061219	MSA-SW43A-061219	MSA-SW43B-061219
MSA-SW43C-061219	MSA-SW43D-061219	MSA-SW44A-061219
MSA-SW44B-061219	MSA-SW44C-061219	MSA-SW44D-061219
MSA-SW45A-061219	MSA-SW45B-061219	MSA-SW45C-061219
MSA-SW45D-061219	MSA-SW46A-061219	MSA-SW47A-061219
MSA-SW48A-061219	MSA-SW49A-061219	TB-061219

36/Aqueous/Dissolved Metals/Hardness

MSA-SW37A-061219	MSA-SW37B-061219	MSA-SW37C-061219
MSA-SW37D-061219	MSA-SW38A-061219	MSA-SW38B-061219
MSA-SW38C-061219	MSA-SW38D-061219	MSA-SW39A-061219
MSA-SW39B-061219	MSA-SW39C-061219	MSA-SW39D-061219
MSA-SW40A-061219	MSA-SW40B-061219	MSA-SW40C-061219
MSA-SW40D-061219	MSA-SW41A-061219	MSA-SW41B-061219
MSA-SW41C-061219	MSA-SW41D-061219	MSA-SW42A-061219
MSA-SW42B-061219	MSA-SW42C-061219	MSA-SW42D-061219
MSA-SW43A-061219	MSA-SW43B-061219	MSA-SW43C-061219
MSA-SW43D-061219	MSA-SW44A-061219	MSA-SW44B-061219
MSA-SW44C-061219	MSA-SW44D-061219	MSA-SW45A-061219
MSA-SW45B-061219	MSA-SW45C-061219	MSA-SW45D-061219

Overview

The sample set for LMC-MSA Frog Mortar Creek, SDG 240-114245-1 consisted of forty-four (44) aqueous environmental samples and one (1) trip blank. All forty-five (45) aqueous samples were analyzed for Volatile Organic Compounds (VOC). Thirty-six (36) aqueous samples were analyzed for dissolved metals and hardness. No field duplicate sample pair was included in this SDG.

The samples were collected by Tetra Tech, Inc. on June 12, 2019 and analyzed by TestAmerica, Inc. All analyses were conducted in accordance with SW-846 Methods 8260C, 6020, 7470A, and Standard Methods SM 2340B 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, ICP/MS tuning, initial/continuing calibrations, laboratory preparation/method blanks, surrogate spike recoveries, laboratory control sample results, matrix spike/matrix spike duplicate results, internal standard results, ICP serial dilution results, chromatographic resolution, compound identification, tentatively identified compounds, compound/analyte quantitation, and detection limits. Areas of concern are listed below.

Major

- As stated in the laboratory case narrative, 2-chloroethyl vinyl ether cannot be reliably recovered in an acid preserved samples. All samples in this SDG were acid preserved. The non-detected results reported for 2-chloroethyl vinyl ether were qualified as rejected, (UR) in the acid preserved samples.

Minor

- The VOC continuing calibration performed on instrument A3UX12 on 06/23/2019 @ 15:00 had Percent Differences (%Ds) for dichlorodifluoromethane, chloromethane, and hexachlorobutadiene, exceeded the 20% quality control limit. Samples associated with analytical batch #240-387757 were affected. The non-detected results reported for these compounds in the affected samples were qualified as estimated, (UJ).

- The VOC continuing calibration performed on instrument A3UX12 on 06/24/2019 @ 18:03 had %Ds for 1,2,4-trichlorobenzene, hexachlorobutadiene, and 1,2,3-trichlorobenzene which exceeded the 20% quality control limit. Samples associated with analytical batch #240-387961 were affected. The non-detected results reported for these compounds in the affected samples were qualified as estimated, (UJ).

- The VOC continuing calibration performed on instrument A3UX19 on 06/21/2019 @ 16:29 had a %D for dichlorodifluoromethane, acetone,1,1,2,2-tetrachloroethane, hexachlorobutadiene, and naphthalene which exceeded the 20% quality control limit. Samples associated with analytical batch #240-387616 were affected. The detected and non-detected results reported for this compound in the affected samples were qualified as estimated, (J) and (UJ), respectively.

- A continuing calibration for mercury on 6/18/19 at 10:33 was slightly below the 90% lower quality control limit. Nondetected results in the following samples were qualified as estimated, (UJ): MSA-SW39D-061219, MSA-SW40A-061219, MSA-SW40B-061219, MSA-SW40C-061219, MSA-SW40D-061219, MSA-SW41A-061219, MSA-SW41B-061219, MSA-SW41C-061219, and MSA-SW41D-061219.

- Beryllium was detected in a continuing calibration blank at a concentration below the reporting limit. Detections of beryllium in associated samples below the reporting limit were qualified as nondetected (U).

- A Tentatively Identified Compound (TIC) search was performed for the compound chlorodifluoromethane for thirty-six of the samples. The laboratory did not detect this compound in the samples in this SDG. The laboratory assigned a Reporting Limit (RL) of 1 µg/L. Because the GC/MS was not calibrated for this compound, the RL is not considered precise. The non-detected results reported for chlorodifluoromethane were qualified as estimated, (UJ).

- Tentatively identified compounds (TICs) were qualified as presumptively present, (NJ).

- Detected results reported below the RL but above the Method Detection Limit (MDL) were qualified

as estimated, (J).

Notes

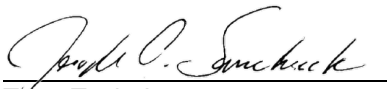
Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: A few VOC continuing calibration %Ds exceeded 20%. Non-detected chlorodifluoromethane results were estimated because the compound was evaluated via TIC library search.

Other Factors Affecting Data Quality: 2-Chloroethyl vinyl ether results were rejected because the samples were acid preserved. Results below the RL were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Review" (January 2017) and "National Functional Guidelines for Inorganic Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.



Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

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

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

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
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

Appendix A

Qualified Analytical Results

PROJ_NO: 08735	NSAMPLE	EL-SW01A-061219			EL-SW01B-061219			EL-SW01C-061219			EL-SW01D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-37			240-114245-38			240-114245-39			240-114245-40		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	UJ	C	0.54	UJ	C	0.54	UJ	C	0.54	UJ	C
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C	0.26	UJ	C	0.26	UJ	C	0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	U		5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW37A-061219			MSA-SW37B-061219			MSA-SW37C-061219			MSA-SW37D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-1			240-114245-2			240-114245-3			240-114245-4		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	UJ	C	0.13	UJ	C	0.13	UJ	C	0.13	UJ	C
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	UJ	C	5.4	UJ	C	5.4	UJ	C	5.4	UJ	C
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW38A-061219			MSA-SW38B-061219			MSA-SW38C-061219			MSA-SW38D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-5			240-114245-6			240-114245-7			240-114245-8		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	UJ	C	0.13	UJ	C	0.13	UJ	C	0.13	UJ	C
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	UJ	C	5.4	UJ	C	5.4	UJ	C	5.4	UJ	C
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW39A-061219			MSA-SW39B-061219			MSA-SW39C-061219			MSA-SW39D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-9			240-114245-10			240-114245-11			240-114245-12		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	UJ	C	0.13	UJ	C	0.13	UJ	C	0.13	UJ	C
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	UJ	C	11	J	C	17	J	C	10	J	C
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW40A-061219			MSA-SW40B-061219			MSA-SW40C-061219			MSA-SW40D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-13			240-114245-14			240-114245-15			240-114245-16		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	UJ	C	0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	UJ	C	5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW41A-061219			MSA-SW41B-061219			MSA-SW41C-061219			MSA-SW41D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-17			240-114245-18			240-114245-19			240-114245-20		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	U		5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW42A-061219			MSA-SW42B-061219			MSA-SW42C-061219			MSA-SW42D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-21			240-114245-22			240-114245-23			240-114245-24		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	U		5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW43A-061219			MSA-SW43B-061219			MSA-SW43C-061219			MSA-SW43D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-25			240-114245-26			240-114245-27			240-114245-28		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	U		5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW44A-061219			MSA-SW44B-061219			MSA-SW44C-061219			MSA-SW44D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-29			240-114245-30			240-114245-31			240-114245-32		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	U		5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW45A-061219			MSA-SW45B-061219			MSA-SW45C-061219			MSA-SW45D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-33			240-114245-34			240-114245-35			240-114245-36		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	UJ	C	0.54	UJ	C	0.54	UJ	C	0.54	UJ	C
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C	0.26	UJ	C	0.26	UJ	C	0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	U		5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW46A-061219			MSA-SW47A-061219			MSA-SW48A-061219			MSA-SW49A-061219		
SDG: 240-114245-1	LAB_ID	240-114245-42			240-114245-43			240-114245-44			240-114245-45		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	UJ	C	0.54	UJ	C	0.54	UJ	C	0.54	UJ	C
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C	0.26	UJ	C	0.26	UJ	C	0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	U		5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08735	NSAMPLE	TB-061219		
SDG: 240-114245-1	LAB_ID	240-114245-41		
FRACTION: OV	SAMP_DATE	6/12/2019		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U	
1,1-DICHLOROETHANE		0.17	U	
1,1-DICHLOROETHENE		0.19	U	
1,1-DICHLOROPROPENE		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	UJ	C
1,2,3-TRICHLOROPROPANE		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	UJ	C
1,2,4-TRIMETHYLBENZENE		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U	
1,2-DIBROMOETHANE		0.12	U	
1,2-DICHLOROBENZENE		0.15	U	
1,2-DICHLOROETHANE		0.21	U	
1,2-DICHLOROPROPANE		0.15	U	
1,3-DICHLOROBENZENE		0.15	U	
1,3-DICHLOROPROPANE		0.21	U	
1,4-DICHLOROBENZENE		0.16	U	
2,2-DICHLOROPROPANE		0.31	U	
2-BUTANONE		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M
2-CHLOROTOLUENE		0.15	U	
2-HEXANONE		0.54	U	
4-CHLOROTOLUENE		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U	
4-METHYL-2-PENTANONE		0.42	U	
ACETONE		5.4	U	
BENZENE		0.13	U	
BROMOBENZENE		0.12	U	
BROMOCHLOROMETHANE		0.14	U	
BROMODICHLOROMETHANE		0.17	U	
BROMOFORM		0.76	U	
BROMOMETHANE		0.42	U	

PROJ_NO: 08735	NSAMPLE	EL-SW01A-061219			EL-SW01B-061219			EL-SW01C-061219			EL-SW01D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-37			240-114245-38			240-114245-39			240-114245-40		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW37A-061219			MSA-SW37B-061219			MSA-SW37C-061219			MSA-SW37D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-1			240-114245-2			240-114245-3			240-114245-4		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	0.35	UJ	C	0.35	UJ	C	0.35	UJ	C
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	UJ	C	0.32	UJ	C	0.32	UJ	C	0.32	UJ	C
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW38A-061219			MSA-SW38B-061219			MSA-SW38C-061219			MSA-SW38D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-5			240-114245-6			240-114245-7			240-114245-8		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.19	J	P	0.18	J	P	0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	0.35	UJ	C	0.35	UJ	C	0.35	UJ	C
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	UJ	C	0.32	UJ	C	0.32	UJ	C	0.32	UJ	C
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW39A-061219			MSA-SW39B-061219			MSA-SW39C-061219			MSA-SW39D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-9			240-114245-10			240-114245-11			240-114245-12		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	0.35	UJ	C	0.35	UJ	C	0.35	UJ	C
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	UJ	C	0.32	UJ	C	0.32	UJ	C	0.32	UJ	C
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW40A-061219			MSA-SW40B-061219			MSA-SW40C-061219			MSA-SW40D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-13			240-114245-14			240-114245-15			240-114245-16		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	UJ	C	0.2	UJ	C	0.2	UJ	C
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	0.35	UJ	C	0.35	UJ	C	0.35	UJ	C
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	UJ	C	0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.17	J	P
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW41A-061219			MSA-SW41B-061219			MSA-SW41C-061219			MSA-SW41D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-17			240-114245-18			240-114245-19			240-114245-20		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	J	P	0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	UJ	C	0.2	UJ	C	0.2	UJ	C	0.2	UJ	C
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	0.35	UJ	C	0.35	UJ	C	0.35	UJ	C
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW42A-061219			MSA-SW42B-061219			MSA-SW42C-061219			MSA-SW42D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-21			240-114245-22			240-114245-23			240-114245-24		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	UJ	C	0.2	UJ	C	0.2	UJ	C	0.2	UJ	C
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	0.35	UJ	C	0.35	UJ	C	0.35	UJ	C
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW43A-061219			MSA-SW43B-061219			MSA-SW43C-061219			MSA-SW43D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-25			240-114245-26			240-114245-27			240-114245-28		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	UJ	C	0.2	UJ	C	0.2	UJ	C	0.2	UJ	C
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	0.35	UJ	C	0.35	UJ	C	0.35	UJ	C
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW44A-061219			MSA-SW44B-061219			MSA-SW44C-061219			MSA-SW44D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-29			240-114245-30			240-114245-31			240-114245-32		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	UJ	C	0.2	UJ	C	0.2	UJ	C	0.2	UJ	C
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	0.35	UJ	C	0.35	UJ	C	0.35	UJ	C
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW45A-061219			MSA-SW45B-061219			MSA-SW45C-061219			MSA-SW45D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-33			240-114245-34			240-114245-35			240-114245-36		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.56	J	P	0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW46A-061219			MSA-SW47A-061219			MSA-SW48A-061219			MSA-SW49A-061219		
SDG: 240-114245-1	LAB_ID	240-114245-42			240-114245-43			240-114245-44			240-114245-45		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.19	J	P	0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08735	NSAMPLE	TB-061219		
SDG: 240-114245-1	LAB_ID	240-114245-41		
FRACTION: OV	SAMP_DATE	6/12/2019		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U	
CARBON TETRACHLORIDE		0.26	U	
CHLOROBENZENE		0.14	U	
CHLORODIBROMOMETHANE		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q
CHLOROETHANE		0.83	U	
CHLOROFORM		0.48	J	P
CHLOROMETHANE		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U	
DIBROMOMETHANE		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U	
DIISOPROPYL ETHER		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U	
ETHYLBENZENE		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C
ISOPROPYLBENZENE		0.09	U	
M+P-XYLENES		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U	
METHYLENE CHLORIDE		2.6	U	
NAPHTHALENE		0.32	U	
N-BUTYLBENZENE		0.14	U	
N-PROPYLBENZENE		0.15	U	
O-XYLENE		0.09	U	
SEC-BUTYLBENZENE		0.13	U	
STYRENE		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U	
TERT-BUTYLBENZENE		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U	
TETRACHLOROETHENE		0.15	U	
TOLUENE		0.14	U	
TOTAL XYLENES		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U	
TRICHLOROETHENE		0.1	U	

PROJ_NO: 08735	NSAMPLE	EL-SW01A-061219			EL-SW01B-061219			EL-SW01C-061219			EL-SW01D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-37			240-114245-38			240-114245-39			240-114245-40		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW37A-061219			MSA-SW37B-061219			MSA-SW37C-061219			MSA-SW37D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-1			240-114245-2			240-114245-3			240-114245-4		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.29	J	P	0.29	J	P	0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW38A-061219			MSA-SW38B-061219			MSA-SW38C-061219			MSA-SW38D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-5			240-114245-6			240-114245-7			240-114245-8		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW39A-061219			MSA-SW39B-061219			MSA-SW39C-061219			MSA-SW39D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-9			240-114245-10			240-114245-11			240-114245-12		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW40A-061219			MSA-SW40B-061219			MSA-SW40C-061219			MSA-SW40D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-13			240-114245-14			240-114245-15			240-114245-16		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW41A-061219			MSA-SW41B-061219			MSA-SW41C-061219			MSA-SW41D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-17			240-114245-18			240-114245-19			240-114245-20		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW42A-061219			MSA-SW42B-061219			MSA-SW42C-061219			MSA-SW42D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-21			240-114245-22			240-114245-23			240-114245-24		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW43A-061219			MSA-SW43B-061219			MSA-SW43C-061219			MSA-SW43D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-25			240-114245-26			240-114245-27			240-114245-28		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW44A-061219			MSA-SW44B-061219			MSA-SW44C-061219			MSA-SW44D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-29			240-114245-30			240-114245-31			240-114245-32		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW45A-061219			MSA-SW45B-061219			MSA-SW45C-061219			MSA-SW45D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-33			240-114245-34			240-114245-35			240-114245-36		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW46A-061219			MSA-SW47A-061219			MSA-SW48A-061219			MSA-SW49A-061219		
SDG: 240-114245-1	LAB_ID	240-114245-42			240-114245-43			240-114245-44			240-114245-45		
FRACTION: OV	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08735	NSAMPLE	TB-061219		
SDG: 240-114245-1	LAB_ID	240-114245-41		
FRACTION: OV	SAMP_DATE	6/12/2019		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U	
VINYL ACETATE		0.19	U	
VINYL CHLORIDE		0.2	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW37A-061219			MSA-SW37B-061219			MSA-SW37C-061219			MSA-SW37D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-1			240-114245-2			240-114245-3			240-114245-4		
FRACTION: MF	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		2.3	J	P	1.8	J	P	1.7	J	P	1.8	J	P
BARIUM		7			6.2			6.3			6.1		
BERYLLIUM		0.88	U	A	0.7	U	A	0.36	U	A	0.31	U	
CADMIUM		0.21	U		0.21	U		0.21	U		0.21	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		0.98	U	
COBALT		0.29	J	P	0.19	U		0.21	J	P	0.19	U	
COPPER		6			4.9			5.6			4.9		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.6	J	P	1.4	J	P	1.1	J	P	1.1	J	P
NICKEL		2			1.8	J	P	2.3			1.7	J	P
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.52	J	P	0.43	J	P	0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		1.2	J	P	0.97	J	P	0.98	J	P	0.96	J	P
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW38A-061219			MSA-SW38B-061219			MSA-SW38C-061219			MSA-SW38D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-5			240-114245-6			240-114245-7			240-114245-8		
FRACTION: MF	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		1.8	J	P	2	J	P	1.7	J	P	2	J	P
BARIUM		5.7			6.3			6.2			6.8		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.21	U		0.21	U		0.21	U		0.21	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		0.98	U	
COBALT		0.19	U		0.19	U		0.19	U		0.2	J	P
COPPER		4.5			4.8			5			5.8		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		1.6	J	P	1.5	U		1.5	U		1.9	J	P
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		0.94	J	P	0.82	U		0.91	J	P	1.4	J	P
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW39A-061219			MSA-SW39B-061219			MSA-SW39C-061219			MSA-SW39D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-9			240-114245-10			240-114245-11			240-114245-12		
FRACTION: MF	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		1.9	J	P	1.8	J	P	2.1	J	P	2	J	P
BARIUM		6.3			6.3			6.5			5.7		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.21	U		0.21	U		0.21	U		0.21	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		0.98	U	
COBALT		0.19	U		0.2	J	P	0.23	J	P	0.19	U	
COPPER		4.9			4.9			5.3			4.6		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.13	U		0.13	U		0.13	U		0.13	UJ	C
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		1.5	J	P	1.5	U		1.6	J	P	2.2		
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		1	J	P	1	J	P	1.2	J	P	0.82	U	
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW40A-061219			MSA-SW40B-061219			MSA-SW40C-061219			MSA-SW40D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-13			240-114245-14			240-114245-15			240-114245-16		
FRACTION: MF	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		2.4	J	P	2.2	J	P	2.1	J	P	1.9	J	P
BARIUM		7.4			6.1			6.4			6.3		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.21	U		0.21	U		0.21	U		0.21	U	
CHROMIUM		0.98	U		1	J	P	0.98	U		0.98	U	
COBALT		0.43	J	P	0.19	U		0.19	U		0.19	J	P
COPPER		7.2			6.5			5.2			5.5		
LEAD		0.8	J	P	17			0.45	U		0.45	U	
MERCURY		0.13	UJ	C	0.13	UJ	C	0.13	UJ	C	0.13	UJ	C
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		2.2			2.2			1.5	U		1.5	U	
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		1.4	J	P	1.1	J	P	0.85	J	P	0.86	J	P
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW41A-061219			MSA-SW41B-061219			MSA-SW41C-061219			MSA-SW41D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-17			240-114245-18			240-114245-19			240-114245-20		
FRACTION: MF	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		1.8	J	P	2.3	J	P	2.2	J	P	1.7	J	P
BARIUM		6.5			6.5			6.3			6.5		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.21	U		0.21	U		0.21	U		0.21	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		1.6	J	P
COBALT		0.19	U		0.19	U		0.26	J	P	0.26	J	P
COPPER		5.2			5			5.6			5.4		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.13	UJ	C	0.13	UJ	C	0.13	UJ	C	0.13	UJ	C
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	J	P
NICKEL		1.5	J	P	1.5	U		2			2		
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		1	J	P	0.82	U		1.1	J	P	0.96	J	P
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW42A-061219			MSA-SW42B-061219			MSA-SW42C-061219			MSA-SW42D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-21			240-114245-22			240-114245-23			240-114245-24		
FRACTION: MF	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		2.4	J	P	1.9	J	P	2	J	P	2.2	J	P
BARIUM		6.6			6.4			6			6.2		
BERYLLIUM		0.96	U	A	0.6	U	A	0.31	U		0.31	U	
CADMIUM		0.21	U		0.21	U		0.21	U		0.21	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		0.98	U	
COBALT		0.3	J	P	0.19	U		0.19	U		0.21	J	P
COPPER		5.9			4.8			4.9			5.3		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.5	J	P	1.4	J	P	1.1	J	P	1.1	U	
NICKEL		1.5	U		1.7	J	P	1.6	J	P	2		
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.55	J	P	0.44	J	P	0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		1.1	J	P	0.82	U		1.1	J	P	0.82	U	
ZINC		20			15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW43A-061219			MSA-SW43B-061219			MSA-SW43C-061219			MSA-SW43D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-25			240-114245-26			240-114245-27			240-114245-28		
FRACTION: MF	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		2.5	J	P	1.7	J	P	1.2	J	P	2	J	P
BARIUM		7.7			6.3			6.4			6.4		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.21	U		0.21	U		0.21	U		0.21	U	
CHROMIUM		1.2	J	P	0.98	U		0.98	U		0.98	U	
COBALT		0.59	J	P	0.21	J	P	0.19	U		0.19	U	
COPPER		7.3			5.3			4.9			5		
LEAD		0.99	J	P	0.45	U		0.45	U		0.45	U	
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		2.5			1.8	J	P	1.5	U		1.5	U	
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		1.9	J	P	0.82	U		0.82	U		0.9	J	P
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW44A-061219			MSA-SW44B-061219			MSA-SW44C-061219			MSA-SW44D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-29			240-114245-30			240-114245-31			240-114245-32		
FRACTION: MF	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		2.2	J	P	1.7	J	P	1.8	J	P	1.6	J	P
BARIUM		6.2			6.1			6.1			6		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.21	U		0.21	U		0.21	U		0.21	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		0.98	U	
COBALT		0.23	J	P	0.19	U		0.22	J	P	0.19	U	
COPPER		5			4.5			5.1			4.7		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		2.1			1.5	U		1.8	J	P	1.8	J	P
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		0.85	J	P	0.82	U		0.95	J	P	0.86	J	P
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	MSA-SW45A-061219			MSA-SW45B-061219			MSA-SW45C-061219			MSA-SW45D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-33			240-114245-34			240-114245-35			240-114245-36		
FRACTION: MF	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
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		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		2	J	P	1.5	J	P	1.4	J	P	1.6	J	P
BARIUM		6.6			6.2			6.4			5.8		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.21	U		0.21	U		0.21	U		0.21	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		0.98	U	
COBALT		0.22	J	P	0.19	U		0.2	J	P	0.19	U	
COPPER		5.2			5.1			5			4.5		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		1.5	U		2.1			2			1.8	J	P
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
TUNGSTEN		1.8	U		1.8	U		1.8	U		1.8	U	
VANADIUM		1.3	J	P	0.96	J	P	1	J	P	0.99	J	P
ZINC		15	U		15	U		15	U		15	U	

PROJ_NO: 08735	NSAMPLE	EL-SW01B-061219			MSA-SW37A-061219			MSA-SW37B-061219			MSA-SW37C-061219		
SDG: 240-114245-1	LAB_ID	240-114245-38			240-114245-1			240-114245-2			240-114245-3		
FRACTION: MISC	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3					21			20			19		
DISSOLVED ORGANIC CARBON		5.9						4.9					
HARDNESS AS CACO3					71			70			69		
MAGNESIUM HARDNESS AS CACO3					50			50			50		

PROJ_NO: 08735	NSAMPLE	MSA-SW37D-061219			MSA-SW38A-061219			MSA-SW38B-061219			MSA-SW38C-061219		
SDG: 240-114245-1	LAB_ID	240-114245-4			240-114245-5			240-114245-6			240-114245-7		
FRACTION: MISC	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		20			18			20			19		
DISSOLVED ORGANIC CARBON								5.1					
HARDNESS AS CACO3		68			64			69			68		
MAGNESIUM HARDNESS AS CACO3		49			46			49			49		

PROJ_NO: 08735	NSAMPLE	MSA-SW38D-061219			MSA-SW39A-061219			MSA-SW39B-061219			MSA-SW39C-061219		
SDG: 240-114245-1	LAB_ID	240-114245-8			240-114245-9			240-114245-10			240-114245-11		
FRACTION: MISC	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		19			18			18			18		
DISSOLVED ORGANIC CARBON								4.7					
HARDNESS AS CACO3		69			67			67			67		
MAGNESIUM HARDNESS AS CACO3		50			49			49			49		

PROJ_NO: 08735	NSAMPLE	MSA-SW39D-061219			MSA-SW40A-061219			MSA-SW40B-061219			MSA-SW40C-061219		
SDG: 240-114245-1	LAB_ID	240-114245-12			240-114245-13			240-114245-14			240-114245-15		
FRACTION: MISC	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		16			20			20			20		
DISSOLVED ORGANIC CARBON								4.8					
HARDNESS AS CACO3		63			71			71			69		
MAGNESIUM HARDNESS AS CACO3		47			50			51			49		

PROJ_NO: 08735	NSAMPLE	MSA-SW40D-061219			MSA-SW41A-061219			MSA-SW41B-061219			MSA-SW41C-061219		
SDG: 240-114245-1	LAB_ID	240-114245-16			240-114245-17			240-114245-18			240-114245-19		
FRACTION: MISC	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		19			20			20			19		
DISSOLVED ORGANIC CARBON								5					
HARDNESS AS CACO3		68			71			70			69		
MAGNESIUM HARDNESS AS CACO3		49			51			50			50		

PROJ_NO: 08735	NSAMPLE	MSA-SW41D-061219			MSA-SW42A-061219			MSA-SW42B-061219			MSA-SW42C-061219		
SDG: 240-114245-1	LAB_ID	240-114245-20			240-114245-21			240-114245-22			240-114245-23		
FRACTION: MISC	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		20			20			20			20		
DISSOLVED ORGANIC CARBON								4.6					
HARDNESS AS CACO3		69			69			70			70		
MAGNESIUM HARDNESS AS CACO3		50			49			50			50		

PROJ_NO: 08735	NSAMPLE	MSA-SW42D-061219			MSA-SW43A-061219			MSA-SW43B-061219			MSA-SW43C-061219		
SDG: 240-114245-1	LAB_ID	240-114245-24			240-114245-25			240-114245-26			240-114245-27		
FRACTION: MISC	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		20			19			19			20		
DISSOLVED ORGANIC CARBON								5.3					
HARDNESS AS CACO3		70			69			69			70		
MAGNESIUM HARDNESS AS CACO3		50			49			50			50		

PROJ_NO: 08735	NSAMPLE	MSA-SW43D-061219			MSA-SW44A-061219			MSA-SW44B-061219			MSA-SW44C-061219		
SDG: 240-114245-1	LAB_ID	240-114245-28			240-114245-29			240-114245-30			240-114245-31		
FRACTION: MISC	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		20			19			17			18		
DISSOLVED ORGANIC CARBON								4.3					
HARDNESS AS CACO3		69			69			65			67		
MAGNESIUM HARDNESS AS CACO3		49			50			48			49		

PROJ_NO: 08735	NSAMPLE	MSA-SW44D-061219			MSA-SW45A-061219			MSA-SW45B-061219			MSA-SW45C-061219		
SDG: 240-114245-1	LAB_ID	240-114245-32			240-114245-33			240-114245-34			240-114245-35		
FRACTION: MISC	SAMP_DATE	6/12/2019			6/12/2019			6/12/2019			6/12/2019		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/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
CALCIUM HARDNESS AS CACO3		19			19			18			19		
DISSOLVED ORGANIC CARBON								4.4					
HARDNESS AS CACO3		69			68			67			69		
MAGNESIUM HARDNESS AS CACO3		50			50			49			51		

PROJ_NO: 08735	NSAMPLE	MSA-SW45D-061219		
SDG: 240-114245-1	LAB_ID	240-114245-36		
FRACTION: MISC	SAMP_DATE	6/12/2019		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	MG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
CALCIUM HARDNESS AS CACO3		17		
DISSOLVED ORGANIC CARBON				
HARDNESS AS CACO3		66		
MAGNESIUM HARDNESS AS CACO3		49		

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37A-061219 Lab Sample ID: 240-114245-1

Matrix: Water Lab File ID: U1908040.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:21

Sample wt/vol: 5(mL) Date Analyzed: 06/21/2019 23:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37A-061219 Lab Sample ID: 240-114245-1

Matrix: Water Lab File ID: U1908040.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:21

Sample wt/vol: 5(mL) Date Analyzed: 06/21/2019 23:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.29	J	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37A-061219 Lab Sample ID: 240-114245-1

Matrix: Water Lab File ID: U1908040.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:21

Sample wt/vol: 5(mL) Date Analyzed: 06/21/2019 23:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		70-121
460-00-4	4-Bromofluorobenzene (Surr)	97		59-120
2037-26-5	Toluene-d8 (Surr)	100		70-123
1868-53-7	Dibromofluoromethane (Surr)	100		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37A-061219 Lab Sample ID: 240-114245-1

Matrix: Water Lab File ID: U1908040.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:21

Sample wt/vol: 5(mL) Date Analyzed: 06/21/2019 23:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

Number TICs Found: 1 TIC Result Total: 14

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
83-32-9	Acenaphthene	12.91	14	T J N	86%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37A-061219 Lab Sample ID: 240-114245-1

Matrix: Water Lab File ID: U1908040.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:21

Sample wt/vol: 5(mL) Date Analyzed: 06/21/2019 23:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37B-061219 Lab Sample ID: 240-114245-2

Matrix: Water Lab File ID: U1908041.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:30

Sample wt/vol: 5(mL) Date Analyzed: 06/21/2019 23:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37B-061219 Lab Sample ID: 240-114245-2

Matrix: Water Lab File ID: U1908041.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:30

Sample wt/vol: 5(mL) Date Analyzed: 06/21/2019 23:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.29	J	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37B-061219 Lab Sample ID: 240-114245-2

Matrix: Water Lab File ID: U1908041.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:30

Sample wt/vol: 5(mL) Date Analyzed: 06/21/2019 23:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		70-121
460-00-4	4-Bromofluorobenzene (Surr)	102		59-120
2037-26-5	Toluene-d8 (Surr)	100		70-123
1868-53-7	Dibromofluoromethane (Surr)	98		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37B-061219 Lab Sample ID: 240-114245-2

Matrix: Water Lab File ID: U1908041.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:30

Sample wt/vol: 5(mL) Date Analyzed: 06/21/2019 23:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37B-061219 Lab Sample ID: 240-114245-2

Matrix: Water Lab File ID: U1908041.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:30

Sample wt/vol: 5(mL) Date Analyzed: 06/21/2019 23:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37C-061219 Lab Sample ID: 240-114245-3

Matrix: Water Lab File ID: U1908042.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:39

Sample wt/vol: 5(mL) Date Analyzed: 06/21/2019 23:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37C-061219 Lab Sample ID: 240-114245-3

Matrix: Water Lab File ID: U1908042.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:39

Sample wt/vol: 5(mL) Date Analyzed: 06/21/2019 23:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37C-061219 Lab Sample ID: 240-114245-3

Matrix: Water Lab File ID: U1908042.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:39

Sample wt/vol: 5(mL) Date Analyzed: 06/21/2019 23:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		70-121
460-00-4	4-Bromofluorobenzene (Surr)	100		59-120
2037-26-5	Toluene-d8 (Surr)	99		70-123
1868-53-7	Dibromofluoromethane (Surr)	98		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37C-061219 Lab Sample ID: 240-114245-3

Matrix: Water Lab File ID: U1908042.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:39

Sample wt/vol: 5(mL) Date Analyzed: 06/21/2019 23:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37C-061219 Lab Sample ID: 240-114245-3

Matrix: Water Lab File ID: U1908042.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:39

Sample wt/vol: 5(mL) Date Analyzed: 06/21/2019 23:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37D-061219 Lab Sample ID: 240-114245-4

Matrix: Water Lab File ID: U1908043.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:47

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 00:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37D-061219 Lab Sample ID: 240-114245-4

Matrix: Water Lab File ID: U1908043.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:47

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 00:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37D-061219 Lab Sample ID: 240-114245-4

Matrix: Water Lab File ID: U1908043.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:47

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 00:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		70-121
460-00-4	4-Bromofluorobenzene (Surr)	100		59-120
2037-26-5	Toluene-d8 (Surr)	101		70-123
1868-53-7	Dibromofluoromethane (Surr)	98		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37D-061219 Lab Sample ID: 240-114245-4

Matrix: Water Lab File ID: U1908043.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:47

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 00:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW37D-061219 Lab Sample ID: 240-114245-4

Matrix: Water Lab File ID: U1908043.d

Analysis Method: 8260C Date Collected: 06/12/2019 13:47

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 00:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38A-061219 Lab Sample ID: 240-114245-5

Matrix: Water Lab File ID: U1908044.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:02

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 00:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38A-061219 Lab Sample ID: 240-114245-5

Matrix: Water Lab File ID: U1908044.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:02

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 00:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	0.19	J	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38A-061219 Lab Sample ID: 240-114245-5

Matrix: Water Lab File ID: U1908044.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:02

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 00:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		70-121
460-00-4	4-Bromofluorobenzene (Surr)	102		59-120
2037-26-5	Toluene-d8 (Surr)	100		70-123
1868-53-7	Dibromofluoromethane (Surr)	99		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38A-061219 Lab Sample ID: 240-114245-5

Matrix: Water Lab File ID: U1908044.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:02

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 00:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38A-061219 Lab Sample ID: 240-114245-5

Matrix: Water Lab File ID: U1908044.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:02

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 00:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38B-061219 Lab Sample ID: 240-114245-6

Matrix: Water Lab File ID: U1908045.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:10

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 00:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38B-061219 Lab Sample ID: 240-114245-6

Matrix: Water Lab File ID: U1908045.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:10

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 00:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	0.18	J	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38B-061219 Lab Sample ID: 240-114245-6

Matrix: Water Lab File ID: U1908045.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:10

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 00:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		70-121
460-00-4	4-Bromofluorobenzene (Surr)	102		59-120
2037-26-5	Toluene-d8 (Surr)	100		70-123
1868-53-7	Dibromofluoromethane (Surr)	100		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38B-061219 Lab Sample ID: 240-114245-6

Matrix: Water Lab File ID: U1908045.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:10

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 00:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38B-061219 Lab Sample ID: 240-114245-6

Matrix: Water Lab File ID: U1908045.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:10

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 00:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38C-061219 Lab Sample ID: 240-114245-7

Matrix: Water Lab File ID: U1908046.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:12

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 01:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38C-061219 Lab Sample ID: 240-114245-7

Matrix: Water Lab File ID: U1908046.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:12

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 01:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38C-061219 Lab Sample ID: 240-114245-7

Matrix: Water Lab File ID: U1908046.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:12

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 01:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		70-121
460-00-4	4-Bromofluorobenzene (Surr)	102		59-120
2037-26-5	Toluene-d8 (Surr)	102		70-123
1868-53-7	Dibromofluoromethane (Surr)	96		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38C-061219 Lab Sample ID: 240-114245-7

Matrix: Water Lab File ID: U1908046.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:12

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 01:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38C-061219 Lab Sample ID: 240-114245-7

Matrix: Water Lab File ID: U1908046.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:12

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 01:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38D-061219 Lab Sample ID: 240-114245-8

Matrix: Water Lab File ID: U1908047.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:18

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 01:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38D-061219 Lab Sample ID: 240-114245-8

Matrix: Water Lab File ID: U1908047.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:18

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 01:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38D-061219 Lab Sample ID: 240-114245-8

Matrix: Water Lab File ID: U1908047.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:18

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 01:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		70-121
460-00-4	4-Bromofluorobenzene (Surr)	99		59-120
2037-26-5	Toluene-d8 (Surr)	99		70-123
1868-53-7	Dibromofluoromethane (Surr)	97		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38D-061219 Lab Sample ID: 240-114245-8

Matrix: Water Lab File ID: U1908047.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:18

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 01:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW38D-061219 Lab Sample ID: 240-114245-8

Matrix: Water Lab File ID: U1908047.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:18

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 01:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39A-061219 Lab Sample ID: 240-114245-9

Matrix: Water Lab File ID: U1908048.d

Analysis Method: 8260C Date Collected: 06/12/2019 08:30

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 01:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39A-061219 Lab Sample ID: 240-114245-9

Matrix: Water Lab File ID: U1908048.d

Analysis Method: 8260C Date Collected: 06/12/2019 08:30

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 01:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39A-061219 Lab Sample ID: 240-114245-9

Matrix: Water Lab File ID: U1908048.d

Analysis Method: 8260C Date Collected: 06/12/2019 08:30

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 01:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		70-121
460-00-4	4-Bromofluorobenzene (Surr)	104		59-120
2037-26-5	Toluene-d8 (Surr)	104		70-123
1868-53-7	Dibromofluoromethane (Surr)	101		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39A-061219 Lab Sample ID: 240-114245-9

Matrix: Water Lab File ID: U1908048.d

Analysis Method: 8260C Date Collected: 06/12/2019 08:30

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 01:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39A-061219 Lab Sample ID: 240-114245-9

Matrix: Water Lab File ID: U1908048.d

Analysis Method: 8260C Date Collected: 06/12/2019 08:30

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 01:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39B-061219 Lab Sample ID: 240-114245-10

Matrix: Water Lab File ID: U1908049.d

Analysis Method: 8260C Date Collected: 06/12/2019 08:51

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 02:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	11		5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39B-061219 Lab Sample ID: 240-114245-10

Matrix: Water Lab File ID: U1908049.d

Analysis Method: 8260C Date Collected: 06/12/2019 08:51

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 02:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39B-061219 Lab Sample ID: 240-114245-10

Matrix: Water Lab File ID: U1908049.d

Analysis Method: 8260C Date Collected: 06/12/2019 08:51

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 02:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		70-121
460-00-4	4-Bromofluorobenzene (Surr)	98		59-120
2037-26-5	Toluene-d8 (Surr)	98		70-123
1868-53-7	Dibromofluoromethane (Surr)	97		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39B-061219 Lab Sample ID: 240-114245-10

Matrix: Water Lab File ID: U1908049.d

Analysis Method: 8260C Date Collected: 06/12/2019 08:51

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 02:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39B-061219 Lab Sample ID: 240-114245-10

Matrix: Water Lab File ID: U1908049.d

Analysis Method: 8260C Date Collected: 06/12/2019 08:51

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 02:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39C-061219 Lab Sample ID: 240-114245-11

Matrix: Water Lab File ID: U1908050.d

Analysis Method: 8260C Date Collected: 06/12/2019 09:03

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 02:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	17		5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39C-061219 Lab Sample ID: 240-114245-11

Matrix: Water Lab File ID: U1908050.d

Analysis Method: 8260C Date Collected: 06/12/2019 09:03

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 02:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39C-061219 Lab Sample ID: 240-114245-11

Matrix: Water Lab File ID: U1908050.d

Analysis Method: 8260C Date Collected: 06/12/2019 09:03

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 02:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		70-121
460-00-4	4-Bromofluorobenzene (Surr)	99		59-120
2037-26-5	Toluene-d8 (Surr)	101		70-123
1868-53-7	Dibromofluoromethane (Surr)	100		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39C-061219 Lab Sample ID: 240-114245-11

Matrix: Water Lab File ID: U1908050.d

Analysis Method: 8260C Date Collected: 06/12/2019 09:03

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 02:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39C-061219 Lab Sample ID: 240-114245-11

Matrix: Water Lab File ID: U1908050.d

Analysis Method: 8260C Date Collected: 06/12/2019 09:03

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 02:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39D-061219 Lab Sample ID: 240-114245-12

Matrix: Water Lab File ID: U1908051.d

Analysis Method: 8260C Date Collected: 06/12/2019 09:08

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 03:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	10		5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39D-061219 Lab Sample ID: 240-114245-12

Matrix: Water Lab File ID: U1908051.d

Analysis Method: 8260C Date Collected: 06/12/2019 09:08

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 03:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39D-061219 Lab Sample ID: 240-114245-12

Matrix: Water Lab File ID: U1908051.d

Analysis Method: 8260C Date Collected: 06/12/2019 09:08

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 03:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		70-121
460-00-4	4-Bromofluorobenzene (Surr)	100		59-120
2037-26-5	Toluene-d8 (Surr)	100		70-123
1868-53-7	Dibromofluoromethane (Surr)	99		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39D-061219 Lab Sample ID: 240-114245-12

Matrix: Water Lab File ID: U1908051.d

Analysis Method: 8260C Date Collected: 06/12/2019 09:08

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 03:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW39D-061219 Lab Sample ID: 240-114245-12

Matrix: Water Lab File ID: U1908051.d

Analysis Method: 8260C Date Collected: 06/12/2019 09:08

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 03:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40A-061219 Lab Sample ID: 240-114245-13

Matrix: Water Lab File ID: U1908052.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:26

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 03:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40A-061219 Lab Sample ID: 240-114245-13

Matrix: Water Lab File ID: U1908052.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:26

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 03:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40A-061219 Lab Sample ID: 240-114245-13

Matrix: Water Lab File ID: U1908052.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:26

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 03:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		70-121
460-00-4	4-Bromofluorobenzene (Surr)	97		59-120
2037-26-5	Toluene-d8 (Surr)	98		70-123
1868-53-7	Dibromofluoromethane (Surr)	94		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40A-061219 Lab Sample ID: 240-114245-13

Matrix: Water Lab File ID: U1908052.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:26

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 03:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40A-061219 Lab Sample ID: 240-114245-13

Matrix: Water Lab File ID: U1908052.d

Analysis Method: 8260C Date Collected: 06/12/2019 12:26

Sample wt/vol: 5(mL) Date Analyzed: 06/22/2019 03:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387616 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40B-061219 Lab Sample ID: 240-114245-14

Matrix: Water Lab File ID: U1271107.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:30

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 17:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40B-061219 Lab Sample ID: 240-114245-14

Matrix: Water Lab File ID: U1271107.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:30

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 17:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40B-061219 Lab Sample ID: 240-114245-14

Matrix: Water Lab File ID: U1271107.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:30

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 17:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		70-121
460-00-4	4-Bromofluorobenzene (Surr)	97		59-120
2037-26-5	Toluene-d8 (Surr)	94		70-123
1868-53-7	Dibromofluoromethane (Surr)	96		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40B-061219 Lab Sample ID: 240-114245-14

Matrix: Water Lab File ID: U1271107.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:30

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 17:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40B-061219 Lab Sample ID: 240-114245-14

Matrix: Water Lab File ID: U1271107.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:30

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 17:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40C-061219 Lab Sample ID: 240-114245-15

Matrix: Water Lab File ID: U1271108a.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:36

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 18:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40C-061219 Lab Sample ID: 240-114245-15

Matrix: Water Lab File ID: U1271108a.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:36

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 18:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40C-061219 Lab Sample ID: 240-114245-15

Matrix: Water Lab File ID: U1271108a.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:36

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 18:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		70-121
460-00-4	4-Bromofluorobenzene (Surr)	101		59-120
2037-26-5	Toluene-d8 (Surr)	94		70-123
1868-53-7	Dibromofluoromethane (Surr)	94		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40C-061219 Lab Sample ID: 240-114245-15

Matrix: Water Lab File ID: U1271108a.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:36

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 18:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40C-061219 Lab Sample ID: 240-114245-15

Matrix: Water Lab File ID: U1271108a.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:36

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 18:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40D-061219 Lab Sample ID: 240-114245-16

Matrix: Water Lab File ID: U1271109.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:48

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40D-061219 Lab Sample ID: 240-114245-16

Matrix: Water Lab File ID: U1271109.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:48

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	0.17	J	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40D-061219 Lab Sample ID: 240-114245-16

Matrix: Water Lab File ID: U1271109.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:48

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		70-121
460-00-4	4-Bromofluorobenzene (Surr)	95		59-120
2037-26-5	Toluene-d8 (Surr)	91		70-123
1868-53-7	Dibromofluoromethane (Surr)	95		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40D-061219 Lab Sample ID: 240-114245-16

Matrix: Water Lab File ID: U1271109.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:48

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW40D-061219 Lab Sample ID: 240-114245-16

Matrix: Water Lab File ID: U1271109.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:48

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41A-061219 Lab Sample ID: 240-114245-17

Matrix: Water Lab File ID: U1271110.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:34

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 18:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41A-061219 Lab Sample ID: 240-114245-17

Matrix: Water Lab File ID: U1271110.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:34

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 18:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	0.13	J	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41A-061219 Lab Sample ID: 240-114245-17

Matrix: Water Lab File ID: U1271110.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:34

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 18:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		70-121
460-00-4	4-Bromofluorobenzene (Surr)	96		59-120
2037-26-5	Toluene-d8 (Surr)	91		70-123
1868-53-7	Dibromofluoromethane (Surr)	95		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41A-061219 Lab Sample ID: 240-114245-17

Matrix: Water Lab File ID: U1271110.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:34

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 18:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41A-061219 Lab Sample ID: 240-114245-17

Matrix: Water Lab File ID: U1271110.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:34

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 18:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41B-061219 Lab Sample ID: 240-114245-18

Matrix: Water Lab File ID: U1271111.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:39

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 19:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41B-061219 Lab Sample ID: 240-114245-18

Matrix: Water Lab File ID: U1271111.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:39

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 19:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41B-061219 Lab Sample ID: 240-114245-18

Matrix: Water Lab File ID: U1271111.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:39

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 19:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		70-121
460-00-4	4-Bromofluorobenzene (Surr)	102		59-120
2037-26-5	Toluene-d8 (Surr)	95		70-123
1868-53-7	Dibromofluoromethane (Surr)	100		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41B-061219 Lab Sample ID: 240-114245-18

Matrix: Water Lab File ID: U1271111.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:39

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 19:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41B-061219 Lab Sample ID: 240-114245-18

Matrix: Water Lab File ID: U1271111.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:39

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 19:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41C-061219 Lab Sample ID: 240-114245-19

Matrix: Water Lab File ID: U1271112.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:45

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 19:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41C-061219 Lab Sample ID: 240-114245-19

Matrix: Water Lab File ID: U1271112.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:45

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 19:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41C-061219 Lab Sample ID: 240-114245-19

Matrix: Water Lab File ID: U1271112.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:45

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 19:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		70-121
460-00-4	4-Bromofluorobenzene (Surr)	92		59-120
2037-26-5	Toluene-d8 (Surr)	87		70-123
1868-53-7	Dibromofluoromethane (Surr)	92		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41C-061219 Lab Sample ID: 240-114245-19

Matrix: Water Lab File ID: U1271112.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:45

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 19:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41C-061219 Lab Sample ID: 240-114245-19

Matrix: Water Lab File ID: U1271112.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:45

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 19:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41D-061219 Lab Sample ID: 240-114245-20

Matrix: Water Lab File ID: U1271113.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:51

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 20:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41D-061219 Lab Sample ID: 240-114245-20

Matrix: Water Lab File ID: U1271113.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:51

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 20:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41D-061219 Lab Sample ID: 240-114245-20

Matrix: Water Lab File ID: U1271113.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:51

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 20:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		70-121
460-00-4	4-Bromofluorobenzene (Surr)	96		59-120
2037-26-5	Toluene-d8 (Surr)	89		70-123
1868-53-7	Dibromofluoromethane (Surr)	94		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41D-061219 Lab Sample ID: 240-114245-20

Matrix: Water Lab File ID: U1271113.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:51

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 20:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW41D-061219 Lab Sample ID: 240-114245-20

Matrix: Water Lab File ID: U1271113.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:51

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 20:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42A-061219 Lab Sample ID: 240-114245-21

Matrix: Water Lab File ID: U1271114.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:56

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 20:27

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42A-061219 Lab Sample ID: 240-114245-21

Matrix: Water Lab File ID: U1271114.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:56

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 20:27

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42A-061219 Lab Sample ID: 240-114245-21

Matrix: Water Lab File ID: U1271114.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:56

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 20:27

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		70-121
460-00-4	4-Bromofluorobenzene (Surr)	99		59-120
2037-26-5	Toluene-d8 (Surr)	93		70-123
1868-53-7	Dibromofluoromethane (Surr)	96		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42A-061219 Lab Sample ID: 240-114245-21

Matrix: Water Lab File ID: U1271114.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:56

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 20:27

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42A-061219 Lab Sample ID: 240-114245-21

Matrix: Water Lab File ID: U1271114.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:56

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 20:27

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42B-061219 Lab Sample ID: 240-114245-22

Matrix: Water Lab File ID: U1271115.D

Analysis Method: 8260C Date Collected: 06/12/2019 13:00

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 20:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42B-061219 Lab Sample ID: 240-114245-22

Matrix: Water Lab File ID: U1271115.D

Analysis Method: 8260C Date Collected: 06/12/2019 13:00

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 20:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42B-061219 Lab Sample ID: 240-114245-22

Matrix: Water Lab File ID: U1271115.D

Analysis Method: 8260C Date Collected: 06/12/2019 13:00

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 20:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		70-121
460-00-4	4-Bromofluorobenzene (Surr)	97		59-120
2037-26-5	Toluene-d8 (Surr)	93		70-123
1868-53-7	Dibromofluoromethane (Surr)	96		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42B-061219 Lab Sample ID: 240-114245-22

Matrix: Water Lab File ID: U1271115.D

Analysis Method: 8260C Date Collected: 06/12/2019 13:00

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 20:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42B-061219 Lab Sample ID: 240-114245-22

Matrix: Water Lab File ID: U1271115.D

Analysis Method: 8260C Date Collected: 06/12/2019 13:00

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 20:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42C-061219 Lab Sample ID: 240-114245-23

Matrix: Water Lab File ID: U1271116.D

Analysis Method: 8260C Date Collected: 06/12/2019 13:07

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 21:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42C-061219 Lab Sample ID: 240-114245-23

Matrix: Water Lab File ID: U1271116.D

Analysis Method: 8260C Date Collected: 06/12/2019 13:07

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 21:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42C-061219 Lab Sample ID: 240-114245-23

Matrix: Water Lab File ID: U1271116.D

Analysis Method: 8260C Date Collected: 06/12/2019 13:07

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 21:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		70-121
460-00-4	4-Bromofluorobenzene (Surr)	93		59-120
2037-26-5	Toluene-d8 (Surr)	90		70-123
1868-53-7	Dibromofluoromethane (Surr)	93		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42C-061219 Lab Sample ID: 240-114245-23

Matrix: Water Lab File ID: U1271116.D

Analysis Method: 8260C Date Collected: 06/12/2019 13:07

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 21:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42C-061219 Lab Sample ID: 240-114245-23

Matrix: Water Lab File ID: U1271116.D

Analysis Method: 8260C Date Collected: 06/12/2019 13:07

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 21:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42D-061219 Lab Sample ID: 240-114245-24

Matrix: Water Lab File ID: U1271117.D

Analysis Method: 8260C Date Collected: 06/12/2019 13:13

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 21:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42D-061219 Lab Sample ID: 240-114245-24

Matrix: Water Lab File ID: U1271117.D

Analysis Method: 8260C Date Collected: 06/12/2019 13:13

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 21:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42D-061219 Lab Sample ID: 240-114245-24

Matrix: Water Lab File ID: U1271117.D

Analysis Method: 8260C Date Collected: 06/12/2019 13:13

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 21:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		70-121
460-00-4	4-Bromofluorobenzene (Surr)	96		59-120
2037-26-5	Toluene-d8 (Surr)	92		70-123
1868-53-7	Dibromofluoromethane (Surr)	95		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42D-061219 Lab Sample ID: 240-114245-24

Matrix: Water Lab File ID: U1271117.D

Analysis Method: 8260C Date Collected: 06/12/2019 13:13

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 21:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW42D-061219 Lab Sample ID: 240-114245-24

Matrix: Water Lab File ID: U1271117.D

Analysis Method: 8260C Date Collected: 06/12/2019 13:13

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 21:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43A-061219 Lab Sample ID: 240-114245-25

Matrix: Water Lab File ID: U1271118.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:06

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 21:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43A-061219 Lab Sample ID: 240-114245-25

Matrix: Water Lab File ID: U1271118.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:06

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 21:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43A-061219 Lab Sample ID: 240-114245-25

Matrix: Water Lab File ID: U1271118.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:06

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 21:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		70-121
460-00-4	4-Bromofluorobenzene (Surr)	102		59-120
2037-26-5	Toluene-d8 (Surr)	95		70-123
1868-53-7	Dibromofluoromethane (Surr)	102		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43A-061219 Lab Sample ID: 240-114245-25

Matrix: Water Lab File ID: U1271118.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:06

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 21:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43A-061219 Lab Sample ID: 240-114245-25

Matrix: Water Lab File ID: U1271118.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:06

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 21:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43B-061219 Lab Sample ID: 240-114245-26

Matrix: Water Lab File ID: U1271119.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:10

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 22:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43B-061219 Lab Sample ID: 240-114245-26

Matrix: Water Lab File ID: U1271119.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:10

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 22:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43B-061219 Lab Sample ID: 240-114245-26

Matrix: Water Lab File ID: U1271119.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:10

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 22:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		70-121
460-00-4	4-Bromofluorobenzene (Surr)	96		59-120
2037-26-5	Toluene-d8 (Surr)	91		70-123
1868-53-7	Dibromofluoromethane (Surr)	94		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43B-061219 Lab Sample ID: 240-114245-26

Matrix: Water Lab File ID: U1271119.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:10

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 22:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43B-061219 Lab Sample ID: 240-114245-26

Matrix: Water Lab File ID: U1271119.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:10

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 22:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43C-061219 Lab Sample ID: 240-114245-27

Matrix: Water Lab File ID: U1271120.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:19

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 22:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43C-061219 Lab Sample ID: 240-114245-27

Matrix: Water Lab File ID: U1271120.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:19

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 22:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43C-061219 Lab Sample ID: 240-114245-27

Matrix: Water Lab File ID: U1271120.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:19

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 22:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		70-121
460-00-4	4-Bromofluorobenzene (Surr)	98		59-120
2037-26-5	Toluene-d8 (Surr)	94		70-123
1868-53-7	Dibromofluoromethane (Surr)	98		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43C-061219 Lab Sample ID: 240-114245-27

Matrix: Water Lab File ID: U1271120.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:19

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 22:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43C-061219 Lab Sample ID: 240-114245-27

Matrix: Water Lab File ID: U1271120.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:19

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 22:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43D-061219 Lab Sample ID: 240-114245-28

Matrix: Water Lab File ID: U1271121.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:23

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 23:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43D-061219 Lab Sample ID: 240-114245-28

Matrix: Water Lab File ID: U1271121.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:23

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 23:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43D-061219 Lab Sample ID: 240-114245-28

Matrix: Water Lab File ID: U1271121.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:23

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 23:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		70-121
460-00-4	4-Bromofluorobenzene (Surr)	96		59-120
2037-26-5	Toluene-d8 (Surr)	89		70-123
1868-53-7	Dibromofluoromethane (Surr)	99		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43D-061219 Lab Sample ID: 240-114245-28

Matrix: Water Lab File ID: U1271121.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:23

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 23:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW43D-061219 Lab Sample ID: 240-114245-28

Matrix: Water Lab File ID: U1271121.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:23

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 23:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44A-061219 Lab Sample ID: 240-114245-29

Matrix: Water Lab File ID: U1271122.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:38

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 23:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44A-061219 Lab Sample ID: 240-114245-29

Matrix: Water Lab File ID: U1271122.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:38

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 23:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44A-061219 Lab Sample ID: 240-114245-29

Matrix: Water Lab File ID: U1271122.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:38

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 23:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		70-121
460-00-4	4-Bromofluorobenzene (Surr)	91		59-120
2037-26-5	Toluene-d8 (Surr)	88		70-123
1868-53-7	Dibromofluoromethane (Surr)	94		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44A-061219 Lab Sample ID: 240-114245-29

Matrix: Water Lab File ID: U1271122.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:38

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 23:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44A-061219 Lab Sample ID: 240-114245-29

Matrix: Water Lab File ID: U1271122.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:38

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 23:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44B-061219 Lab Sample ID: 240-114245-30

Matrix: Water Lab File ID: U1271123.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:42

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 23:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44B-061219 Lab Sample ID: 240-114245-30

Matrix: Water Lab File ID: U1271123.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:42

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 23:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44B-061219 Lab Sample ID: 240-114245-30

Matrix: Water Lab File ID: U1271123.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:42

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 23:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		70-121
460-00-4	4-Bromofluorobenzene (Surr)	101		59-120
2037-26-5	Toluene-d8 (Surr)	94		70-123
1868-53-7	Dibromofluoromethane (Surr)	98		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44B-061219 Lab Sample ID: 240-114245-30

Matrix: Water Lab File ID: U1271123.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:42

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 23:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44B-061219 Lab Sample ID: 240-114245-30

Matrix: Water Lab File ID: U1271123.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:42

Sample wt/vol: 5(mL) Date Analyzed: 06/23/2019 23:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44C-061219 Lab Sample ID: 240-114245-31

Matrix: Water Lab File ID: U1271124.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:52

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 00:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44C-061219 Lab Sample ID: 240-114245-31

Matrix: Water Lab File ID: U1271124.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:52

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 00:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44C-061219 Lab Sample ID: 240-114245-31

Matrix: Water Lab File ID: U1271124.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:52

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 00:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		70-121
460-00-4	4-Bromofluorobenzene (Surr)	101		59-120
2037-26-5	Toluene-d8 (Surr)	92		70-123
1868-53-7	Dibromofluoromethane (Surr)	99		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44C-061219 Lab Sample ID: 240-114245-31

Matrix: Water Lab File ID: U1271124.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:52

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 00:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44C-061219 Lab Sample ID: 240-114245-31

Matrix: Water Lab File ID: U1271124.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:52

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 00:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44D-061219 Lab Sample ID: 240-114245-32

Matrix: Water Lab File ID: U1271125.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:00

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 00:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44D-061219 Lab Sample ID: 240-114245-32

Matrix: Water Lab File ID: U1271125.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:00

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 00:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44D-061219 Lab Sample ID: 240-114245-32

Matrix: Water Lab File ID: U1271125.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:00

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 00:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		70-121
460-00-4	4-Bromofluorobenzene (Surr)	93		59-120
2037-26-5	Toluene-d8 (Surr)	89		70-123
1868-53-7	Dibromofluoromethane (Surr)	93		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44D-061219 Lab Sample ID: 240-114245-32

Matrix: Water Lab File ID: U1271125.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:00

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 00:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW44D-061219 Lab Sample ID: 240-114245-32

Matrix: Water Lab File ID: U1271125.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:00

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 00:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387757 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45A-061219 Lab Sample ID: 240-114245-33

Matrix: Water Lab File ID: U1271135.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:15

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 19:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	0.56	J	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45A-061219 Lab Sample ID: 240-114245-33

Matrix: Water Lab File ID: U1271135.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:15

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 19:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45A-061219 Lab Sample ID: 240-114245-33

Matrix: Water Lab File ID: U1271135.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:15

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 19:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		70-121
460-00-4	4-Bromofluorobenzene (Surr)	100		59-120
2037-26-5	Toluene-d8 (Surr)	92		70-123
1868-53-7	Dibromofluoromethane (Surr)	98		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45A-061219 Lab Sample ID: 240-114245-33

Matrix: Water Lab File ID: U1271135.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:15

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 19:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

Number TICs Found: 1 TIC Result Total: 2.4

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
66-25-1	Hexanal	7.18	2.4	T J N	72%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45A-061219 Lab Sample ID: 240-114245-33

Matrix: Water Lab File ID: U1271135.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:15

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 19:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45B-061219 Lab Sample ID: 240-114245-34

Matrix: Water Lab File ID: U1271136.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:20

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 20:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45B-061219 Lab Sample ID: 240-114245-34

Matrix: Water Lab File ID: U1271136.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:20

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 20:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45B-061219 Lab Sample ID: 240-114245-34

Matrix: Water Lab File ID: U1271136.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:20

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 20:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		70-121
460-00-4	4-Bromofluorobenzene (Surr)	99		59-120
2037-26-5	Toluene-d8 (Surr)	93		70-123
1868-53-7	Dibromofluoromethane (Surr)	96		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45B-061219 Lab Sample ID: 240-114245-34

Matrix: Water Lab File ID: U1271136.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:20

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 20:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45B-061219 Lab Sample ID: 240-114245-34

Matrix: Water Lab File ID: U1271136.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:20

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 20:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45C-061219 Lab Sample ID: 240-114245-35

Matrix: Water Lab File ID: U1271137.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:26

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 20:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45C-061219 Lab Sample ID: 240-114245-35

Matrix: Water Lab File ID: U1271137.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:26

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 20:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45C-061219 Lab Sample ID: 240-114245-35

Matrix: Water Lab File ID: U1271137.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:26

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 20:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-121
460-00-4	4-Bromofluorobenzene (Surr)	102		59-120
2037-26-5	Toluene-d8 (Surr)	92		70-123
1868-53-7	Dibromofluoromethane (Surr)	102		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45C-061219 Lab Sample ID: 240-114245-35

Matrix: Water Lab File ID: U1271137.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:26

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 20:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45C-061219 Lab Sample ID: 240-114245-35

Matrix: Water Lab File ID: U1271137.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:26

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 20:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45D-061219 Lab Sample ID: 240-114245-36

Matrix: Water Lab File ID: U1271138.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:32

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 21:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45D-061219 Lab Sample ID: 240-114245-36

Matrix: Water Lab File ID: U1271138.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:32

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 21:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45D-061219 Lab Sample ID: 240-114245-36

Matrix: Water Lab File ID: U1271138.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:32

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 21:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		70-121
460-00-4	4-Bromofluorobenzene (Surr)	103		59-120
2037-26-5	Toluene-d8 (Surr)	93		70-123
1868-53-7	Dibromofluoromethane (Surr)	105		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45D-061219 Lab Sample ID: 240-114245-36

Matrix: Water Lab File ID: U1271138.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:32

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 21:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW45D-061219 Lab Sample ID: 240-114245-36

Matrix: Water Lab File ID: U1271138.D

Analysis Method: 8260C Date Collected: 06/12/2019 10:32

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 21:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01A-061219 Lab Sample ID: 240-114245-37

Matrix: Water Lab File ID: U1271139.D

Analysis Method: 8260C Date Collected: 06/12/2019 07:52

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01A-061219 Lab Sample ID: 240-114245-37

Matrix: Water Lab File ID: U1271139.D

Analysis Method: 8260C Date Collected: 06/12/2019 07:52

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01A-061219 Lab Sample ID: 240-114245-37

Matrix: Water Lab File ID: U1271139.D

Analysis Method: 8260C Date Collected: 06/12/2019 07:52

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		70-121
460-00-4	4-Bromofluorobenzene (Surr)	102		59-120
2037-26-5	Toluene-d8 (Surr)	94		70-123
1868-53-7	Dibromofluoromethane (Surr)	100		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01A-061219 Lab Sample ID: 240-114245-37

Matrix: Water Lab File ID: U1271139.D

Analysis Method: 8260C Date Collected: 06/12/2019 07:52

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01A-061219 Lab Sample ID: 240-114245-37

Matrix: Water Lab File ID: U1271139.D

Analysis Method: 8260C Date Collected: 06/12/2019 07:52

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 21:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01B-061219 Lab Sample ID: 240-114245-38

Matrix: Water Lab File ID: U1271140.D

Analysis Method: 8260C Date Collected: 06/12/2019 08:00

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 21:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01B-061219 Lab Sample ID: 240-114245-38

Matrix: Water Lab File ID: U1271140.D

Analysis Method: 8260C Date Collected: 06/12/2019 08:00

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 21:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01B-061219 Lab Sample ID: 240-114245-38

Matrix: Water Lab File ID: U1271140.D

Analysis Method: 8260C Date Collected: 06/12/2019 08:00

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 21:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		70-121
460-00-4	4-Bromofluorobenzene (Surr)	101		59-120
2037-26-5	Toluene-d8 (Surr)	94		70-123
1868-53-7	Dibromofluoromethane (Surr)	101		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01B-061219 Lab Sample ID: 240-114245-38

Matrix: Water Lab File ID: U1271140.D

Analysis Method: 8260C Date Collected: 06/12/2019 08:00

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 21:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01B-061219 Lab Sample ID: 240-114245-38

Matrix: Water Lab File ID: U1271140.D

Analysis Method: 8260C Date Collected: 06/12/2019 08:00

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 21:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01C-061219 Lab Sample ID: 240-114245-39

Matrix: Water Lab File ID: U1271141.D

Analysis Method: 8260C Date Collected: 06/12/2019 08:16

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 22:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01C-061219 Lab Sample ID: 240-114245-39

Matrix: Water Lab File ID: U1271141.D

Analysis Method: 8260C Date Collected: 06/12/2019 08:16

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 22:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01C-061219 Lab Sample ID: 240-114245-39

Matrix: Water Lab File ID: U1271141.D

Analysis Method: 8260C Date Collected: 06/12/2019 08:16

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 22:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-121
460-00-4	4-Bromofluorobenzene (Surr)	102		59-120
2037-26-5	Toluene-d8 (Surr)	93		70-123
1868-53-7	Dibromofluoromethane (Surr)	105		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01C-061219 Lab Sample ID: 240-114245-39

Matrix: Water Lab File ID: U1271141.D

Analysis Method: 8260C Date Collected: 06/12/2019 08:16

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 22:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01C-061219 Lab Sample ID: 240-114245-39

Matrix: Water Lab File ID: U1271141.D

Analysis Method: 8260C Date Collected: 06/12/2019 08:16

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 22:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01D-061219 Lab Sample ID: 240-114245-40

Matrix: Water Lab File ID: U1271142.D

Analysis Method: 8260C Date Collected: 06/12/2019 08:21

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 22:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01D-061219 Lab Sample ID: 240-114245-40

Matrix: Water Lab File ID: U1271142.D

Analysis Method: 8260C Date Collected: 06/12/2019 08:21

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 22:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01D-061219 Lab Sample ID: 240-114245-40

Matrix: Water Lab File ID: U1271142.D

Analysis Method: 8260C Date Collected: 06/12/2019 08:21

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 22:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		70-121
460-00-4	4-Bromofluorobenzene (Surr)	100		59-120
2037-26-5	Toluene-d8 (Surr)	92		70-123
1868-53-7	Dibromofluoromethane (Surr)	102		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01D-061219 Lab Sample ID: 240-114245-40

Matrix: Water Lab File ID: U1271142.D

Analysis Method: 8260C Date Collected: 06/12/2019 08:21

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 22:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: EL-SW01D-061219 Lab Sample ID: 240-114245-40

Matrix: Water Lab File ID: U1271142.D

Analysis Method: 8260C Date Collected: 06/12/2019 08:21

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 22:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: TB-061219 Lab Sample ID: 240-114245-41

Matrix: Water Lab File ID: U1271143.D

Analysis Method: 8260C Date Collected: 06/12/2019 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 22:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: TB-061219 Lab Sample ID: 240-114245-41

Matrix: Water Lab File ID: U1271143.D

Analysis Method: 8260C Date Collected: 06/12/2019 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 22:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	0.48	J	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: TB-061219 Lab Sample ID: 240-114245-41

Matrix: Water Lab File ID: U1271143.D

Analysis Method: 8260C Date Collected: 06/12/2019 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 22:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		70-121
460-00-4	4-Bromofluorobenzene (Surr)	96		59-120
2037-26-5	Toluene-d8 (Surr)	90		70-123
1868-53-7	Dibromofluoromethane (Surr)	98		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: TB-061219 Lab Sample ID: 240-114245-41

Matrix: Water Lab File ID: U1271143.D

Analysis Method: 8260C Date Collected: 06/12/2019 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 22:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: TB-061219 Lab Sample ID: 240-114245-41

Matrix: Water Lab File ID: U1271143.D

Analysis Method: 8260C Date Collected: 06/12/2019 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 22:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW46A-061219 Lab Sample ID: 240-114245-42

Matrix: Water Lab File ID: U1271144.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:53

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 23:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW46A-061219 Lab Sample ID: 240-114245-42

Matrix: Water Lab File ID: U1271144.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:53

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 23:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW46A-061219 Lab Sample ID: 240-114245-42

Matrix: Water Lab File ID: U1271144.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:53

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 23:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		70-121
460-00-4	4-Bromofluorobenzene (Surr)	100		59-120
2037-26-5	Toluene-d8 (Surr)	92		70-123
1868-53-7	Dibromofluoromethane (Surr)	95		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW46A-061219 Lab Sample ID: 240-114245-42

Matrix: Water Lab File ID: U1271144.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:53

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 23:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW46A-061219 Lab Sample ID: 240-114245-42

Matrix: Water Lab File ID: U1271144.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:53

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 23:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW47A-061219 Lab Sample ID: 240-114245-43

Matrix: Water Lab File ID: U1271145.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:22

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 23:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW47A-061219 Lab Sample ID: 240-114245-43

Matrix: Water Lab File ID: U1271145.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:22

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 23:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	0.19	J	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW47A-061219 Lab Sample ID: 240-114245-43

Matrix: Water Lab File ID: U1271145.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:22

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 23:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		70-121
460-00-4	4-Bromofluorobenzene (Surr)	100		59-120
2037-26-5	Toluene-d8 (Surr)	92		70-123
1868-53-7	Dibromofluoromethane (Surr)	102		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW47A-061219 Lab Sample ID: 240-114245-43

Matrix: Water Lab File ID: U1271145.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:22

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 23:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW47A-061219 Lab Sample ID: 240-114245-43

Matrix: Water Lab File ID: U1271145.D

Analysis Method: 8260C Date Collected: 06/12/2019 12:22

Sample wt/vol: 5(mL) Date Analyzed: 06/24/2019 23:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW48A-061219 Lab Sample ID: 240-114245-44

Matrix: Water Lab File ID: U1271146.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:58

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2019 00:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW48A-061219 Lab Sample ID: 240-114245-44

Matrix: Water Lab File ID: U1271146.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:58

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2019 00:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW48A-061219 Lab Sample ID: 240-114245-44

Matrix: Water Lab File ID: U1271146.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:58

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2019 00:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		70-121
460-00-4	4-Bromofluorobenzene (Surr)	98		59-120
2037-26-5	Toluene-d8 (Surr)	93		70-123
1868-53-7	Dibromofluoromethane (Surr)	95		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW48A-061219 Lab Sample ID: 240-114245-44

Matrix: Water Lab File ID: U1271146.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:58

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2019 00:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW48A-061219 Lab Sample ID: 240-114245-44

Matrix: Water Lab File ID: U1271146.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:58

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2019 00:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW49A-061219 Lab Sample ID: 240-114245-45

Matrix: Water Lab File ID: U1271147.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:28

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2019 00:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.41
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.17
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	0.91
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.15
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.16
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.31
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.26
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.54
108-86-1	Bromobenzene	1.0	U	1.0	0.12
74-97-5	Bromochloromethane	1.0	U	1.0	0.14
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.090
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.13
67-64-1	Acetone	5.0	U	5.0	5.4
71-43-2	Benzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.76
74-83-9	Bromomethane	1.0	U	1.0	0.42
75-15-0	Carbon disulfide	1.0	U	1.0	0.28
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.26
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
75-00-3	Chloroethane	1.0	U	1.0	0.83

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW49A-061219 Lab Sample ID: 240-114245-45

Matrix: Water Lab File ID: U1271147.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:28

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2019 00:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	1.0	U	1.0	0.13
74-87-3	Chloromethane	1.0	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.61
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.83
74-95-3	Dibromomethane	1.0	U	1.0	0.090
75-27-4	Bromodichloromethane	1.0	U	1.0	0.17
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.35
100-41-4	Ethylbenzene	1.0	U	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.12
108-20-3	Diisopropyl ether	5.0	U	5.0	0.17
91-20-3	Naphthalene	1.0	U	1.0	0.32
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.080
104-51-8	n-Butylbenzene	1.0	U	1.0	0.14
98-82-8	Isopropylbenzene	1.0	U	1.0	0.090
103-65-1	n-Propylbenzene	1.0	U	1.0	0.15
78-93-3	2-Butanone	5.0	U	5.0	1.2
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	0.42
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.070
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.11
75-09-2	Methylene Chloride	5.0	U	5.0	2.6
95-47-6	o-Xylene	1.0	U	1.0	0.090
100-42-5	Styrene	1.0	U	1.0	0.10
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.15
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.14
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
108-88-3	Toluene	1.0	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.67
79-01-6	Trichloroethene	1.0	U	1.0	0.10
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.45
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	0.50	U	0.50	0.20
75-65-0	tert-Butyl alcohol	20	U	20	1.7
1330-20-7	Xylenes, Total	2.0	U	2.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW49A-061219 Lab Sample ID: 240-114245-45

Matrix: Water Lab File ID: U1271147.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:28

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2019 00:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		70-121
460-00-4	4-Bromofluorobenzene (Surr)	100		59-120
2037-26-5	Toluene-d8 (Surr)	92		70-123
1868-53-7	Dibromofluoromethane (Surr)	102		75-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW49A-061219 Lab Sample ID: 240-114245-45

Matrix: Water Lab File ID: U1271147.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:28

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2019 00:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Client Sample ID: MSA-SW49A-061219 Lab Sample ID: 240-114245-45

Matrix: Water Lab File ID: U1271147.D

Analysis Method: 8260C Date Collected: 06/12/2019 11:28

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2019 00:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 387961 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37A-061219 Lab Sample ID: 240-114245-1

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:21

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.3	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	7.0	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	0.88	1.0	0.31	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.29	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	6.0	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.6	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	0.52	1.0	0.20	ug/L	J		1	6020
7440-62-2	Vanadium	1.2	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37A-061219 Lab Sample ID: 240-114245-1

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:21

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	71	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	21	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37B-061219 Lab Sample ID: 240-114245-2

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:30

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.8	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.2	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	0.70	1.0	0.31	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.9	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.4	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	1.8	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	0.43	1.0	0.20	ug/L	J		1	6020
7440-62-2	Vanadium	0.97	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37B-061219 Lab Sample ID: 240-114245-2

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:30

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	70	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	20	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37C-061219 Lab Sample ID: 240-114245-3

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:39

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.7	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.3	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	0.36	1.0	0.31	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.21	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.6	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.3	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	0.98	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37C-061219 Lab Sample ID: 240-114245-3

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:39

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	69	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	19	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37D-061219 Lab Sample ID: 240-114245-4

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:47

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.8	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.1	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.9	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	1.7	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	0.96	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW37D-061219 Lab Sample ID: 240-114245-4

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:47

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	68	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	20	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	49	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38A-061219 Lab Sample ID: 240-114245-5

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:02

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.8	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	5.7	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.5	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	1.6	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	0.94	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38A-061219 Lab Sample ID: 240-114245-5

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:02

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	64	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	18	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	46	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38B-061219 Lab Sample ID: 240-114245-6

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:10

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.0	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.3	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.8	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L	U		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38B-061219 Lab Sample ID: 240-114245-6

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:10

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	69	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	20	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	49	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38C-061219 Lab Sample ID: 240-114245-7

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:12

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.7	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.2	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	5.0	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L	U		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	0.91	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38C-061219 Lab Sample ID: 240-114245-7

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:12

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	68	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	19	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	49	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38D-061219 Lab Sample ID: 240-114245-8

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:18

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.0	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.8	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.20	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.8	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	1.9	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	1.4	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW38D-061219 Lab Sample ID: 240-114245-8

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:18

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	69	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	19	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39A-061219 Lab Sample ID: 240-114245-9

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 08:30

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.9	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.3	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.9	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	1.5	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	1.0	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39A-061219 Lab Sample ID: 240-114245-9

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 08:30

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	67	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	18	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	49	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39B-061219 Lab Sample ID: 240-114245-10

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 08:51

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.8	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.3	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.20	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	4.9	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L	U		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	1.0	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39B-061219 Lab Sample ID: 240-114245-10

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 08:51

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	67	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	18	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	49	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39C-061219 Lab Sample ID: 240-114245-11

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 09:03

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.1	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.5	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.23	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.3	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	1.6	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	1.2	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39C-061219 Lab Sample ID: 240-114245-11

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 09:03

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	67	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	18	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	49	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39D-061219 Lab Sample ID: 240-114245-12

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 09:08

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.0	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	5.7	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.6	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.2	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW39D-061219 Lab Sample ID: 240-114245-12

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 09:08

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	63	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	16	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	47	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40A-061219 Lab Sample ID: 240-114245-13

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:26

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.4	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	7.4	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.43	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	7.2	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	0.80	1.0	0.45	ug/L	J		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.2	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	1.4	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40A-061219 Lab Sample ID: 240-114245-13

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:26

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	71	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	20	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40B-061219 Lab Sample ID: 240-114245-14

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:30

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.2	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.1	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	1.0	2.0	0.98	ug/L	J		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	6.5	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	17	1.0	0.45	ug/L			1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.2	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40B-061219 Lab Sample ID: 240-114245-14

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:30

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	71	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	20	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	51	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40C-061219 Lab Sample ID: 240-114245-15

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:36

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.1	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.4	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	5.2	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L	U		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	0.85	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40C-061219 Lab Sample ID: 240-114245-15

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:36

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	69	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	20	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	49	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40D-061219 Lab Sample ID: 240-114245-16

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:48

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.9	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.3	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.19	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.5	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L	U		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	0.86	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW40D-061219 Lab Sample ID: 240-114245-16

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:48

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	68	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	19	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	49	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41A-061219 Lab Sample ID: 240-114245-17

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:34

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.8	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.5	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	5.2	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	1.5	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	1.0	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41A-061219 Lab Sample ID: 240-114245-17

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:34

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	71	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	20	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	51	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41B-061219 Lab Sample ID: 240-114245-18

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:39

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.3	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.5	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	5.0	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L	U		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41B-061219 Lab Sample ID: 240-114245-18

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:39

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	70	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	20	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41C-061219 Lab Sample ID: 240-114245-19

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:45

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.2	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.3	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.26	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.6	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41C-061219 Lab Sample ID: 240-114245-19

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:45

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	69	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	19	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41D-061219 Lab Sample ID: 240-114245-20

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:51

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.7	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.5	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	1.6	2.0	0.98	ug/L	J		1	6020
7440-48-4	Cobalt	0.26	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.4	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	0.96	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW41D-061219 Lab Sample ID: 240-114245-20

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:51

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	69	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	20	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42A-061219 Lab Sample ID: 240-114245-21

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:56

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.4	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.6	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	0.96	1.0	0.31	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.30	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.9	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.5	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L	U		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	0.55	1.0	0.20	ug/L	J		1	6020
7440-62-2	Vanadium	1.1	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L			1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42A-061219 Lab Sample ID: 240-114245-21

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:56

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	69	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	20	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	49	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42B-061219 Lab Sample ID: 240-114245-22

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:00

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.9	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.4	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	0.60	1.0	0.31	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.8	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.4	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	1.7	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	0.44	1.0	0.20	ug/L	J		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42B-061219 Lab Sample ID: 240-114245-22

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:00

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	70	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	20	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42C-061219 Lab Sample ID: 240-114245-23

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:07

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.0	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.0	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.9	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020
7440-02-0	Nickel	1.6	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	1.1	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42C-061219 Lab Sample ID: 240-114245-23

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:07

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	70	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	20	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42D-061219 Lab Sample ID: 240-114245-24

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:13

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.2	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.2	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.21	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.3	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW42D-061219 Lab Sample ID: 240-114245-24

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:13

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	70	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	20	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43A-061219 Lab Sample ID: 240-114245-25

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:06

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.5	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	7.7	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	1.2	2.0	0.98	ug/L	J		1	6020
7440-48-4	Cobalt	0.59	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	7.3	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	0.99	1.0	0.45	ug/L	J		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.5	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	1.9	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43A-061219 Lab Sample ID: 240-114245-25

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:06

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	69	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	19	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	49	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43B-061219 Lab Sample ID: 240-114245-26

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:10

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.7	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.3	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.21	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.3	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	1.8	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43B-061219 Lab Sample ID: 240-114245-26

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:10

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	69	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	19	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43C-061219 Lab Sample ID: 240-114245-27

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:19

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.2	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.4	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.9	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L	U		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43C-061219 Lab Sample ID: 240-114245-27

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:19

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	70	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	20	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43D-061219 Lab Sample ID: 240-114245-28

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:23

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.0	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.4	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	5.0	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L	U		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	0.90	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW43D-061219 Lab Sample ID: 240-114245-28

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:23

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	69	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	20	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	49	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44A-061219 Lab Sample ID: 240-114245-29

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:38

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.2	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.2	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.23	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.0	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	0.85	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44A-061219 Lab Sample ID: 240-114245-29

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:38

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	69	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	19	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44B-061219 Lab Sample ID: 240-114245-30

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:42

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.7	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.1	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.5	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L	U		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	5.0	5.0	0.82	ug/L	U		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44B-061219 Lab Sample ID: 240-114245-30

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:42

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	65	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	17	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	48	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44C-061219 Lab Sample ID: 240-114245-31

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:52

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.8	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.1	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.22	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.1	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	1.8	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	0.95	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44C-061219 Lab Sample ID: 240-114245-31

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:52

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	67	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	18	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	49	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44D-061219 Lab Sample ID: 240-114245-32

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:00

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.6	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.0	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.7	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	1.8	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	0.86	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW44D-061219 Lab Sample ID: 240-114245-32

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:00

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	69	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	19	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45A-061219 Lab Sample ID: 240-114245-33

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:15

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	2.0	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.6	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.22	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.2	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L	U		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	1.3	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45A-061219 Lab Sample ID: 240-114245-33

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:15

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	68	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	19	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	50	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45B-061219 Lab Sample ID: 240-114245-34

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:20

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.5	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.2	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	5.1	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.1	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	0.96	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45B-061219 Lab Sample ID: 240-114245-34

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:20

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	67	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	18	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	49	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45C-061219 Lab Sample ID: 240-114245-35

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:26

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.4	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	6.4	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	0.20	1.0	0.19	ug/L	J		1	6020
7440-50-8	Copper	5.0	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	2.0	2.0	1.5	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	1.0	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45C-061219 Lab Sample ID: 240-114245-35

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:26

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	69	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	19	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	51	21		mg/L			1	SM 2340B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45D-061219 Lab Sample ID: 240-114245-36

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:32

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.57	ug/L	U		1	6020
7440-38-2	Arsenic	1.6	5.0	0.75	ug/L	J		1	6020
7440-39-3	Barium	5.8	5.0	2.2	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.31	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.21	ug/L	U		1	6020
7440-47-3	Chromium	2.0	2.0	0.98	ug/L	U		1	6020
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L	U		1	6020
7440-50-8	Copper	4.5	2.0	1.7	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.45	ug/L	U		1	6020
7439-98-7	Molybdenum	5.0	5.0	1.1	ug/L	U		1	6020
7440-02-0	Nickel	1.8	2.0	1.5	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.89	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.053	ug/L	U		1	6020
7440-28-0	Thallium	1.0	1.0	0.20	ug/L	U		1	6020
7440-62-2	Vanadium	0.99	5.0	0.82	ug/L	J		1	6020
7440-66-6	Zinc	20	20	15	ug/L	U		1	6020
7440-33-7	Tungsten	10	10	1.8	ug/L	U		1	6020
7439-97-6	Mercury	0.20	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-SW45D-061219 Lab Sample ID: 240-114245-36

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:32

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Hardness as calcium carbonate	66	33		mg/L			1	SM 2340B
	Calcium hardness as calcium carbonate	17	12		mg/L			1	SM 2340B
	Magnesium hardness as calcium carbonate	49	21		mg/L			1	SM 2340B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW37B-061219 Lab Sample ID: 240-114245-2

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:30

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	4.9	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW38B-061219 Lab Sample ID: 240-114245-6

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:10

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	5.1	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW39B-061219 Lab Sample ID: 240-114245-10

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 08:51

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	4.7	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW40B-061219 Lab Sample ID: 240-114245-14

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 12:30

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	4.8	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW41B-061219 Lab Sample ID: 240-114245-18

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:39

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	5.0	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW42B-061219 Lab Sample ID: 240-114245-22

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 13:00

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	4.6	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW43B-061219 Lab Sample ID: 240-114245-26

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 11:10

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	5.3	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW44B-061219 Lab Sample ID: 240-114245-30

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:42

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	4.3	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-SW45B-061219 Lab Sample ID: 240-114245-34

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 10:20

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	4.4	1.0	0.14	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: EL-SW01B-061219 Lab Sample ID: 240-114245-38

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG ID.:

Matrix: Water Date Sampled: 06/12/2019 08:00

Reporting Basis: WET Date Received: 06/13/2019 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	5.9	1.0	0.14	mg/L			1	9060

Appendix C

Support Documentation

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Baltimore #201

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 6/12/2019	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 4 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: STANDARD			SDG No.
(301) 528-3000 FAX	☐ 2 weeks ☐ 1 week Standard ☐ 2 days ☐ 1 day			Sampler: S. Larson
Project Name: MSA Surface Water Sampling				
Site: MSA Frog Mortar Creek				
Project # 112IC08424				

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs + Freon 113/22 + TIC (8260C)	Dissolved Metals (6020B/7470A)	Hardness SW846 SM	Dissolved organic carbon	Sample Specific Notes:
MSA-SW37A-061219	6/12/2019	1321	SW	Water	4	x	x	x	x		
MSA-SW37B-061219	6/12/2019	1330	SW	Water	6	x	x	x	x	x	
MSA-SW37C-061219	6/12/2019	1339	SW	Water	4	x	x	x	x		
MSA-SW37D-061219	6/12/2019	1347	SW	Water	4	x	x	x	x		
MSA-SW38A-061219	6/12/2019	1202	SW	Water	4	x	x	x	x		
MSA-SW38B-061219	6/12/2019	1210	SW	Water	6	x	x	x	x	x	
MSA-SW38C-061219	6/12/2019	1212	SW	Water	4	x	x	x	x		
MSA-SW38D-061219	6/12/2019	1218	SW	Water	4	x	x	x	x		
MSA-SW39A-061219	6/12/2019	0830	SW	Water	4	x	x	x	x		
MSA-SW39B-061219	6/12/2019	0851	SW	Water	6	x	x	x	x	x	
MSA-SW39C-061219	6/12/2019	0903	SW	Water	4	x	x	x	x		
MSA-SW39D-061219	6/12/2019	0908	SW	Water	4	x	x	x	x		
							2	4	4	3	

240-114245 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *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: Dissolved Metals and DOC filtered in field

	Company	Date/Time		Company	Date/Time
Relinquished by:	Tetratech	06/12/19	Received by:	TA	6/12/19 1445
Relinquished by:		6/12/19 17:30	Received by:	TA	6/13/19 940
Relinquished by:			Received by:		

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Baltimore #201

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 6/12/2019	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	2 of 4 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: STANDARD			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Surface Water Sampling	☐ 1 week Standard			Sampler: S. Larson
Site: MSA Frog Mortar Creek	☐ 2 days			
Project # 112IC08424	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs + Freon 113/22 + TIC (8260C)	Dissolved Metals (6020B/7470A)	Hardness SW846 SM	Dissolved organic carbon	Sample Specific Notes:
MSA-SW40A-061219	6/12/2019	1226	SW	Water	4	x	x	x	x		
MSA-SW40B-061219	6/12/2019	1230	SW	Water	6	x	x	x	x	x	
MSA-SW40C-061219	6/12/2019	1236	SW	Water	4	x	x	x	x		
MSA-SW40D-061219	6/12/2019	1248	SW	Water	4	x	x	x	x		
MSA-SW41A-061219	6/12/2019	1134	SW	Water	4	x	x	x	x		
MSA-SW41B-061219	6/12/2019	1139	SW	Water	6	x	x	x	x	x	
MSA-SW41C-061219	6/12/2019	1145	SW	Water	4	x	x	x	x		
MSA-SW41D-061219	6/12/2019	1151	SW	Water	4	x	x	x	x		
MSA-SW42A-061219	6/12/2019	1256	SW	Water	4	x	x	x	x		
MSA-SW42B-061219	6/12/2019	1300	SW	Water	6	x	x	x	x	x	
MSA-SW42C-061219	6/12/2019	1307	SW	Water	4	x	x	x	x		
MSA-SW42D-061219	6/12/2019	1313	SW	Water	4	x	x	x	x		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

	2	4	4	3

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *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: Dissolved Metals and DOC filtered in field

Relinquished by:	Company: Tetra Tech	Date/Time: 061219	Received by:	Company: TA	Date/Time: 6/12/19 1445
Relinquished by:	Company: 6/13/19 7:30	Date/Time: TA	Received by:	Company: TA	Date/Time: 6/13/19 940
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Baltimore #201

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 6/12/2019	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	3 of 4 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: STANDARD			SDG No.
(301) 528-3000 FAX	☐ 2 weeks ☐ 1 week Standard ☐ 2 days ☐ 1 day			Sampler: S. Larson
Project Name: MSA Surface Water Sampling				
Site: MSA Frog Mortar Creek				
Project # 112IC08424				

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs + Freon 113/22 + TIC (8260C)	Dissolved Metals (6020B/7470A)	Hardness SW846 SM	Dissolved organic carbon	Sample Specific Notes:
MSA-SW43A-061219	6/12/2019	1106	SW	Water	4	x	x	x	x		
MSA-SW43B-061219	6/12/2019	1110	SW	Water	6	x	x	x	x	x	
MSA-SW43C-061219	6/12/2019	1119	SW	Water	4	x	x	x	x		
MSA-SW43D-061219	6/12/2019	1123	SW	Water	4	x	x	x	x		
MSA-SW44A-061219	6/12/2019	1038	SW	Water	4	x	x	x	x		
MSA-SW44B-061219	6/12/2019	1048	SW	Water	6	x	x	x	x	x	
MSA-SW44C-061219	6/12/2019	1052	SW	Water	4	x	x	x	x		
MSA-SW44D-061219	6/12/2019	1100	SW	Water	4	x	x	x	x		
MSA-SW45A-061219	6/12/2019	1015	SW	Water	4	x	x	x	x		
MSA-SW45B-061219	6/12/2019	1020	SW	Water	6	x	x	x	x	x	
MSA-SW45C-061219	6/12/2019	1026	SW	Water	4	x	x	x	x		
MSA-SW45D-061219	6/12/2019	1032	SW	Water	4	x	x	x	x		
							2	4	4	3	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

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: Dissolved Metals and DOC filtered in field

Relinquished by:	Company: Tetra Tech	Date/Time: 06/12/19	Received by:	Company: TA	Date/Time: 6/12/19	1445
Relinquished by:	Company: 6/12/19 17:30	Date/Time: TA	Received by:	Company: TA	Date/Time: 6/13/19	940
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:	

Baltimore #201

2.6/2.7 1.3/1.4
3.4/3.5

Chain of Custody Record

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 6/12/2019	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: John McFadden	Carrier: Fedex	4 of 4 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: STANDARD			
(301) 528-3000 FAX	☐ 2 weeks			SDG No.
Project Name: MSA Surface Water Sampling	☐ 1 week Standard			
Site: MSA Frog Mortar Creek	☐ 2 days			
Project # 112IC08424	☐ 1 day			Sampler: S. Larson

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs (8260C)	Dissolved organic carbon	Sample Specific Notes:
EL-SW01A-061219	6/12/2019	0752	SW	AQ	3		x		
EL-SW01B-061219	6/12/2019	0800	SW	AQ	5		x	x	
EL-SW01C-061219	6/12/2019	0816	SW	AQ	3		x		
EL-SW01D-061219	6/12/2019	0821	SW	AQ	3		x		
TB-061219	--	--	TB	AQ	2		x		
MSA-SW46A-061219	6/12/2019	1253	SW	AQ	3		x		
MSA-SW47A-061219	6/12/2019	1222	SW	AQ	3		x		
MSA-SW48A-061219	6/12/2019	1158	SW	AQ	3		x		
MSA-SW49A-061219	6/12/2019	1128	SW	AQ	3		x		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____ 2 3

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: Dissolved Metals and DOC filtered in field, samples on this page to be analyzed for VOCs ONLY

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	061219	[signature]	TA	6/12/19 1445
Relinquished by: [signature]	Company: 6/12/19 17:30	Date/Time:	Received by: [signature]	Company: TA	Date/Time: 6/13/19 940
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

Eurofins TestAmerica Canton Sample Receipt Form/Narrative **Login # : 114245**
Canton Facility

Client Tetra Tech Site Name

Cooler Received on 6/13/14 Opened on 6/13/14

Cooler unpacked by: DSD

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # 1 Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☒ See Multiple Cooler Form
   IR GUN# IR-8 (CF +0.1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
   IR GUN #36 (CF +0.6°C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each — Yes No
   -Were the seals on the outside of the cooler(s) signed & dated? — Yes No NA
   -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? — Yes No
   -Were tamper/custody seals intact and uncompromised? — Yes No NA
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. Was/were the person(s) who collected the samples clearly identified on the COC? — Yes No
7. Did all bottles arrive in good condition (Unbroken)? — Yes No
8. Could all bottle labels be reconciled with the COC? — Yes No
9. Were correct bottle(s) used for the test(s) indicated? — Yes No
10. Sufficient quantity received to perform indicated analyses? — Yes No
11. Are these work share samples? — Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? — Yes No NA pH Strip Lot# HC984738
13. Were VOAs on the COC? — Yes No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. — Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # — Yes No
16. Was a LL Hg or Me Hg trip blank present? — Yes No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: RC

only rec'd 2x HCl vials for sample "SW-39C"; COC states 3

18. 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)

19. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen:

Login # : 114245

TestAmerica Canton Sample Receipt Multiple Cooler Form			
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(TA) Client Box Other	(IR-8) #36	2.6	2.7	(Wet Ice) Blue Ice Dry Ice Water None
(TA) Client Box Other	(IR-8) #36	3.4	3.5	(Wet Ice) Blue Ice Dry Ice Water None
(TA) Client Box Other	(IR-8) #36	1.3	1.4	(Wet Ice) Blue Ice Dry Ice Water None
TA Client Box Other	IR-8 #36			Wet Ice

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-SW37A-061219	240-114245-D-1	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW37B-061219	240-114245-D-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW37C-061219	240-114245-D-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW37D-061219	240-114245-D-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW38A-061219	240-114245-D-5	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW38B-061219	240-114245-D-6	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW38C-061219	240-114245-D-7	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW38D-061219	240-114245-D-8	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW39A-061219	240-114245-D-9	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW39B-061219	240-114245-D-10	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW39C-061219	240-114245-D-11	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW39D-061219	240-114245-D-12	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW40A-061219	240-114245-D-13	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW40B-061219	240-114245-D-14	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW40C-061219	240-114245-D-15	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW40D-061219	240-114245-D-16	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW41A-061219	240-114245-D-17	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW41B-061219	240-114245-D-18	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW41C-061219	240-114245-D-19	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW41D-061219	240-114245-D-20	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW42A-061219	240-114245-D-21	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW42B-061219	240-114245-D-22	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW42C-061219	240-114245-D-23	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW42D-061219	240-114245-D-24	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW43A-061219	240-114245-D-25	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW43B-061219	240-114245-D-26	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW43C-061219	240-114245-D-27	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW43D-061219	240-114245-D-28	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW44A-061219	240-114245-D-29	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW44B-061219	240-114245-D-30	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW44C-061219	240-114245-D-31	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW44D-061219	240-114245-D-32	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW45A-061219	240-114245-D-33	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW45B-061219	240-114245-D-34	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW45C-061219	240-114245-D-35	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-SW45D-061219	240-114245-D-36	Plastic 500ml - w/ Nitric - Dis.	<2		

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Job Number: 240-114245-1

Job Description: MSA Surface Water

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Tony Apanavage



Approved for release.
John McFadden
Project Manager I
6/27/2019 9:57 AM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
(330)497-9396
john.mcfadden@testamericainc.com
06/27/2019

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the 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. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N	This flag indicates the presumptive evidence of a compound.
T	Result is a tentatively identified compound (TIC) and an estimated value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Tetra Tech, Inc.
Job ID: 240-114245-1
Project/Site: MSA Surface Water

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
SM 2340B	Total Hardness (as CaCO3) by calculation	SM	TAL CAN
9060	Organic Carbon, Dissolved (DOC)	SW846	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN
7470A	Preparation, Mercury	SW846	TAL CAN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Surface Water

Job ID: 240-114245-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-114245-1	MSA-SW37A-061219	Water	06/12/19 13:21	06/13/19 09:40	
240-114245-2	MSA-SW37B-061219	Water	06/12/19 13:30	06/13/19 09:40	
240-114245-3	MSA-SW37C-061219	Water	06/12/19 13:39	06/13/19 09:40	
240-114245-4	MSA-SW37D-061219	Water	06/12/19 13:47	06/13/19 09:40	
240-114245-5	MSA-SW38A-061219	Water	06/12/19 12:02	06/13/19 09:40	
240-114245-6	MSA-SW38B-061219	Water	06/12/19 12:10	06/13/19 09:40	
240-114245-7	MSA-SW38C-061219	Water	06/12/19 12:12	06/13/19 09:40	
240-114245-8	MSA-SW38D-061219	Water	06/12/19 12:18	06/13/19 09:40	
240-114245-9	MSA-SW39A-061219	Water	06/12/19 08:30	06/13/19 09:40	
240-114245-10	MSA-SW39B-061219	Water	06/12/19 08:51	06/13/19 09:40	
240-114245-11	MSA-SW39C-061219	Water	06/12/19 09:03	06/13/19 09:40	
240-114245-12	MSA-SW39D-061219	Water	06/12/19 09:08	06/13/19 09:40	
240-114245-13	MSA-SW40A-061219	Water	06/12/19 12:26	06/13/19 09:40	
240-114245-14	MSA-SW40B-061219	Water	06/12/19 12:30	06/13/19 09:40	
240-114245-15	MSA-SW40C-061219	Water	06/12/19 12:36	06/13/19 09:40	
240-114245-16	MSA-SW40D-061219	Water	06/12/19 12:48	06/13/19 09:40	
240-114245-17	MSA-SW41A-061219	Water	06/12/19 11:34	06/13/19 09:40	
240-114245-18	MSA-SW41B-061219	Water	06/12/19 11:39	06/13/19 09:40	
240-114245-19	MSA-SW41C-061219	Water	06/12/19 11:45	06/13/19 09:40	
240-114245-20	MSA-SW41D-061219	Water	06/12/19 11:51	06/13/19 09:40	
240-114245-21	MSA-SW42A-061219	Water	06/12/19 12:56	06/13/19 09:40	
240-114245-22	MSA-SW42B-061219	Water	06/12/19 13:00	06/13/19 09:40	
240-114245-23	MSA-SW42C-061219	Water	06/12/19 13:07	06/13/19 09:40	
240-114245-24	MSA-SW42D-061219	Water	06/12/19 13:13	06/13/19 09:40	
240-114245-25	MSA-SW43A-061219	Water	06/12/19 11:06	06/13/19 09:40	
240-114245-26	MSA-SW43B-061219	Water	06/12/19 11:10	06/13/19 09:40	
240-114245-27	MSA-SW43C-061219	Water	06/12/19 11:19	06/13/19 09:40	
240-114245-28	MSA-SW43D-061219	Water	06/12/19 11:23	06/13/19 09:40	
240-114245-29	MSA-SW44A-061219	Water	06/12/19 10:38	06/13/19 09:40	
240-114245-30	MSA-SW44B-061219	Water	06/12/19 10:42	06/13/19 09:40	
240-114245-31	MSA-SW44C-061219	Water	06/12/19 10:52	06/13/19 09:40	
240-114245-32	MSA-SW44D-061219	Water	06/12/19 11:00	06/13/19 09:40	
240-114245-33	MSA-SW45A-061219	Water	06/12/19 10:15	06/13/19 09:40	
240-114245-34	MSA-SW45B-061219	Water	06/12/19 10:20	06/13/19 09:40	
240-114245-35	MSA-SW45C-061219	Water	06/12/19 10:26	06/13/19 09:40	
240-114245-36	MSA-SW45D-061219	Water	06/12/19 10:32	06/13/19 09:40	
240-114245-37	EL-SW01A-061219	Water	06/12/19 07:52	06/13/19 09:40	
240-114245-38	EL-SW01B-061219	Water	06/12/19 08:00	06/13/19 09:40	
240-114245-39	EL-SW01C-061219	Water	06/12/19 08:16	06/13/19 09:40	
240-114245-40	EL-SW01D-061219	Water	06/12/19 08:21	06/13/19 09:40	
240-114245-41	TB-061219	Water	06/12/19 00:00	06/13/19 09:40	
240-114245-42	MSA-SW46A-061219	Water	06/12/19 12:53	06/13/19 09:40	
240-114245-43	MSA-SW47A-061219	Water	06/12/19 12:22	06/13/19 09:40	
240-114245-44	MSA-SW48A-061219	Water	06/12/19 11:58	06/13/19 09:40	
240-114245-45	MSA-SW49A-061219	Water	06/12/19 11:28	06/13/19 09:40	

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA Surface Water

Report Number: 240-114245-1

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.

Eurofins TestAmerica, Canton attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins 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 Eurofins TestAmerica and its client.

RECEIPT

The samples were received on 6/13/2019 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.4º C, 2.7º C and 3.5º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-SW37A-061219 (240-114245-1), MSA-SW37B-061219 (240-114245-2), MSA-SW37C-061219 (240-114245-3), MSA-SW37D-061219 (240-114245-4), MSA-SW38A-061219 (240-114245-5), MSA-SW38B-061219 (240-114245-6), MSA-SW38C-061219 (240-114245-7), MSA-SW38D-061219 (240-114245-8), MSA-SW39A-061219 (240-114245-9), MSA-SW39B-061219 (240-114245-10), MSA-SW39C-061219 (240-114245-11), MSA-SW39D-061219 (240-114245-12), MSA-SW40A-061219 (240-114245-13), MSA-SW40B-061219 (240-114245-14), MSA-SW40C-061219 (240-114245-15), MSA-SW40D-061219 (240-114245-16), MSA-SW41A-061219 (240-114245-17), MSA-SW41B-061219 (240-114245-18), MSA-SW41C-061219 (240-114245-19), MSA-SW41D-061219 (240-114245-20), MSA-SW42A-061219 (240-114245-21), MSA-SW42B-061219 (240-114245-22), MSA-SW42C-061219 (240-114245-23), MSA-SW42D-061219 (240-114245-24), MSA-SW43A-061219 (240-114245-25), MSA-SW43B-061219 (240-114245-26), MSA-SW43C-061219 (240-114245-27), MSA-SW43D-061219 (240-114245-28), MSA-SW44A-061219 (240-114245-29), MSA-SW44B-061219 (240-114245-30), MSA-SW44C-061219 (240-114245-31), MSA-SW44D-061219 (240-114245-32), MSA-SW45A-061219 (240-114245-33), MSA-SW45B-061219 (240-114245-34), MSA-SW45C-061219 (240-114245-35), MSA-SW45D-061219 (240-114245-36), EL-SW01A-061219 (240-114245-37), EL-SW01B-061219 (240-114245-38), EL-SW01C-061219 (240-114245-39), EL-SW01D-061219 (240-114245-40), TB-061219 (240-114245-41), MSA-SW46A-061219 (240-114245-42), MSA-SW47A-061219 (240-114245-43), MSA-SW48A-061219 (240-114245-44) and MSA-SW49A-061219 (240-114245-45) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 06/21/2019, 06/22/2019, 06/23/2019, 06/24/2019 and 06/25/2019.

The following samples were received preserved with hydrochloric acid:MSA-SW37A-061219 (240-114245-1), MSA-SW37B-061219 (240-114245-2), MSA-SW37C-061219 (240-114245-3), MSA-SW37D-061219 (240-114245-4), MSA-SW38A-061219 (240-114245-5), MSA-SW38B-061219 (240-114245-6), MSA-SW38C-061219 (240-114245-7), MSA-SW38D-061219 (240-114245-8), MSA-SW39A-061219 (240-114245-9), MSA-SW39B-061219 (240-114245-10), MSA-SW39C-061219 (240-114245-11), MSA-SW39D-061219 (240-114245-12), MSA-SW40A-061219 (240-114245-13), MSA-SW40B-061219 (240-114245-14), MSA-SW40C-061219 (240-114245-15), MSA-SW40D-061219 (240-114245-16), MSA-SW41A-061219 (240-114245-17), MSA-SW41B-061219 (240-114245-18), MSA-SW41C-061219 (240-114245-19), MSA-SW41D-061219 (240-114245-20), MSA-SW42A-061219 (240-114245-21), MSA-SW42B-061219 (240-114245-22), MSA-SW42C-061219 (240-114245-23), MSA-SW42D-061219 (240-114245-24), MSA-SW43A-061219 (240-114245-25), MSA-SW43B-061219 (240-114245-26), MSA-SW43C-061219 (240-114245-27), MSA-SW43D-061219 (240-114245-28), MSA-SW44A-061219 (240-114245-29), MSA-SW44B-061219 (240-114245-30), MSA-SW44C-061219 (240-114245-31), MSA-SW44D-061219 (240-114245-32), MSA-SW45A-061219 (240-114245-33), MSA-SW45B-061219 (240-114245-34), MSA-SW45C-061219 (240-114245-35),

MSA-SW45D-061219 (240-114245-36), EL-SW01A-061219 (240-114245-37), EL-SW01B-061219 (240-114245-38), EL-SW01C-061219 (240-114245-39), EL-SW01D-061219 (240-114245-40), TB-061219 (240-114245-41), MSA-SW46A-061219 (240-114245-42), MSA-SW47A-061219 (240-114245-43), MSA-SW48A-061219 (240-114245-44) and MSA-SW49A-061219 (240-114245-45). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

The continuing calibration verification (CCV) analyzed in batch 240-387616 was outside the method criteria for some analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 240-387757 was outside the method criteria for the following analyte(s): Dichlorodi fluoromethane, Chloromethane, Hexachlorobutadiene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. MSA-SW40B-061219 (240-114245-14), MSA-SW40C-061219 (240-114245-15), MSA-SW40D-061219 (240-114245-16), MSA-SW41A-061219 (240-114245-17), MSA-SW41B-061219 (240-114245-18), MSA-SW41C-061219 (240-114245-19), MSA-SW41D-061219 (240-114245-20), MSA-SW42A-061219 (240-114245-21), MSA-SW42B-061219 (240-114245-22), MSA-SW42C-061219 (240-114245-23), MSA-SW42D-061219 (240-114245-24), MSA-SW43A-061219 (240-114245-25), MSA-SW43B-061219 (240-114245-26), MSA-SW43C-061219 (240-114245-27), MSA-SW43D-061219 (240-114245-28), MSA-SW44A-061219 (240-114245-29), MSA-SW44B-061219 (240-114245-30), MSA-SW44C-061219 (240-114245-31), MSA-SW44D-061219 (240-114245-32) and (CCVIS 240-387757/4)

The continuing calibration verification (CCV) analyzed in batch 240-387961 was outside the method criteria for 1,2,3-trichlorobenzene, and hexachlorobutadiene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICPMS)

Samples MSA-SW37A-061219 (240-114245-1), MSA-SW37B-061219 (240-114245-2), MSA-SW37C-061219 (240-114245-3), MSA-SW37D-061219 (240-114245-4), MSA-SW38A-061219 (240-114245-5), MSA-SW38B-061219 (240-114245-6), MSA-SW38C-061219 (240-114245-7), MSA-SW38D-061219 (240-114245-8), MSA-SW39A-061219 (240-114245-9), MSA-SW39B-061219 (240-114245-10), MSA-SW39C-061219 (240-114245-11), MSA-SW39D-061219 (240-114245-12), MSA-SW40A-061219 (240-114245-13), MSA-SW40B-061219 (240-114245-14), MSA-SW40C-061219 (240-114245-15), MSA-SW40D-061219 (240-114245-16), MSA-SW41A-061219 (240-114245-17), MSA-SW41B-061219 (240-114245-18), MSA-SW41C-061219 (240-114245-19), MSA-SW41D-061219 (240-114245-20), MSA-SW42A-061219 (240-114245-21), MSA-SW42B-061219 (240-114245-22), MSA-SW42C-061219 (240-114245-23), MSA-SW42D-061219 (240-114245-24), MSA-SW43A-061219 (240-114245-25), MSA-SW43B-061219 (240-114245-26), MSA-SW43C-061219 (240-114245-27), MSA-SW43D-061219 (240-114245-28), MSA-SW44A-061219 (240-114245-29), MSA-SW44B-061219 (240-114245-30), MSA-SW44C-061219 (240-114245-31), MSA-SW44D-061219 (240-114245-32), MSA-SW45A-061219 (240-114245-33), MSA-SW45B-061219 (240-114245-34), MSA-SW45C-061219 (240-114245-35) and MSA-SW45D-061219 (240-114245-36) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 06/18/2019 and analyzed on 06/19/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED MERCURY (CVAA)

Samples MSA-SW37A-061219 (240-114245-1), MSA-SW37B-061219 (240-114245-2), MSA-SW37C-061219 (240-114245-3), MSA-SW37D-061219 (240-114245-4), MSA-SW38A-061219 (240-114245-5), MSA-SW38B-061219 (240-114245-6), MSA-SW38C-061219 (240-114245-7), MSA-SW38D-061219 (240-114245-8), MSA-SW39A-061219 (240-114245-9), MSA-SW39B-061219 (240-114245-10), MSA-SW39C-061219 (240-114245-11), MSA-SW39D-061219 (240-114245-12), MSA-SW40A-061219 (240-114245-13), MSA-SW40B-061219 (240-114245-14), MSA-SW40C-061219 (240-114245-15), MSA-SW40D-061219 (240-114245-16), MSA-SW41A-061219 (240-114245-17), MSA-SW41B-061219 (240-114245-18), MSA-SW41C-061219 (240-114245-19), MSA-SW41D-061219 (240-114245-20), MSA-SW42A-061219 (240-114245-21), MSA-SW42B-061219 (240-114245-22), MSA-SW42C-061219 (240-114245-23), MSA-SW42D-061219 (240-114245-24), MSA-SW43A-061219 (240-114245-25), MSA-SW43B-061219 (240-114245-26), MSA-SW43C-061219 (240-114245-27), MSA-SW43D-061219 (240-114245-28), MSA-SW44A-061219 (240-114245-29), MSA-SW44B-061219 (240-114245-30), MSA-SW44C-061219 (240-114245-31), MSA-SW44D-061219 (240-114245-32), MSA-SW45A-061219 (240-114245-33), MSA-SW45B-061219 (240-114245-34), MSA-SW45C-061219 (240-114245-35) and MSA-SW45D-061219 (240-114245-36) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 06/14/2019 and analyzed on 06/18/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED ORGANIC CARBON

Samples MSA-SW37B-061219 (240-114245-2), MSA-SW38B-061219 (240-114245-6), MSA-SW39B-061219 (240-114245-10), MSA-SW40B-061219 (240-114245-14), MSA-SW41B-061219 (240-114245-18), MSA-SW42B-061219 (240-114245-22), MSA-SW43B-061219 (240-114245-26), MSA-SW44B-061219 (240-114245-30), MSA-SW45B-061219 (240-114245-34) and EL-SW01B-061219 (240-114245-38) were analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 06/26/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED HARDNESS (AS CACO3) BY CALCULATION

Samples MSA-SW37A-061219 (240-114245-1), MSA-SW37B-061219 (240-114245-2), MSA-SW37C-061219 (240-114245-3), MSA-SW37D-061219 (240-114245-4), MSA-SW38A-061219 (240-114245-5), MSA-SW38B-061219 (240-114245-6), MSA-SW38C-061219 (240-114245-7), MSA-SW38D-061219 (240-114245-8), MSA-SW39A-061219 (240-114245-9), MSA-SW39B-061219 (240-114245-10), MSA-SW39C-061219 (240-114245-11), MSA-SW39D-061219 (240-114245-12), MSA-SW40A-061219 (240-114245-13), MSA-SW40B-061219 (240-114245-14), MSA-SW40C-061219 (240-114245-15), MSA-SW40D-061219 (240-114245-16), MSA-SW41A-061219 (240-114245-17), MSA-SW41B-061219 (240-114245-18), MSA-SW41C-061219 (240-114245-19), MSA-SW41D-061219 (240-114245-20), MSA-SW42A-061219 (240-114245-21), MSA-SW42B-061219 (240-114245-22), MSA-SW42C-061219 (240-114245-23), MSA-SW42D-061219 (240-114245-24), MSA-SW43A-061219 (240-114245-25), MSA-SW43B-061219 (240-114245-26), MSA-SW43C-061219 (240-114245-27), MSA-SW43D-061219 (240-114245-28), MSA-SW44A-061219 (240-114245-29), MSA-SW44B-061219 (240-114245-30), MSA-SW44C-061219 (240-114245-31), MSA-SW44D-061219 (240-114245-32), MSA-SW45A-061219 (240-114245-33), MSA-SW45B-061219 (240-114245-34), MSA-SW45C-061219 (240-114245-35) and MSA-SW45D-061219 (240-114245-36) were analyzed for dissolved hardness (as CaCO3) by calculation in accordance with SM 2340B. The samples were analyzed on 06/24/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab Sample ID: CCVIS 240-387757/4 Calibration Date: 06/23/2019 15:00

Instrument ID: A3UX12 Calib Start Date: 04/30/2019 14:10

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/30/2019 16:24

Lab File ID: U1271100.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3850	0.3049	0.1000	0.0158	0.0200	-20.8*	20.0
Chloromethane	Ave	0.3374	0.2404	0.1000	0.0142	0.0200	-28.8*	20.0
Butadiene	Ave	0.3709	0.3010		0.0162	0.0200	-18.8	20.0
Vinyl chloride	Ave	0.3771	0.3119	0.1000	0.0165	0.0200	-17.3	20.0
Bromomethane	Ave	0.2328	0.2231	0.0500	0.0192	0.0200	-4.2	20.0
Chloroethane	Ave	0.2368	0.2184	0.0500	0.0184	0.0200	-7.8	20.0
Dichlorofluoromethane	Ave	0.4732	0.4826		0.0204	0.0200	2.0	20.0
Trichlorofluoromethane	Ave	0.4204	0.4551	0.1000	0.0217	0.0200	8.3	20.0
Ethyl ether	Ave	0.2526	0.2387		0.0189	0.0200	-5.5	20.0
Acrolein	Ave	0.0755	0.0596		0.0789	0.100	-21.1	50.0
1,1-Dichloroethene	Ave	0.4135	0.4425	0.1000	0.0214	0.0200	7.0	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.2737	0.2791	0.0500	0.0204	0.0200	2.0	20.0
Acetone	Lin1		0.1420	0.0100	0.0384	0.0400	-3.9	50.0
Iodomethane	Ave	0.4395	0.4315		0.0196	0.0200	-1.8	20.0
Carbon disulfide	Ave	0.9516	0.8370	0.1000	0.0176	0.0200	-12.0	20.0
3-Chloro-1-propene	Ave	0.4714	0.4333		0.0184	0.0200	-8.1	20.0
Methyl acetate	Ave	0.3480	0.3017	0.1000	0.0347	0.0400	-13.3	20.0
Methylene Chloride	Lin1		0.3537	0.1000	0.0183	0.0200	-8.6	50.0
tert-Butyl alcohol	Ave	0.0732	0.0603		0.165	0.200	-17.7	50.0
Acrylonitrile	Ave	0.1811	0.1567		0.173	0.200	-13.5	20.0
Methyl tert-butyl ether	Ave	0.8398	0.8551	0.1000	0.0204	0.0200	1.8	20.0
trans-1,2-Dichloroethene	Ave	0.4063	0.4084	0.1000	0.0201	0.0200	0.5	20.0
Hexane	Ave	0.4435	0.4121		0.0186	0.0200	-7.1	20.0
1,1-Dichloroethane	Ave	0.5067	0.5088	0.2000	0.0201	0.0200	0.4	20.0
Vinyl acetate	Ave	0.5694	0.6160		0.0216	0.0200	8.2	50.0
2,2-Dichloropropane	Ave	0.3288	0.3453		0.0210	0.0200	5.0	20.0
cis-1,2-Dichloroethene	Ave	0.3444	0.3329	0.1000	0.0193	0.0200	-3.4	20.0
2-Butanone	Ave	0.0623	0.0563	0.0100	0.0361	0.0400	-9.7	20.0
Bromochloromethane	Ave	0.2413	0.2329		0.0193	0.0200	-3.5	20.0
Tetrahydrofuran	Ave	0.1500	0.1394		0.0372	0.0400	-7.1	20.0
Chloroform	Ave	0.4844	0.4997	0.2000	0.0206	0.0200	3.2	20.0
1,1,1-Trichloroethane	Ave	0.4157	0.4476	0.1000	0.0215	0.0200	7.7	20.0
Cyclohexane	Ave	0.5049	0.4953	0.1000	0.0196	0.0200	-1.9	20.0
1,1-Dichloropropene	Ave	0.4109	0.4168		0.0203	0.0200	1.4	20.0
Carbon tetrachloride	Ave	0.3534	0.3696	0.1000	0.0209	0.0200	4.6	20.0
Isobutyl alcohol	Ave	0.0199	0.0181		0.456	0.500	-8.9	20.0
Benzene	Ave	1.178	1.142	0.5000	0.0194	0.0200	-3.1	20.0
1,2-Dichloroethane	Ave	0.3625	0.3951	0.1000	0.0218	0.0200	9.0	20.0
n-Heptane	Lin1		0.2041		0.0166	0.0200	-16.9	20.0
Trichloroethene	Ave	0.3152	0.3002	0.1500	0.0190	0.0200	-4.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab Sample ID: CCVIS 240-387757/4 Calibration Date: 06/23/2019 15:00

Instrument ID: A3UX12 Calib Start Date: 04/30/2019 14:10

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/30/2019 16:24

Lab File ID: U1271100.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5644	0.5419	0.1000	0.0192	0.0200	-4.0	20.0
1,2-Dichloropropane	Ave	0.2488	0.2416	0.1000	0.0194	0.0200	-2.9	20.0
1,4-Dioxane	Ave	0.0040	0.0043		0.428	0.400	7.1	50.0
Dibromomethane	Ave	0.2110	0.1917		0.0182	0.0200	-9.1	20.0
Bromodichloromethane	Ave	0.3396	0.3449	0.1500	0.0203	0.0200	1.6	20.0
2-Chloroethyl vinyl ether	Ave	0.1806	0.1594		0.0353	0.0400	-11.7	20.0
cis-1,3-Dichloropropene	Ave	0.4134	0.3782	0.1500	0.0183	0.0200	-8.5	20.0
4-Methyl-2-pentanone	Ave	0.3834	0.3634	0.0500	0.0379	0.0400	-5.2	20.0
Toluene	Ave	1.674	1.573	0.4000	0.0188	0.0200	-6.0	20.0
trans-1,3-Dichloropropene	Ave	0.5418	0.4935	0.1000	0.0182	0.0200	-8.9	20.0
Ethyl methacrylate	Ave	0.5220	0.4879		0.0187	0.0200	-6.5	20.0
1,1,2-Trichloroethane	Ave	0.3327	0.3064	0.1000	0.0184	0.0200	-7.9	20.0
Tetrachloroethene	Ave	0.4449	0.4156	0.1500	0.0187	0.0200	-6.6	20.0
1,3-Dichloropropane	Ave	0.5898	0.5348		0.0181	0.0200	-9.3	20.0
2-Hexanone	Ave	0.4000	0.3605	0.0500	0.0360	0.0400	-9.9	20.0
Dibromochloromethane	Ave	0.3454	0.3174		0.0184	0.0200	-8.1	20.0
1,2-Dibromoethane	Ave	0.3578	0.3271		0.0183	0.0200	-8.6	20.0
Chlorobenzene	Ave	1.080	0.9790	0.3000	0.0181	0.0200	-9.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3776	0.3663		0.0194	0.0200	-3.0	20.0
Ethylbenzene	Ave	0.6029	0.5716		0.0190	0.0200	-5.2	20.0
m-Xylene & p-Xylene	Ave	0.7480	0.7136		0.0191	0.0200	-4.6	20.0
o-Xylene	Ave	0.7560	0.7318		0.0194	0.0200	-3.2	20.0
Styrene	Ave	1.213	1.139	0.3000	0.0188	0.0200	-6.1	20.0
Bromoform	Ave	0.2499	0.2352	0.1000	0.0188	0.0200	-5.9	20.0
Isopropylbenzene	Ave	1.969	1.950	0.1000	0.0198	0.0200	-0.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9843	0.9006	0.3000	0.0183	0.0200	-8.5	20.0
Bromobenzene	Ave	0.8666	0.7263		0.0168	0.0200	-16.2	20.0
1,2,3-Trichloropropane	Ave	0.3726	0.3286		0.0176	0.0200	-11.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3189	0.2829		0.0177	0.0200	-11.3	20.0
n-Propylbenzene	Ave	0.9864	0.8572		0.0174	0.0200	-13.1	20.0
2-Chlorotoluene	Ave	0.8263	0.7216		0.0175	0.0200	-12.7	20.0
1,3,5-Trimethylbenzene	Ave	2.842	2.556		0.0180	0.0200	-10.1	20.0
4-Chlorotoluene	Ave	0.8528	0.7314		0.0172	0.0200	-14.2	20.0
tert-Butylbenzene	Ave	2.582	2.223		0.0172	0.0200	-13.9	20.0
1,2,4-Trimethylbenzene	Ave	2.944	2.655		0.0180	0.0200	-9.8	20.0
sec-Butylbenzene	Ave	3.717	3.230		0.0174	0.0200	-13.1	20.0
1,3-Dichlorobenzene	Ave	1.707	1.452	0.6000	0.0170	0.0200	-14.9	20.0
p-Isopropyltoluene	Ave	3.214	2.789		0.0174	0.0200	-13.2	20.0
1,4-Dichlorobenzene	Ave	1.756	1.473	0.5000	0.0168	0.0200	-16.1	20.0
n-Butylbenzene	Ave	2.741	2.383		0.0174	0.0200	-13.1	20.0
1,2-Dichlorobenzene	Ave	1.655	1.433	0.4000	0.0173	0.0200	-13.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab Sample ID: CCVIS 240-387757/4 Calibration Date: 06/23/2019 15:00

Instrument ID: A3UX12 Calib Start Date: 04/30/2019 14:10

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/30/2019 16:24

Lab File ID: U1271100.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.3213	0.2762	0.0500	0.0172	0.0200	-14.0	50.0
1,2,4-Trichlorobenzene	Ave	1.156	0.9344	0.2000	0.0162	0.0200	-19.2	50.0
Hexachlorobutadiene	Ave	0.5105	0.3480		0.0136	0.0200	-31.8*	20.0
Naphthalene	Ave	3.623	3.417		0.0189	0.0200	-5.7	50.0
1,2,3-Trichlorobenzene	Ave	1.070	0.8858		0.0166	0.0200	-17.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2660	0.2651		0.0199	0.0200	-0.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2988	0.3368		0.0225	0.0200	12.7	20.0
Toluene-d8 (Surr)	Ave	1.417	1.301		0.0184	0.0200	-8.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5219	0.5063		0.0194	0.0200	-3.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab Sample ID: CCVIS 240-387961/4 Calibration Date: 06/24/2019 18:03

Instrument ID: A3UX12 Calib Start Date: 04/30/2019 14:10

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/30/2019 16:24

Lab File ID: U1271130.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3850	0.3094	0.1000	0.0161	0.0200	-19.6	20.0
Chloromethane	Ave	0.3374	0.2702	0.1000	0.0160	0.0200	-19.9	20.0
Butadiene	Ave	0.3709	0.3088		0.0167	0.0200	-16.7	20.0
Vinyl chloride	Ave	0.3771	0.3166	0.1000	0.0168	0.0200	-16.0	20.0
Bromomethane	Ave	0.2328	0.2295	0.0500	0.0197	0.0200	-1.4	20.0
Chloroethane	Ave	0.2368	0.2260	0.0500	0.0191	0.0200	-4.6	20.0
Dichlorofluoromethane	Ave	0.4732	0.4955		0.0209	0.0200	4.7	20.0
Trichlorofluoromethane	Ave	0.4204	0.4766	0.1000	0.0227	0.0200	13.4	20.0
Ethyl ether	Ave	0.2526	0.2422		0.0192	0.0200	-4.1	20.0
Acrolein	Ave	0.0755	0.0618		0.0819	0.100	-18.1	50.0
1,1-Dichloroethene	Ave	0.4135	0.4550	0.1000	0.0220	0.0200	10.0	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.2737	0.2954	0.0500	0.0216	0.0200	8.0	20.0
Acetone	Lin1		0.1427	0.0100	0.0386	0.0400	-3.4	50.0
Iodomethane	Ave	0.4395	0.4428		0.0201	0.0200	0.7	20.0
Carbon disulfide	Ave	0.9516	0.8631	0.1000	0.0181	0.0200	-9.3	20.0
3-Chloro-1-propene	Ave	0.4714	0.4439		0.0188	0.0200	-5.8	20.0
Methyl acetate	Ave	0.3480	0.3150	0.1000	0.0362	0.0400	-9.5	20.0
Methylene Chloride	Lin1		0.3597	0.1000	0.0186	0.0200	-6.9	50.0
tert-Butyl alcohol	Ave	0.0732	0.0589		0.161	0.200	-19.6	50.0
Acrylonitrile	Ave	0.1811	0.1628		0.180	0.200	-10.1	20.0
Methyl tert-butyl ether	Ave	0.8398	0.8724	0.1000	0.0208	0.0200	3.9	20.0
trans-1,2-Dichloroethene	Ave	0.4063	0.4195	0.1000	0.0206	0.0200	3.2	20.0
Hexane	Ave	0.4435	0.4492		0.0203	0.0200	1.3	20.0
1,1-Dichloroethane	Ave	0.5067	0.5192	0.2000	0.0205	0.0200	2.5	20.0
Vinyl acetate	Ave	0.5694	0.6410		0.0225	0.0200	12.6	50.0
2,2-Dichloropropane	Ave	0.3288	0.3625		0.0220	0.0200	10.2	20.0
cis-1,2-Dichloroethene	Ave	0.3444	0.3383	0.1000	0.0196	0.0200	-1.8	20.0
2-Butanone	Ave	0.0623	0.0614	0.0100	0.0394	0.0400	-1.4	20.0
Bromochloromethane	Ave	0.2413	0.2420		0.0201	0.0200	0.3	20.0
Tetrahydrofuran	Ave	0.1500	0.1478		0.0394	0.0400	-1.5	20.0
Chloroform	Ave	0.4844	0.5117	0.2000	0.0211	0.0200	5.6	20.0
1,1,1-Trichloroethane	Ave	0.4157	0.4662	0.1000	0.0224	0.0200	12.2	20.0
Cyclohexane	Ave	0.5049	0.5102	0.1000	0.0202	0.0200	1.1	20.0
1,1-Dichloropropene	Ave	0.4109	0.4376		0.0213	0.0200	6.5	20.0
Carbon tetrachloride	Ave	0.3534	0.3922	0.1000	0.0222	0.0200	11.0	20.0
Isobutyl alcohol	Ave	0.0199	0.0185		0.466	0.500	-6.9	20.0
Benzene	Ave	1.178	1.195	0.5000	0.0203	0.0200	1.5	20.0
1,2-Dichloroethane	Ave	0.3625	0.4118	0.1000	0.0227	0.0200	13.6	20.0
n-Heptane	Lin1		0.2187		0.0180	0.0200	-9.9	20.0
Trichloroethene	Ave	0.3152	0.3149	0.1500	0.0200	0.0200	-0.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab Sample ID: CCVIS 240-387961/4 Calibration Date: 06/24/2019 18:03

Instrument ID: A3UX12 Calib Start Date: 04/30/2019 14:10

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/30/2019 16:24

Lab File ID: U1271130.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5644	0.5681	0.1000	0.0201	0.0200	0.7	20.0
1,2-Dichloropropane	Ave	0.2488	0.2599	0.1000	0.0209	0.0200	4.5	20.0
Dibromomethane	Ave	0.2110	0.2001		0.0190	0.0200	-5.1	20.0
1,4-Dioxane	Ave	0.0040	0.0045		0.445	0.400	11.2	50.0
Bromodichloromethane	Ave	0.3396	0.3691	0.1500	0.0217	0.0200	8.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1806	0.1884		0.0417	0.0400	4.3	20.0
cis-1,3-Dichloropropene	Ave	0.4134	0.4165	0.1500	0.0202	0.0200	0.8	20.0
4-Methyl-2-pentanone	Ave	0.3834	0.3998	0.0500	0.0417	0.0400	4.3	20.0
Toluene	Ave	1.674	1.627	0.4000	0.0194	0.0200	-2.8	20.0
trans-1,3-Dichloropropene	Ave	0.5418	0.5268	0.1000	0.0194	0.0200	-2.8	20.0
Ethyl methacrylate	Ave	0.5220	0.5332		0.0204	0.0200	2.2	20.0
1,1,2-Trichloroethane	Ave	0.3327	0.3229	0.1000	0.0194	0.0200	-2.9	20.0
Tetrachloroethene	Ave	0.4449	0.4254	0.1500	0.0191	0.0200	-4.4	20.0
1,3-Dichloropropane	Ave	0.5898	0.5718		0.0194	0.0200	-3.0	20.0
2-Hexanone	Ave	0.4000	0.3999	0.0500	0.0400	0.0400	-0.0	20.0
Dibromochloromethane	Ave	0.3454	0.3410		0.0197	0.0200	-1.3	20.0
1,2-Dibromoethane	Ave	0.3578	0.3499		0.0196	0.0200	-2.2	20.0
Chlorobenzene	Ave	1.080	1.032	0.3000	0.0191	0.0200	-4.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3776	0.3698		0.0196	0.0200	-2.1	20.0
Ethylbenzene	Ave	0.6029	0.5978		0.0198	0.0200	-0.8	20.0
m-Xylene & p-Xylene	Ave	0.7480	0.7463		0.0200	0.0200	-0.2	20.0
o-Xylene	Ave	0.7560	0.7431		0.0197	0.0200	-1.7	20.0
Styrene	Ave	1.213	1.222	0.3000	0.0202	0.0200	0.8	20.0
Bromoform	Ave	0.2499	0.2592	0.1000	0.0207	0.0200	3.7	20.0
Isopropylbenzene	Ave	1.969	1.986	0.1000	0.0202	0.0200	0.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9843	0.9853	0.3000	0.0200	0.0200	0.1	20.0
Bromobenzene	Ave	0.8666	0.8007		0.0185	0.0200	-7.6	20.0
1,2,3-Trichloropropane	Ave	0.3726	0.3584		0.0192	0.0200	-3.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3189	0.3383		0.0212	0.0200	6.1	20.0
n-Propylbenzene	Ave	0.9864	0.9407		0.0191	0.0200	-4.6	20.0
2-Chlorotoluene	Ave	0.8263	0.7907		0.0191	0.0200	-4.3	20.0
1,3,5-Trimethylbenzene	Ave	2.842	2.763		0.0194	0.0200	-2.8	20.0
4-Chlorotoluene	Ave	0.8528	0.8086		0.0190	0.0200	-5.2	20.0
tert-Butylbenzene	Ave	2.582	2.440		0.0189	0.0200	-5.5	20.0
1,2,4-Trimethylbenzene	Ave	2.944	2.860		0.0194	0.0200	-2.8	20.0
sec-Butylbenzene	Ave	3.717	3.500		0.0188	0.0200	-5.8	20.0
1,3-Dichlorobenzene	Ave	1.707	1.579	0.6000	0.0185	0.0200	-7.5	20.0
p-Isopropyltoluene	Ave	3.214	3.015		0.0188	0.0200	-6.2	20.0
1,4-Dichlorobenzene	Ave	1.756	1.625	0.5000	0.0185	0.0200	-7.4	20.0
n-Butylbenzene	Ave	2.741	2.532		0.0185	0.0200	-7.6	20.0
1,2-Dichlorobenzene	Ave	1.655	1.533	0.4000	0.0185	0.0200	-7.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab Sample ID: CCVIS 240-387961/4 Calibration Date: 06/24/2019 18:03

Instrument ID: A3UX12 Calib Start Date: 04/30/2019 14:10

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/30/2019 16:24

Lab File ID: U1271130.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.3213	0.2896	0.0500	0.0180	0.0200	-9.9	50.0
1,2,4-Trichlorobenzene	Ave	1.156	0.9030	0.2000	0.0156	0.0200	-21.9	50.0
Hexachlorobutadiene	Ave	0.5105	0.3467		0.0136	0.0200	-32.1*	20.0
Naphthalene	Ave	3.623	3.241		0.0179	0.0200	-10.5	50.0
1,2,3-Trichlorobenzene	Ave	1.070	0.8410		0.0157	0.0200	-21.4*	20.0
Dibromofluoromethane (Surr)	Ave	0.2660	0.2670		0.0201	0.0200	0.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2988	0.3327		0.0223	0.0200	11.3	20.0
Toluene-d8 (Surr)	Ave	1.417	1.330		0.0188	0.0200	-6.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5219	0.5456		0.0209	0.0200	4.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab Sample ID: CCVIS 240-387616/4 Calibration Date: 06/21/2019 16:29

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1908025.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3850	0.3027	0.1000	0.0157	0.0200	-21.4*	20.0
Chloromethane	Ave	0.2883	0.2680	0.1000	0.0186	0.0200	-7.0	20.0
Butadiene	Ave	0.2887	0.2724		0.0189	0.0200	-5.6	20.0
Vinyl chloride	Ave	0.2980	0.2944	0.1000	0.0198	0.0200	-1.2	20.0
Bromomethane	Ave	0.2335	0.2371	0.0500	0.0203	0.0200	1.6	20.0
Chloroethane	Ave	0.1848	0.2033	0.0500	0.0220	0.0200	10.0	20.0
Dichlorofluoromethane	Ave	0.4581	0.4790		0.0209	0.0200	4.6	20.0
Trichlorofluoromethane	Ave	0.4984	0.5094	0.1000	0.0204	0.0200	2.2	20.0
Ethyl ether	Ave	0.1800	0.2062		0.0229	0.0200	14.5	20.0
Acrolein	Ave	0.0445	0.0543		0.122	0.100	22.2	50.0
1,1-Dichloroethene	Ave	0.3589	0.3909	0.1000	0.0218	0.0200	8.9	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.2567	0.2867	0.0500	0.0223	0.0200	11.7	20.0
Acetone	Ave	0.0784	0.1097	0.0100	0.0559	0.0400	39.9	50.0
Iodomethane	Ave	0.4655	0.4456		0.0191	0.0200	-4.3	20.0
Carbon disulfide	Ave	0.7515	0.7947	0.1000	0.0212	0.0200	5.8	20.0
3-Chloro-1-propene	Ave	0.3541	0.3563		0.0201	0.0200	0.6	20.0
Methyl acetate	Ave	0.2328	0.2691	0.1000	0.0462	0.0400	15.6	20.0
Methylene Chloride	Ave	0.2846	0.3048	0.1000	0.0214	0.0200	7.1	50.0
tert-Butyl alcohol	Ave	0.0271	0.0381		0.281	0.200	40.7	50.0
Acrylonitrile	Ave	0.1006	0.1333		0.265	0.200	32.5*	20.0
Methyl tert-butyl ether	Ave	0.6938	0.7012	0.1000	0.0202	0.0200	1.1	20.0
trans-1,2-Dichloroethene	Ave	0.3387	0.3699	0.1000	0.0218	0.0200	9.2	20.0
Hexane	Ave	0.3524	0.3539		0.0201	0.0200	0.4	20.0
1,1-Dichloroethane	Ave	0.4048	0.4482	0.2000	0.0221	0.0200	10.7	20.0
Vinyl acetate	Ave	0.4639	0.4340		0.0187	0.0200	-6.4	50.0
2,2-Dichloropropane	Ave	0.2438	0.2901		0.0238	0.0200	19.0	20.0
2-Butanone	Ave	0.0472	0.0499	0.0100	0.0422	0.0400	5.6	20.0
cis-1,2-Dichloroethene	Ave	0.2891	0.3067	0.1000	0.0212	0.0200	6.1	20.0
Bromochloromethane	Ave	0.1945	0.2043		0.0210	0.0200	5.0	20.0
Tetrahydrofuran	Lin1		0.1107		0.0429	0.0400	7.2	20.0
Chloroform	Ave	0.4433	0.4745	0.2000	0.0214	0.0200	7.0	20.0
1,1,1-Trichloroethane	Ave	0.4174	0.4321	0.1000	0.0207	0.0200	3.5	20.0
Cyclohexane	Ave	0.3819	0.4142	0.1000	0.0217	0.0200	8.4	20.0
1,1-Dichloropropene	Ave	0.3519	0.3712		0.0211	0.0200	5.5	20.0
Carbon tetrachloride	Ave	0.4023	0.3935	0.1000	0.0196	0.0200	-2.2	20.0
Isobutyl alcohol	Ave	0.0110	0.0128		0.581	0.500	16.1	20.0
Benzene	Ave	0.9518	1.026	0.5000	0.0216	0.0200	7.8	20.0
1,2-Dichloroethane	Ave	0.3600	0.3701	0.1000	0.0206	0.0200	2.8	20.0
n-Heptane	Lin1		0.1758		0.0154	0.0200	-22.8*	20.0
Trichloroethene	Ave	0.3160	0.2973	0.1500	0.0188	0.0200	-5.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab Sample ID: CCVIS 240-387616/4 Calibration Date: 06/21/2019 16:29

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1908025.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4590	0.4636	0.1000	0.0202	0.0200	1.0	20.0
1,2-Dichloropropane	Ave	0.2208	0.2251	0.1000	0.0204	0.0200	2.0	20.0
1,4-Dioxane	Ave	0.0024	0.0036		0.600	0.400	49.9	50.0
Dibromomethane	Ave	0.2271	0.1993		0.0176	0.0200	-12.2	20.0
Bromodichloromethane	Ave	0.3479	0.3462	0.1500	0.0199	0.0200	-0.5	20.0
2-Chloroethyl vinyl ether	Ave	0.1770	0.1596		0.0361	0.0400	-9.8	20.0
cis-1,3-Dichloropropene	Ave	0.3865	0.3521	0.1500	0.0182	0.0200	-8.9	20.0
4-Methyl-2-pentanone	Ave	0.3203	0.3208	0.0500	0.0401	0.0400	0.1	20.0
Toluene	Ave	1.352	1.467	0.4000	0.0217	0.0200	8.5	20.0
trans-1,3-Dichloropropene	Ave	0.4818	0.4506	0.1000	0.0187	0.0200	-6.5	20.0
Ethyl methacrylate	Ave	0.4344	0.4425		0.0204	0.0200	1.9	20.0
1,1,2-Trichloroethane	Ave	0.2842	0.3061	0.1000	0.0215	0.0200	7.7	20.0
Tetrachloroethene	Ave	0.4313	0.4111	0.1500	0.0191	0.0200	-4.7	20.0
1,3-Dichloropropane	Ave	0.4802	0.5042		0.0210	0.0200	5.0	20.0
2-Hexanone	Ave	0.3149	0.3297	0.0500	0.0419	0.0400	4.7	20.0
Dibromochloromethane	Ave	0.3583	0.3631		0.0203	0.0200	1.3	20.0
1,2-Dibromoethane	Ave	0.3346	0.3369		0.0201	0.0200	0.7	20.0
Chlorobenzene	Ave	0.9253	0.9301	0.3000	0.0201	0.0200	0.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3336	0.3578		0.0215	0.0200	7.3	20.0
Ethylbenzene	Ave	0.4836	0.5172		0.0214	0.0200	6.9	20.0
m-Xylene & p-Xylene	Ave	0.5890	0.6438		0.0219	0.0200	9.3	20.0
o-Xylene	Ave	0.5597	0.6402		0.0229	0.0200	14.4	20.0
Styrene	Ave	0.9588	1.045	0.3000	0.0218	0.0200	9.0	20.0
Bromoform	Ave	0.2933	0.2750	0.1000	0.0188	0.0200	-6.2	20.0
Isopropylbenzene	Ave	1.503	1.699	0.1000	0.0226	0.0200	13.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7706	0.9432	0.3000	0.0245	0.0200	22.4*	20.0
Bromobenzene	Ave	0.7690	0.7654		0.0199	0.0200	-0.5	20.0
1,2,3-Trichloropropane	Ave	0.2921	0.3357		0.0230	0.0200	14.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2737	0.2759		0.0202	0.0200	0.8	20.0
n-Propylbenzene	Ave	0.7729	0.8421		0.0218	0.0200	9.0	20.0
2-Chlorotoluene	Ave	0.6541	0.7429		0.0227	0.0200	13.6	20.0
1,3,5-Trimethylbenzene	Ave	2.225	2.559		0.0230	0.0200	15.0	20.0
4-Chlorotoluene	Ave	0.7072	0.7502		0.0212	0.0200	6.1	20.0
tert-Butylbenzene	Ave	2.113	2.202		0.0209	0.0200	4.3	20.0
1,2,4-Trimethylbenzene	Ave	2.256	2.613		0.0232	0.0200	15.8	20.0
sec-Butylbenzene	Ave	2.845	3.124		0.0220	0.0200	9.8	20.0
1,3-Dichlorobenzene	Ave	1.412	1.446	0.6000	0.0205	0.0200	2.4	20.0
p-Isopropyltoluene	Ave	2.492	2.690		0.0216	0.0200	8.0	20.0
1,4-Dichlorobenzene	Ave	1.459	1.479	0.5000	0.0203	0.0200	1.4	20.0
n-Butylbenzene	Ave	2.050	2.260		0.0221	0.0200	10.3	20.0
1,2-Dichlorobenzene	Ave	1.282	1.433	0.4000	0.0224	0.0200	11.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab Sample ID: CCVIS 240-387616/4 Calibration Date: 06/21/2019 16:29

Instrument ID: A3UX19 Calib Start Date: 08/27/2018 17:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/27/2018 19:23

Lab File ID: U1908025.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2450	0.2765	0.0500	0.0226	0.0200	12.8	50.0
1,2,4-Trichlorobenzene	Ave	0.8550	0.8383	0.2000	0.0196	0.0200	-2.0	50.0
Hexachlorobutadiene	Ave	0.4392	0.3349		0.0153	0.0200	-23.7*	20.0
Naphthalene	Ave	2.363	2.981		0.0252	0.0200	26.2	50.0
1,2,3-Trichlorobenzene	Ave	0.7677	0.8260		0.0215	0.0200	7.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2692	0.2646		0.0197	0.0200	-1.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3092	0.3089		0.0200	0.0200	-0.0	20.0
Toluene-d8 (Surr)	Ave	1.199	1.222		0.0204	0.0200	1.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4513	0.4802		0.0213	0.0200	6.4	20.0

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

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-061219	240-114245-1	100	97	100	97
MSA-SW37B-061219	240-114245-2	98	98	100	102
MSA-SW37C-061219	240-114245-3	98	95	99	100
MSA-SW37D-061219	240-114245-4	98	97	101	100
MSA-SW38A-061219	240-114245-5	99	98	100	102
MSA-SW38B-061219	240-114245-6	100	96	100	102
MSA-SW38C-061219	240-114245-7	96	96	102	102
MSA-SW38D-061219	240-114245-8	97	98	99	99
MSA-SW39A-061219	240-114245-9	101	99	104	104
MSA-SW39B-061219	240-114245-10	97	97	98	98
MSA-SW39C-061219	240-114245-11	100	99	101	99
MSA-SW39D-061219	240-114245-12	99	100	100	100
MSA-SW40A-061219	240-114245-13	94	94	98	97
MSA-SW40B-061219	240-114245-14	96	110	94	97
MSA-SW40C-061219	240-114245-15	94	111	94	101
MSA-SW40D-061219	240-114245-16	95	108	91	95
MSA-SW41A-061219	240-114245-17	95	109	91	96
MSA-SW41B-061219	240-114245-18	100	114	95	102
MSA-SW41C-061219	240-114245-19	92	107	87	92
MSA-SW41D-061219	240-114245-20	94	107	89	96
MSA-SW42A-061219	240-114245-21	96	111	93	99
MSA-SW42B-061219	240-114245-22	96	110	93	97
MSA-SW42C-061219	240-114245-23	93	107	90	93
MSA-SW42D-061219	240-114245-24	95	108	92	96
MSA-SW43A-061219	240-114245-25	102	114	95	102
MSA-SW43B-061219	240-114245-26	94	107	91	96
MSA-SW43C-061219	240-114245-27	98	111	94	98
MSA-SW43D-061219	240-114245-28	99	111	89	96
MSA-SW44A-061219	240-114245-29	94	106	88	91
MSA-SW44B-061219	240-114245-30	98	109	94	101
MSA-SW44C-061219	240-114245-31	99	113	92	101
MSA-SW44D-061219	240-114245-32	93	107	89	93
MSA-SW45A-061219	240-114245-33	98	111	92	100
MSA-SW45B-061219	240-114245-34	96	110	93	99
MSA-SW45C-061219	240-114245-35	102	115	92	102

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-128
DCA = 1,2-Dichloroethane-d4 (Surr)	70-121
TOL = Toluene-d8 (Surr)	70-123
BFB = 4-Bromofluorobenzene (Surr)	59-120

Column to be used to flag recovery values

FORM II 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

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-SW45D-061219	240-114245-36	105	116	93	103
EL-SW01A-061219	240-114245-37	100	114	94	102
EL-SW01B-061219	240-114245-38	101	113	94	101
EL-SW01C-061219	240-114245-39	105	115	93	102
EL-SW01D-061219	240-114245-40	102	114	92	100
TB-061219	240-114245-41	98	110	90	96
MSA-SW46A-061219	240-114245-42	95	110	92	100
MSA-SW47A-061219	240-114245-43	102	114	92	100
MSA-SW48A-061219	240-114245-44	95	111	93	98
MSA-SW49A-061219	240-114245-45	102	114	92	100
	MB 240-387616/8	104	102	104	103
	MB 240-387757/7	92	106	87	92
	MB 240-387961/7	99	113	92	100
	LCS 240-387616/5	96	97	101	106
	LCS 240-387757/5	100	111	94	100
	LCS 240-387961/5	95	107	90	98
	240-114635-E-1 MS	97	98	102	107
	240-114427-B-1 MS	91	105	89	92
	240-114267-B-1 MS	100	112	93	101
	240-114635-F-1 MSD	98	97	106	109
	240-114427-B-1 MSD	91	101	88	93
	240-114267-B-1 MSD	103	115	95	101

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-128
DCA = 1,2-Dichloroethane-d4 (Surr)	70-121
TOL = Toluene-d8 (Surr)	70-123
BFB = 4-Bromofluorobenzene (Surr)	59-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1908026.d

Lab ID: LCS 240-387616/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	21.2	106	80-124	
1,1,1-Trichloroethane	20.0	20.0	100	69-134	
1,1,2,2-Tetrachloroethane	20.0	24.0	120	65-139	
1,1,2-Trichloro-1,2,2-trichfluoroethane	20.0	21.9	110	50-156	
1,1-Dichloroethane	20.0	21.8	109	75-133	
1,1-Dichloroethene	20.0	21.8	109	65-139	
1,1-Dichloropropene	20.0	20.7	104	78-126	
1,2,3-Trichlorobenzene	20.0	20.8	104	39-138	
1,2,3-Trichloropropane	20.0	22.9	114	66-139	
1,2,4-Trichlorobenzene	20.0	19.2	96	42-133	
1,2,4-Trimethylbenzene	20.0	22.7	113	74-120	
1,2-Dibromo-3-Chloropropane	20.0	21.8	109	46-132	
1,2-Dichlorobenzene	20.0	21.8	109	78-120	
1,2-Dichloroethane	20.0	20.0	100	71-135	
1,2-Dichloropropane	20.0	20.6	103	78-133	
1,3-Dichlorobenzene	20.0	20.4	102	78-120	
1,3-Dichloropropane	20.0	20.7	103	72-134	
1,4-Dichlorobenzene	20.0	20.3	101	78-120	
2,2-Dichloropropane	20.0	21.8	109	42-150	
2-Chloroethyl vinyl ether	20.0	18.2	91	55-137	
2-Chlorotoluene	20.0	22.7	113	78-123	
2-Hexanone	40.0	41.2	103	43-148	
Bromobenzene	20.0	19.9	100	74-129	
Bromochloromethane	20.0	20.7	103	74-130	
4-Chlorotoluene	20.0	21.6	108	77-125	
p-Isopropyltoluene	20.0	21.6	108	69-122	
Acetone	40.0	47.7	119	21-162	
Benzene	20.0	21.1	106	80-123	
Bromoform	20.0	18.5	92	49-141	
Bromomethane	20.0	20.0	100	41-175	
Carbon disulfide	20.0	20.8	104	60-138	
Carbon tetrachloride	20.0	19.1	95	63-140	
Chlorobenzene	20.0	20.2	101	80-121	
Chloroethane	20.0	21.3	107	33-173	
Chloroform	20.0	21.2	106	79-127	
Chloromethane	20.0	18.1	91	54-143	
cis-1,2-Dichloroethene	20.0	20.7	104	76-128	
cis-1,3-Dichloropropene	20.0	18.9	94	64-132	
Hexachlorobutadiene	20.0	16.3	81	38-136	
Dibromomethane	20.0	16.7	83	74-124	
Bromodichloromethane	20.0	19.6	98	77-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1908026.d

Lab ID: LCS 240-387616/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	14.8	74	29-148	
Ethylbenzene	20.0	21.2	106	80-120	
1,2-Dibromoethane	20.0	20.1	101	77-123	
Naphthalene	20.0	23.8	119	28-141	
m-Xylene & p-Xylene	20.0	21.3	107	80-120	
n-Butylbenzene	20.0	21.7	109	57-126	
Isopropylbenzene	20.0	22.1	111	74-120	
n-Propylbenzene	20.0	22.2	111	77-123	
2-Butanone	40.0	38.6	96	39-163	
4-Methyl-2-pentanone	40.0	39.3	98	49-143	
sec-Butylbenzene	20.0	22.1	110	68-123	
Methyl tert-butyl ether	20.0	20.4	102	51-133	
Methylene Chloride	20.0	21.1	105	70-134	
o-Xylene	20.0	22.4	112	80-120	
Styrene	20.0	20.3	101	79-120	
tert-Butylbenzene	20.0	20.9	105	70-121	
Tetrachloroethene	20.0	18.8	94	74-130	
Toluene	20.0	21.4	107	78-129	
trans-1,2-Dichloroethene	20.0	21.8	109	78-133	
trans-1,3-Dichloropropene	20.0	18.5	93	55-128	
Trichloroethene	20.0	18.2	91	76-125	
Trichlorofluoromethane	20.0	20.1	100	51-164	
Vinyl acetate	20.0	21.5	108	45-151	
Vinyl chloride	20.0	19.7	98	58-143	
tert-Butyl alcohol	200	236	118	10-161	
Xylenes, Total	40.0	43.7	109	80-120	
Dibromochloromethane	20.0	20.8	104	70-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1271101.D

Lab ID: LCS 240-387757/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.8	99	80-124	
1,1,1-Trichloroethane	20.0	21.2	106	69-134	
1,1,2,2-Tetrachloroethane	20.0	18.5	92	65-139	
1,1,2-Trichloro-1,2,2-trichfluoroethane	20.0	20.3	101	50-156	
1,1-Dichloroethane	20.0	19.6	98	75-133	
1,1-Dichloroethene	20.0	21.3	107	65-139	
1,1-Dichloropropene	20.0	19.4	97	78-126	
1,2,3-Trichlorobenzene	20.0	17.7	88	39-138	
1,2,3-Trichloropropane	20.0	18.0	90	66-139	
1,2,4-Trichlorobenzene	20.0	16.8	84	42-133	
1,2,4-Trimethylbenzene	20.0	18.2	91	74-120	
1,2-Dibromo-3-Chloropropane	20.0	18.1	91	46-132	
1,2-Dichlorobenzene	20.0	17.8	89	78-120	
1,2-Dichloroethane	20.0	21.6	108	71-135	
1,2-Dichloropropane	20.0	19.3	97	78-133	
1,3-Dichlorobenzene	20.0	17.2	86	78-120	
1,3-Dichloropropane	20.0	17.6	88	72-134	
1,4-Dichlorobenzene	20.0	17.2	86	78-120	
2,2-Dichloropropane	20.0	20.1	100	42-150	
2-Chloroethyl vinyl ether	20.0	16.1	80	55-137	
2-Chlorotoluene	20.0	17.9	90	78-123	
2-Hexanone	40.0	33.6	84	43-148	
Bromobenzene	20.0	16.8	84	74-129	
Bromochloromethane	20.0	19.5	97	74-130	
4-Chlorotoluene	20.0	17.2	86	77-125	
p-Isopropyltoluene	20.0	17.8	89	69-122	
Acetone	40.0	38.6	97	21-162	
Benzene	20.0	18.8	94	80-123	
Bromoform	20.0	18.7	93	49-141	
Bromomethane	20.0	19.0	95	41-175	
Carbon disulfide	20.0	17.4	87	60-138	
Carbon tetrachloride	20.0	20.6	103	63-140	
Chlorobenzene	20.0	17.8	89	80-121	
Chloroethane	20.0	18.3	92	33-173	
Chloroform	20.0	20.5	102	79-127	
Chloromethane	20.0	14.0	70	54-143	
cis-1,2-Dichloroethene	20.0	18.9	94	76-128	
cis-1,3-Dichloropropene	20.0	18.3	92	64-132	
Hexachlorobutadiene	20.0	14.8	74	38-136	
Dibromomethane	20.0	17.8	89	74-124	
Bromodichloromethane	20.0	19.8	99	77-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1271101.D

Lab ID: LCS 240-387757/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	14.8	74	29-148	
Ethylbenzene	20.0	18.7	94	80-120	
1,2-Dibromoethane	20.0	18.0	90	77-123	
Naphthalene	20.0	19.4	97	28-141	
m-Xylene & p-Xylene	20.0	18.7	94	80-120	
n-Butylbenzene	20.0	17.5	88	57-126	
Isopropylbenzene	20.0	19.7	98	74-120	
n-Propylbenzene	20.0	17.7	89	77-123	
2-Butanone	40.0	34.4	86	39-163	
4-Methyl-2-pentanone	40.0	36.1	90	49-143	
sec-Butylbenzene	20.0	17.5	88	68-123	
Methyl tert-butyl ether	20.0	20.0	100	51-133	
Methylene Chloride	20.0	17.9	90	70-134	
o-Xylene	20.0	19.1	95	80-120	
Styrene	20.0	17.6	88	79-120	
tert-Butylbenzene	20.0	17.5	87	70-121	
Tetrachloroethene	20.0	18.2	91	74-130	
Toluene	20.0	18.5	93	78-129	
trans-1,2-Dichloroethene	20.0	20.1	100	78-133	
trans-1,3-Dichloropropene	20.0	17.5	88	55-128	
Trichloroethene	20.0	18.6	93	76-125	
Trichlorofluoromethane	20.0	21.0	105	51-164	
Vinyl acetate	20.0	21.0	105	45-151	
Vinyl chloride	20.0	16.8	84	58-143	
tert-Butyl alcohol	200	181	90	10-161	
Xylenes, Total	40.0	37.8	95	80-120	
Dibromochloromethane	20.0	18.7	94	70-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1271131.D

Lab ID: LCS 240-387961/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	18.7	93	80-124	
1,1,1-Trichloroethane	20.0	21.7	109	69-134	
1,1,2,2-Tetrachloroethane	20.0	19.1	96	65-139	
1,1,2-Trichloro-1,2,2-trichfluoroethane	20.0	21.2	106	50-156	
1,1-Dichloroethane	20.0	19.9	100	75-133	
1,1-Dichloroethene	20.0	22.1	110	65-139	
1,1-Dichloropropene	20.0	20.6	103	78-126	
1,2,3-Trichlorobenzene	20.0	16.3	81	39-138	
1,2,3-Trichloropropane	20.0	19.1	96	66-139	
1,2,4-Trichlorobenzene	20.0	15.6	78	42-133	
1,2,4-Trimethylbenzene	20.0	18.2	91	74-120	
1,2-Dibromo-3-Chloropropane	20.0	18.0	90	46-132	
1,2-Dichlorobenzene	20.0	17.7	88	78-120	
1,2-Dichloroethane	20.0	22.2	111	71-135	
1,2-Dichloropropane	20.0	21.1	106	78-133	
1,3-Dichlorobenzene	20.0	17.7	89	78-120	
1,3-Dichloropropane	20.0	19.4	97	72-134	
1,4-Dichlorobenzene	20.0	17.8	89	78-120	
2,2-Dichloropropane	20.0	20.4	102	42-150	
2-Chloroethyl vinyl ether	20.0	21.8	109	55-137	
2-Chlorotoluene	20.0	18.1	90	78-123	
2-Hexanone	40.0	40.8	102	43-148	
Bromobenzene	20.0	18.0	90	74-129	
Bromochloromethane	20.0	19.6	98	74-130	
4-Chlorotoluene	20.0	18.6	93	77-125	
p-Isopropyltoluene	20.0	18.0	90	69-122	
Acetone	40.0	39.6	99	21-162	
Benzene	20.0	19.7	99	80-123	
Bromoform	20.0	20.5	103	49-141	
Bromomethane	20.0	19.6	98	41-175	
Carbon disulfide	20.0	17.8	89	60-138	
Carbon tetrachloride	20.0	21.6	108	63-140	
Chlorobenzene	20.0	19.0	95	80-121	
Chloroethane	20.0	19.0	95	33-173	
Chloroform	20.0	20.5	103	79-127	
Chloromethane	20.0	15.0	75	54-143	
cis-1,2-Dichloroethene	20.0	19.1	96	76-128	
cis-1,3-Dichloropropene	20.0	21.4	107	64-132	
Hexachlorobutadiene	20.0	14.3	72	38-136	
Dibromomethane	20.0	18.5	93	74-124	
Bromodichloromethane	20.0	21.3	106	77-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1271131.D

Lab ID: LCS 240-387961/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	15.9	80	29-148	
Ethylbenzene	20.0	19.5	97	80-120	
1,2-Dibromoethane	20.0	19.2	96	77-123	
Naphthalene	20.0	18.2	91	28-141	
m-Xylene & p-Xylene	20.0	19.5	98	80-120	
n-Butylbenzene	20.0	17.5	87	57-126	
Isopropylbenzene	20.0	19.3	96	74-120	
n-Propylbenzene	20.0	18.5	93	77-123	
2-Butanone	40.0	40.4	101	39-163	
4-Methyl-2-pentanone	40.0	42.3	106	49-143	
sec-Butylbenzene	20.0	17.9	90	68-123	
Methyl tert-butyl ether	20.0	19.7	99	51-133	
Methylene Chloride	20.0	18.2	91	70-134	
o-Xylene	20.0	18.8	94	80-120	
Styrene	20.0	18.8	94	79-120	
tert-Butylbenzene	20.0	17.9	90	70-121	
Tetrachloroethene	20.0	19.1	95	74-130	
Toluene	20.0	19.2	96	78-129	
trans-1,2-Dichloroethene	20.0	20.6	103	78-133	
trans-1,3-Dichloropropene	20.0	19.4	97	55-128	
Trichloroethene	20.0	19.6	98	76-125	
Trichlorofluoromethane	20.0	22.1	110	51-164	
Vinyl acetate	20.0	22.2	111	45-151	
Vinyl chloride	20.0	17.2	86	58-143	
tert-Butyl alcohol	200	214	107	10-161	
Xylenes, Total	40.0	38.3	96	80-120	
Dibromochloromethane	20.0	19.8	99	70-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1908031.d

Lab ID: 240-114635-E-1 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	1.0 U	20.0	100	51-138	
1,1,2,2-Tetrachloroethane	20.0	1.0 U	23.1	115	60-137	
1,1,2-Trichloro-1,2,2-trichfluoroethane	20.0	1.0 U	21.3	107	31-156	
1,1-Dichloroethane	20.0	1.0 U	21.1	106	63-136	
1,1-Dichloroethene	20.0	1.0 U	21.4	107	53-140	
1,2,4-Trichlorobenzene	20.0	1.0 U	17.6	88	30-126	
1,2-Dibromo-3-Chloropropane	20.0	5.0 U	19.9	100	38-124	
1,2-Dichlorobenzene	20.0	1.0 U	20.5	103	64-120	
1,2-Dichloroethane	20.0	1.0 U	19.0	95	65-135	
1,2-Dichloropropane	20.0	1.0 U	19.3	96	70-132	
1,3-Dichlorobenzene	20.0	1.0 U	18.9	95	62-120	
1,4-Dichlorobenzene	20.0	1.0 U	18.7	94	63-120	
2-Hexanone	40.0	5.0 U	39.2	98	42-150	
Acetone	40.0	5.0 U	46.9	117	10-168	
Benzene	20.0	1.0 U	20.5	102	71-122	
Bromoform	20.0	1.0 U	17.4	87	44-129	
Bromomethane	20.0	1.0 U	20.3	102	19-187	
Carbon disulfide	20.0	1.0 U	20.4	102	43-144	
Carbon tetrachloride	20.0	1.0 U	18.6	93	41-143	
Chlorobenzene	20.0	1.0 U	19.2	96	70-123	
Chloroethane	20.0	1.0 U	21.4	107	11-189	
Chloroform	20.0	1.0 U	20.4	102	68-130	
Chloromethane	20.0	1.0 U	18.0	90	31-154	
cis-1,2-Dichloroethene	20.0	1.0 U	20.0	100	64-130	
cis-1,3-Dichloropropene	20.0	1.0 U	17.6	88	48-127	
Bromodichloromethane	20.0	1.0 U	19.1	95	64-125	
Dichlorodifluoromethane	20.0	1.0 U	14.8	74	28-136	
Ethylbenzene	20.0	1.0 U	20.3	102	66-120	
1,2-Dibromoethane	20.0	1.0 U	19.0	95	71-123	
Isopropylbenzene	20.0	1.0 U	20.9	105	59-120	
2-Butanone	40.0	5.0 U	37.0	93	37-156	
4-Methyl-2-pentanone	40.0	5.0 U	36.5	91	44-143	
Methyl tert-butyl ether	20.0	1.0 U	19.4	97	41-136	
Methylene Chloride	20.0	5.0 U	20.3	101	61-130	
Styrene	20.0	1.0 U	19.2	96	68-120	
Tetrachloroethene	20.0	1.0 U	17.9	89	51-136	
Toluene	20.0	1.0 U	20.9	105	62-132	
trans-1,2-Dichloroethene	20.0	1.0 U	21.1	106	68-133	
trans-1,3-Dichloropropene	20.0	1.0 U	17.7	89	40-125	
Trichloroethene	20.0	1.0 U	17.8	89	55-131	
Trichlorofluoromethane	20.0	1.0 U	20.4	102	37-174	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1908031.d

Lab ID: 240-114635-E-1 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Vinyl chloride	20.0	0.50 U	20.3	101	43-154	
Dibromochloromethane	20.0	1.0 U	19.4	97	60-129	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1271126.D

Lab ID: 240-114427-B-1 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Benzene	400	540	878	86	71-122	
Chlorobenzene	400	590	897	77	70-123	
m-Xylene & p-Xylene	400	230	544	80	63-121	
o-Xylene	400	17 J	345	82	69-120	
Xylenes, Total	800	250	889	80	67-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1271156.D

Lab ID: 240-114267-B-1 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	1250	63 U	1310	105	51-138	
1,1,2,2-Tetrachloroethane	1250	63 U	1200	96	60-137	
1,1-Dichloroethane	1250	63 U	1270	101	63-136	
1,1-Dichloroethene	1250	63 U	1360	109	53-140	
1,2-Dichlorobenzene	1250	63 U	1070	85	64-120	
1,2-Dichloroethane	1250	63 U	1430	114	65-135	
1,3-Dichlorobenzene	1250	63 U	1040	83	62-120	
1,4-Dichlorobenzene	1250	63 U	1040	83	63-120	
Acetone	2500	310 U	2610	104	10-168	
Benzene	1250	63 U	1250	100	71-122	
Carbon disulfide	1250	63 U	1050	84	43-144	
Chloroethane	1250	63 U	1210	97	11-189	
Chloroform	1250	63 U	1310	105	68-130	
cis-1,2-Dichloroethene	1250	2400	3610	98	64-130	
Ethylbenzene	1250	63 U	1140	91	66-120	
m-Xylene & p-Xylene	1250	130 U	1150	92	63-121	
Methylene Chloride	1250	310 U	1170	94	61-130	
o-Xylene	1250	63 U	1160	93	69-120	
Tetrachloroethene	1250	4000	4880	73	51-136	
Toluene	1250	63 U	1150	92	62-132	
trans-1,2-Dichloroethene	1250	63 U	1290	103	68-133	
Trichloroethene	1250	1100	2290	94	55-131	
Vinyl chloride	1250	150	1230	87	43-154	
Xylenes, Total	2500	130 U	2310	92	67-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1908032.d

Lab ID: 240-114635-F-1 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	20.2	101	1	27	51-138	
1,1,2,2-Tetrachloroethane	20.0	25.0	125	8	31	60-137	
1,1,2-Trichloro-1,2,2-trichfluoroethane	20.0	21.1	106	1	35	31-156	
1,1-Dichloroethane	20.0	21.2	106	0	23	63-136	
1,1-Dichloroethene	20.0	21.4	107	0	35	53-140	
1,2,4-Trichlorobenzene	20.0	18.7	93	6	35	30-126	
1,2-Dibromo-3-Chloropropane	20.0	21.7	109	9	35	38-124	
1,2-Dichlorobenzene	20.0	21.9	110	7	30	64-120	
1,2-Dichloroethane	20.0	19.6	98	4	24	65-135	
1,2-Dichloropropane	20.0	20.8	104	8	26	70-132	
1,3-Dichlorobenzene	20.0	20.6	103	8	31	62-120	
1,4-Dichlorobenzene	20.0	20.3	102	8	28	63-120	
2-Hexanone	40.0	42.2	106	8	35	42-150	
Acetone	40.0	45.4	113	3	35	10-168	
Benzene	20.0	21.0	105	3	22	71-122	
Bromoform	20.0	18.1	91	4	28	44-129	
Bromomethane	20.0	18.8	94	7	35	19-187	
Carbon disulfide	20.0	20.6	103	1	33	43-144	
Carbon tetrachloride	20.0	18.7	94	1	30	41-143	
Chlorobenzene	20.0	20.4	102	6	23	70-123	
Chloroethane	20.0	20.2	101	6	35	11-189	
Chloroform	20.0	20.8	104	2	23	68-130	
Chloromethane	20.0	17.5	88	3	35	31-154	
cis-1,2-Dichloroethene	20.0	20.4	102	2	21	64-130	
cis-1,3-Dichloropropene	20.0	18.4	92	4	30	48-127	
Bromodichloromethane	20.0	19.3	96	1	27	64-125	
Dichlorodifluoromethane	20.0	13.9	70	6	35	28-136	
Ethylbenzene	20.0	21.0	105	3	24	66-120	
1,2-Dibromoethane	20.0	20.0	100	5	27	71-123	
Isopropylbenzene	20.0	21.6	108	3	31	59-120	
2-Butanone	40.0	39.5	99	6	35	37-156	
4-Methyl-2-pentanone	40.0	39.4	98	7	35	44-143	
Methyl tert-butyl ether	20.0	19.5	98	1	29	41-136	
Methylene Chloride	20.0	19.9	100	2	29	61-130	
Styrene	20.0	20.5	102	6	26	68-120	
Tetrachloroethene	20.0	19.0	95	6	23	51-136	
Toluene	20.0	22.0	110	5	23	62-132	
trans-1,2-Dichloroethene	20.0	21.2	106	0	24	68-133	
trans-1,3-Dichloropropene	20.0	18.6	93	5	27	40-125	
Trichloroethene	20.0	18.6	93	5	23	55-131	
Trichlorofluoromethane	20.0	19.2	96	6	35	37-174	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1908032.d

Lab ID: 240-114635-F-1 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Vinyl chloride	20.0	19.6	98	3	29	43-154	
Dibromochloromethane	20.0	20.2	101	4	26	60-129	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1271127.D

Lab ID: 240-114427-B-1 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Benzene	400	891	89	1	22	71-122	
Chlorobenzene	400	909	80	1	23	70-123	
m-Xylene & p-Xylene	400	568	86	4	25	63-121	
o-Xylene	400	366	87	6	25	69-120	
Xylenes, Total	800	934	86	5	25	67-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1271157.D

Lab ID: 240-114267-B-1 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	1250	1370	109	4	27	51-138	
1,1,2,2-Tetrachloroethane	1250	1220	98	2	31	60-137	
1,1-Dichloroethane	1250	1300	104	3	23	63-136	
1,1-Dichloroethene	1250	1380	110	1	35	53-140	
1,2-Dichlorobenzene	1250	1120	90	5	30	64-120	
1,2-Dichloroethane	1250	1430	114	0	24	65-135	
1,3-Dichlorobenzene	1250	1070	85	2	31	62-120	
1,4-Dichlorobenzene	1250	1060	84	2	28	63-120	
Acetone	2500	2530	101	3	35	10-168	
Benzene	1250	1240	99	1	22	71-122	
Carbon disulfide	1250	1090	87	4	33	43-144	
Chloroethane	1250	1240	100	3	35	11-189	
Chloroform	1250	1330	106	2	23	68-130	
cis-1,2-Dichloroethene	1250	3670	103	2	21	64-130	
Ethylbenzene	1250	1150	92	1	24	66-120	
m-Xylene & p-Xylene	1250	1150	92	0	25	63-121	
Methylene Chloride	1250	1190	95	2	29	61-130	
o-Xylene	1250	1180	94	2	25	69-120	
Tetrachloroethene	1250	4940	78	1	23	51-136	
Toluene	1250	1170	94	1	23	62-132	
trans-1,2-Dichloroethene	1250	1320	105	2	24	68-133	
Trichloroethene	1250	2290	94	0	23	55-131	
Vinyl chloride	1250	1270	90	3	29	43-154	
Xylenes, Total	2500	2330	93	1	25	67-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab File ID: U1908029.d Lab Sample ID: MB 240-387616/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX19 Date Analyzed: 06/21/2019 18:55

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 240-387616/5	U1908026.d	06/21/2019 16:51
	240-114635-E-1 MS	U1908031.d	06/21/2019 19:40
	240-114635-F-1 MSD	U1908032.d	06/21/2019 20:02
MSA-SW37A-061219	240-114245-1	U1908040.d	06/21/2019 23:00
MSA-SW37B-061219	240-114245-2	U1908041.d	06/21/2019 23:22
MSA-SW37C-061219	240-114245-3	U1908042.d	06/21/2019 23:44
MSA-SW37D-061219	240-114245-4	U1908043.d	06/22/2019 00:06
MSA-SW38A-061219	240-114245-5	U1908044.d	06/22/2019 00:28
MSA-SW38B-061219	240-114245-6	U1908045.d	06/22/2019 00:50
MSA-SW38C-061219	240-114245-7	U1908046.d	06/22/2019 01:13
MSA-SW38D-061219	240-114245-8	U1908047.d	06/22/2019 01:35
MSA-SW39A-061219	240-114245-9	U1908048.d	06/22/2019 01:57
MSA-SW39B-061219	240-114245-10	U1908049.d	06/22/2019 02:19
MSA-SW39C-061219	240-114245-11	U1908050.d	06/22/2019 02:42
MSA-SW39D-061219	240-114245-12	U1908051.d	06/22/2019 03:04
MSA-SW40A-061219	240-114245-13	U1908052.d	06/22/2019 03:26

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab File ID: U1271103.D Lab Sample ID: MB 240-387757/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 06/23/2019 16:21

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 240-387757/5	U1271101.D	06/23/2019 15:37
MSA-SW40B-061219	240-114245-14	U1271107.D	06/23/2019 17:51
MSA-SW40C-061219	240-114245-15	U1271108a.D	06/23/2019 18:14
MSA-SW40D-061219	240-114245-16	U1271109.D	06/23/2019 18:36
MSA-SW41A-061219	240-114245-17	U1271110.D	06/23/2019 18:58
MSA-SW41B-061219	240-114245-18	U1271111.D	06/23/2019 19:20
MSA-SW41C-061219	240-114245-19	U1271112.D	06/23/2019 19:42
MSA-SW41D-061219	240-114245-20	U1271113.D	06/23/2019 20:05
MSA-SW42A-061219	240-114245-21	U1271114.D	06/23/2019 20:27
MSA-SW42B-061219	240-114245-22	U1271115.D	06/23/2019 20:49
MSA-SW42C-061219	240-114245-23	U1271116.D	06/23/2019 21:12
MSA-SW42D-061219	240-114245-24	U1271117.D	06/23/2019 21:34
MSA-SW43A-061219	240-114245-25	U1271118.D	06/23/2019 21:56
MSA-SW43B-061219	240-114245-26	U1271119.D	06/23/2019 22:19
MSA-SW43C-061219	240-114245-27	U1271120.D	06/23/2019 22:41
MSA-SW43D-061219	240-114245-28	U1271121.D	06/23/2019 23:03
MSA-SW44A-061219	240-114245-29	U1271122.D	06/23/2019 23:26
MSA-SW44B-061219	240-114245-30	U1271123.D	06/23/2019 23:48
MSA-SW44C-061219	240-114245-31	U1271124.D	06/24/2019 00:10
MSA-SW44D-061219	240-114245-32	U1271125.D	06/24/2019 00:32
	240-114427-B-1 MS	U1271126.D	06/24/2019 00:54
	240-114427-B-1 MSD	U1271127.D	06/24/2019 01:17

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab File ID: U1271133.D Lab Sample ID: MB 240-387961/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 06/24/2019 19:10

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 240-387961/5	U1271131.D	06/24/2019 18:26
MSA-SW45A-061219	240-114245-33	U1271135.D	06/24/2019 19:55
MSA-SW45B-061219	240-114245-34	U1271136.D	06/24/2019 20:17
MSA-SW45C-061219	240-114245-35	U1271137.D	06/24/2019 20:39
MSA-SW45D-061219	240-114245-36	U1271138.D	06/24/2019 21:02
EL-SW01A-061219	240-114245-37	U1271139.D	06/24/2019 21:24
EL-SW01B-061219	240-114245-38	U1271140.D	06/24/2019 21:47
EL-SW01C-061219	240-114245-39	U1271141.D	06/24/2019 22:09
EL-SW01D-061219	240-114245-40	U1271142.D	06/24/2019 22:31
TB-061219	240-114245-41	U1271143.D	06/24/2019 22:53
MSA-SW46A-061219	240-114245-42	U1271144.D	06/24/2019 23:16
MSA-SW47A-061219	240-114245-43	U1271145.D	06/24/2019 23:38
MSA-SW48A-061219	240-114245-44	U1271146.D	06/25/2019 00:00
MSA-SW49A-061219	240-114245-45	U1271147.D	06/25/2019 00:22
	240-114267-B-1 MS	U1271156.D	06/25/2019 03:42
	240-114267-B-1 MSD	U1271157.D	06/25/2019 04:04

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab File ID: BFB4108.D BFB Injection Date: 04/30/2019

Instrument ID: A3UX12 BFB Injection Time: 13:47

Analysis Batch No.: 378870

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.1	
75	30.0 - 60.0 % of mass 95	46.5	
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	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	86.4	
175	5.0 - 9.0 % of mass 174	6.3	(7.3) 1
176	95.0 - 101.0 % of mass 174	83.6	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.3	(6.3) 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 240-378870/8	U1269795.D	04/30/2019	14:10
	STD8260 240-378870/9	U1269796.D	04/30/2019	14:33
	STD8260 240-378870/10	U1269797.D	04/30/2019	14:55
	ICIS 240-378870/11	U1269798.D	04/30/2019	15:17
	STD8260 240-378870/12	U1269799.D	04/30/2019	15:39
	STD8260 240-378870/13	U1269800.D	04/30/2019	16:02
	STD8260 240-378870/14	U1269801.D	04/30/2019	16:24
	STDA9 240-378870/18	U1269805.D	04/30/2019	17:52
	STDA9 240-378870/19	U1269806a.D	04/30/2019	18:14
	STDA9 240-378870/20	U1269807.D	04/30/2019	18:37
	STDA9 240-378870/21	U1269808.D	04/30/2019	18:59
	STDA9 240-378870/22	U1269809.D	04/30/2019	19:21
	STDA9 240-378870/23	U1269810.D	04/30/2019	19:43
	STDA9 240-378870/24	U1269811.D	04/30/2019	20:05
	ICV 240-378870/25	U1269812.D	04/30/2019	20:27

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab File ID: BFB4152.D BFB Injection Date: 06/23/2019

Instrument ID: A3UX12 BFB Injection Time: 14:17

Analysis Batch No.: 387757

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.2	
75	30.0 - 60.0 % of mass 95	52.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	78.0	
175	5.0 - 9.0 % of mass 174	5.6	(7.2) 1
176	95.0 - 101.0 % of mass 174	75.4	(96.7) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.9) 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
	CCV 240-387757/3	U1271099.D	06/23/2019	14:38
	CCVIS 240-387757/4	U1271100.D	06/23/2019	15:00
	LCS 240-387757/5	U1271101.D	06/23/2019	15:37
	MB 240-387757/7	U1271103.D	06/23/2019	16:21
MSA-SW40B-061219	240-114245-14	U1271107.D	06/23/2019	17:51
MSA-SW40C-061219	240-114245-15	U1271108a.D	06/23/2019	18:14
MSA-SW40D-061219	240-114245-16	U1271109.D	06/23/2019	18:36
MSA-SW41A-061219	240-114245-17	U1271110.D	06/23/2019	18:58
MSA-SW41B-061219	240-114245-18	U1271111.D	06/23/2019	19:20
MSA-SW41C-061219	240-114245-19	U1271112.D	06/23/2019	19:42
MSA-SW41D-061219	240-114245-20	U1271113.D	06/23/2019	20:05
MSA-SW42A-061219	240-114245-21	U1271114.D	06/23/2019	20:27
MSA-SW42B-061219	240-114245-22	U1271115.D	06/23/2019	20:49
MSA-SW42C-061219	240-114245-23	U1271116.D	06/23/2019	21:12
MSA-SW42D-061219	240-114245-24	U1271117.D	06/23/2019	21:34
MSA-SW43A-061219	240-114245-25	U1271118.D	06/23/2019	21:56
MSA-SW43B-061219	240-114245-26	U1271119.D	06/23/2019	22:19
MSA-SW43C-061219	240-114245-27	U1271120.D	06/23/2019	22:41
MSA-SW43D-061219	240-114245-28	U1271121.D	06/23/2019	23:03
MSA-SW44A-061219	240-114245-29	U1271122.D	06/23/2019	23:26
MSA-SW44B-061219	240-114245-30	U1271123.D	06/23/2019	23:48
MSA-SW44C-061219	240-114245-31	U1271124.D	06/24/2019	00:10
MSA-SW44D-061219	240-114245-32	U1271125.D	06/24/2019	00:32
	240-114427-B-1 MS	U1271126.D	06/24/2019	00:54
	240-114427-B-1 MSD	U1271127.D	06/24/2019	01:17

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab File ID: BFB4153.D BFB Injection Date: 06/24/2019

Instrument ID: A3UX12 BFB Injection Time: 17:13

Analysis Batch No.: 387961

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.6	
75	30.0 - 60.0 % of mass 95	51.4	
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	78.8	
175	5.0 - 9.0 % of mass 174	5.9	(7.5) 1
176	95.0 - 101.0 % of mass 174	76.6	(97.2) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.2) 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
	CCV 240-387961/3	U1271129.D	06/24/2019	17:41
	CCVIS 240-387961/4	U1271130.D	06/24/2019	18:03
	LCS 240-387961/5	U1271131.D	06/24/2019	18:26
	MB 240-387961/7	U1271133.D	06/24/2019	19:10
MSA-SW45A-061219	240-114245-33	U1271135.D	06/24/2019	19:55
MSA-SW45B-061219	240-114245-34	U1271136.D	06/24/2019	20:17
MSA-SW45C-061219	240-114245-35	U1271137.D	06/24/2019	20:39
MSA-SW45D-061219	240-114245-36	U1271138.D	06/24/2019	21:02
EL-SW01A-061219	240-114245-37	U1271139.D	06/24/2019	21:24
EL-SW01B-061219	240-114245-38	U1271140.D	06/24/2019	21:47
EL-SW01C-061219	240-114245-39	U1271141.D	06/24/2019	22:09
EL-SW01D-061219	240-114245-40	U1271142.D	06/24/2019	22:31
TB-061219	240-114245-41	U1271143.D	06/24/2019	22:53
MSA-SW46A-061219	240-114245-42	U1271144.D	06/24/2019	23:16
MSA-SW47A-061219	240-114245-43	U1271145.D	06/24/2019	23:38
MSA-SW48A-061219	240-114245-44	U1271146.D	06/25/2019	00:00
MSA-SW49A-061219	240-114245-45	U1271147.D	06/25/2019	00:22
	240-114267-B-1 MS	U1271156.D	06/25/2019	03:42
	240-114267-B-1 MSD	U1271157.D	06/25/2019	04:04

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab File ID: bfb037.d BFB Injection Date: 07/25/2018

Instrument ID: A3UX19 BFB Injection Time: 11:28

Analysis Batch No.: 337917

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.4	
75	30.0 - 60.0 % of mass 95	52.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	1.1	(1.3) 1
174	50.0 - 120.00 % of mass 95	82.7	
175	5.0 - 9.0 % of mass 174	6.4	(7.8) 1
176	95.0 - 101.0 % of mass 174	80.3	(97.1) 1
177	5.0 - 9.0 % of mass 176	5.2	(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
	STDA9 240-337917/8	U1900802.d	07/25/2018	13:24
	STDA9 240-337917/9	U1900803.d	07/25/2018	13:46
	STDA9 240-337917/10	U1900804.d	07/25/2018	14:08
	STDA9 240-337917/11	U1900805.d	07/25/2018	14:30
	STDA9 240-337917/12	U1900806.d	07/25/2018	14:52
	STDA9 240-337917/13	U1900807.d	07/25/2018	15:15

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab File ID: bfb058.d BFB Injection Date: 08/27/2018

Instrument ID: A3UX19 BFB Injection Time: 16:23

Analysis Batch No.: 342719

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.5	
75	30.0 - 60.0 % of mass 95	49.5	
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	0.6	(0.6) 1
174	50.0 - 120.00 % of mass 95	94.9	
175	5.0 - 9.0 % of mass 174	7.3	(7.7) 1
176	95.0 - 101.0 % of mass 174	92.7	(97.7) 1
177	5.0 - 9.0 % of mass 176	5.9	(6.4) 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 240-342719/7	U1901323.d	08/27/2018	17:09
	STD8260 240-342719/8	U1901324.d	08/27/2018	17:31
	STD8260 240-342719/9	U1901325.d	08/27/2018	17:53
	ICIS 240-342719/10	U1901326.d	08/27/2018	18:16
	STD8260 240-342719/11	U1901327.d	08/27/2018	18:38
	STD8260 240-342719/12	U1901328.d	08/27/2018	19:01
	STD8260 240-342719/13	U1901329.d	08/27/2018	19:23
	ICV 240-342719/14	U1901330.d	08/27/2018	19:45

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Lab File ID: bfb286.d BFB Injection Date: 06/21/2019

Instrument ID: A3UX19 BFB Injection Time: 15:44

Analysis Batch No.: 387616

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.5	
75	30.0 - 60.0 % of mass 95	51.6	
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	85.3	
175	5.0 - 9.0 % of mass 174	6.4	(7.5) 1
176	95.0 - 101.0 % of mass 174	83.1	(97.4) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.2) 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
	CCV 240-387616/3	U1908024.d	06/21/2019	16:07
	CCVIS 240-387616/4	U1908025.d	06/21/2019	16:29
	LCS 240-387616/5	U1908026.d	06/21/2019	16:51
	MB 240-387616/8	U1908029.d	06/21/2019	18:55
	240-114635-E-1 MS	U1908031.d	06/21/2019	19:40
	240-114635-F-1 MSD	U1908032.d	06/21/2019	20:02
MSA-SW37A-061219	240-114245-1	U1908040.d	06/21/2019	23:00
MSA-SW37B-061219	240-114245-2	U1908041.d	06/21/2019	23:22
MSA-SW37C-061219	240-114245-3	U1908042.d	06/21/2019	23:44
MSA-SW37D-061219	240-114245-4	U1908043.d	06/22/2019	00:06
MSA-SW38A-061219	240-114245-5	U1908044.d	06/22/2019	00:28
MSA-SW38B-061219	240-114245-6	U1908045.d	06/22/2019	00:50
MSA-SW38C-061219	240-114245-7	U1908046.d	06/22/2019	01:13
MSA-SW38D-061219	240-114245-8	U1908047.d	06/22/2019	01:35
MSA-SW39A-061219	240-114245-9	U1908048.d	06/22/2019	01:57
MSA-SW39B-061219	240-114245-10	U1908049.d	06/22/2019	02:19
MSA-SW39C-061219	240-114245-11	U1908050.d	06/22/2019	02:42
MSA-SW39D-061219	240-114245-12	U1908051.d	06/22/2019	03:04
MSA-SW40A-061219	240-114245-13	U1908052.d	06/22/2019	03:26

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Sample No.: ICIS 240-378870/11 Date Analyzed: 04/30/2019 15:17

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1269798.D Heated Purge: (Y/N) N

Calibration ID: 50823

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1246876	5.10	855324	7.76	464704	9.97
UPPER LIMIT		2493752	5.60	1710648	8.26	929408	10.47
LOWER LIMIT		623438	4.60	427662	7.26	232352	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVIS 240-387757/4		1087795	5.10	740039	7.76	454856	9.97
CCVIS 240-387961/4		1089640	5.10	793896	7.75	462109	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 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 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Sample No.: CCVIS 240-387757/4 Date Analyzed: 06/23/2019 15:00

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1271100.D Heated Purge: (Y/N) N

Calibration ID: 50829

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1087795	5.10	740039	7.76	454856	9.97
UPPER LIMIT		2175590	5.60	1480078	8.26	909712	10.47
LOWER LIMIT		543898	4.60	370020	7.26	227428	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-387757/3		1086600	5.10	699361	7.76	400958	9.97
LCS 240-387757/5		1092129	5.10	730814	7.76	435363	9.97
MB 240-387757/7		1063706	5.10	754667	7.76	431759	9.97
240-114245-14	MSA-SW40B-061219	1034674	5.10	732099	7.75	404540	9.97
240-114245-15	MSA-SW40C-061219	1080445	5.10	809166	7.76	439122	9.97
240-114245-16	MSA-SW40D-061219	1039735	5.10	739628	7.75	399364	9.97
240-114245-17	MSA-SW41A-061219	1064149	5.10	780505	7.75	448018	9.97
240-114245-18	MSA-SW41B-061219	1040671	5.10	749601	7.75	419720	9.97
240-114245-19	MSA-SW41C-061219	1056146	5.10	762730	7.75	446842	9.97
240-114245-20	MSA-SW41D-061219	1057174	5.10	763298	7.76	440536	9.97
240-114245-21	MSA-SW42A-061219	1048322	5.10	751480	7.76	430320	9.97
240-114245-22	MSA-SW42B-061219	1034439	5.10	733719	7.75	397469	9.97
240-114245-23	MSA-SW42C-061219	1073615	5.10	809690	7.75	456600	9.97
240-114245-24	MSA-SW42D-061219	1058298	5.10	786813	7.75	432270	9.97
240-114245-25	MSA-SW43A-061219	996278	5.10	671992	7.75	402547	9.97
240-114245-26	MSA-SW43B-061219	1034399	5.10	737451	7.75	416357	9.97
240-114245-27	MSA-SW43C-061219	1005868	5.10	659880	7.75	393551	9.97
240-114245-28	MSA-SW43D-061219	986303	5.10	659555	7.75	402648	9.97
240-114245-29	MSA-SW44A-061219	980733	5.10	646519	7.75	392967	9.97
240-114245-30	MSA-SW44B-061219	1003059	5.10	696372	7.75	388339	9.97
240-114245-31	MSA-SW44C-061219	1039638	5.10	745146	7.75	434594	9.97
240-114245-32	MSA-SW44D-061219	1021098	5.10	741077	7.75	429668	9.97
240-114427-B-1 MS		1112702	5.10	795974	7.76	470235	9.97
240-114427-B-1 MSD		1121335	5.10	808064	7.76	467709	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 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 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Sample No.: CCVIS 240-387961/4 Date Analyzed: 06/24/2019 18:03

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1271130.D Heated Purge: (Y/N) N

Calibration ID: 50829

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1089640	5.10	793896	7.75	462109	9.97
UPPER LIMIT		2179280	5.60	1587792	8.25	924218	10.47
LOWER LIMIT		544820	4.60	396948	7.25	231055	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-387961/5		1126932	5.10	845961	7.75	491789	9.97
MB 240-387961/7		1045715	5.10	784951	7.75	438267	9.97
240-114245-33	MSA-SW45A-061219	1012518	5.10	743837	7.75	415106	9.97
240-114245-34	MSA-SW45B-061219	1047278	5.10	787271	7.75	440610	9.97
240-114245-35	MSA-SW45C-061219	988351	5.10	724239	7.75	422479	9.97
240-114245-36	MSA-SW45D-061219	945791	5.10	652029	7.75	396875	9.97
240-114245-37	EL-SW01A-061219	980614	5.10	690437	7.76	395301	9.97
240-114245-38	EL-SW01B-061219	987299	5.10	700718	7.75	404635	9.97
240-114245-39	EL-SW01C-061219	942032	5.10	640699	7.75	389845	9.97
240-114245-40	EL-SW01D-061219	956785	5.10	649947	7.75	392958	9.97
240-114245-41	TB-061219	984269	5.10	722651	7.75	413025	9.97
240-114245-42	MSA-SW46A-061219	1039935	5.10	775314	7.76	418355	9.97
240-114245-43	MSA-SW47A-061219	948762	5.10	649739	7.76	397292	9.97
240-114245-44	MSA-SW48A-061219	1012510	5.10	751539	7.75	416452	9.97
240-114245-45	MSA-SW49A-061219	922727	5.10	624746	7.76	387359	9.97
240-114267-B-1 MS		1034963	5.10	748238	7.75	442032	9.97
240-114267-B-1 MSD		1029104	5.10	705032	7.75	417332	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 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 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Sample No.: ICIS 240-342719/10 Date Analyzed: 08/27/2018 18:16

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1901326.d Heated Purge: (Y/N) N

Calibration ID: 46687

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		972482	5.65	783101	8.50	430906	10.88
UPPER LIMIT		1944964	6.15	1566202	9.00	861812	11.38
LOWER LIMIT		486241	5.15	391551	8.00	215453	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-342719/14		955207	5.65	765531	8.50	424750	10.88
CCVIS 240-387616/4		937311	5.65	660970	8.50	356278	10.88

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 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 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-114245-1

SDG No.:

Sample No.: CCVIS 240-387616/4 Date Analyzed: 06/21/2019 16:29

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1908025.d Heated Purge: (Y/N) N

Calibration ID: 47354

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		937311	5.65	660970	8.50	356278	10.88
UPPER LIMIT		1874622	6.15	1321940	9.00	712556	11.38
LOWER LIMIT		468656	5.15	330485	8.00	178139	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-387616/5		979319	5.67	695162	8.50	366208	10.88
MB 240-387616/8		800681	5.65	550678	8.50	284312	10.88
240-114635-E-1 MS		889764	5.67	629238	8.50	338204	10.88
240-114635-F-1 MSD		907031	5.65	654462	8.50	338942	10.88
240-114245-1	MSA-SW37A-061219	807432	5.67	568334	8.50	284835	10.88
240-114245-2	MSA-SW37B-061219	824454	5.65	603434	8.50	297523	10.88
240-114245-3	MSA-SW37C-061219	798141	5.67	560363	8.50	291887	10.88
240-114245-4	MSA-SW37D-061219	818208	5.67	601358	8.50	306545	10.88
240-114245-5	MSA-SW38A-061219	784633	5.65	553603	8.50	282788	10.88
240-114245-6	MSA-SW38B-061219	789918	5.67	555411	8.50	289092	10.88
240-114245-7	MSA-SW38C-061219	811348	5.67	590816	8.50	286617	10.88
240-114245-8	MSA-SW38D-061219	771291	5.65	547815	8.50	273464	10.88
240-114245-9	MSA-SW39A-061219	765930	5.67	532579	8.50	270880	10.88
240-114245-10	MSA-SW39B-061219	802497	5.67	590595	8.50	286701	10.88
240-114245-11	MSA-SW39C-061219	750225	5.65	523213	8.50	257482	10.88
240-114245-12	MSA-SW39D-061219	783733	5.67	558182	8.50	280893	10.88
240-114245-13	MSA-SW40A-061219	795360	5.65	587078	8.50	294852	10.88

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 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 8260C

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromna\Canton\ChromData\A3UX19\20190621-88400.b\U1908040.d
Lims ID: 240-114245-C-1
Client ID: MSA-SW37A-061219
Sample Type: Client
Inject. Date: 21-Jun-2019 23:00:03 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0088400-020
Operator ID: 001904 Instrument ID: A3UX19

Method: \\chromna\Canton\ChromData\A3UX19\20190621-88400.b\8260_19.m
Limit Group: MSV 8260C ICAL
Last Update: 22-Jun-2019 01:43:35 Calib Date: 10-Oct-2018 20:18:55
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX19\20181010-80724.b\U1902694.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX0309

First Level Reviewer: laveyt Date: 24-Jun-2019 15:06:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.666	5.654	0.012	99	807432	20.0	
* 2 Chlorobenzene-d5	117	8.500	8.500	0.000	86	568334	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.883	10.883	0.000	95	284835	20.0	
$ 4 Dibromofluoromethane (Surr	111	5.049	5.049	0.000	93	216335	19.9	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.357	5.357	0.000	97	241559	19.4	
$ 6 Toluene-d8 (Surr)	98	7.112	7.100	0.012	94	680696	20.0	
$ 7 4-Bromofluorobenzene (Surr	95	9.686	9.674	0.012	94	249439	19.5	
9 Dichlorodifluoromethane	85		1.610				ND	
10 Chloromethane	50		1.812				ND	
12 Vinyl chloride	62	1.942	1.930	0.012	93	3547	0.2949	
13 Bromomethane	94		2.215				ND	
15 Chloroethane	64		2.298				ND	
17 Trichlorofluoromethane	101		2.559				ND	
20 1,1-Dichloroethene	61		3.033				ND	
21 1,1,2-Trichloro-1,2,2-trif	101		3.057				ND	
22 Acetone	43	3.068	3.080	-0.012	95	12761	4.03	
25 Carbon disulfide	76		3.246				ND	
29 Methylene Chloride	49	3.484	3.472	0.012	96	2347	0.2042	
30 2-Methyl-2-propanol	59		3.578				ND	
33 Methyl tert-butyl ether	73		3.733				ND	
32 trans-1,2-Dichloroethene	61		3.733				ND	
35 1,1-Dichloroethane	63		4.112				ND	
36 Vinyl acetate	43		4.148				ND	
37 Isopropyl ether	87		4.171				ND	
39 Tert-butyl ethyl ether	59		4.492				ND	
41 cis-1,2-Dichloroethene	96	4.634	4.634	0.000	73	1606	0.1376	
40 2-Butanone (MEK)	72		4.634				ND	
42 2,2-Dichloropropane	77		4.634				ND	
46 Chlorobromomethane	49		4.835				ND	
48 Chloroform	83		4.907				ND	
49 1,1,1-Trichloroethane	97		5.085				ND	
51 1,1-Dichloropropene	75		5.227				ND	

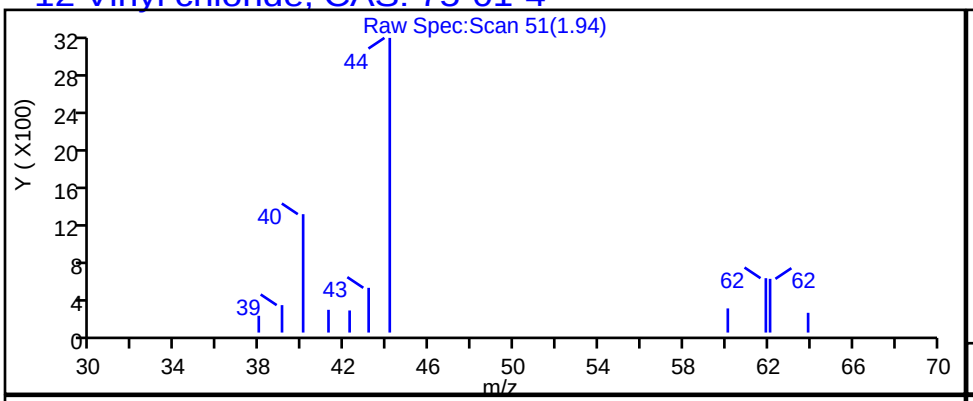
Report Date: 24-Jun-2019 15:06:26 Chrom Revision: 2.3 20-Jun-2019 20:50:56

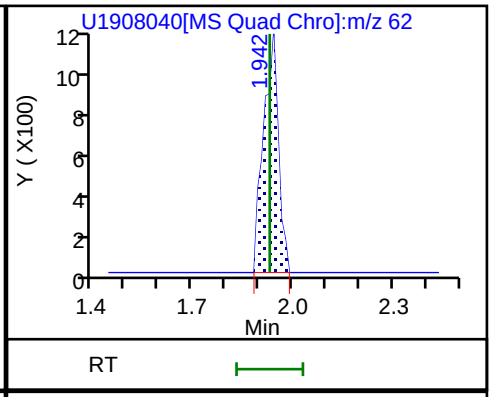
Eurofins TestAmerica, Canton

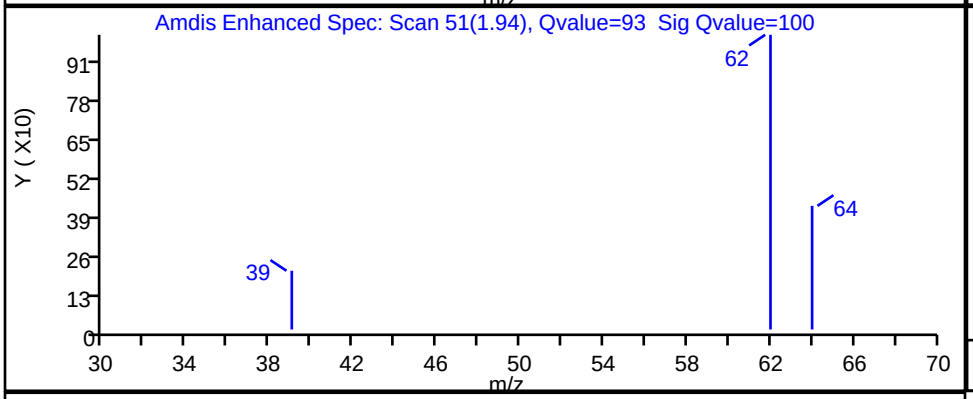
Data File: \\chromna\Canton\ChromData\A3UX19\20190621-88400.b\U1908040.d

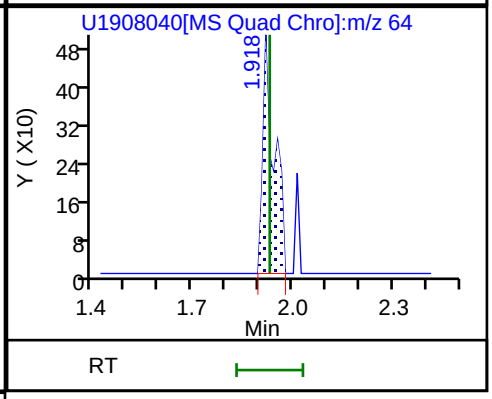
Injection Date:	21-Jun-2019 23:00:03	Instrument ID:	A3UX19		
Lims ID:	240-114245-C-1	Lab Sample ID:	240-114245-1		
Client ID:	MSA-SW37A-061219				
Operator ID:	001904	ALS Bottle#:	0	Worklist Smp#:	20
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	8260_19	Limit Group:	MSV 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

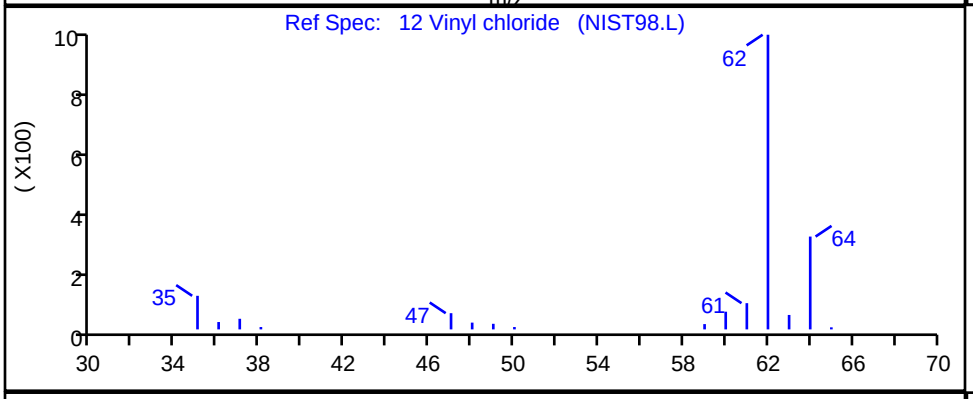
12 Vinyl chloride, CAS: 75-01-4

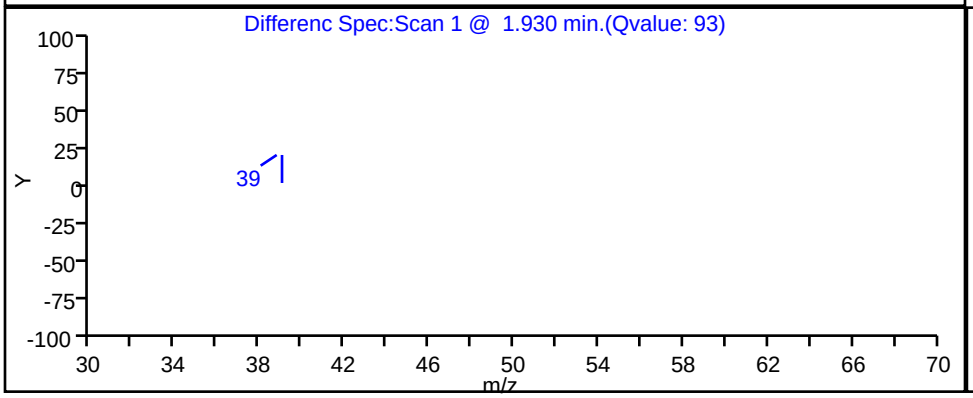


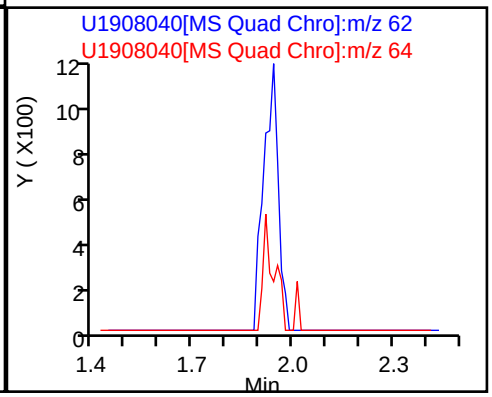












Sample Report

Sample Name	240-114245-d-1-g
File Name	094SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\I14061919B.b
Acq Time	2019-06-19 17:01:32
Sample Type	Sample
Total Dilution	1.0000
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	LDR	QC Flag
Li	7	45	No Gas	4.416	ug/l	0.5	12066.18	10000	
Be	9	45	No Gas	0.883	ug/l	9.0	267.78	2000	
B	11	45	No Gas	74.061	ug/l	2.6	14868.79	300	
Na	23	45	He	75852.648	ug/l	1.6	10442308.48	500000	
Mg	24	45	He	12215.975	ug/l	2.5	980075.62	500000	
Al	27	45	He	76.290	ug/l	5.1	3132.62	200000	
K	39	45	He	4589.681	ug/l	1.3	475807.72	500000	
Ca	44	45	He	8275.470	ug/l	1.4	22785.49	500000	
Ti	47	45	He	1.242	ug/l	46.4	41.11	2500	
V	51	45	He	1.166	ug/l	7.2	722.25	10000	
Cr	52	45	He	0.464	ug/l	13.6	833.37	10000	
Mn	55	45	He	27.176	ug/l	2.2	23054.36	10000	
Fe	56	103	He	121.192	ug/l	2.0	124763.62	200000	
Co	59	103	He	0.287	ug/l	4.8	505.57	5000	
Ni	60	103	He	1.996	ug/l	8.4	1005.60	10000	
Cu	63	103	He	5.968	ug/l	2.9	6713.88	10000	
Zn	66	103	He	8.845	ug/l	1.1	2483.58	10000	
As	75	103	He	2.313	ug/l	12.6	525.50	10000	
Se	78	115	H2	0.837	ug/l	35.7	71.00	10000	
Sr	88	103	He	96.280	ug/l	0.4	160322.69	10000	
Mo	95	103	He	1.562	ug/l	3.3	1176.73	2000	
Ag	107	103	He	-0.011	ug/l	N/A	52.22	100	
Cd	111	115	He	0.089	ug/l	37.3	57.69	4000	
Sn	118	115	He	1.424	ug/l	9.6	2639.18	2000	
Sb	123	115	He	0.410	ug/l	6.7	590.02	200	
Ba	137	115	He	6.970	ug/l	2.3	4852.04	10000	
W	182	159	He	0.533	ug/l	11.9	1488.99	2500	
Tl	205	165	He	0.524	ug/l	17.6	3560.54	2000	
Pb	208	165	He	0.412	ug/l	4.3	4864.86	4000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li6	6	No Gas	77004.49	0.5	77857.02	98.91	59.5	120.4	
Sc	45	No Gas	632431.03	1.1	625528.86	101.1	59.5	120.4	
Sc	45	H2	460179.30	2.1	432221.95	106.47	59.5	120.4	
Sc	45	He	128858.39	3.3	120860.62	106.62	59.5	120.4	
Rh	103	H2	131565.96	3.0	141754.01	92.81	59.5	120.4	

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JULY 26, 2019**

FROM: **J.SAMCHUCK** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
FROG MORTAR CREEK
SAMPLE DELIVERY GROUP (SDG) TMG-014

SAMPLES: 36/Aqueous/Hexavalent Chromium

MSA-SW37A-061219	MSA-SW37B-061219	MSA-SW37C-061219
MSA-SW37D-061219	MSA-SW38A-061219	MSA-SW38B-061219
MSA-SW38C-061219	MSA-SW38D-061219	MSA-SW39A-061219
MSA-SW39B-061219	MSA-SW39C-061219	MSA-SW39D-061219
MSA-SW40A-061219	MSA-SW40B-061219	MSA-SW40C-061219
MSA-SW40D-061219	MSA-SW41A-061219	MSA-SW41B-061219
MSA-SW41C-061219	MSA-SW41D-061219	MSA-SW42A-061219
MSA-SW42B-061219	MSA-SW42C-061219	MSA-SW42D-061219
MSA-SW43A-061219	MSA-SW43B-061219	MSA-SW43C-061219
MSA-SW43D-061219	MSA-SW44A-061219	MSA-SW44B-061219
MSA-SW44C-061219	MSA-SW44D-061219	MSA-SW45A-061219
MSA-SW45B-061219	MSA-SW45C-061219	MSA-SW45D-061219

Overview

The sample set for LMC – MSA Frog Mortar Creek, SDG TMG-014 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 June 12, 2019 and analyzed by ALS Environmental. 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 and sample preservation, initial/continuing calibrations, laboratory method blank results, laboratory control sample results, matrix spike/matrix spike duplicate results, chromatographic resolution, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

No minor issues were identified.

Notes

All samples were properly preserved to a pH of 9.0 – 9.5 and analyzed within 24 hours of sample receipt.

The non-detected results were reported to the Method Detection Limit (MDL).

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

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

Appendix A

Qualified Analytical Results

Appendix B

Results as Reported by the Laboratory

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372001** Date Collected: 6/12/2019 13:21 Matrix: Water

Sample ID: **MSA-SW37A-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 10:45	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372002** Date Collected: 6/12/2019 13:30 Matrix: Water

Sample ID: **MSA-SW37B-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 10:54	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372003** Date Collected: 6/12/2019 13:39 Matrix: Water

Sample ID: **MSA-SW37C-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 11:03	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372004** Date Collected: 6/12/2019 13:47 Matrix: Water

Sample ID: **MSA-SW37D-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 11:11	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372005** Date Collected: 6/12/2019 12:02 Matrix: Water

Sample ID: **MSA-SW38A-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 08:10	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372006** Date Collected: 6/12/2019 12:10 Matrix: Water

Sample ID: **MSA-SW38B-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 08:36	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372007** Date Collected: 6/12/2019 12:12 Matrix: Water

Sample ID: **MSA-SW38C-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 08:45	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372008** Date Collected: 6/12/2019 12:18 Matrix: Water

Sample ID: **MSA-SW38D-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 08:53	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372009** Date Collected: 6/12/2019 08:30 Matrix: Water

Sample ID: **MSA-SW39A-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 03:52	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372010** Date Collected: 6/12/2019 08:51 Matrix: Water

Sample ID: **MSA-SW39B-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 04:18	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372011** Date Collected: 6/12/2019 09:03 Matrix: Water

Sample ID: **MSA-SW39C-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 04:27	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372012** Date Collected: 6/12/2019 09:08 Matrix: Water

Sample ID: **MSA-SW39D-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 04:35	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372013** Date Collected: 6/12/2019 12:26 Matrix: Water

Sample ID: **MSA-SW40A-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 09:02	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372014** Date Collected: 6/12/2019 12:30 Matrix: Water

Sample ID: **MSA-SW40B-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 09:11	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372015** Date Collected: 6/12/2019 12:36 Matrix: Water

Sample ID: **MSA-SW40C-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 09:19	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372016** Date Collected: 6/12/2019 12:48 Matrix: Water

Sample ID: **MSA-SW40D-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 09:28	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372017** Date Collected: 6/12/2019 11:34 Matrix: Water

Sample ID: **MSA-SW41A-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 07:02	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372018** Date Collected: 6/12/2019 11:39 Matrix: Water

Sample ID: **MSA-SW41B-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 07:10	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372019** Date Collected: 6/12/2019 11:45 Matrix: Water

Sample ID: **MSA-SW41C-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 07:19	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372020** Date Collected: 6/12/2019 11:51 Matrix: Water

Sample ID: **MSA-SW41D-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 07:27	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372021** Date Collected: 6/12/2019 12:56 Matrix: Water

Sample ID: **MSA-SW42A-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 09:36	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372022** Date Collected: 6/12/2019 13:00 Matrix: Water

Sample ID: **MSA-SW42B-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 09:45	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372023** Date Collected: 6/12/2019 13:07 Matrix: Water

Sample ID: **MSA-SW42C-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 10:11	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372024** Date Collected: 6/12/2019 13:13 Matrix: Water

Sample ID: **MSA-SW42D-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 10:37	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372025** Date Collected: 6/12/2019 11:06 Matrix: Water

Sample ID: **MSA-SW43A-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 06:27	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372026** Date Collected: 6/12/2019 11:10 Matrix: Water

Sample ID: **MSA-SW43B-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 06:36	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372027** Date Collected: 6/12/2019 11:14 Matrix: Water

Sample ID: **MSA-SW43C-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 06:44	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372028** Date Collected: 6/12/2019 11:14 Matrix: Water

Sample ID: **MSA-SW43D-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 06:53	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372029** Date Collected: 6/12/2019 10:38 Matrix: Water

Sample ID: **MSA-SW44A-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 05:18	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372030** Date Collected: 6/12/2019 10:42 Matrix: Water

Sample ID: **MSA-SW44B-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 05:27	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372031** Date Collected: 6/12/2019 10:52 Matrix: Water

Sample ID: **MSA-SW44C-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 05:53	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372032** Date Collected: 6/12/2019 11:00 Matrix: Water

Sample ID: **MSA-SW44D-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 06:19	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372033** Date Collected: 6/12/2019 10:15 Matrix: Water

Sample ID: **MSA-SW45A-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 04:44	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372034** Date Collected: 6/12/2019 10:20 Matrix: Water

Sample ID: **MSA-SW45B-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 04:52	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372035** Date Collected: 6/12/2019 10:26 Matrix: Water

Sample ID: **MSA-SW45C-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 05:01	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID: **3039372036** Date Collected: 6/12/2019 10:32 Matrix: Water

Sample ID: **MSA-SW45D-061219** Date Received: 6/12/2019 21:11

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/13/19 05:10	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

Appendix C

Support Documentation

Tetra Tech, Inc.
ALS-Middletown
Case Narrative
TMG-014

Sample Management

This report contains the results of the analysis of thirty-six (36) water samples collected on June 12, 2019. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on June 12, 2019. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Thirty-six (36) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were pH adjusted using ammonium sulfate buffer to a range of 9.3-9.7 and analyzed within the 28-day hold time.

Calibration. A monthly calibration was properly established on instrument IC#4 on 6/13/2019. Continuing calibration verification standards were analyzed to verify the calibration. The calibration standards were within QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit of 0.25 µg/L in the blanks.

Laboratory Control Samples. Laboratory control samples identified as 2963025 and 2963035 were analyzed initially and every 20 samples. The recovery was within the QC limits of 90-110%.

Laboratory control samples identified as 2963023 and 2963033 were analyzed initially and every 20 samples. The recovery was within the QC limits of 50-150%.

Spikes. A matrix spike and matrix spike duplicate analysis was performed on sample 3039372005 (MSA-SW38A-061219). The spike recoveries and the relative percent difference between the spikes were all within the QC limits of 90-110% and 20%, respectively.

A matrix spike and matrix spike duplicate analysis was performed on sample 3039372009 (MSA-SW39A-061219). The spike recoveries and the relative percent difference between the spikes were all within the QC limits of 90-110% and 20%, respectively.

A matrix spike and matrix spike duplicate analysis was performed on sample 3039372023 (MSA-SW42C-061219). The spike recoveries and the relative percent difference between the spikes were all within the QC limits of 90-110% and 20%, respectively.

A matrix spike and matrix spike duplicate analysis was performed on sample 3039372031 (MSA-SW44C-061219). The spike recoveries and the relative percent difference between the spikes were all within the QC limits of 90-110% and 20%, respectively.

SAMPLE SUMMARY

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3039372001	MSA-SW37A-061219	Water	6/12/2019 13:21	6/12/2019 21:11	Collected by Client
3039372002	MSA-SW37B-061219	Water	6/12/2019 13:30	6/12/2019 21:11	Collected by Client
3039372003	MSA-SW37C-061219	Water	6/12/2019 13:39	6/12/2019 21:11	Collected by Client
3039372004	MSA-SW37D-061219	Water	6/12/2019 13:47	6/12/2019 21:11	Collected by Client
3039372005	MSA-SW38A-061219	Water	6/12/2019 12:02	6/12/2019 21:11	Collected by Client
3039372006	MSA-SW38B-061219	Water	6/12/2019 12:10	6/12/2019 21:11	Collected by Client
3039372007	MSA-SW38C-061219	Water	6/12/2019 12:12	6/12/2019 21:11	Collected by Client
3039372008	MSA-SW38D-061219	Water	6/12/2019 12:18	6/12/2019 21:11	Collected by Client
3039372009	MSA-SW39A-061219	Water	6/12/2019 08:30	6/12/2019 21:11	Collected by Client
3039372010	MSA-SW39B-061219	Water	6/12/2019 08:51	6/12/2019 21:11	Collected by Client
3039372011	MSA-SW39C-061219	Water	6/12/2019 09:03	6/12/2019 21:11	Collected by Client
3039372012	MSA-SW39D-061219	Water	6/12/2019 09:08	6/12/2019 21:11	Collected by Client
3039372013	MSA-SW40A-061219	Water	6/12/2019 12:26	6/12/2019 21:11	Collected by Client
3039372014	MSA-SW40B-061219	Water	6/12/2019 12:30	6/12/2019 21:11	Collected by Client
3039372015	MSA-SW40C-061219	Water	6/12/2019 12:36	6/12/2019 21:11	Collected by Client
3039372016	MSA-SW40D-061219	Water	6/12/2019 12:48	6/12/2019 21:11	Collected by Client
3039372017	MSA-SW41A-061219	Water	6/12/2019 11:34	6/12/2019 21:11	Collected by Client
3039372018	MSA-SW41B-061219	Water	6/12/2019 11:39	6/12/2019 21:11	Collected by Client
3039372019	MSA-SW41C-061219	Water	6/12/2019 11:45	6/12/2019 21:11	Collected by Client
3039372020	MSA-SW41D-061219	Water	6/12/2019 11:51	6/12/2019 21:11	Collected by Client
3039372021	MSA-SW42A-061219	Water	6/12/2019 12:56	6/12/2019 21:11	Collected by Client
3039372022	MSA-SW42B-061219	Water	6/12/2019 13:00	6/12/2019 21:11	Collected by Client
3039372023	MSA-SW42C-061219	Water	6/12/2019 13:07	6/12/2019 21:11	Collected by Client
3039372024	MSA-SW42D-061219	Water	6/12/2019 13:13	6/12/2019 21:11	Collected by Client
3039372025	MSA-SW43A-061219	Water	6/12/2019 11:06	6/12/2019 21:11	Collected by Client
3039372026	MSA-SW43B-061219	Water	6/12/2019 11:10	6/12/2019 21:11	Collected by Client
3039372027	MSA-SW43C-061219	Water	6/12/2019 11:14	6/12/2019 21:11	Collected by Client
3039372028	MSA-SW43D-061219	Water	6/12/2019 11:14	6/12/2019 21:11	Collected by Client
3039372029	MSA-SW44A-061219	Water	6/12/2019 10:38	6/12/2019 21:11	Collected by Client
3039372030	MSA-SW44B-061219	Water	6/12/2019 10:42	6/12/2019 21:11	Collected by Client
3039372031	MSA-SW44C-061219	Water	6/12/2019 10:52	6/12/2019 21:11	Collected by Client
3039372032	MSA-SW44D-061219	Water	6/12/2019 11:00	6/12/2019 21:11	Collected by Client
3039372033	MSA-SW45A-061219	Water	6/12/2019 10:15	6/12/2019 21:11	Collected by Client
3039372034	MSA-SW45B-061219	Water	6/12/2019 10:20	6/12/2019 21:11	Collected by Client

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

SAMPLE SUMMARY

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3039372035	MSA-SW45C-061219	Water	6/12/2019 10:26	6/12/2019 21:11	Collected by Client
3039372036	MSA-SW45D-061219	Water	6/12/2019 10:32	6/12/2019 21:11	Collected by Client

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

SAMPLE SUMMARY

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

Friday, June 14, 2019 8:53:40 AM
Page 47 of 50

Middletown

34 Dogwood Lane
Middletown, PA

Chain of Custody Record

* 3 0 3 9 3 7 2 *

ALS Environmental

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 6/12/2019	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: Vanessa Badman	Carrier: Fedex	1 of 3 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: 24 HR HOLD TIME			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Surface Water Sampling	☐ 1 week Standard			Sampler: S. Larson
Site: MSA Frog Mortar Creek	☐ 2 days 24 Hour			
Project # 112IC08424	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Dissolved Hexavalent Chromium (218.6)	Sample Specific Notes:
MSA-SW37A-061219	6/12/2019	1301	SW	Water	1	x	x	
MSA-SW37B-061219	6/12/2019	1330	SW	Water	1	x	x	
MSA-SW37C-061219	6/12/2019	1339	SW	Water	1	x	x	
MSA-SW37D-061219	6/12/2019	1347	SW	Water	1	x	x	
MSA-SW38A-061219	6/12/2019	1202	SW	Water	1	x	x	
MSA-SW38B-061219	6/12/2019	1210	SW	Water	1	x	x	
MSA-SW38C-061219	6/12/2019	1212	SW	Water	1	x	x	
MSA-SW38D-061219	6/12/2019	1218	SW	Water	1	x	x	
MSA-SW39A-061219	6/12/2019	0830	SW	Water	1	x	x	
MSA-SW39B-061219	6/12/2019	0851	SW	Water	1	x	x	
MSA-SW39C-061219	6/12/2019	0903	SW	Water	1	x	x	
MSA-SW39D-061219	6/12/2019	0908	SW	Water	1	x	x	
							6	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Hex chrome buffer

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ 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: **Samples must be analyzed within 24 hours of sample time. Filtered in Field**

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	06/12/19	ALS	ALS	6/12/19 1503
	ALS	6/12/19		ALS	6/12/19 2111

Page 7 of 135 Total Pages

Middletown

34 Dogwood Lane
Middletown, PA

Chain of Custody Record

3089372

ALS Environmental

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 6/12/2019	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: Vanessa Badman	Carrier: Fedex	2 of 3 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: 24 HR HOLD TIME			SDG No.
(301) 528-3000 FAX	☐ 2 weeks 24 Hour			
Project Name: MSA Surface Water Sampling	☐ 1 week ~~Standard~~			Sampler: S. Larson
Site: MSA Frog Mortar Creek	☐ 2 days			
Project # 112IC08424	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Dissolved Hexavalent Chromium (218.6)	Sample Specific Notes:
MSA-SW40A-061219	6/12/2019	1226	SW	Water	1	x	x	
MSA-SW40B-061219	6/12/2019	1230	SW	Water	1	x	x	
MSA-SW40C-061219	6/12/2019	1236	SW	Water	1	x	x	
MSA-SW40D-061219	6/12/2019	1248	SW	Water	1	x	x	
MSA-SW41A-061219	6/12/2019	1134	SW	Water	1	x	x	
MSA-SW41B-061219	6/12/2019	1139	SW	Water	1	x	x	
MSA-SW41C-061219	6/12/2019	1145	SW	Water	1	x	x	
MSA-SW41D-061219	6/12/2019	1151	SW	Water	1	x	x	
MSA-SW42A-061219	6/12/2019	1256	SW	Water	1	x	x	
MSA-SW42B-061219	6/12/2019	1300	SW	Water	1	x	x	
MSA-SW42C-061219	6/12/2019	1307	SW	Water	1	x	x	
MSA-SW42D-061219	6/12/2019	1313	SW	Water	1	x	x	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____Hex Chrom Buffer____ 6

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ 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: **Samples must be analyzed within 24 hours of sample time. Filtered in Field**

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	06/12/19	[signature]	ALS	6/12/19 1503
[signature]	ALS	6/12/19	[signature]	ALS	6/12/19 2111

Middletown

3039372

34 Dogwood Lane
Middletown, PA

Chain of Custody Record

ALS Environmental

Client Contact	Project Manager: Tony Apanavage	Site Contact: Tony Apanavage	Date: 6/12/2019	COC No:
Tetra Tech	Tel/Fax: 301-233-8230 (cell)	Lab Contact: Vanessa Badman	Carrier: Fedex	3 of 3 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W)			
(301) 528-3021 Phone	TAT if different from Below: 24 HR HOLD TIME			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MSA Surface Water Sampling	☐ 1 week			
Site: MSA Frog Mortar Creek	☐ 2 days Standard			Sampler: S. Larson
Project # 112IC08424	☐ 1 day 24 Hour			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Dissolved Hexavalent Chromium (218.6)	Sample Specific Notes:
MSA-SW43A-061219	6/12/2019	1106	SW	Water	1	x	x	
MSA-SW43B-061219	6/12/2019	1110	SW	Water	1	x	x	
MSA-SW43C-061219	6/12/2019	1119	SW	Water	1	x	x	
MSA-SW43D-061219	6/12/2019	1123	SW	Water	1	x	x	
MSA-SW44A-061219	6/12/2019	1038	SW	Water	1	x	x	
MSA-SW44B-061219	6/12/2019	1042	SW	Water	1	x	x	
MSA-SW44C-061219	6/12/2019	1052	SW	Water	1	x	x	
MSA-SW44D-061219	6/12/2019	1100	SW	Water	1	x	x	
MSA-SW45A-061219	6/12/2019	1015	SW	Water	1	x	x	
MSA-SW45B-061219	6/12/2019	1020	SW	Water	1	x	x	
MSA-SW45C-061219	6/12/2019	1026	SW	Water	1	x	x	
MSA-SW45D-061219	6/12/2019	1032	SW	Water	1	x	x	
							6	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Hex Chrom buffer

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ 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: **Samples must be analyzed within 24 hours of sample time. Filtered in Field**

	Company:	Date/Time:		Company:	Date/Time:
Relinquished by:	Tetra Tech	06/12/19	Received by:	ALS	6/12/19 1502
Relinquished by:	ALS	6/12/19	Received by:	ALS	6/12/19 2111
Relinquished by:			Received by:		

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client:	Work Order #:	Initials:	Date:
Tetra Tech	3089372	KM	6/12/19

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number: _____			
2. Are Custody Seals on shipping containers intact?	(NONE)	YES	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	(N/A)	YES	NO
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #:								
Temperature (°C):	2.6							
Thermometer ID:	401							
Radiological (µCi):								

COMMENTS (Required for all NO responses above and any sample non-conformance):

Rev. 4/29/2019

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID	Sample ID	Analysis Method	Prep Method
3039372001	MSA-SW37A-061219	EPA 218.6	
3039372002	MSA-SW37B-061219	EPA 218.6	
3039372003	MSA-SW37C-061219	EPA 218.6	
3039372004	MSA-SW37D-061219	EPA 218.6	
3039372005	MSA-SW38A-061219	EPA 218.6	
3039372006	MSA-SW38B-061219	EPA 218.6	
3039372007	MSA-SW38C-061219	EPA 218.6	
3039372008	MSA-SW38D-061219	EPA 218.6	
3039372009	MSA-SW39A-061219	EPA 218.6	
3039372010	MSA-SW39B-061219	EPA 218.6	
3039372011	MSA-SW39C-061219	EPA 218.6	
3039372012	MSA-SW39D-061219	EPA 218.6	
3039372013	MSA-SW40A-061219	EPA 218.6	
3039372014	MSA-SW40B-061219	EPA 218.6	
3039372015	MSA-SW40C-061219	EPA 218.6	
3039372016	MSA-SW40D-061219	EPA 218.6	
3039372017	MSA-SW41A-061219	EPA 218.6	
3039372018	MSA-SW41B-061219	EPA 218.6	
3039372019	MSA-SW41C-061219	EPA 218.6	
3039372020	MSA-SW41D-061219	EPA 218.6	
3039372021	MSA-SW42A-061219	EPA 218.6	
3039372022	MSA-SW42B-061219	EPA 218.6	
3039372023	MSA-SW42C-061219	EPA 218.6	
3039372024	MSA-SW42D-061219	EPA 218.6	
3039372025	MSA-SW43A-061219	EPA 218.6	
3039372026	MSA-SW43B-061219	EPA 218.6	
3039372027	MSA-SW43C-061219	EPA 218.6	
3039372028	MSA-SW43D-061219	EPA 218.6	
3039372029	MSA-SW44A-061219	EPA 218.6	
3039372030	MSA-SW44B-061219	EPA 218.6	
3039372031	MSA-SW44C-061219	EPA 218.6	
3039372032	MSA-SW44D-061219	EPA 218.6	
3039372033	MSA-SW45A-061219	EPA 218.6	
3039372034	MSA-SW45B-061219	EPA 218.6	
3039372035	MSA-SW45C-061219	EPA 218.6	
3039372036	MSA-SW45D-061219	EPA 218.6	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
3039372009	MSA-SW39A-061219			EPA 218.6	WETC/223067
3039372010	MSA-SW39B-061219			EPA 218.6	WETC/223067
3039372011	MSA-SW39C-061219			EPA 218.6	WETC/223067
3039372012	MSA-SW39D-061219			EPA 218.6	WETC/223067
3039372017	MSA-SW41A-061219			EPA 218.6	WETC/223067
3039372018	MSA-SW41B-061219			EPA 218.6	WETC/223067
3039372019	MSA-SW41C-061219			EPA 218.6	WETC/223067
3039372020	MSA-SW41D-061219			EPA 218.6	WETC/223067
3039372025	MSA-SW43A-061219			EPA 218.6	WETC/223067
3039372026	MSA-SW43B-061219			EPA 218.6	WETC/223067
3039372027	MSA-SW43C-061219			EPA 218.6	WETC/223067
3039372028	MSA-SW43D-061219			EPA 218.6	WETC/223067
3039372029	MSA-SW44A-061219			EPA 218.6	WETC/223067
3039372030	MSA-SW44B-061219			EPA 218.6	WETC/223067
3039372031	MSA-SW44C-061219			EPA 218.6	WETC/223067
3039372032	MSA-SW44D-061219			EPA 218.6	WETC/223067
3039372033	MSA-SW45A-061219			EPA 218.6	WETC/223067
3039372034	MSA-SW45B-061219			EPA 218.6	WETC/223067
3039372035	MSA-SW45C-061219			EPA 218.6	WETC/223067
3039372036	MSA-SW45D-061219			EPA 218.6	WETC/223067
3039372001	MSA-SW37A-061219			EPA 218.6	WETC/223068
3039372002	MSA-SW37B-061219			EPA 218.6	WETC/223068
3039372003	MSA-SW37C-061219			EPA 218.6	WETC/223068
3039372004	MSA-SW37D-061219			EPA 218.6	WETC/223068
3039372005	MSA-SW38A-061219			EPA 218.6	WETC/223068
3039372006	MSA-SW38B-061219			EPA 218.6	WETC/223068
3039372007	MSA-SW38C-061219			EPA 218.6	WETC/223068
3039372008	MSA-SW38D-061219			EPA 218.6	WETC/223068
3039372013	MSA-SW40A-061219			EPA 218.6	WETC/223068
3039372014	MSA-SW40B-061219			EPA 218.6	WETC/223068
3039372015	MSA-SW40C-061219			EPA 218.6	WETC/223068
3039372016	MSA-SW40D-061219			EPA 218.6	WETC/223068

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 3039372 TMG014|MSA Surface Water Sampl

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
3039372021	MSA-SW42A-061219			EPA 218.6	WETC/223068
3039372022	MSA-SW42B-061219			EPA 218.6	WETC/223068
3039372023	MSA-SW42C-061219			EPA 218.6	WETC/223068
3039372024	MSA-SW42D-061219			EPA 218.6	WETC/223068

Hexavalent Chromium by Method 218.6 Summary Forms

Sample Description

MSA-SW38A-061219

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TMG014
Units: ug/L
Lab Sample ID: 3039372005
Lab MS Sample ID: 2963036
Lab MSD Sample ID: 2963037

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	5.0	101		90 - 110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	5.0	101		90 - 110	0.06		20

(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Sample Description

MSA-SW39A-061219

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TMG014
Units: ug/L
Lab Sample ID: 3039372009
Lab MS Sample ID: 2963026
Lab MSD Sample ID: 2963027

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	5.0	99.2		90 - 110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	5.0	100		90 - 110	1.24		20

(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Sample Description

MSA-SW42C-061219

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TMG014
Units: ug/L
Lab Sample ID: 3039372023
Lab MS Sample ID: 2963040
Lab MSD Sample ID: 2963041

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	5.1	102		90 - 110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	5.0	100		90 - 110	1.23		20

(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Sample Description

MSA-SW44C-061219

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TMG014
Units: ug/L
Lab Sample ID: 3039372031
Lab MS Sample ID: 2963030
Lab MSD Sample ID: 2963031

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	5.0	100		90 - 110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	5.0	100		90 - 110	0.28		20

(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TMG014

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
2963022	Hexavalent Chromium	MB	QC-Water	06/13/2019 03:18	0.25	U	ug/L
2963029	Hexavalent Chromium	MB	QC-Water	06/13/2019 05:44	0.25	U	ug/L
2963032	Hexavalent Chromium	MB	QC-Water	06/13/2019 07:36	0.25	U	ug/L
2963039	Hexavalent Chromium	MB	QC-Water	06/13/2019 10:02	0.25	U	ug/L
2963043	Hexavalent Chromium	MB	QC-Water	06/13/2019 11:28	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No. TMG014

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2963024	Hexavalent Chromium	CCVL	06/13/2019 03:35	5	5.0	100		90 - 110
2963028	Hexavalent Chromium	CCVH	06/13/2019 05:36	20	20.0	99.8		90 - 110
2963034	Hexavalent Chromium	CCVL	06/13/2019 07:53	5	5.1	101		90 - 110
2963038	Hexavalent Chromium	CCVH	06/13/2019 09:54	20	20.0	99.8		90 - 110
2963042	Hexavalent Chromium	CCVL	06/13/2019 11:20	5	5.0	101		90 - 110

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TMG014

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2963023	Hexavalent Chromium	MRL	06/13/2019 03:26	0.25	0.26	102		50 - 150
2963025	Hexavalent Chromium	LCS	06/13/2019 03:44	10	9.9	99.3		90 - 110
2963033	Hexavalent Chromium	MRL	06/13/2019 07:45	0.25	0.25	98.4		50 - 150
2963035	Hexavalent Chromium	LCS	06/13/2019 08:02	10	10.0	100		90 - 110

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

Pos	Name	lutionFac	*SampleType	Comment	*Instrument	*Batch	*Sequence1	*InitialCal	Status
1	Cal Std 1	1	CAL		IC-4		061319	061319	single
2	Cal Std 2	1	CAL		IC-4		061319	061319	single
3	Cal Std 3	1	CAL		IC-4		061319	061319	single
4	Cal Std 4	1	CAL		IC-4		061319	061319	single
5	Cal Std 5	1	CAL		IC-4		061319	061319	single
6	Cal Std 6	1	CAL		IC-4		061319	061319	single
7	2963022	1	MB	LRB	IC-4	223067	061319	061319	single
8	2963023	1	MRL	MRL	IC-4	223067	061319	061319	single
9	2963024	1	CCVL	LFB	IC-4	223067	061319	061319	single
10	2963025	1	LCS	QCS	IC-4	223067	061319	061319	single
11	3039372009	1	SAMPLE		IC-4	223067	061319	061319	single
12	2963026	1	MS		IC-4	223067	061319	061319	single
13	2963027	1	MSD		IC-4	223067	061319	061319	single
14	3039372010	1	SAMPLE		IC-4	223067	061319	061319	single
15	3039372011	1	SAMPLE		IC-4	223067	061319	061319	single
16	3039372012	1	SAMPLE		IC-4	223067	061319	061319	single
17	3039372033	1	SAMPLE		IC-4	223067	061319	061319	single
18	3039372034	1	SAMPLE		IC-4	223067	061319	061319	single
19	3039372035	1	SAMPLE		IC-4	223067	061319	061319	single
20	3039372036	1	SAMPLE		IC-4	223067	061319	061319	single
21	3039372029	1	SAMPLE		IC-4	223067	061319	061319	single
22	3039372030	1	SAMPLE		IC-4	223067	061319	061319	single
23	2963028	1	CCVH		IC-4	223067	061319	061319	single
24	2963029	1	MB		IC-4	223067	061319	061319	single
25	3039372031	1	SAMPLE		IC-4	223067	061319	061319	single
26	2963030	1	MS		IC-4	223067	061319	061319	single
27	2963031	1	MSD		IC-4	223067	061319	061319	single
28	3039372032	1	SAMPLE		IC-4	223067	061319	061319	single
29	3039372025	1	SAMPLE		IC-4	223067	061319	061319	single
30	3039372026	1	SAMPLE		IC-4	223067	061319	061319	single
31	3039372027	1	SAMPLE		IC-4	223067	061319	061319	single
32	3039372028	1	SAMPLE		IC-4	223067	061319	061319	single
33	3039372017	1	SAMPLE		IC-4	223067	061319	061319	single
34	3039372018	1	SAMPLE		IC-4	223067	061319	061319	single
35	3039372019	1	SAMPLE		IC-4	223067	061319	061319	single
36	3039372020	1	SAMPLE		IC-4	223067	061319	061319	single
37	2963032	1	MB	LRB	IC-4	223068	061319	061319	single
38	2963033	1	MRL	MRL	IC-4	223068	061319	061319	single
39	2963034	1	CCVL	LFB	IC-4	223068	061319	061319	single
40	2963035	1	LCS	QCS	IC-4	223068	061319	061319	single
41	3039372005	1	SAMPLE		IC-4	223068	061319	061319	single
42	2963036	1	MS		IC-4	223068	061319	061319	single

43	2963037	1	MSD		IC-4	223068	061319	061319	single
44	3039372006	1	SAMPLE		IC-4	223068	061319	061319	single
45	3039372007	1	SAMPLE		IC-4	223068	061319	061319	single
46	3039372008	1	SAMPLE		IC-4	223068	061319	061319	single
47	3039372013	1	SAMPLE		IC-4	223068	061319	061319	single
48	3039372014	1	SAMPLE		IC-4	223068	061319	061319	single
49	3039372015	1	SAMPLE		IC-4	223068	061319	061319	single
50	3039372016	1	SAMPLE		IC-4	223068	061319	061319	single
1	3039372021	1	SAMPLE		IC-4	223068	061319	061319	single
2	3039372022	1	SAMPLE		IC-4	223068	061319	061319	single
3	2963038	1	CCVH		IC-4	223068	061319	061319	single
4	2963039	1	MB		IC-4	223068	061319	061319	single
5	3039372023	1	SAMPLE		IC-4	223068	061319	061319	single
6	2963040	1	MS		IC-4	223068	061319	061319	single
7	2963041	1	MSD		IC-4	223068	061319	061319	single
8	3039372024	1	SAMPLE		IC-4	223068	061319	061319	single
9	3039372001	1	SAMPLE		IC-4	223068	061319	061319	single
10	3039372002	1	SAMPLE		IC-4	223068	061319	061319	single
11	3039372003	1	SAMPLE		IC-4	223068	061319	061319	single
12	3039372004	1	SAMPLE		IC-4	223068	061319	061319	single
13	2963042	1	CCVL		IC-4	223068	061319	061319	single
14	2963043	1	MB		IC-4	223068	061319	061319	single
15	SHUTDOWN		MISC		IC-4	223068	061319	061319	single

Cr+6 218.6 pH Filtration Prep

Sample	Adjusted With	Final pH 9-9.5, SI units	0.4 µm Filtered
3039372001	ammonium hydroxide	X	lab
3039372002	ammonium hydroxide	X	lab
3039372003	ammonium hydroxide	X	lab
3039372004	ammonium hydroxide	X	lab
3039372005	ammonium hydroxide	X	lab
3039372006	ammonium hydroxide	X	lab
3039372007	ammonium hydroxide	X	lab
3039372008	ammonium hydroxide	X	lab
3039372009	ammonium hydroxide	X	lab
3039372010	ammonium hydroxide	X	lab
3039372011	ammonium hydroxide	X	lab
3039372012	ammonium hydroxide	X	lab
3039372013	ammonium hydroxide	X	lab
3039372014	ammonium hydroxide	X	lab
3039372015	ammonium hydroxide	X	lab
3039372016	ammonium hydroxide	X	lab
3039372017	ammonium hydroxide	X	lab
3039372018	ammonium hydroxide	X	lab
3039372019	ammonium hydroxide	X	lab
3039372020	ammonium hydroxide	X	lab
3039372021	ammonium hydroxide	X	lab
3039372022	ammonium hydroxide	X	lab
3039372023	ammonium hydroxide	X	lab
3039372024	ammonium hydroxide	X	lab
3039372025	ammonium hydroxide	X	lab
3039372026	ammonium hydroxide	X	lab
3039372027	ammonium hydroxide	X	lab
3039372028	ammonium hydroxide	X	lab
3039372029	ammonium hydroxide	X	lab
3039372030	ammonium hydroxide	X	lab
3039372031	ammonium hydroxide	X	lab
3039372032	ammonium hydroxide	X	lab

Date:	6.13.19 1:55
Tech:	MBW

Queue:	WETC
Batch:	223067 / 68

Reagent:	
Cr+6 Buffer:	N/A

Reviewed by:	MBW
Reviewed date:	6/13/19

Comments:
An "X" in the Final pH column indicates that the sample pH is within this range.
Ammonium Hydroxide - 190107003

_Q:WETC|_B:223067 / 68|_D:6.13.19 1:55

Cr+6 218.6 pH Filtration Prep

Sample	Adjusted With	Final pH 9-9.5, SI units	0.4 µm Filtered
3039372032	ammonium hydroxide	X	lab
3039372033	ammonium hydroxide	X	lab
3039372034	ammonium hydroxide	X	lab
3039372035	ammonium hydroxide	X	lab
3039372036	ammonium hydroxide	X	lab

MBW 6/13/19

Date:	6.13.19 1:55
Tech:	MBW

Queue:	WETC
Batch:	223067 / 68

Reagent:	
Cr+6 Buffer:	N/A

Reviewed by:	MBW
Reviewed date:	6/13/19

Comments:
An "X" in the Final pH column indicates that the sample pH is within this range.
Ammonium Hydroxide - 190107003

_Q:WETC|_B:223067 / 68|_D:6.13.19 1:55

Revision 03/2016

Page: 2

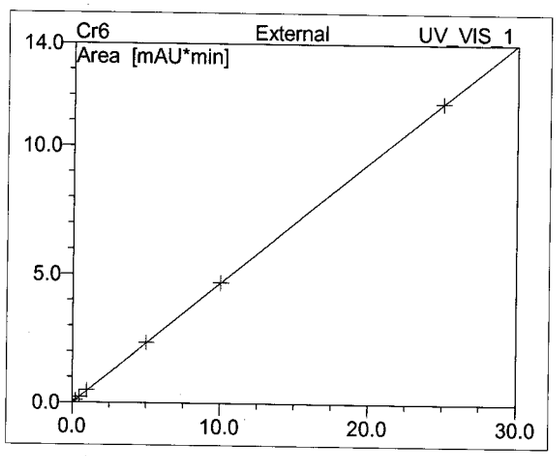
ANION SUMMARY REPORT

No.	Name	Time	*Analyst	lutionFac	*Batch	*Instrument	Amount Cr6 UV_VIS_1
7	2963022	06/13/19 03:18	MBW	1	223067	IC-4	n.a.
8	2963023	06/13/19 03:26	MBW	1	223067	IC-4	0.255
9	2963024	06/13/19 03:35	MBW	1	223067	IC-4	5.015
10	2963025	06/13/19 03:44	MBW	1	223067	IC-4	9.931
11	3039372009	06/13/19 03:52	MBW	1	223067	IC-4	n.a.
12	2963026	06/13/19 04:01	MBW	1	223067	IC-4	4.961
13	2963027	06/13/19 04:09	MBW	1	223067	IC-4	5.023
14	3039372010	06/13/19 04:18	MBW	1	223067	IC-4	n.a.
15	3039372011	06/13/19 04:27	MBW	1	223067	IC-4	n.a.
16	3039372012	06/13/19 04:35	MBW	1	223067	IC-4	n.a.
17	3039372033	06/13/19 04:44	MBW	1	223067	IC-4	n.a.
18	3039372034	06/13/19 04:52	MBW	1	223067	IC-4	n.a.
19	3039372035	06/13/19 05:01	MBW	1	223067	IC-4	n.a.
20	3039372036	06/13/19 05:10	MBW	1	223067	IC-4	n.a.
21	3039372029	06/13/19 05:18	MBW	1	223067	IC-4	n.a.
22	3039372030	06/13/19 05:27	MBW	1	223067	IC-4	n.a.
23	2963028	06/13/19 05:36	MBW	1	223067	IC-4	19.963
24	2963029	06/13/19 05:44	MBW	1	223067	IC-4	n.a.
25	3039372031	06/13/19 05:53	MBW	1	223067	IC-4	n.a.
26	2963030	06/13/19 06:01	MBW	1	223067	IC-4	5.016
27	2963031	06/13/19 06:10	MBW	1	223067	IC-4	5.002
28	3039372032	06/13/19 06:19	MBW	1	223067	IC-4	n.a.
29	3039372025	06/13/19 06:27	MBW	1	223067	IC-4	n.a.
30	3039372026	06/13/19 06:36	MBW	1	223067	IC-4	n.a.
31	3039372027	06/13/19 06:44	MBW	1	223067	IC-4	n.a.
32	3039372028	06/13/19 06:53	MBW	1	223067	IC-4	n.a.
33	3039372017	06/13/19 07:02	MBW	1	223067	IC-4	n.a.
34	3039372018	06/13/19 07:10	MBW	1	223067	IC-4	n.a.
35	3039372019	06/13/19 07:19	MBW	1	223067	IC-4	n.a.
36	3039372020	06/13/19 07:27	MBW	1	223067	IC-4	n.a.
37	2963032	06/13/19 07:36	MBW	1	223068	IC-4	n.a.
38	2963033	06/13/19 07:45	MBW	1	223068	IC-4	0.246
39	2963034	06/13/19 07:53	MBW	1	223068	IC-4	5.067
40	2963035	06/13/19 08:02	MBW	1	223068	IC-4	10.021
41	3039372005	06/13/19 08:10	MBW	1	223068	IC-4	n.a.
42	2963036	06/13/19 08:19	MBW	1	223068	IC-4	5.037
43	2963037	06/13/19 08:28	MBW	1	223068	IC-4	5.040
44	3039372006	06/13/19 08:36	MBW	1	223068	IC-4	n.a.
45	3039372007	06/13/19 08:45	MBW	1	223068	IC-4	n.a.
46	3039372008	06/13/19 08:53	MBW	1	223068	IC-4	n.a.
47	3039372013	06/13/19 09:02	MBW	1	223068	IC-4	n.a.
48	3039372014	06/13/19 09:11	MBW	1	223068	IC-4	n.a.

49	3039372015	06/13/19 09:19	MBW	1	223068	IC-4	n.a.
50	3039372016	06/13/19 09:28	MBW	1	223068	IC-4	n.a.
51	3039372021	06/13/19 09:36	MBW	1	223068	IC-4	n.a.
52	3039372022	06/13/19 09:45	MBW	1	223068	IC-4	n.a.
53	2963038	06/13/19 09:54	MBW	1	223068	IC-4	19.965
54	2963039	06/13/19 10:02	MBW	1	223068	IC-4	n.a.
55	3039372023	06/13/19 10:11	MBW	1	223068	IC-4	n.a.
56	2963040	06/13/19 10:20	MBW	1	223068	IC-4	5.084
57	2963041	06/13/19 10:28	MBW	1	223068	IC-4	5.022
58	3039372024	06/13/19 10:37	MBW	1	223068	IC-4	n.a.
59	3039372001	06/13/19 10:45	MBW	1	223068	IC-4	n.a.
60	3039372002	06/13/19 10:54	MBW	1	223068	IC-4	n.a.
61	3039372003	06/13/19 11:03	MBW	1	223068	IC-4	n.a.
62	3039372004	06/13/19 11:11	MBW	1	223068	IC-4	n.a.
63	2963042	06/13/19 11:20	MBW	1	223068	IC-4	5.049
64	2963043	06/13/19 11:28	MBW	1	223068	IC-4	n.a.
65	SHUTDOWN	06/13/19 11:37	MBW		223068	IC-4	n.a.

Calibration Batch Report

Sequence:	4-061319	Instrument:	IC-4
Instrument Method:	cr+6 AS40	InitialCal:	061319
Ini. Date/Time:	06/13/19 03:26	Method:	218_6_061319



No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
1	3.85	Cr6	0QOff	6	-0.010	0.472	0.000	99.9987
AVERAGE:					-0.0097	0.4722	-0.0001	99.9987

APPENDIX C—CHEMICAL-RESULTS DATA TABLE

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	EL-SW01A	EL-SW01B	EL-SW01C	EL-SW01D
SAMPLE ID	EL-SW01A-061219	EL-SW01B-061219	EL-SW01C-061219	EL-SW01D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
VOLATILES (UG/L)				
1,1,1,2-TETRACHLOROETHANE	0.14 U	0.14 U	0.14 U	0.14 U
1,1,1-TRICHLOROETHANE	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2,2-TETRACHLOROETHANE	0.13 U	0.13 U	0.13 U	0.13 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.17 U	0.17 U	0.17 U	0.17 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,3-TRICHLOROBENZENE	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ
1,2,3-TRICHLOROPROPANE	0.24 U	0.24 U	0.24 U	0.24 U
1,2,3-TRIMETHYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-TRICHLOROBENZENE	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ
1,2,4-TRIMETHYLBENZENE	0.07 U	0.07 U	0.07 U	0.07 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.16 U	0.16 U	0.16 U	0.16 U
2,2-DICHLOROPROPANE	0.31 U	0.31 U	0.31 U	0.31 U
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	0.26 UR	0.26 UR	0.26 UR	0.26 UR
2-CHLOROTOLUENE	0.15 U	0.15 U	0.15 U	0.15 U
2-HEXANONE	0.54 U	0.54 U	0.54 U	0.54 U
4-CHLOROTOLUENE	0.09 U	0.09 U	0.09 U	0.09 U
4-ISOPROPYLTOLUENE	0.13 U	0.13 U	0.13 U	0.13 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	EL-SW01A	EL-SW01B	EL-SW01C	EL-SW01D
SAMPLE ID	EL-SW01A-061219	EL-SW01B-061219	EL-SW01C-061219	EL-SW01D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
4-METHYL-2-PENTANONE	0.42 U	0.42 U	0.42 U	0.42 U
ACETONE	5.4 U	5.4 U	5.4 U	5.4 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
BROMOCHLOROMETHANE	0.14 U	0.14 U	0.14 U	0.14 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.28 U	0.28 U	0.28 U	0.28 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 U	1 U	1 U	1 U
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U
CHLOROFORM	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROMETHANE	0.2 U	0.2 U	0.2 U	0.2 U
CIS-1,2-DICHLOROETHENE	0.16 U	0.16 U	0.16 U	0.16 U
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.09 U	0.09 U	0.09 U	0.09 U
DICHLORODIFLUOROMETHANE	0.35 U	0.35 U	0.35 U	0.35 U
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.15 U	0.15 U	0.15 U	0.15 U
ETHYLBENZENE	0.11 U	0.11 U	0.11 U	0.11 U
HEXACHLOROBUTADIENE	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
ISOPROPYLBENZENE	0.09 U	0.09 U	0.09 U	0.09 U
M+P-XYLENES	0.08 U	0.08 U	0.08 U	0.08 U
METHYL TERT-BUTYL ETHER	0.07 U	0.07 U	0.07 U	0.07 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	EL-SW01A	EL-SW01B	EL-SW01C	EL-SW01D
SAMPLE ID	EL-SW01A-061219	EL-SW01B-061219	EL-SW01C-061219	EL-SW01D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
NAPHTHALENE	0.32 U	0.32 U	0.32 U	0.32 U
N-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
N-PROPYLBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
O-XYLENE	0.09 U	0.09 U	0.09 U	0.09 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.1 U	0.1 U	0.1 U	0.1 U
TERT-AMYL METHYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U
TERT-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
TERTIARY-BUTYL ALCOHOL	1.7 U	1.7 U	1.7 U	1.7 U
TETRACHLOROETHENE	0.15 U	0.15 U	0.15 U	0.15 U
TOLUENE	0.14 U	0.14 U	0.14 U	0.14 U
TOTAL XYLENES	0.15 U	0.15 U	0.15 U	0.15 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U
TRICHLOROFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.2 U	0.2 U	0.2 U	0.2 U
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)				
ACENAPHTHENE	--	--	--	--
HEXANAL	--	--	--	--
DISSOLVED METALS (UG/L)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION SAMPLE ID SAMPLE DATE	**EL-SW01A** **EL-SW01A-061219** **20190612**	**EL-SW01B** **EL-SW01B-061219** **20190612**	**EL-SW01C** **EL-SW01C-061219** **20190612**	**EL-SW01D** **EL-SW01D-061219** **20190612**
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
TUNGSTEN	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS (MG/L)				
CALCIUM HARDNESS AS CACO3	--	--	--	--
DISSOLVED ORGANIC CARBON	--	5.9	--	--
HARDNESS AS CACO3	--	--	--	--
MAGNESIUM HARDNESS AS CACO3	--	--	--	--
MISCELLANEOUS PARAMETERS (UG/L)				
HEXAVALENT CHROMIUM	--	--	--	--

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW37A	MSA-SW37B	MSA-SW37C	MSA-SW37D
SAMPLE ID	MSA-SW37A-061219	MSA-SW37B-061219	MSA-SW37C-061219	MSA-SW37D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
VOLATILES (UG/L)				
1,1,1,2-TETRACHLOROETHANE	0.14 U	0.14 U	0.14 U	0.14 U
1,1,1-TRICHLOROETHANE	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2,2-TETRACHLOROETHANE	0.13 UJ	0.13 UJ	0.13 UJ	0.13 UJ
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.17 U	0.17 U	0.17 U	0.17 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,3-TRICHLOROBENZENE	0.54 U	0.54 U	0.54 U	0.54 U
1,2,3-TRICHLOROPROPANE	0.24 U	0.24 U	0.24 U	0.24 U
1,2,3-TRIMETHYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-TRICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
1,2,4-TRIMETHYLBENZENE	0.07 U	0.07 U	0.07 U	0.07 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.16 U	0.16 U	0.16 U	0.16 U
2,2-DICHLOROPROPANE	0.31 U	0.31 U	0.31 U	0.31 U
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	0.26 UR	0.26 UR	0.26 UR	0.26 UR
2-CHLOROTOLUENE	0.15 U	0.15 U	0.15 U	0.15 U
2-HEXANONE	0.54 U	0.54 U	0.54 U	0.54 U
4-CHLOROTOLUENE	0.09 U	0.09 U	0.09 U	0.09 U
4-ISOPROPYLTOLUENE	0.13 U	0.13 U	0.13 U	0.13 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW37A	MSA-SW37B	MSA-SW37C	MSA-SW37D
SAMPLE ID	MSA-SW37A-061219	MSA-SW37B-061219	MSA-SW37C-061219	MSA-SW37D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
4-METHYL-2-PENTANONE	0.42 U	0.42 U	0.42 U	0.42 U
ACETONE	5.4 UJ	5.4 UJ	5.4 UJ	5.4 UJ
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
BROMOCHLOROMETHANE	0.14 U	0.14 U	0.14 U	0.14 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.28 U	0.28 U	0.28 U	0.28 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 U	1 U	1 U	1 U
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U
CHLOROFORM	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROMETHANE	0.2 U	0.2 U	0.2 U	0.2 U
CIS-1,2-DICHLOROETHENE	0.16 U	0.16 U	0.16 U	0.16 U
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.09 U	0.09 U	0.09 U	0.09 U
DICHLORODIFLUOROMETHANE	0.35 UJ	0.35 UJ	0.35 UJ	0.35 UJ
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.15 U	0.15 U	0.15 U	0.15 U
ETHYLBENZENE	0.11 U	0.11 U	0.11 U	0.11 U
HEXACHLOROBUTADIENE	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
ISOPROPYLBENZENE	0.09 U	0.09 U	0.09 U	0.09 U
M+P-XYLENES	0.08 U	0.08 U	0.08 U	0.08 U
METHYL TERT-BUTYL ETHER	0.07 U	0.07 U	0.07 U	0.07 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW37A	MSA-SW37B	MSA-SW37C	MSA-SW37D
SAMPLE ID	MSA-SW37A-061219	MSA-SW37B-061219	MSA-SW37C-061219	MSA-SW37D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
NAPHTHALENE	0.32 UJ	0.32 UJ	0.32 UJ	0.32 UJ
N-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
N-PROPYLBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
O-XYLENE	0.09 U	0.09 U	0.09 U	0.09 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.1 U	0.1 U	0.1 U	0.1 U
TERT-AMYL METHYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U
TERT-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
TERTIARY-BUTYL ALCOHOL	1.7 U	1.7 U	1.7 U	1.7 U
TETRACHLOROETHENE	0.15 U	0.15 U	0.15 U	0.15 U
TOLUENE	0.14 U	0.14 U	0.14 U	0.14 U
TOTAL XYLENES	0.15 U	0.15 U	0.15 U	0.15 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U
TRICHLOROFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.29 J	0.29 J	0.2 U	0.2 U
TENTATIVELY IDENTIFIED COMPOUNDS-V(				
ACENAPHTHENE	14 NJ	--	--	--
HEXANAL	--	--	--	--
DISSOLVED METALS (UG/L)				
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	2.3 J	1.8 J	1.7 J	1.8 J
BARIUM	7	6.2	6.3	6.1
BERYLLIUM	0.88 U	0.7 U	0.36 U	0.31 U
CADMIUM	0.21 U	0.21 U	0.21 U	0.21 U
CHROMIUM	0.98 U	0.98 U	0.98 U	0.98 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW37A	MSA-SW37B	MSA-SW37C	MSA-SW37D
SAMPLE ID	MSA-SW37A-061219	MSA-SW37B-061219	MSA-SW37C-061219	MSA-SW37D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
COBALT	0.29 J	0.19 U	0.21 J	0.19 U
COPPER	6	4.9	5.6	4.9
LEAD	0.45 U	0.45 U	0.45 U	0.45 U
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.6 J	1.4 J	1.1 J	1.1 J
NICKEL	2	1.8 J	2.3	1.7 J
SELENIUM	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.52 J	0.43 J	0.2 U	0.2 U
TUNGSTEN	1.8 U	1.8 U	1.8 U	1.8 U
VANADIUM	1.2 J	0.97 J	0.98 J	0.96 J
ZINC	15 U	15 U	15 U	15 U
MISCELLANEOUS PARAMETERS (MG/L)				
CALCIUM HARDNESS AS CACO3	21	20	19	20
DISSOLVED ORGANIC CARBON	--	4.9	--	--
HARDNESS AS CACO3	71	70	69	68
MAGNESIUM HARDNESS AS CACO3	50	50	50	49
MISCELLANEOUS PARAMETERS (UG/L)				
HEXAVALENT CHROMIUM	0.047 U	0.047 U	0.047 U	0.047 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW38A	MSA-SW38B	MSA-SW38C	MSA-SW38D
SAMPLE ID	MSA-SW38A-061219	MSA-SW38B-061219	MSA-SW38C-061219	MSA-SW38D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
VOLATILES (UG/L)				
1,1,1,2-TETRACHLOROETHANE	0.14 U	0.14 U	0.14 U	0.14 U
1,1,1-TRICHLOROETHANE	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2,2-TETRACHLOROETHANE	0.13 UJ	0.13 UJ	0.13 UJ	0.13 UJ
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.17 U	0.17 U	0.17 U	0.17 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,3-TRICHLOROBENZENE	0.54 U	0.54 U	0.54 U	0.54 U
1,2,3-TRICHLOROPROPANE	0.24 U	0.24 U	0.24 U	0.24 U
1,2,3-TRIMETHYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-TRICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
1,2,4-TRIMETHYLBENZENE	0.07 U	0.07 U	0.07 U	0.07 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.16 U	0.16 U	0.16 U	0.16 U
2,2-DICHLOROPROPANE	0.31 U	0.31 U	0.31 U	0.31 U
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	0.26 UR	0.26 UR	0.26 UR	0.26 UR
2-CHLOROTOLUENE	0.15 U	0.15 U	0.15 U	0.15 U
2-HEXANONE	0.54 U	0.54 U	0.54 U	0.54 U
4-CHLOROTOLUENE	0.09 U	0.09 U	0.09 U	0.09 U
4-ISOPROPYLTOLUENE	0.13 U	0.13 U	0.13 U	0.13 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW38A	MSA-SW38B	MSA-SW38C	MSA-SW38D
SAMPLE ID	MSA-SW38A-061219	MSA-SW38B-061219	MSA-SW38C-061219	MSA-SW38D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
4-METHYL-2-PENTANONE	0.42 U	0.42 U	0.42 U	0.42 U
ACETONE	5.4 UJ	5.4 UJ	5.4 UJ	5.4 UJ
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
BROMOCHLOROMETHANE	0.14 U	0.14 U	0.14 U	0.14 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.28 U	0.28 U	0.28 U	0.28 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 U	1 U	1 U	1 U
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U
CHLOROFORM	0.19 J	0.18 J	0.13 U	0.13 U
CHLOROMETHANE	0.2 U	0.2 U	0.2 U	0.2 U
CIS-1,2-DICHLOROETHENE	0.16 U	0.16 U	0.16 U	0.16 U
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.09 U	0.09 U	0.09 U	0.09 U
DICHLORODIFLUOROMETHANE	0.35 UJ	0.35 UJ	0.35 UJ	0.35 UJ
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.15 U	0.15 U	0.15 U	0.15 U
ETHYLBENZENE	0.11 U	0.11 U	0.11 U	0.11 U
HEXACHLOROBUTADIENE	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
ISOPROPYLBENZENE	0.09 U	0.09 U	0.09 U	0.09 U
M+P-XYLENES	0.08 U	0.08 U	0.08 U	0.08 U
METHYL TERT-BUTYL ETHER	0.07 U	0.07 U	0.07 U	0.07 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW38A	MSA-SW38B	MSA-SW38C	MSA-SW38D
SAMPLE ID	MSA-SW38A-061219	MSA-SW38B-061219	MSA-SW38C-061219	MSA-SW38D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
NAPHTHALENE	0.32 UJ	0.32 UJ	0.32 UJ	0.32 UJ
N-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
N-PROPYLBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
O-XYLENE	0.09 U	0.09 U	0.09 U	0.09 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.1 U	0.1 U	0.1 U	0.1 U
TERT-AMYL METHYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U
TERT-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
TERTIARY-BUTYL ALCOHOL	1.7 U	1.7 U	1.7 U	1.7 U
TETRACHLOROETHENE	0.15 U	0.15 U	0.15 U	0.15 U
TOLUENE	0.14 U	0.14 U	0.14 U	0.14 U
TOTAL XYLENES	0.15 U	0.15 U	0.15 U	0.15 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U
TRICHLOROFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.2 U	0.2 U	0.2 U	0.2 U
TENTATIVELY IDENTIFIED COMPOUNDS-V(				
ACENAPHTHENE	--	--	--	--
HEXANAL	--	--	--	--
DISSOLVED METALS (UG/L)				
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	1.8 J	2 J	1.7 J	2 J
BARIUM	5.7	6.3	6.2	6.8
BERYLLIUM	0.31 U	0.31 U	0.31 U	0.31 U
CADMIUM	0.21 U	0.21 U	0.21 U	0.21 U
CHROMIUM	0.98 U	0.98 U	0.98 U	0.98 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW38A	MSA-SW38B	MSA-SW38C	MSA-SW38D
SAMPLE ID	MSA-SW38A-061219	MSA-SW38B-061219	MSA-SW38C-061219	MSA-SW38D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
COBALT	0.19 U	0.19 U	0.19 U	0.2 J
COPPER	4.5	4.8	5	5.8
LEAD	0.45 U	0.45 U	0.45 U	0.45 U
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	1.6 J	1.5 U	1.5 U	1.9 J
SELENIUM	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U
TUNGSTEN	1.8 U	1.8 U	1.8 U	1.8 U
VANADIUM	0.94 J	0.82 U	0.91 J	1.4 J
ZINC	15 U	15 U	15 U	15 U
MISCELLANEOUS PARAMETERS (MG/L)				
CALCIUM HARDNESS AS CACO3	18	20	19	19
DISSOLVED ORGANIC CARBON	--	5.1	--	--
HARDNESS AS CACO3	64	69	68	69
MAGNESIUM HARDNESS AS CACO3	46	49	49	50
MISCELLANEOUS PARAMETERS (UG/L)				
HEXAVALENT CHROMIUM	0.047 U	0.047 U	0.047 U	0.047 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW39A	MSA-SW39B	MSA-SW39C	MSA-SW39D
SAMPLE ID	MSA-SW39A-061219	MSA-SW39B-061219	MSA-SW39C-061219	MSA-SW39D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
VOLATILES (UG/L)				
1,1,1,2-TETRACHLOROETHANE	0.14 U	0.14 U	0.14 U	0.14 U
1,1,1-TRICHLOROETHANE	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2,2-TETRACHLOROETHANE	0.13 UJ	0.13 UJ	0.13 UJ	0.13 UJ
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.17 U	0.17 U	0.17 U	0.17 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,3-TRICHLOROBENZENE	0.54 U	0.54 U	0.54 U	0.54 U
1,2,3-TRICHLOROPROPANE	0.24 U	0.24 U	0.24 U	0.24 U
1,2,3-TRIMETHYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-TRICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
1,2,4-TRIMETHYLBENZENE	0.07 U	0.07 U	0.07 U	0.07 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.16 U	0.16 U	0.16 U	0.16 U
2,2-DICHLOROPROPANE	0.31 U	0.31 U	0.31 U	0.31 U
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	0.26 UR	0.26 UR	0.26 UR	0.26 UR
2-CHLOROTOLUENE	0.15 U	0.15 U	0.15 U	0.15 U
2-HEXANONE	0.54 U	0.54 U	0.54 U	0.54 U
4-CHLOROTOLUENE	0.09 U	0.09 U	0.09 U	0.09 U
4-ISOPROPYLTOLUENE	0.13 U	0.13 U	0.13 U	0.13 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW39A	MSA-SW39B	MSA-SW39C	MSA-SW39D
SAMPLE ID	MSA-SW39A-061219	MSA-SW39B-061219	MSA-SW39C-061219	MSA-SW39D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
4-METHYL-2-PENTANONE	0.42 U	0.42 U	0.42 U	0.42 U
ACETONE	5.4 UJ	11 J	17 J	10 J
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
BROMOCHLOROMETHANE	0.14 U	0.14 U	0.14 U	0.14 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.28 U	0.28 U	0.28 U	0.28 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 U	1 U	1 U	1 U
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U
CHLOROFORM	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROMETHANE	0.2 U	0.2 U	0.2 U	0.2 U
CIS-1,2-DICHLOROETHENE	0.16 U	0.16 U	0.16 U	0.16 U
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.09 U	0.09 U	0.09 U	0.09 U
DICHLORODIFLUOROMETHANE	0.35 UJ	0.35 UJ	0.35 UJ	0.35 UJ
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.15 U	0.15 U	0.15 U	0.15 U
ETHYLBENZENE	0.11 U	0.11 U	0.11 U	0.11 U
HEXACHLOROBUTADIENE	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
ISOPROPYLBENZENE	0.09 U	0.09 U	0.09 U	0.09 U
M+P-XYLENES	0.08 U	0.08 U	0.08 U	0.08 U
METHYL TERT-BUTYL ETHER	0.07 U	0.07 U	0.07 U	0.07 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW39A	MSA-SW39B	MSA-SW39C	MSA-SW39D
SAMPLE ID	MSA-SW39A-061219	MSA-SW39B-061219	MSA-SW39C-061219	MSA-SW39D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
NAPHTHALENE	0.32 UJ	0.32 UJ	0.32 UJ	0.32 UJ
N-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
N-PROPYLBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
O-XYLENE	0.09 U	0.09 U	0.09 U	0.09 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.1 U	0.1 U	0.1 U	0.1 U
TERT-AMYL METHYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U
TERT-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
TERTIARY-BUTYL ALCOHOL	1.7 U	1.7 U	1.7 U	1.7 U
TETRACHLOROETHENE	0.15 U	0.15 U	0.15 U	0.15 U
TOLUENE	0.14 U	0.14 U	0.14 U	0.14 U
TOTAL XYLENES	0.15 U	0.15 U	0.15 U	0.15 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U
TRICHLOROFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.2 U	0.2 U	0.2 U	0.2 U
TENTATIVELY IDENTIFIED COMPOUNDS-V(				
ACENAPHTHENE	--	--	--	--
HEXANAL	--	--	--	--
DISSOLVED METALS (UG/L)				
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	1.9 J	1.8 J	2.1 J	2 J
BARIUM	6.3	6.3	6.5	5.7
BERYLLIUM	0.31 U	0.31 U	0.31 U	0.31 U
CADMIUM	0.21 U	0.21 U	0.21 U	0.21 U
CHROMIUM	0.98 U	0.98 U	0.98 U	0.98 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW39A	MSA-SW39B	MSA-SW39C	MSA-SW39D
SAMPLE ID	MSA-SW39A-061219	MSA-SW39B-061219	MSA-SW39C-061219	MSA-SW39D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
COBALT	0.19 U	0.2 J	0.23 J	0.19 U
COPPER	4.9	4.9	5.3	4.6
LEAD	0.45 U	0.45 U	0.45 U	0.45 U
MERCURY	0.13 U	0.13 U	0.13 U	0.13 UJ
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	1.5 J	1.5 U	1.6 J	2.2
SELENIUM	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U
TUNGSTEN	1.8 U	1.8 U	1.8 U	1.8 U
VANADIUM	1 J	1 J	1.2 J	0.82 U
ZINC	15 U	15 U	15 U	15 U
MISCELLANEOUS PARAMETERS (MG/L)				
CALCIUM HARDNESS AS CACO3	18	18	18	16
DISSOLVED ORGANIC CARBON	--	4.7	--	--
HARDNESS AS CACO3	67	67	67	63
MAGNESIUM HARDNESS AS CACO3	49	49	49	47
MISCELLANEOUS PARAMETERS (UG/L)				
HEXAVALENT CHROMIUM	0.047 U	0.047 U	0.047 U	0.047 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW40A	MSA-SW40B	MSA-SW40C	MSA-SW40D
SAMPLE ID	MSA-SW40A-061219	MSA-SW40B-061219	MSA-SW40C-061219	MSA-SW40D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
VOLATILES (UG/L)				
1,1,1,2-TETRACHLOROETHANE	0.14 U	0.14 U	0.14 U	0.14 U
1,1,1-TRICHLOROETHANE	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2,2-TETRACHLOROETHANE	0.13 UJ	0.13 U	0.13 U	0.13 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.17 U	0.17 U	0.17 U	0.17 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,3-TRICHLOROBENZENE	0.54 U	0.54 U	0.54 U	0.54 U
1,2,3-TRICHLOROPROPANE	0.24 U	0.24 U	0.24 U	0.24 U
1,2,3-TRIMETHYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-TRICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
1,2,4-TRIMETHYLBENZENE	0.07 U	0.07 U	0.07 U	0.07 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.16 U	0.16 U	0.16 U	0.16 U
2,2-DICHLOROPROPANE	0.31 U	0.31 U	0.31 U	0.31 U
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	0.26 UR	0.26 UR	0.26 UR	0.26 UR
2-CHLOROTOLUENE	0.15 U	0.15 U	0.15 U	0.15 U
2-HEXANONE	0.54 U	0.54 U	0.54 U	0.54 U
4-CHLOROTOLUENE	0.09 U	0.09 U	0.09 U	0.09 U
4-ISOPROPYLTOLUENE	0.13 U	0.13 U	0.13 U	0.13 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW40A	MSA-SW40B	MSA-SW40C	MSA-SW40D
SAMPLE ID	MSA-SW40A-061219	MSA-SW40B-061219	MSA-SW40C-061219	MSA-SW40D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
4-METHYL-2-PENTANONE	0.42 U	0.42 U	0.42 U	0.42 U
ACETONE	5.4 UJ	5.4 U	5.4 U	5.4 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
BROMOCHLOROMETHANE	0.14 U	0.14 U	0.14 U	0.14 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.28 U	0.28 U	0.28 U	0.28 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 U	1 U	1 U	1 U
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U
CHLOROFORM	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROMETHANE	0.2 U	0.2 UJ	0.2 UJ	0.2 UJ
CIS-1,2-DICHLOROETHENE	0.16 U	0.16 U	0.16 U	0.16 U
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.09 U	0.09 U	0.09 U	0.09 U
DICHLORODIFLUOROMETHANE	0.35 UJ	0.35 UJ	0.35 UJ	0.35 UJ
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.15 U	0.15 U	0.15 U	0.15 U
ETHYLBENZENE	0.11 U	0.11 U	0.11 U	0.11 U
HEXACHLOROBUTADIENE	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
ISOPROPYLBENZENE	0.09 U	0.09 U	0.09 U	0.09 U
M+P-XYLENES	0.08 U	0.08 U	0.08 U	0.08 U
METHYL TERT-BUTYL ETHER	0.07 U	0.07 U	0.07 U	0.07 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW40A	MSA-SW40B	MSA-SW40C	MSA-SW40D
SAMPLE ID	MSA-SW40A-061219	MSA-SW40B-061219	MSA-SW40C-061219	MSA-SW40D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
NAPHTHALENE	0.32 UJ	0.32 U	0.32 U	0.32 U
N-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
N-PROPYLBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
O-XYLENE	0.09 U	0.09 U	0.09 U	0.09 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.1 U	0.1 U	0.1 U	0.1 U
TERT-AMYL METHYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U
TERT-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
TERTIARY-BUTYL ALCOHOL	1.7 U	1.7 U	1.7 U	1.7 U
TETRACHLOROETHENE	0.15 U	0.15 U	0.15 U	0.15 U
TOLUENE	0.14 U	0.14 U	0.14 U	0.17 J
TOTAL XYLENES	0.15 U	0.15 U	0.15 U	0.15 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U
TRICHLOROFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.2 U	0.2 U	0.2 U	0.2 U
TENTATIVELY IDENTIFIED COMPOUNDS-V(				
ACENAPHTHENE	--	--	--	--
HEXANAL	--	--	--	--
DISSOLVED METALS (UG/L)				
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	2.4 J	2.2 J	2.1 J	1.9 J
BARIUM	7.4	6.1	6.4	6.3
BERYLLIUM	0.31 U	0.31 U	0.31 U	0.31 U
CADMIUM	0.21 U	0.21 U	0.21 U	0.21 U
CHROMIUM	0.98 U	1 J	0.98 U	0.98 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW40A	MSA-SW40B	MSA-SW40C	MSA-SW40D
SAMPLE ID	MSA-SW40A-061219	MSA-SW40B-061219	MSA-SW40C-061219	MSA-SW40D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
COBALT	0.43 J	0.19 U	0.19 U	0.19 J
COPPER	7.2	6.5	5.2	5.5
LEAD	0.8 J	17	0.45 U	0.45 U
MERCURY	0.13 UJ	0.13 UJ	0.13 UJ	0.13 UJ
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	2.2	2.2	1.5 U	1.5 U
SELENIUM	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U
TUNGSTEN	1.8 U	1.8 U	1.8 U	1.8 U
VANADIUM	1.4 J	1.1 J	0.85 J	0.86 J
ZINC	15 U	15 U	15 U	15 U
MISCELLANEOUS PARAMETERS (MG/L)				
CALCIUM HARDNESS AS CACO3	20	20	20	19
DISSOLVED ORGANIC CARBON	--	4.8	--	--
HARDNESS AS CACO3	71	71	69	68
MAGNESIUM HARDNESS AS CACO3	50	51	49	49
MISCELLANEOUS PARAMETERS (UG/L)				
HEXAVALENT CHROMIUM	0.047 U	0.047 U	0.047 U	0.047 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW41A	MSA-SW41B	MSA-SW41C	MSA-SW41D
SAMPLE ID	MSA-SW41A-061219	MSA-SW41B-061219	MSA-SW41C-061219	MSA-SW41D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
VOLATILES (UG/L)				
1,1,1,2-TETRACHLOROETHANE	0.14 U	0.14 U	0.14 U	0.14 U
1,1,1-TRICHLOROETHANE	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2,2-TETRACHLOROETHANE	0.13 U	0.13 U	0.13 U	0.13 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.17 U	0.17 U	0.17 U	0.17 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,3-TRICHLOROBENZENE	0.54 U	0.54 U	0.54 U	0.54 U
1,2,3-TRICHLOROPROPANE	0.24 U	0.24 U	0.24 U	0.24 U
1,2,3-TRIMETHYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-TRICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
1,2,4-TRIMETHYLBENZENE	0.07 U	0.07 U	0.07 U	0.07 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.16 U	0.16 U	0.16 U	0.16 U
2,2-DICHLOROPROPANE	0.31 U	0.31 U	0.31 U	0.31 U
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	0.26 UR	0.26 UR	0.26 UR	0.26 UR
2-CHLOROTOLUENE	0.15 U	0.15 U	0.15 U	0.15 U
2-HEXANONE	0.54 U	0.54 U	0.54 U	0.54 U
4-CHLOROTOLUENE	0.09 U	0.09 U	0.09 U	0.09 U
4-ISOPROPYLTOLUENE	0.13 U	0.13 U	0.13 U	0.13 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW41A	MSA-SW41B	MSA-SW41C	MSA-SW41D
SAMPLE ID	MSA-SW41A-061219	MSA-SW41B-061219	MSA-SW41C-061219	MSA-SW41D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
4-METHYL-2-PENTANONE	0.42 U	0.42 U	0.42 U	0.42 U
ACETONE	5.4 U	5.4 U	5.4 U	5.4 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
BROMOCHLOROMETHANE	0.14 U	0.14 U	0.14 U	0.14 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.28 U	0.28 U	0.28 U	0.28 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 U	1 U	1 U	1 U
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U
CHLOROFORM	0.13 J	0.13 U	0.13 U	0.13 U
CHLOROMETHANE	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
CIS-1,2-DICHLOROETHENE	0.16 U	0.16 U	0.16 U	0.16 U
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.09 U	0.09 U	0.09 U	0.09 U
DICHLORODIFLUOROMETHANE	0.35 UJ	0.35 UJ	0.35 UJ	0.35 UJ
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.15 U	0.15 U	0.15 U	0.15 U
ETHYLBENZENE	0.11 U	0.11 U	0.11 U	0.11 U
HEXACHLOROBUTADIENE	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
ISOPROPYLBENZENE	0.09 U	0.09 U	0.09 U	0.09 U
M+P-XYLENES	0.08 U	0.08 U	0.08 U	0.08 U
METHYL TERT-BUTYL ETHER	0.07 U	0.07 U	0.07 U	0.07 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW41A	MSA-SW41B	MSA-SW41C	MSA-SW41D
SAMPLE ID	MSA-SW41A-061219	MSA-SW41B-061219	MSA-SW41C-061219	MSA-SW41D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
NAPHTHALENE	0.32 U	0.32 U	0.32 U	0.32 U
N-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
N-PROPYLBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
O-XYLENE	0.09 U	0.09 U	0.09 U	0.09 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.1 U	0.1 U	0.1 U	0.1 U
TERT-AMYL METHYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U
TERT-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
TERTIARY-BUTYL ALCOHOL	1.7 U	1.7 U	1.7 U	1.7 U
TETRACHLOROETHENE	0.15 U	0.15 U	0.15 U	0.15 U
TOLUENE	0.14 U	0.14 U	0.14 U	0.14 U
TOTAL XYLENES	0.15 U	0.15 U	0.15 U	0.15 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U
TRICHLOROFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.2 U	0.2 U	0.2 U	0.2 U
TENTATIVELY IDENTIFIED COMPOUNDS-V(				
ACENAPHTHENE	--	--	--	--
HEXANAL	--	--	--	--
DISSOLVED METALS (UG/L)				
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	1.8 J	2.3 J	2.2 J	1.7 J
BARIUM	6.5	6.5	6.3	6.5
BERYLLIUM	0.31 U	0.31 U	0.31 U	0.31 U
CADMIUM	0.21 U	0.21 U	0.21 U	0.21 U
CHROMIUM	0.98 U	0.98 U	0.98 U	1.6 J

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW41A	MSA-SW41B	MSA-SW41C	MSA-SW41D
SAMPLE ID	MSA-SW41A-061219	MSA-SW41B-061219	MSA-SW41C-061219	MSA-SW41D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
COBALT	0.19 U	0.19 U	0.26 J	0.26 J
COPPER	5.2	5	5.6	5.4
LEAD	0.45 U	0.45 U	0.45 U	0.45 U
MERCURY	0.13 UJ	0.13 UJ	0.13 UJ	0.13 UJ
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 J
NICKEL	1.5 J	1.5 U	2	2
SELENIUM	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U
TUNGSTEN	1.8 U	1.8 U	1.8 U	1.8 U
VANADIUM	1 J	0.82 U	1.1 J	0.96 J
ZINC	15 U	15 U	15 U	15 U
MISCELLANEOUS PARAMETERS (MG/L)				
CALCIUM HARDNESS AS CACO3	20	20	19	20
DISSOLVED ORGANIC CARBON	--	5	--	--
HARDNESS AS CACO3	71	70	69	69
MAGNESIUM HARDNESS AS CACO3	51	50	50	50
MISCELLANEOUS PARAMETERS (UG/L)				
HEXAVALENT CHROMIUM	0.047 U	0.047 U	0.047 U	0.047 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW42A	MSA-SW42B	MSA-SW42C	MSA-SW42D
SAMPLE ID	MSA-SW42A-061219	MSA-SW42B-061219	MSA-SW42C-061219	MSA-SW42D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
VOLATILES (UG/L)				
1,1,1,2-TETRACHLOROETHANE	0.14 U	0.14 U	0.14 U	0.14 U
1,1,1-TRICHLOROETHANE	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2,2-TETRACHLOROETHANE	0.13 U	0.13 U	0.13 U	0.13 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.17 U	0.17 U	0.17 U	0.17 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,3-TRICHLOROBENZENE	0.54 U	0.54 U	0.54 U	0.54 U
1,2,3-TRICHLOROPROPANE	0.24 U	0.24 U	0.24 U	0.24 U
1,2,3-TRIMETHYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-TRICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
1,2,4-TRIMETHYLBENZENE	0.07 U	0.07 U	0.07 U	0.07 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.16 U	0.16 U	0.16 U	0.16 U
2,2-DICHLOROPROPANE	0.31 U	0.31 U	0.31 U	0.31 U
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	0.26 UR	0.26 UR	0.26 UR	0.26 UR
2-CHLOROTOLUENE	0.15 U	0.15 U	0.15 U	0.15 U
2-HEXANONE	0.54 U	0.54 U	0.54 U	0.54 U
4-CHLOROTOLUENE	0.09 U	0.09 U	0.09 U	0.09 U
4-ISOPROPYLTOLUENE	0.13 U	0.13 U	0.13 U	0.13 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW42A	MSA-SW42B	MSA-SW42C	MSA-SW42D
SAMPLE ID	MSA-SW42A-061219	MSA-SW42B-061219	MSA-SW42C-061219	MSA-SW42D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
4-METHYL-2-PENTANONE	0.42 U	0.42 U	0.42 U	0.42 U
ACETONE	5.4 U	5.4 U	5.4 U	5.4 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
BROMOCHLOROMETHANE	0.14 U	0.14 U	0.14 U	0.14 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.28 U	0.28 U	0.28 U	0.28 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 U	1 U	1 U	1 U
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U
CHLOROFORM	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROMETHANE	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
CIS-1,2-DICHLOROETHENE	0.16 U	0.16 U	0.16 U	0.16 U
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.09 U	0.09 U	0.09 U	0.09 U
DICHLORODIFLUOROMETHANE	0.35 UJ	0.35 UJ	0.35 UJ	0.35 UJ
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.15 U	0.15 U	0.15 U	0.15 U
ETHYLBENZENE	0.11 U	0.11 U	0.11 U	0.11 U
HEXACHLOROBUTADIENE	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
ISOPROPYLBENZENE	0.09 U	0.09 U	0.09 U	0.09 U
M+P-XYLENES	0.08 U	0.08 U	0.08 U	0.08 U
METHYL TERT-BUTYL ETHER	0.07 U	0.07 U	0.07 U	0.07 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW42A	MSA-SW42B	MSA-SW42C	MSA-SW42D
SAMPLE ID	MSA-SW42A-061219	MSA-SW42B-061219	MSA-SW42C-061219	MSA-SW42D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
NAPHTHALENE	0.32 U	0.32 U	0.32 U	0.32 U
N-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
N-PROPYLBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
O-XYLENE	0.09 U	0.09 U	0.09 U	0.09 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.1 U	0.1 U	0.1 U	0.1 U
TERT-AMYL METHYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U
TERT-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
TERTIARY-BUTYL ALCOHOL	1.7 U	1.7 U	1.7 U	1.7 U
TETRACHLOROETHENE	0.15 U	0.15 U	0.15 U	0.15 U
TOLUENE	0.14 U	0.14 U	0.14 U	0.14 U
TOTAL XYLENES	0.15 U	0.15 U	0.15 U	0.15 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U
TRICHLOROFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.2 U	0.2 U	0.2 U	0.2 U
TENTATIVELY IDENTIFIED COMPOUNDS-V(				
ACENAPHTHENE	--	--	--	--
HEXANAL	--	--	--	--
DISSOLVED METALS (UG/L)				
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	2.4 J	1.9 J	2 J	2.2 J
BARIUM	6.6	6.4	6	6.2
BERYLLIUM	0.96 U	0.6 U	0.31 U	0.31 U
CADMIUM	0.21 U	0.21 U	0.21 U	0.21 U
CHROMIUM	0.98 U	0.98 U	0.98 U	0.98 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW42A	MSA-SW42B	MSA-SW42C	MSA-SW42D
SAMPLE ID	MSA-SW42A-061219	MSA-SW42B-061219	MSA-SW42C-061219	MSA-SW42D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
COBALT	0.3 J	0.19 U	0.19 U	0.21 J
COPPER	5.9	4.8	4.9	5.3
LEAD	0.45 U	0.45 U	0.45 U	0.45 U
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.5 J	1.4 J	1.1 J	1.1 U
NICKEL	1.5 U	1.7 J	1.6 J	2
SELENIUM	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.55 J	0.44 J	0.2 U	0.2 U
TUNGSTEN	1.8 U	1.8 U	1.8 U	1.8 U
VANADIUM	1.1 J	0.82 U	1.1 J	0.82 U
ZINC	20	15 U	15 U	15 U
MISCELLANEOUS PARAMETERS (MG/L)				
CALCIUM HARDNESS AS CACO3	20	20	20	20
DISSOLVED ORGANIC CARBON	--	4.6	--	--
HARDNESS AS CACO3	69	70	70	70
MAGNESIUM HARDNESS AS CACO3	49	50	50	50
MISCELLANEOUS PARAMETERS (UG/L)				
HEXAVALENT CHROMIUM	0.047 U	0.047 U	0.047 U	0.047 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW43A	MSA-SW43B	MSA-SW43C	MSA-SW43D
SAMPLE ID	MSA-SW43A-061219	MSA-SW43B-061219	MSA-SW43C-061219	MSA-SW43D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
VOLATILES (UG/L)				
1,1,1,2-TETRACHLOROETHANE	0.14 U	0.14 U	0.14 U	0.14 U
1,1,1-TRICHLOROETHANE	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2,2-TETRACHLOROETHANE	0.13 U	0.13 U	0.13 U	0.13 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.17 U	0.17 U	0.17 U	0.17 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,3-TRICHLOROBENZENE	0.54 U	0.54 U	0.54 U	0.54 U
1,2,3-TRICHLOROPROPANE	0.24 U	0.24 U	0.24 U	0.24 U
1,2,3-TRIMETHYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-TRICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
1,2,4-TRIMETHYLBENZENE	0.07 U	0.07 U	0.07 U	0.07 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.16 U	0.16 U	0.16 U	0.16 U
2,2-DICHLOROPROPANE	0.31 U	0.31 U	0.31 U	0.31 U
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	0.26 UR	0.26 UR	0.26 UR	0.26 UR
2-CHLOROTOLUENE	0.15 U	0.15 U	0.15 U	0.15 U
2-HEXANONE	0.54 U	0.54 U	0.54 U	0.54 U
4-CHLOROTOLUENE	0.09 U	0.09 U	0.09 U	0.09 U
4-ISOPROPYLTOLUENE	0.13 U	0.13 U	0.13 U	0.13 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW43A	MSA-SW43B	MSA-SW43C	MSA-SW43D
SAMPLE ID	MSA-SW43A-061219	MSA-SW43B-061219	MSA-SW43C-061219	MSA-SW43D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
4-METHYL-2-PENTANONE	0.42 U	0.42 U	0.42 U	0.42 U
ACETONE	5.4 U	5.4 U	5.4 U	5.4 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
BROMOCHLOROMETHANE	0.14 U	0.14 U	0.14 U	0.14 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.28 U	0.28 U	0.28 U	0.28 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 U	1 U	1 U	1 U
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U
CHLOROFORM	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROMETHANE	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
CIS-1,2-DICHLOROETHENE	0.16 U	0.16 U	0.16 U	0.16 U
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.09 U	0.09 U	0.09 U	0.09 U
DICHLORODIFLUOROMETHANE	0.35 UJ	0.35 UJ	0.35 UJ	0.35 UJ
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.15 U	0.15 U	0.15 U	0.15 U
ETHYLBENZENE	0.11 U	0.11 U	0.11 U	0.11 U
HEXACHLOROBUTADIENE	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
ISOPROPYLBENZENE	0.09 U	0.09 U	0.09 U	0.09 U
M+P-XYLENES	0.08 U	0.08 U	0.08 U	0.08 U
METHYL TERT-BUTYL ETHER	0.07 U	0.07 U	0.07 U	0.07 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW43A	MSA-SW43B	MSA-SW43C	MSA-SW43D
SAMPLE ID	MSA-SW43A-061219	MSA-SW43B-061219	MSA-SW43C-061219	MSA-SW43D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
NAPHTHALENE	0.32 U	0.32 U	0.32 U	0.32 U
N-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
N-PROPYLBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
O-XYLENE	0.09 U	0.09 U	0.09 U	0.09 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.1 U	0.1 U	0.1 U	0.1 U
TERT-AMYL METHYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U
TERT-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
TERTIARY-BUTYL ALCOHOL	1.7 U	1.7 U	1.7 U	1.7 U
TETRACHLOROETHENE	0.15 U	0.15 U	0.15 U	0.15 U
TOLUENE	0.14 U	0.14 U	0.14 U	0.14 U
TOTAL XYLENES	0.15 U	0.15 U	0.15 U	0.15 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U
TRICHLOROFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.2 U	0.2 U	0.2 U	0.2 U
TENTATIVELY IDENTIFIED COMPOUNDS-V				
ACENAPHTHENE	--	--	--	--
HEXANAL	--	--	--	--
DISSOLVED METALS (UG/L)				
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	2.5 J	1.7 J	1.2 J	2 J
BARIUM	7.7	6.3	6.4	6.4
BERYLLIUM	0.31 U	0.31 U	0.31 U	0.31 U
CADMIUM	0.21 U	0.21 U	0.21 U	0.21 U
CHROMIUM	1.2 J	0.98 U	0.98 U	0.98 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW43A	MSA-SW43B	MSA-SW43C	MSA-SW43D
SAMPLE ID	MSA-SW43A-061219	MSA-SW43B-061219	MSA-SW43C-061219	MSA-SW43D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
COBALT	0.59 J	0.21 J	0.19 U	0.19 U
COPPER	7.3	5.3	4.9	5
LEAD	0.99 J	0.45 U	0.45 U	0.45 U
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	2.5	1.8 J	1.5 U	1.5 U
SELENIUM	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U
TUNGSTEN	1.8 U	1.8 U	1.8 U	1.8 U
VANADIUM	1.9 J	0.82 U	0.82 U	0.9 J
ZINC	15 U	15 U	15 U	15 U
MISCELLANEOUS PARAMETERS (MG/L)				
CALCIUM HARDNESS AS CACO3	19	19	20	20
DISSOLVED ORGANIC CARBON	--	5.3	--	--
HARDNESS AS CACO3	69	69	70	69
MAGNESIUM HARDNESS AS CACO3	49	50	50	49
MISCELLANEOUS PARAMETERS (UG/L)				
HEXAVALENT CHROMIUM	0.047 U	0.047 U	0.047 U	0.047 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW44A	MSA-SW44B	MSA-SW44C	MSA-SW44D
SAMPLE ID	MSA-SW44A-061219	MSA-SW44B-061219	MSA-SW44C-061219	MSA-SW44D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
VOLATILES (UG/L)				
1,1,1,2-TETRACHLOROETHANE	0.14 U	0.14 U	0.14 U	0.14 U
1,1,1-TRICHLOROETHANE	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2,2-TETRACHLOROETHANE	0.13 U	0.13 U	0.13 U	0.13 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.17 U	0.17 U	0.17 U	0.17 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,3-TRICHLOROBENZENE	0.54 U	0.54 U	0.54 U	0.54 U
1,2,3-TRICHLOROPROPANE	0.24 U	0.24 U	0.24 U	0.24 U
1,2,3-TRIMETHYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-TRICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
1,2,4-TRIMETHYLBENZENE	0.07 U	0.07 U	0.07 U	0.07 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.16 U	0.16 U	0.16 U	0.16 U
2,2-DICHLOROPROPANE	0.31 U	0.31 U	0.31 U	0.31 U
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	0.26 UR	0.26 UR	0.26 UR	0.26 UR
2-CHLOROTOLUENE	0.15 U	0.15 U	0.15 U	0.15 U
2-HEXANONE	0.54 U	0.54 U	0.54 U	0.54 U
4-CHLOROTOLUENE	0.09 U	0.09 U	0.09 U	0.09 U
4-ISOPROPYLTOLUENE	0.13 U	0.13 U	0.13 U	0.13 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW44A	MSA-SW44B	MSA-SW44C	MSA-SW44D
SAMPLE ID	MSA-SW44A-061219	MSA-SW44B-061219	MSA-SW44C-061219	MSA-SW44D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
4-METHYL-2-PENTANONE	0.42 U	0.42 U	0.42 U	0.42 U
ACETONE	5.4 U	5.4 U	5.4 U	5.4 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
BROMOCHLOROMETHANE	0.14 U	0.14 U	0.14 U	0.14 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.28 U	0.28 U	0.28 U	0.28 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 U	1 U	1 U	1 U
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U
CHLOROFORM	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROMETHANE	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
CIS-1,2-DICHLOROETHENE	0.16 U	0.16 U	0.16 U	0.16 U
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.09 U	0.09 U	0.09 U	0.09 U
DICHLORODIFLUOROMETHANE	0.35 UJ	0.35 UJ	0.35 UJ	0.35 UJ
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.15 U	0.15 U	0.15 U	0.15 U
ETHYLBENZENE	0.11 U	0.11 U	0.11 U	0.11 U
HEXACHLOROBUTADIENE	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
ISOPROPYLBENZENE	0.09 U	0.09 U	0.09 U	0.09 U
M+P-XYLENES	0.08 U	0.08 U	0.08 U	0.08 U
METHYL TERT-BUTYL ETHER	0.07 U	0.07 U	0.07 U	0.07 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW44A	MSA-SW44B	MSA-SW44C	MSA-SW44D
SAMPLE ID	MSA-SW44A-061219	MSA-SW44B-061219	MSA-SW44C-061219	MSA-SW44D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
NAPHTHALENE	0.32 U	0.32 U	0.32 U	0.32 U
N-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
N-PROPYLBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
O-XYLENE	0.09 U	0.09 U	0.09 U	0.09 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.1 U	0.1 U	0.1 U	0.1 U
TERT-AMYL METHYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U
TERT-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
TERTIARY-BUTYL ALCOHOL	1.7 U	1.7 U	1.7 U	1.7 U
TETRACHLOROETHENE	0.15 U	0.15 U	0.15 U	0.15 U
TOLUENE	0.14 U	0.14 U	0.14 U	0.14 U
TOTAL XYLENES	0.15 U	0.15 U	0.15 U	0.15 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U
TRICHLOROFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.2 U	0.2 U	0.2 U	0.2 U
TENTATIVELY IDENTIFIED COMPOUNDS-V				
ACENAPHTHENE	--	--	--	--
HEXANAL	--	--	--	--
DISSOLVED METALS (UG/L)				
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	2.2 J	1.7 J	1.8 J	1.6 J
BARIUM	6.2	6.1	6.1	6
BERYLLIUM	0.31 U	0.31 U	0.31 U	0.31 U
CADMIUM	0.21 U	0.21 U	0.21 U	0.21 U
CHROMIUM	0.98 U	0.98 U	0.98 U	0.98 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW44A	MSA-SW44B	MSA-SW44C	MSA-SW44D
SAMPLE ID	MSA-SW44A-061219	MSA-SW44B-061219	MSA-SW44C-061219	MSA-SW44D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
COBALT	0.23 J	0.19 U	0.22 J	0.19 U
COPPER	5	4.5	5.1	4.7
LEAD	0.45 U	0.45 U	0.45 U	0.45 U
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	2.1	1.5 U	1.8 J	1.8 J
SELENIUM	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U
TUNGSTEN	1.8 U	1.8 U	1.8 U	1.8 U
VANADIUM	0.85 J	0.82 U	0.95 J	0.86 J
ZINC	15 U	15 U	15 U	15 U
MISCELLANEOUS PARAMETERS (MG/L)				
CALCIUM HARDNESS AS CACO3	19	17	18	19
DISSOLVED ORGANIC CARBON	--	4.3	--	--
HARDNESS AS CACO3	69	65	67	69
MAGNESIUM HARDNESS AS CACO3	50	48	49	50
MISCELLANEOUS PARAMETERS (UG/L)				
HEXAVALENT CHROMIUM	0.047 U	0.047 U	0.047 U	0.047 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW45A	MSA-SW45B	MSA-SW45C	MSA-SW45D
SAMPLE ID	MSA-SW45A-061219	MSA-SW45B-061219	MSA-SW45C-061219	MSA-SW45D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
VOLATILES (UG/L)				
1,1,1,2-TETRACHLOROETHANE	0.14 U	0.14 U	0.14 U	0.14 U
1,1,1-TRICHLOROETHANE	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2,2-TETRACHLOROETHANE	0.13 U	0.13 U	0.13 U	0.13 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.17 U	0.17 U	0.17 U	0.17 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,3-TRICHLOROBENZENE	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ
1,2,3-TRICHLOROPROPANE	0.24 U	0.24 U	0.24 U	0.24 U
1,2,3-TRIMETHYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-TRICHLOROBENZENE	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ
1,2,4-TRIMETHYLBENZENE	0.07 U	0.07 U	0.07 U	0.07 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.16 U	0.16 U	0.16 U	0.16 U
2,2-DICHLOROPROPANE	0.31 U	0.31 U	0.31 U	0.31 U
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	0.26 UR	0.26 UR	0.26 UR	0.26 UR
2-CHLOROTOLUENE	0.15 U	0.15 U	0.15 U	0.15 U
2-HEXANONE	0.54 U	0.54 U	0.54 U	0.54 U
4-CHLOROTOLUENE	0.09 U	0.09 U	0.09 U	0.09 U
4-ISOPROPYLTOLUENE	0.13 U	0.13 U	0.13 U	0.13 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW45A	MSA-SW45B	MSA-SW45C	MSA-SW45D
SAMPLE ID	MSA-SW45A-061219	MSA-SW45B-061219	MSA-SW45C-061219	MSA-SW45D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
4-METHYL-2-PENTANONE	0.42 U	0.42 U	0.42 U	0.42 U
ACETONE	5.4 U	5.4 U	5.4 U	5.4 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
BROMOCHLOROMETHANE	0.14 U	0.14 U	0.14 U	0.14 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.56 J	0.28 U	0.28 U	0.28 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 U	1 U	1 U	1 U
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U
CHLOROFORM	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROMETHANE	0.2 U	0.2 U	0.2 U	0.2 U
CIS-1,2-DICHLOROETHENE	0.16 U	0.16 U	0.16 U	0.16 U
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.09 U	0.09 U	0.09 U	0.09 U
DICHLORODIFLUOROMETHANE	0.35 U	0.35 U	0.35 U	0.35 U
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.15 U	0.15 U	0.15 U	0.15 U
ETHYLBENZENE	0.11 U	0.11 U	0.11 U	0.11 U
HEXACHLOROBUTADIENE	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
ISOPROPYLBENZENE	0.09 U	0.09 U	0.09 U	0.09 U
M+P-XYLENES	0.08 U	0.08 U	0.08 U	0.08 U
METHYL TERT-BUTYL ETHER	0.07 U	0.07 U	0.07 U	0.07 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW45A	MSA-SW45B	MSA-SW45C	MSA-SW45D
SAMPLE ID	MSA-SW45A-061219	MSA-SW45B-061219	MSA-SW45C-061219	MSA-SW45D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
NAPHTHALENE	0.32 U	0.32 U	0.32 U	0.32 U
N-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
N-PROPYLBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
O-XYLENE	0.09 U	0.09 U	0.09 U	0.09 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.1 U	0.1 U	0.1 U	0.1 U
TERT-AMYL METHYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U
TERT-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
TERTIARY-BUTYL ALCOHOL	1.7 U	1.7 U	1.7 U	1.7 U
TETRACHLOROETHENE	0.15 U	0.15 U	0.15 U	0.15 U
TOLUENE	0.14 U	0.14 U	0.14 U	0.14 U
TOTAL XYLENES	0.15 U	0.15 U	0.15 U	0.15 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U
TRICHLOROFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.2 U	0.2 U	0.2 U	0.2 U
TENTATIVELY IDENTIFIED COMPOUNDS-V				
ACENAPHTHENE	--	--	--	--
HEXANAL	2.4 NJ	--	--	--
DISSOLVED METALS (UG/L)				
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	2 J	1.5 J	1.4 J	1.6 J
BARIUM	6.6	6.2	6.4	5.8
BERYLLIUM	0.31 U	0.31 U	0.31 U	0.31 U
CADMIUM	0.21 U	0.21 U	0.21 U	0.21 U
CHROMIUM	0.98 U	0.98 U	0.98 U	0.98 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW45A	MSA-SW45B	MSA-SW45C	MSA-SW45D
SAMPLE ID	MSA-SW45A-061219	MSA-SW45B-061219	MSA-SW45C-061219	MSA-SW45D-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
COBALT	0.22 J	0.19 U	0.2 J	0.19 U
COPPER	5.2	5.1	5	4.5
LEAD	0.45 U	0.45 U	0.45 U	0.45 U
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	1.5 U	2.1	2	1.8 J
SELENIUM	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U
TUNGSTEN	1.8 U	1.8 U	1.8 U	1.8 U
VANADIUM	1.3 J	0.96 J	1 J	0.99 J
ZINC	15 U	15 U	15 U	15 U
MISCELLANEOUS PARAMETERS (MG/L)				
CALCIUM HARDNESS AS CACO3	19	18	19	17
DISSOLVED ORGANIC CARBON	--	4.4	--	--
HARDNESS AS CACO3	68	67	69	66
MAGNESIUM HARDNESS AS CACO3	50	49	51	49
MISCELLANEOUS PARAMETERS (UG/L)				
HEXAVALENT CHROMIUM	0.047 U	0.047 U	0.047 U	0.047 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION SAMPLE ID SAMPLE DATE	**MSA-SW46A** **MSA-SW46A-061219** **20190612**	**MSA-SW47A** **MSA-SW47A-061219** **20190612**	**MSA-SW48A** **MSA-SW48A-061219** **20190612**	**MSA-SW49A** **MSA-SW49A-061219** **20190612**
VOLATILES (UG/L)				
1,1,1,2-TETRACHLOROETHANE	0.14 U	0.14 U	0.14 U	0.14 U
1,1,1-TRICHLOROETHANE	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2,2-TETRACHLOROETHANE	0.13 U	0.13 U	0.13 U	0.13 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.17 U	0.17 U	0.17 U	0.17 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
1,1-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,3-TRICHLOROBENZENE	0.54 UJ	0.54 UJ	0.54 UJ	0.54 UJ
1,2,3-TRICHLOROPROPANE	0.24 U	0.24 U	0.24 U	0.24 U
1,2,3-TRIMETHYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-TRICHLOROBENZENE	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ
1,2,4-TRIMETHYLBENZENE	0.07 U	0.07 U	0.07 U	0.07 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.16 U	0.16 U	0.16 U	0.16 U
2,2-DICHLOROPROPANE	0.31 U	0.31 U	0.31 U	0.31 U
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	0.26 UR	0.26 UR	0.26 UR	0.26 UR
2-CHLOROTOLUENE	0.15 U	0.15 U	0.15 U	0.15 U
2-HEXANONE	0.54 U	0.54 U	0.54 U	0.54 U
4-CHLOROTOLUENE	0.09 U	0.09 U	0.09 U	0.09 U
4-ISOPROPYLTOLUENE	0.13 U	0.13 U	0.13 U	0.13 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW46A	MSA-SW47A	MSA-SW48A	MSA-SW49A
SAMPLE ID	MSA-SW46A-061219	MSA-SW47A-061219	MSA-SW48A-061219	MSA-SW49A-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
4-METHYL-2-PENTANONE	0.42 U	0.42 U	0.42 U	0.42 U
ACETONE	5.4 U	5.4 U	5.4 U	5.4 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
BROMOCHLOROMETHANE	0.14 U	0.14 U	0.14 U	0.14 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.28 U	0.28 U	0.28 U	0.28 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 U	1 U	1 U	1 U
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U
CHLOROFORM	0.13 U	0.19 J	0.13 U	0.13 U
CHLOROMETHANE	0.2 U	0.2 U	0.2 U	0.2 U
CIS-1,2-DICHLOROETHENE	0.16 U	0.16 U	0.16 U	0.16 U
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.09 U	0.09 U	0.09 U	0.09 U
DICHLORODIFLUOROMETHANE	0.35 U	0.35 U	0.35 U	0.35 U
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.15 U	0.15 U	0.15 U	0.15 U
ETHYLBENZENE	0.11 U	0.11 U	0.11 U	0.11 U
HEXACHLOROBUTADIENE	0.83 UJ	0.83 UJ	0.83 UJ	0.83 UJ
ISOPROPYLBENZENE	0.09 U	0.09 U	0.09 U	0.09 U
M+P-XYLENES	0.08 U	0.08 U	0.08 U	0.08 U
METHYL TERT-BUTYL ETHER	0.07 U	0.07 U	0.07 U	0.07 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION	MSA-SW46A	MSA-SW47A	MSA-SW48A	MSA-SW49A
SAMPLE ID	MSA-SW46A-061219	MSA-SW47A-061219	MSA-SW48A-061219	MSA-SW49A-061219
SAMPLE DATE	20190612	20190612	20190612	20190612
NAPHTHALENE	0.32 U	0.32 U	0.32 U	0.32 U
N-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
N-PROPYLBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
O-XYLENE	0.09 U	0.09 U	0.09 U	0.09 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.1 U	0.1 U	0.1 U	0.1 U
TERT-AMYL METHYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U
TERT-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
TERTIARY-BUTYL ALCOHOL	1.7 U	1.7 U	1.7 U	1.7 U
TETRACHLOROETHENE	0.15 U	0.15 U	0.15 U	0.15 U
TOLUENE	0.14 U	0.14 U	0.14 U	0.14 U
TOTAL XYLENES	0.15 U	0.15 U	0.15 U	0.15 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U
TRICHLOROFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 U
VINYL ACETATE	0.19 U	0.19 U	0.19 U	0.19 U
VINYL CHLORIDE	0.2 U	0.2 U	0.2 U	0.2 U
TENTATIVELY IDENTIFIED COMPOUNDS-V				
ACENAPHTHENE	--	--	--	--
HEXANAL	--	--	--	--
DISSOLVED METALS (UG/L)				
ANTIMONY	--	--	--	--
ARSENIC	--	--	--	--
BARIUM	--	--	--	--
BERYLLIUM	--	--	--	--
CADMIUM	--	--	--	--
CHROMIUM	--	--	--	--

Chemical-Results Data Table
Frog Mortar Creek-June 2019

LOCATION SAMPLE ID SAMPLE DATE	**MSA-SW46A** **MSA-SW46A-061219** **20190612**	**MSA-SW47A** **MSA-SW47A-061219** **20190612**	**MSA-SW48A** **MSA-SW48A-061219** **20190612**	**MSA-SW49A** **MSA-SW49A-061219** **20190612**
COBALT	--	--	--	--
COPPER	--	--	--	--
LEAD	--	--	--	--
MERCURY	--	--	--	--
MOLYBDENUM	--	--	--	--
NICKEL	--	--	--	--
SELENIUM	--	--	--	--
SILVER	--	--	--	--
THALLIUM	--	--	--	--
TUNGSTEN	--	--	--	--
VANADIUM	--	--	--	--
ZINC	--	--	--	--
MISCELLANEOUS PARAMETERS (MG/L)				
CALCIUM HARDNESS AS CACO3	--	--	--	--
DISSOLVED ORGANIC CARBON	--	--	--	--
HARDNESS AS CACO3	--	--	--	--
MAGNESIUM HARDNESS AS CACO3	--	--	--	--
MISCELLANEOUS PARAMETERS (UG/L)				
HEXAVALENT CHROMIUM	--	--	--	--

APPENDIX D—BIOTIC LIGAND MODEL CALCULATIONS AND EPA 2016 BLM FACT SHEET

Appendix D
2016 Estuarine/Marine Biotic Ligand Model Calculations in Surface Water Samples—June 2019
Frog Mortar Creek, Middle River, Maryland

Site Label	Sample Label	Temperature	pH	Cu	DOC	Salinity	Final Acute Value	Acute CMC	Chronic CCC	Acute Toxic Units	Chronic Toxic Units	Censored Flag
		°C	s.u.	µg/L	mg/L	ppt	(FAV), ug/L	(CMC=FAV/ 2), ug/L	(CCC=FAV/ACR), ug/L	(Acute TU=Cu/CMC)	(Chronic TU=Cu/CCC)	(0 = quantified, 1 = BDL)
FMC JUNE 2019	SW37A	25.18	7.72	6	4.9	0.3	15.21	7.61	5.03	0.79	1.19	0.00
FMC JUNE 2019	SW37B	25.23	7.86	4.9	4.9	0.3	15.51	7.76	5.13	0.63	0.95	0.00
FMC JUNE 2019	SW37C	25.08	7.84	5.6	4.9	0.3	15.48	7.74	5.12	0.72	1.09	0.00
FMC JUNE 2019	SW37D	25.1	7.84	4.9	4.9	0.3	15.48	7.74	5.12	0.63	0.96	0.00
FMC JUNE 2019	SW38A	24.53	7.57	4.5	5.1	0.3	15.33	7.67	5.07	0.59	0.89	0.00
FMC JUNE 2019	SW38B	24.5	7.62	4.8	5.1	0.3	15.51	7.76	5.13	0.62	0.94	0.00
FMC JUNE 2019	SW38C	24.56	7.59	5	5.1	0.3	15.40	7.70	5.10	0.65	0.98	0.00
FMC JUNE 2019	SW38D	24.58	7.59	5.8	5.1	0.3	15.40	7.70	5.10	0.75	1.14	0.00
FMC JUNE 2019	SW39A	23.08	7.24	4.9	4.7	0.2	12.80	6.40	4.23	0.77	1.16	0.00
FMC JUNE 2019	SW39B	23.98	7.39	4.9	4.7	0.2	13.41	6.71	4.44	0.73	1.10	0.00
FMC JUNE 2019	SW39C	23.99	7.41	5.3	4.7	0.2	13.50	6.75	4.47	0.79	1.19	0.00
FMC JUNE 2019	SW39D	24	7.36	4.6	4.7	0.2	13.29	6.65	4.40	0.69	1.05	0.00
FMC JUNE 2019	SW40A	24.82	7.67	7.2	4.8	0.3	14.76	7.38	4.88	0.98	1.47	0.00
FMC JUNE 2019	SW40B	24.74	7.76	6.5	4.8	0.3	14.99	7.50	4.96	0.87	1.31	0.00
FMC JUNE 2019	SW40C	24.74	7.64	5.2	4.8	0.3	14.66	7.33	4.85	0.71	1.07	0.00
FMC JUNE 2019	SW40D	24.66	7.62	5.5	4.8	0.3	14.60	7.30	4.83	0.75	1.14	0.00
FMC JUNE 2019	SW41A	24.34	7.51	5.2	5.0	0.3	14.80	7.40	4.90	0.70	1.06	0.00
FMC JUNE 2019	SW41B	24.45	7.53	5	5.0	0.3	14.87	7.44	4.92	0.67	1.02	0.00
FMC JUNE 2019	SW41C	24.45	7.53	5.4	5.0	0.3	14.87	7.44	4.92	0.73	1.10	0.00
FMC JUNE 2019	SW41D	24.42	7.48	5.4	5.0	0.3	14.68	7.34	4.86	0.74	1.11	0.00
FMC JUNE 2019	SW42A	25.06	7.72	5.9	4.6	0.3	14.28	7.14	4.72	0.83	1.25	0.00
FMC JUNE 2019	SW42B	24.85	7.78	4.8	4.6	0.3	14.42	7.21	4.77	0.67	1.01	0.00
FMC JUNE 2019	SW42C	24.84	7.71	4.9	4.6	0.3	14.25	7.12	4.72	0.69	1.04	0.00
FMC JUNE 2019	SW42D	24.94	7.68	5.3	4.6	0.3	14.17	7.08	4.69	0.75	1.13	0.00
FMC JUNE 2019	SW43A	24.33	7.4	7.3	5.3	0.3	15.21	7.60	5.03	0.96	1.45	0.00
FMC JUNE 2019	SW43B	24.42	7.5	5.3	5.3	0.3	15.65	7.82	5.18	0.68	1.02	0.00
FMC JUNE 2019	SW43C	24.39	7.51	4.9	5.3	0.3	15.70	7.85	5.19	0.62	0.94	0.00
FMC JUNE 2019	SW43D	24.38	7.56	5	5.3	0.3	15.89	7.94	5.26	0.63	0.95	0.00
FMC JUNE 2019	SW44A	24.28	7.45	5	4.3	0.2	12.49	6.25	4.13	0.80	1.21	0.00
FMC JUNE 2019	SW44B	24.27	7.37	4.5	4.3	0.2	12.20	6.10	4.04	0.74	1.11	0.00
FMC JUNE 2019	SW44C	24.27	7.4	5.1	4.3	0.2	12.31	6.15	4.07	0.83	1.25	0.00
FMC JUNE 2019	SW44D	24.24	7.48	4.7	4.3	0.2	12.60	6.30	4.17	0.75	1.13	0.00
FMC JUNE 2019	SW45A	24.13	7.26	5.2	4.4	0.2	12.06	6.03	3.99	0.86	1.30	0.00
FMC JUNE 2019	SW45B	24.15	7.36	5.1	4.4	0.2	12.45	6.22	4.12	0.82	1.24	0.00
FMC JUNE 2019	SW45C	24.12	7.36	5	4.4	0.2	12.45	6.22	4.12	0.80	1.21	0.00
FMC JUNE 2019	SW45D	24.15	7.32	4.5	4.4	0.2	12.29	6.14	4.07	0.73	1.11	0.00

Definitions:

BLM– biotic ligand model
CCC– Criterion Continuous Concentration
Cu– copper concentration
CMC– Criterion Maximum Concentration
DOC– dissolved organic carbon
FAV– Final Acute Value
µg/L– micrograms per liter
mg/L— milligrams per liter
ppt– parts per trillion
Sal– salinity
TEMP– temperature

ACUTE CMC GEOMEAN (UG/L)=	7.10
CHRONIC CCC GEOMEAN (UG/L)=	4.70

United States Environmental Protection Agency

Office of Water
EPA 822-F-16-004
July 2016

Fact Sheet: Draft Estuarine/Marine Copper Aquatic Life Ambient Water Quality Criteria

Summary

EPA has issued for public comment draft aquatic life criteria for copper in estuarine/marine waters. The 2016 draft criteria incorporate a recently-developed saltwater biotic ligand model (BLM) and the latest scientific information for estuarine/marine aquatic organisms. The BLM allows users to develop protective chronic and acute values based on site-specific water quality variables including temperature, dissolved organic carbon (DOC), salinity, and pH, which influence the bioavailability and toxicity of copper in estuarine/marine environments.

The updated criteria will be particularly beneficial in the adoption of water quality standards for the protection of aquatic life in and around coastal harbors and marinas, where antifouling paints and coatings on vessels and marine structures represent one of the most commonly identified sources of copper to the estuarine/marine environment.

The draft criteria underwent independent, external peer review in 2015. EPA will accept comments on the 2016 draft criteria document for 60 days upon Federal Register publication.

Background

In 2007, EPA published updated aquatic life criteria for copper in freshwater using a BLM, a model that relies on water quality input parameters to estimate the fraction of copper that is bioavailable and thus can exert a toxic effect. Estuarine/marine criteria were not updated in that publication because a BLM for estuarine/marine waters had not been sufficiently developed and tested at that time.

What is Copper?

Copper is an abundant trace element that occurs naturally in the earth's crust and surface waters. Copper can be found as a pure metal in nature and has a high thermal and electrical conductivity. Copper compounds are generally found in water as copper (II) salts.

How Does Copper Enter Marine/Estuarine Waters?

Copper is commonly found in aquatic systems as a result of both natural and anthropogenic sources. Natural sources of copper in aquatic systems include geological deposits, volcanic activity, and weathering and erosion of rocks and soils. Anthropogenic sources of copper include mining activities, agriculture, metal and electrical manufacturing, sludge from publicly-owned treatment works (POTWs), pesticide use and more. A major source of copper in the marine environment is antifouling paints, used as coatings for ship hulls, buoys, and underwater surfaces, and as a legacy contaminant from decking, pilings and some marine structures that used chromated copper arsenate (CCA) treated timbers.

How Does Copper in Saltwater Affect Aquatic Life?

Copper is an essential nutrient to aquatic organisms at low concentrations, but is toxic to aquatic organisms at higher concentrations. In addition to acute effects such as mortality, chronic exposure to copper can lead to adverse effects on survival, growth, reproduction as well as alterations of brain

function, enzyme activity, blood chemistry, and metabolism in aquatic organisms.

How Do the Draft 2016 Criteria Compare to the 2003 Draft Criteria?

New acute toxicity data for estuarine/marine species have been included in EPA's 2016 update. A total of 74 genera are used to derive the estuarine/marine criterion maximum concentration (CMC) in the 2016 update compared to the 44 genera used in EPA's 2003 draft estuarine/marine criteria for copper. The 2016 update uses the BLM to incorporate the interaction and effect of physical and chemical water parameters (pH, temperature, salinity and DOC) that affect the bioavailability of copper to aquatic organisms. Incorporation of the BLM accounts for copper bioavailability in natural aquatic systems, in contrast to the 2003 draft criteria which did not account for the interactions of these parameters on copper bioavailability and their effect on copper toxicity.

Table 1 below gives an example of what the draft 2016 water quality criteria are for waters with the following default reference conditions: Temperature=22°C, pH=8, Dissolved Organic Carbon=1.0 mg/L and Salinity=32 ppt.

Table 1. Example of Draft Estuarine/Marine Criteria for Copper Using Default Reference Conditions.

Acute[a,b] (1-hour average)	Chronic[a,b] (4-day average)
2.0 µg/L dissolved Cu	1.3 µg/L dissolved Cu

[a] When Temperature=22°C, pH=8, Dissolved Organic Carbon=1.0 mg/L and Salinity=32 ppt. The water quality criteria numeric values will change in response to changes in these water quality parameters.

[b] Values are recommended not to be exceeded more than once every three years on average.

What are National Recommended Aquatic Life Criteria?

Ambient water quality criteria for the protection of aquatic life are numeric concentrations of pollutants, with specific recommendations on the duration and frequency of those concentrations, in surface waters that are protective of aquatic life designated uses. Under Clean Water Act section 304(a), EPA is directed to develop and publish water quality criteria that reflect the latest scientific knowledge. Water quality criteria are based solely on data and scientific judgments about the relationship between pollutant concentrations and potential environmental and human health effects. EPA's recommended water quality criteria are not rules, nor do they automatically become part of a state's water quality standards. States must adopt into their standards water quality criteria that protect the designated uses of the water bodies within their area. These can include scientifically defensible site-specific criteria that are different from EPA's national recommended criteria, as long as the site-specific criteria are protective of the designated use. Water quality criteria are not effective under the Clean Water Act until they have been adopted into a state's water quality standards and approved by EPA.

How to View the Criteria Document and Supporting Information:

EPA has established an official public docket for this action under Docket ID No. EPA-HQ-OW-2016-0332, accessed at www.regulations.gov. You may also download the document and supporting information from EPA's aquatic life criteria website at: https://www.epa.gov/wqc/aquatic-life-criteria-copper

Where can I find more information?

Please contact Mike Elias by email at elias.mike@epa.gov.