2022 Annual Monitoring Report

Olympic View Sanitary Landfill

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This 2022 Annual Monitoring Report for the Olympic View Sanitary Landfill Facility located at 10015 SW Barney White Road in Bremerton, Washington, was prepared by Daniel Venchiarutti, LHG and was reviewed by Greg Helland, LHG, of SCS Engineers.

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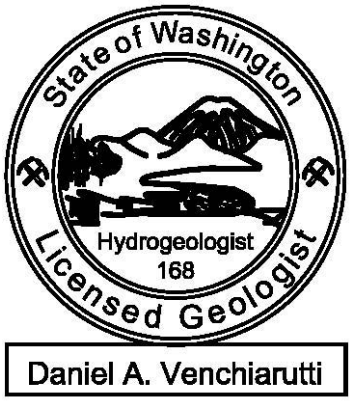

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1.0 INTRODUCTION

This report provides a summary of the 2022 semi-annual, post-closure environmental monitoring results for the Olympic View Sanitary Landfill (OVSL), located in Bremerton, Washington. Monitoring events for the current compliance period were performed during May and November of 2022. Environmental monitoring at the OVSL includes sampling and analysis of groundwater and leachate pond leak-detection liquid, and monitoring landfill gas (LFG). Leachate influent monitoring is also conducted on an annual basis.

Groundwater and LFG monitoring was performed at the facility in accordance with the OVSL *Environmental Monitoring Plan* (EMP, Engineering Management Support, Inc., 2010) and the current site-specific *Sampling and Analysis Plan* (SAP, revision 1.4, SCS Engineers, 2021). The plans were developed in consultation with Ecology and reflect a refined understanding of the site conditions based on the results of a Remedial Investigation/Feasibility Study (RI/FS) per Washington Administrative Code (WAC) 173-340 (Model Toxics Control Act, MTCA). The OVSL monitoring program is also intended to meet requirements of the Criteria for Municipal Solid Waste Landfills (WAC 173-351-430) which is administered by the Kitsap County Public Health District (KPHD).

SCS Engineers (SCS) and Aspect Consulting (for landfill gas) performed environmental monitoring at the OVSL throughout 2022. The following information summarizes the routine monitoring activities described in this report:

- Semiannual collection and analysis of groundwater samples at select monitoring wells within the monitoring network.
- Semiannual measurement of depth-to-water in groundwater monitoring wells sampled for water quality.
- Measurement of depth-to-water in water table-only groundwater monitoring wells.
- Semi-annual collection and analysis of a leachate pond/leak detection system sample.
- Collection and analysis of leachate influent samples (during the November semi-annual monitoring event).
- Quarterly measurement of LFG concentrations at perimeter soil gas monitoring probes and building monitoring locations.

1.1 REPORT CONTENTS

The 2022 Annual Monitoring Report includes:

- A site location description and background section.
- A discussion of monitoring activities including a summary of sampling techniques and locations within the groundwater and LFG monitoring network.
- Construction details for groundwater monitoring wells.
- A discussion of the groundwater conditions including groundwater elevations, flow direction, and flow velocity for the reporting year.
- A summary of the monitoring analytical program and presentation of the analytical results and findings for the reporting year.

- A summary of the LFG monitoring results for the reporting year.
- A geochemical evaluation of the water quality samples collected during the November 2022 semi-annual monitoring event.
- A statistical trend analysis and concentration time series plots of groundwater monitoring results.
- A statistical evaluation and comparison of groundwater results to calculated prediction limits.
- A comparison of groundwater monitoring results to site-specific cleanup levels and other applicable criteria.
- Field documentation from the 2022 monitoring events.
- A data validation report and associated analytical laboratory reports for the November 2022 semi-annual monitoring event.
- A summary of historical LFG monitoring measurements.

Previously issued analytical laboratory data reports for the first semi-annual monitoring event will not be reissued with this report, but can be found in the May 2022 semi-annual monitoring report. Similarly, LFG monitoring results for the first two quarters of 2022 have been previously documented in the May 2022 monitoring report.

In order to conserve paper resources, the complete 2022 annual report is presented on an enclosed data CD attached to the rear cover of the document. However, for the convenience of the reviewer, hard copies of select materials are included in this report.

2.0 SITE DESCRIPTION

2.1 LOCATION

The closed OVSL facility is located on approximately 436 acres in Sections 3 and 10, Township 23N, Range 1W of the Willamette Meridian, in Kitsap County, Washington. The landfill is situated on an upland area approximately 10 miles southwest of the city of Bremerton. The facility address is 10015 SW Barney White Road, Bremerton, Washington. A site location map is shown on Figure 1. The closed refuse fill area covers approximately 65 acres of the property. A site plan is presented on Figure 2.

2.2 BACKGROUND

The OVSL facility accepted municipal solid waste between 1967 and 2003. Landfill closure was completed in 2004, in accordance with WAC 173-351. Closure activities included construction of a LFG monitoring system, an active LFG collection and treatment system, a leachate collection and treatment system, a stormwater drainage control system, and a final landfill cover.

The final landfill cover consists of (top to bottom):

- 12-inches of vegetative topsoil and cover soil.
- Geotextile fabric.
- 12-inch drainage layer.
- Geonet composite 60-mil flexible membrane liner.
- 6-inch thick, low permeability soil.

The active LFG collection system includes a total of 81 well heads (69 vertical wells, 4 horizontal wells, and 8 interconnections to the leachate collection system) connected to a gas treatment flare station. The leachate collection system consists of subgrade collection piping and a leachate collection lagoon. A stormwater drainage system controls stormwater erosion and minimizes off-site migration of sediment-laden water (WMW, 2008). Drainage and erosion protection improvements include vegetation, a landfill toe under-drain, down chutes, culverts, and drainage ditches.

2.3 TOPOGRAPHY AND CLIMATE

The facility is situated in the Southern Upland of the Kitsap Peninsula adjacent to the Union River-Gorst Creek trough. Site topography ranges from approximately 150 to 360 feet above mean sea level (MSL). The land surface generally slopes to the west-southwest towards the Union River, which is situated approximately one half mile west of the site.

Kitsap County's climate is characterized as maritime, with long, mild, wet winters and short, cool, dry summers. Climatically, and due to the local relief, there can be significant variations in total annual precipitation and average temperatures over short distances.

2.4 LOCAL AND REGIONAL HYDROGEOLOGY

The regional near-surface geology in the vicinity of the OVSL is dominated by glacio-fluvial and glacio-lacustrine deposits associated with the Vashon glaciation. A Remedial Investigation Report completed for the OVSL (Parametrix, 2007) identified the following main stratigraphic units in the vicinity of the site:

- Organic Soils and Peat (Qw).
- Alluvium (Qal).
- Vashon Recessional Outwash (Qvr).
- Vashon Lacustrine Recessional Outwash (Qvrl).
- Vashon Till (Qvt).
- Vashon Advance Outwash (Qva).
- Vashon Advance Lacustrine Deposits (Qval).
- Pre-Vashon Deposits (Qpvu).

With the exception of the Vashon Till (which has not been confirmed to be present at the site), each of these stratigraphic units appears to be present beneath the OVSL.

Information provided in the site conceptual model indicates that organic soils/peat, alluvium (including flood plain deposits), outwash, glacio-fluvial, and glacio-lacustrine deposits outcrop along the west-central portions of the OVSL facility. Groundwater is present beneath the site at elevations ranging between approximately 140 and 260 feet above MSL (depths-to-water ranging between near-surface and approximately 80 feet below ground surface). The groundwater flow direction beneath the landfill is generally toward the west.

3.0 2022 MONITORING ACTIVITIES

3.1 GROUNDWATER

3.1.1 Groundwater Monitoring Network

Groundwater monitoring is conducted at the OVSL in accordance with the January 2001 Agreed Order, the EMP as modified through subsequent technical discussions with Ecology, and the current site-specific SAP (SCS, 2021, revision 1.4). The monitoring program is designed to meets the post-closure landfill monitoring requirements under WAC 173-351-430.

The groundwater monitoring network at the OVSL includes four categories of monitoring wells that are sampled semi-annually, plus monitoring wells that are only used for water level measurements. The four well categories designated at the site include the following:

- Upgradient (background) monitoring wells are used to assess the quality of groundwater upgradient of the landfill. *[Note: Water quality monitoring at Upgradient wells is limited to Appendix II field parameters for one of the semi-annual events (May event) as long as no new water quality exceedances or increasing trends are observed.]*
- Performance monitoring wells are used to assess groundwater quality at the edge of the waste management unit.
- Compliance monitoring wells are used to assess groundwater quality at the MTCA Point-of-Compliance (POC).
- Downgradient monitoring wells are used to assess groundwater quality leaving the site.

A monitoring well identifier and type summary is provided in the exhibit below. The locations of these groundwater monitoring wells are illustrated on Figure 2.

Exhibit 1. 2022 OVSL Groundwater Monitoring Well Network (by Type)

Upgradient *	Performance	Compliance	Downgradient
MW-13A	MW-19C	MW-15R	MW-29A
MW-13B		MW-34A	MW-32
MW-16		MW-34C	MW-33A
MW-35		MW-39	MW-33C
		MW-42	MW-36A
		MW-43	

A indicates a shallower well completion
B indicates an intermediate well completion
C indicates a deeper well completion
* Water quality monitoring at Upgradient wells limited to Appendix II field parameters for one of the semi-annual events (May event) as long as no new water quality exceedances or increasing trends are observed.

Completion depths for the water quality monitoring wells range from approximately 20 to 260 feet below ground surface (bgs). Screen lengths vary from 5 to 20 feet, with a 10-foot average well screen length. Construction details for both the water quality monitoring wells and the water level measurement only wells are summarized on Table 1.

Each of the groundwater monitoring wells designated for routine water quality sampling is outfitted with a dedicated sampling pump (QED Well Wizard) suitable for low-flow purging and sampling. Low-flow sampling with dedicated pumps minimizes pump-introduced artifacts and eliminates cross contamination between wells. The dedicated bladder pumps are positioned with their inlets located within the screened interval of the well. Well construction, development, and pump installation are reported in detail in the *Report of 2005 Gas Probe and Monitoring Well Installations at OVSL* (SCS Engineers 2006), the *Remedial Investigation Report, OVSL, Kitsap County* (Parametrix, 2007) and the *Groundwater Monitoring Well Installation Report*, *OVSL* (SCS Engineers. 2009).

3.1.2 Monitoring Schedule

Groundwater monitoring was conducted on a semi-annual basis during 2022, with sampling events completed during May and November. Consistent with the current SAP, during the May event Upgradient sampling locations (MW-13A, MW-13B, MW-16 and MW-35) were only monitored for field parameters.

3.1.3 Parameters and Analytical Methods

The analytical program for groundwater quality monitoring during the 2022 reporting period included the Appendix I and II parameters summarized in Exhibit 2.

Exhibit 2. 2022 OVSL Groundwater Analytical Parameters

Analytical Program	Parameter
Field Measurements	temperature, specific conductivity, pH, dissolved oxygen, turbidity, and static water level
Geochemical Indicator and General Parameters	chloride, sulfate, nitrate, calcium, sodium, bicarbonate, alkalinity, magnesium, potassium, iron, manganese and total suspended solids
Total Metals*	antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, thallium, vanadium, and zinc
Volatile Organic Compounds	as listed in WAC 173-351 Appendix I
Leachate Indicator Parameters	ammonia, total organic carbon (TOC), and total dissolved solids (TDS)

* Consistent with the 2013 revisions to WAC 173-351, both dissolved and total Appendix I metals data were reported for a minimum period of eight quarters between September 2013 and December 2015. Beginning in 2016, Appendix I metals data have only been reported as a total fraction.

Laboratory methods are derived from several industry-standard publications. Methods for Chemical Analysis of Water and Wastes (MCAWW, EPA 1983) describe procedures used for nitrate, nitrite, chloride, sulfate, and ammonia analyses. Standard Methods for the Examination of Water and Wastewater (APHA 1999, revised 2014) describe the methods used for analysis of alkalinity (total and bicarbonate), TDS, total suspended solids (TSS), and TOC. Metals and VOC analyses are described in EPA publication number SW-846, Test Methods for Evaluating Solid Wastes, Physical

and Chemical Methods (EPA revised 2007). The method for measuring arsenic is described in Method 200.8, Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry (EPA 1994).

All laboratory analyses were completed by Eurofins in Denver, Colorado and Buffalo, New York, and by Analytical Resources Incorporated in Tukwila, Washington. These laboratories are accredited in accordance with WAC 173-50, Accreditation of Environmental Laboratories.

3.1.4 Field Monitoring And Sampling Procedures

Groundwater monitoring activities performed during 2022 consisted of surveying well conditions, obtaining field measurements (depth-to-water, pH, specific conductivity, turbidity, temperature, and dissolved oxygen), collecting groundwater samples for laboratory analysis, and packaging and shipping the samples to the relevant laboratories. These activities were conducted as described in the 2021 site-specific SAP (revision 1.4).

During routine groundwater monitoring, static water levels were initially measured and recorded in all of the water quality wells being sampled prior to initializing any well purging or groundwater collection procedures. Static water levels also were measured at 14 additional site wells that are only used for the semi-annual determination of the potentiometric groundwater surface. Depth-to-water measurements (measured to the nearest 0.01 ft.) were obtained using an electronic water level indicator. Static water level measurements were recorded and documented on field sampling and measurement forms included in Appendix A (for November 2022).

Prior to sample collection, groundwater monitoring wells were purged in order to ensure representative groundwater conditions at each location. Both purging and sampling of the monitoring wells were conducted using low-flow/low-volume well sampling techniques. Once the pumping was initiated, flow rates were confirmed by volumetric discharge measurements (by measuring the total volume discharged per cycle using a graduated cylinder and verifying the number of pump cycles per minute specified by the controller). Field measurements for pH, temperature, specific conductivity, dissolved oxygen, and turbidity were conducted using a closed, in-line flow-through cell and a portable turbidity meter. When water quality parameters stabilized and there had been no change in the pumping water level, sample collection would begin. Field parameters were measured as described in Standard Methods for the Examination of Water and Wastewater (APAH 2014).

Before initiating the purge process, the field meters were calibrated in accordance with manufacturer's guidelines. Field data obtained during the well purging procedure was recorded on field sampling and measurement forms included in Appendix A (for November 2022).

Non-disposable sampling equipment that was exposed to well water (e.g., electronic water level tape) was decontaminated between wells as outlined in the SAP. Decontamination of equipment was completed before leaving each well, thereby minimizing potential cross contamination. Disposable sampling equipment and disposable personal protective equipment (PPE) were removed and disposed of after each use and prior to leaving each well. Excess purge and sampling water was discharged into the leachate collection pond.

3.2 LEACHATE

Leachate generated from three separate closed municipal waste storage cells is collected and pumped to an arterial force main that discharges to a one-acre leachate pond situated near the

western end of the landfill (refer to Figure 2). The force main outfall is located on the north end of the leachate lagoon. Accumulated leachate is treated by aeration. When the leachate elevation in the pond approaches the elevation of the former pond outlet, leachate is removed via pumping and is hauled to nearby wastewater treatment plants.

3.2.1 Leachate Monitoring Locations

Per the EMP and SAP, leachate monitoring is performed at three locations at the facility. Influent leachate sampling station L-INF is situated immediately downstream of the force main outfall on the north end of the leachate collection pond. The OBWL-TD sampling station is located at the Old Barney White Landfill Toe Drain collection sump, which subsequently connects to the leachate pond. Sampling station LP-LCD is located at the pump discharge outlet which periodically returns any accumulated liquids that collect beneath the leachate pond liner system back into the main lagoon.

The locations of the leachate monitoring stations are illustrated on Figure 2.

3.2.2 Monitoring Schedule

The current SAP provides for annual monitoring of the L-INF and OBWL-TD stations and semi-annual monitoring of the LP-LCD station. Leachate samples were collected from L-INF and OBWL-TD during November 2022. The LP-LCD was sampled during each of the May and November 2022 monitoring events.

3.2.3 Parameters and Analytical Methods

A summary of the analyzed parameters for the leachate samples collected at the OVSL is presented in Exhibit 3.

Exhibit 3. 2022 OVSL Leachate Analytical Parameters

Semi-Annual LP-LCD Analytical Program	**Parameter**
Field Measurements	temperature, specific conductivity, pH, dissolved oxygen, and turbidity
Geochemical Indicator Parameters	chloride, sulfate, nitrate/nitrite, calcium, sodium, bicarbonate, alkalinity, magnesium, potassium, iron, and manganese
Leachate Indicator Parameters	ammonia, TOC, and TDS

Annual L-INF and OBWL-TD Analytical Program	**Parameter**
Field Measurements	temperature, specific conductivity, pH, dissolved oxygen, and turbidity

Geochemical Indicator Parameters	chloride, sulfate, nitrate/nitrite, calcium, sodium, bicarbonate, alkalinity, magnesium, potassium, iron, and manganese
Total Metals	antimony, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, thallium, vanadium, and zinc
Volatile Organic Compounds	as listed in WAC 173-351 Appendix I
Leachate Indicator Parameters	ammonia, total organic carbon (TOC), and total dissolved solids (TDS)

Laboratory methods are the same methods used for groundwater samples. All laboratory analyses for the leachate samples were completed by Eurofins laboratories in Denver, Colorado and Buffalo, New York.

3.2.4 Leachate Monitoring Field Procedures

Field activities consisted of obtaining field parameter measurements, collecting leachate samples for laboratory analysis, and packaging and shipping the samples to the laboratory. The L-INF and OBWL-TD samples consisted of individual grab samples that were collected directly from their respective sampling stations using a peristatic pump. New disposable plastic tubing was used during the collection of each sample, and was subsequently discarded between sampling locations. The LP-LCD sample was obtained from an inline sampling port attached to the liquid return line that drains back into the leachate pond. All the leachate samples were collected directly into pre-labeled laboratory containers suitable for the chemical parameters being analyzed. Field instruments were calibrated in accordance with manufacturer's guidelines.

Field-measured parameters including temperature, specific conductivity, pH, and dissolved oxygen were measured as described in Standard Methods for the Examination of Water and Wastewater (APAH 2014). Field information obtained during leachate sampling was recorded on Field Information Forms included in Appendix A (for November 2022).

3.3 LANDFILL GAS

Landfill gas monitoring activities at the OVSL consist of obtaining field measurements of primary gas composition (methane, carbon dioxide, and oxygen) at 10 subsurface soil gas detection probes (several with multiple screened intervals) and six locations inside four onsite structures on or immediately adjacent to the landfill. Throughout 2022, all LFG monitoring at the OVSL was conducted by Aspect Consulting, with the data being communicated to SCS for inclusion in the semi-annual and annual monitoring reports.

LFG monitoring is conducted to provide an assessment of the subsurface soil gas conditions at the OVSL and monitor compliance with regulatory criteria for subsurface methane concentrations. At the subsurface gas detection probes (LFG probes) relative soil gas pressure was also measured in the field. LFG monitoring procedures are detailed in the 2021 SAP.

3.3.1 Landfill Gas Monitoring Network

Monitoring is conducted at 10 perimeter LFG probes (GP-7 through GP-16) and four onsite structures (Scale House, South Slope Well House, Electrical Shed and Office) as illustrated on Figure 3. Five of

the LFG probes (GP-9 through GP-13) consist of multiple, vertically-discrete, monitoring zones. Probes with dual monitoring zones are designated with an "S" for the shallow zone, and a "D" for the deep zone. Probes with three monitoring zones are designated with an "S" for the shallow zone, "M" for the middle zone, and "D" for the deep zone. Details of all the LFG probes and boring logs can be found in Report of *2005 Gas Probe and Monitoring Well Installations at OVSL* (SCS Engineers 2006).

3.3.2 Monitoring Schedule

Monitoring at the LFG probes and facility structures was conducted quarterly during March, July, September, and November 2022. It should be noted that the regularly scheduled second quarter LFG monitoring event was delayed into July, with the subsequent third quarter monitoring event rescheduled for late September. LFG monitoring results are reported in Section 4.

3.3.3 Landfill Gas Monitoring Field Procedures and Instrumentation

Field monitoring was conducted in accordance with the 2021 SAP. The LFG probes and building locations were monitored in the field (for all parameters) using a Lantec GEM2000, or equivalent, portable multi-gas analyzer. This portable gas analyzer measures methane and carbon dioxide with a dual wavelength infrared cell with a reference channel. Oxygen is measured with an electro-chemical cell. Pressure was measured with a transducer. The gas analyzer was calibrated prior to each monitoring event.

3.3.4 Field Conditions

General weather conditions were noted for each quarterly LFG monitoring event. Atmospheric pressure fluctuations can influence gas concentrations and pressure in LFG probes. To assist in interpreting the monitoring data, barometric conditions were recorded during and prior to monitoring. The barometric trends for September and November 2022 are included in this report.

4.0 2022 MONITORING RESULTS

4.1 GROUNDWATER

4.1.1 Groundwater Elevation and Flow

All of the monitoring wells in the current compliance program were accessible for the collection of water table elevation information during 2022. Recorded depth-to-water levels are summarized in field documentation included in Appendix A.

Depth-to-water measurements collected during 2022 were used to calculate groundwater elevations in feet relative to MSL. The 2022 records have been compiled and are presented on Table 3. Groundwater elevation surface maps derived from static depth-to-water measurements collected at the OVSL monitoring wells for each of the semi-annual events are presented in Figures 4A and 4B. A hydrograph showing the past 10 years of recorded groundwater elevations is presented on Figure 5. Groundwater elevations calculated for the OVSL ranged from 141.43 (MW-30A in November) to 243.64 (MW-13A in November) ft. MSL over the 2022 reporting period. Groundwater elevations remained relatively stable throughout the year. Historically, the potentiometric groundwater surface across the OVSL has not shown significant seasonal fluctuations.

The groundwater flow direction over the 2022 reporting period remained consistent with that previously reported at the site. Locally, the groundwater flow direction is to the west/northwest. As summarized below in Exhibit 4, the average hydraulic gradient across the site remained fairly consistent between the wet and dry seasons.

Exhibit 4. Calculated 2022 Hydraulic Gradient and Flow Velocities

East Side of OVSL Facility		
	May 2022	**November 2022**
Well Pair	MW-35/MW-24	
Hydraulic Gradient (ft/ft)	0.0320	0.0324
Flow Velocity (ft/day)	2.78	2.80
West Side of OVSL Facility		
	May 2022	**November 2022**
Well Pair	MW-20/MW-33A	
Hydraulic Gradient (ft/ft)	0.0140	0.0130
Flow Velocity (ft/day)	7.20	6.67

Eastern Hydraulic Conductivity = 26 ft/day (Parametrix 2007)
Western Hydraulic Conductivity = 154 ft/day (Parametrix 2007)
Porosity = 30% (Parametrix 2007)

4.1.2 Groundwater Quality

4.1.2.1 Chemical Analysis

Water quality data for the OVSL are summarized in Tables 4A through 4D. These tables present the data results, segregated by well type, for detected analytes and measured field parameters for the 2022 semi-annual monitoring events. Each table presents the data for a monitoring well category (Compliance, Performance, Downgradient, and Upgradient). A table (4E) summarizing the detected analytes and field parameters for the annual L-INF and OBWL-TD leachate and the semi-annual LP-LCD leak detection monitoring stations is also provided. In addition, a summary table of VOC detections in groundwater and leachate is presented as Table 5.

4.1.2.2 Data QA/QC

Analytical data from the Eurofins and ARI laboratories were subjected to a quality assurance/quality control (QA/QC) review. The review included field and in-house components. The field portion consisted of the collection and analysis of trip blanks, field replicates, and matrix spike/matrix spike duplicates. The in-house evaluation provided a detailed examination of laboratory data which included sample handling, analysis hold times, and laboratory performance analyses (duplicates, blanks, matrix spikes, matrix spike duplicates and surrogate recoveries).

The May 2022 TDS analyses for samples MW-29A and MW-43 were reanalyzed by Eurofins slightly outside the method's recommended holding time due to anomalous results reported during the initial analytical run. In addition, the laboratory reported several metals (including dissolved calcium, iron, manganese, magnesium, and sodium, as well as total iron, barium, beryllium, lead and nickel) were detected in select method blanks during the May and November sample runs. However, the laboratory also reported that since the observed blank detections were all less than the analytical reporting limit no corrective actions were required. Data qualifiers are appended to the reported results as appropriate

Notwithstanding the above reported laboratory data qualifiers, the 2022 data set was determined to be acceptable for the intended purposes. Appendix B contains the data validation report and the analytical laboratory data reports for the November 2022 monitoring event.

4.1.3 Spatial Distribution and Temporal Trends

4.1.3.1 Parameter Distribution

As noted for previous monitoring years, the influence of past waste disposal activities on groundwater quality at the OVSL continues to be observed through groundwater VOC detections, general chemistry, and inorganics and field parameter results. The elevated concentrations of parameters adjacent to the landfill are typically characteristic of influence from either landfill leaching, transport from LFG, or increased mobilization of naturally occurring constituents as a result of the landfill's presence.

Several key parameters (arsenic, iron, manganese, and vinyl chloride) are routinely monitored for their spatial distribution each quarter by plotting concentrations on the landfill base map. Exhibit 5 summarizes the spatial distribution of these key OVSL parameters in each of the monitoring well categories.

Exhibit 5. Spatial Distribution of Key OVSL Groundwater Parameters

Total Arsenic (ug/L) - November 2022 (Figure 6A)				
Concentration	Upgradient	Performance	Compliance	Downgradient
Low	0.114	3.06	0.157	0.325
Locations	*MW-35*		*MW-43*	*MW-33A*
High	0.369	*MW-19C*	21.9	10.8
Locations	*MW-16*		*MW-34C*	*MW-32*

Total Iron (mg/L) – November 2022 (Figure 6B)				
Concentration	Upgradient	Performance	Compliance	Downgradient
Low	<0.06	0.39	<0.01	<0.03
Locations	*MW-13A, MW-13B*	*MW-19C*	*MW-34A*	*MW-36A*
High	0.29		44	3.7
Location	MW-16		*MW-34C*	*MW-29*

Total Manganese (mg/L) – November 2022 (Figure 6C)				
Concentration	Upgradient	Performance	Compliance	Downgradient
Low	<0.001	1.1	0.00063	0.00062
Locations	*MW-13A*	*MW-19C*	*MW-34A*	*MW-36A*
High	0.02		3.9	2.0
Locations	*MW-13A*		*MW-42*	*MW-32*

Vinyl Chloride (µg/L) – November 2022 (Figure 6D)				
Concentration	Upgradient	Performance	Compliance	Downgradient
Low	<0.02	0.039	<0.02	<0.02
Locations	*MW-13A MW-13B, MW-16, MW-35*	*MW-19C*	*MW-15R, MW-34A, MW-39, MW-43*	*MW-29A, MW-33A, MW-33C, MW-36A*
High	*NA*		0.10	0.28
Locations			*MW-42*	*MW-32*

Similar to previous monitoring years, groundwater impacts are observed in each category of monitoring wells at the site.

The most elevated arsenic and total iron concentrations (0.369 µg/L and 0.29 mg/L, respectively) detected in the Upgradient (background) monitoring wells during the November 2022 monitoring event were reported in MW-16. MW-13A reported the most elevated total manganese concentration (0.02 mg/L) in an upgradient well location during the November event. Vinyl chloride was not reported in any of the Upgradient wells throughout the 2022 reporting period.

Detectable levels of arsenic, total iron and total manganese (3.06 µg/L, 0.39 mg/L and 1.1 mg/L, respectively) were reported during November 2022 in Performance monitoring well MW-19C. In addition, 0.039 µg/L of vinyl chloride was reported in this well during the event.

The highest primary parameter concentrations reported in the Compliance monitoring wells during November 2022 were observed in MW-34C (21.9 µg/L arsenic and 44 mg/L iron) and MW-42 (3.9 mg/L manganese and 0.10 µg/L vinyl chloride). These same parameters were highest in the Downgradient monitoring wells MW-32 (10.8 µg/L arsenic, 2.0 mg/L manganese and 0.28 µg/L vinyl chloride) and MW-29 (3.7 mg/L iron). It should be noted that the 21.9 µg/L arsenic detection reported in the November 2022 MW-34 sample was anomalously elevated (by an order of magnitude) compared to past results, and is suspected to represent an outlier result.

4.1.3.2 Temporal Trends

Time series graphs and statistical trend analyses were completed for all Upgradient, Performance, Compliance, and Downgradient monitoring wells using the DUMPStat software package. The statistical data set includes analytical results obtained between 2005 through the present reporting year (2022). This evaluation was conducted for parameters listed in Appendices I and II of WAC 173-351-990 which are organized into two groups: "Trend Test A" and "Trend Test B". The "Trend Test A" time series includes all organic parameters in Appendices I and II that have been detected above the practical quantification limit (PQL) during at least one sampling event in any of the wells since 2005 (currently 25 VOCs). The "Trend Test B" time series includes Appendix I and II inorganic and groundwater quality parameters (currently 32 parameters). To facilitate review of the statistically significant trends, time series sets were developed to show those well/parameter combinations exhibiting either increasing or decreasing trends. These time series graphs are presented in Appendix C along with the other statistical evaluation results. A summary of those parameters showing significant increasing or decreasing concentration trends grouped by well type is provided on Table 6A, and a more detailed summary of parameter trends in specific wells can be found in Table 6B.

As noted for recent compliance years, the dominant data trend observed for the majority of water quality parameters monitored at the OVSL is that of stable or gradually decreasing concentrations. This is particularly apparent in the Compliance and Downgradient monitoring wells. However, significant decreases continue to be noted in all well groups for as many as 13 inorganic parameters and two VOCs (as summarized on Tables 6A/6B). Significant increasing trends were also noted for a few field monitored or inorganic parameters in several of the Upgradient, Compliance and Downgradient wells, although the overall number of parameters with increasing trends at the OVSL continues to remain low.

Significant parameter trends calculated for the Compliance monitoring wells are summarized in the following exhibit.

Exhibit 6. Significant Temporal Trends in Compliance Wells (2005-2022)

Increasing		Decreasing	
Parameter	**Wells**	**Parameter**	**Wells**
Arsenic	MW-42	Alkalinity, Total	MW-15R, MW-34A, MW-34C
Chloride	MW-39	Ammonia	MW-43
pH	MW-34C, MW-42	Barium	MW-15R
Potassium, Dissolved	MW-42	Bicarbonate Alkalinity	MW-15R, MW-34A, MW-34C, MW-42
Temperature	MW-34A, MW-34C	Calcium	MW-15R, MW-34A, MW-34C
		Chloride	MW-15R, MW-34A, MW-34C
		Magnesium	MW-15R, MW-34A, MW-34C, MW-42
		Manganese	MW-15R, MW-42
		Sodium	MW-15R, MW-34A, MW-34C, MW-42, MW-43
		Specific Conductivity	MW-15R, MW-34A, MW-34C
		Sulfate	MW-42
		Total Dissolved Solids	MW-15R, MW-34A, MW-34C
		Total Organic Carbon	MW-34C
		Vinyl Chloride	MW-34C

4.1.4 Groundwater Geochemistry

The geochemical character of the groundwater, LP-LCD, OBWL-TD and L-INF samples was evaluated by plotting and comparing geochemical parameters using a Piper diagram for the November 2022 analytical results. Water quality samples collected during November 2022 were of similar geochemical water type with clear differences seen between the groundwater and leachate derived samples.

As noted in previous monitoring reports, the positions of the sampled wells on the diagram indicate that the dominant anion in site groundwater is bicarbonate, with cations being dominated by calcium and magnesium. The leachate derived samples continue to report significantly higher sodium, calcium and potassium concentrations than groundwater, as well as higher chloride and bicarbonate levels. The November 2022 OBWL-TD sample reported relatively low ammonia, chloride, sulfate, BOD, COD and TOC levels compared to the primary (L-INF) leachate sample. The OBWL-TD sample also did not report detectable alkalinity during 2022, which differs from past years results and is suspected to represent a laboratory artifact. A Piper diagram plotting the November 2022 groundwater and leachate results is presented in Appendix D. The Piper diagram for the May 2022 event of the current compliance year can be found in the corresponding semi-annual monitoring report.

In addition to the Piper diagram, groundwater cation/anion balance calculations were also used to assess geochemical character. Ideally, after the major anions and cations present in a sample are determined, the sum of the positive cations (in milliequivalents per liter [meq/L]) should approximately equal the sum of the negative anions (Hem 1986). All natural waters should be electroneutral. However, differences can arise between dissolved cations and anions in groundwater as measured by an analytical laboratory due to a number of factors including: presence of colloidal fractions, systematic error in preparation and analysis of samples, malfunction of/poorly calibrated equipment, major species omitted from analysis, the presence of unusually high concentrations of cations/anions, and not all ions present in water are included in the balance calculation. Due to these potential issues, differences in the ion balance can be difficult to assess for imbalances due to groundwater impacts.

The range of the sum of ions and balance of ions observed at the site for the November 2022 monitoring event are summarized in the exhibit below. Positive balance values indicate that the sum of the cations is greater than the sum of the anions. As stated in WAC 173-351-430-5(a), a relative percent difference (RPD) in the charge-balance (ion balance) of greater than ten percent (depending on the concentrations of ions in solution) could potentially indicate impacted groundwater conditions.

Exhibit 7. Cation-Anion Ranges for Groundwater (November 2022)

Well Group	Upgradient	Performance	Compliance	Downgradient
Sum of Cations (meq/L)	1.20 – 1.80	1.58	0.62 – 3.75	0.74 – 2.64
Sum of Anions (meq/L)	1.50 – 1.94	1.76	0.75 – 4.23	1.03 – 2.97
Balance (%)	-11.14 – -3.74	-5.30	-9.27 – 5.99	-16.57 – -2.03

Ion balances reported during the November 2022 event were in a similar range as historically observed at the OVSL. Upgradient well MW-16 (-11.14) and Downgradient well MW-29A (-16.57) reported the lower ion balances during the event. These wells have historically shown ion balances below 10 percent, but are not associated with any significant water quality changes at the facility. These results may be attributable to lower that typically HCO_3 results in these samples, or to the presence of dissolved ions that are not included in the landfill monitoring parameter suite.

4.1.5 Statistical Predication Limit Evaluation

Statistical prediction limits using data from the upgradient monitoring wells are calculated at the end of each monitoring year to provide updated background concentrations for all Appendix I and II inorganic detection monitoring and groundwater quality parameters (a total of 32 parameters). These updated background prediction limit concentrations are used for comparison purposes for compliance and downgradient monitoring wells.

Prediction limits calculated for inorganic parameters through November 2022 were exceeded at least once in five Compliance monitoring wells (MW-34A, MW-34C, MW-39, MW-42 and MW-43), as well as in four Downgradient monitoring wells (MW-29A, MW-32, MW-33A and MW-33C). Compliance well MW-42 (14 exceedances) and Downgradient well MW-32 (13 exceedances) reported the largest number of prediction limit exceedances for the November event. A summary of the latest prediction limit exceedances for the November 2022 Compliance and Downgradient data sets is presented on Table 7. Prediction limit calculations through 2022 are presented in Appendix C.

As summarized on Tables 6A and 6B, the following Upgradient monitoring wells exhibited statistically significant (increasing or decreasing) trends over the period for which background prediction limits

are calculated: MW-13A (chloride and sulfate), MW-13B (bicarbonate/total alkalinity, specific conductance, nitrate and sulfate), MW-16 (chloride, magnesium and nitrate) and MW-35 (bicarbonate/total alkalinity, nitrate and specific conductance). Parameter trends in Upgradient monitoring wells are noted because they can impart a bias on the calculated prediction limit for the affected monitoring parameters which, in turn, can affect the number of exceedances identified for those monitoring parameters in Compliance and Downgradient wells.

The apparent increasing trends for bicarbonate/total alkalinity and specific conductance in the some of the upgradient wells could impart a positive bias on the calculated prediction limits for these parameters. However, visual examination of the time series graphs presented in Appendix C suggests that the increasing trends noted for these parameters are generally minor. Therefore, any bias to the prediction limit would be expected to be nominal and not significantly change the number of exceedances within this parameter subset.

4.1.6 Point of Compliance and Cleanup Level Exceedances

4.1.6.1 Point of Compliance (POC)

The solid waste regulations (WAC 173-351-300[6]), specify that groundwater quality compliance must be established at a POC located on the landfill property no more than one hundred fifty meters (four hundred ninety two feet) from the waste management unit boundary. At the OVSL, the POC is established as a line of wells located within 150 meters of the landfill waste management unit boundary. As illustrated on Figure 2, the Compliance monitoring wells are colored red and lie west/northwest of the downslope boundary of the landfill.

4.1.6.2 Cleanup Level Exceedances

Site Specific MTCA Cleanup Level

Ten organic and inorganic parameters are regulated under the OVSL Cleanup Action Plan (CAP, Ecology 2010) and have site-specific MTCA cleanup levels. Analytical results are used to calculate an upper confidence limit (95% UCL) of the mean concentration for each parameter for each well for Compliance and Downgradient monitoring wells to assess compliance with their respective cleanup level.

The UCLs are calculated using a three-year moving data window for the ten site-specific chemicals of concern (COC). The UCLs are calculated using MTCAStat; calculation details are presented in Appendix C. The following exhibit and Table 8 summarize the COCs and their 2022 UCL exceedances in the Compliance and Downgradient monitoring wells.

Exhibit 8. 2022 MTCA Exceedances for Chemicals of Concern

Chemicals of Concern	Units	Site-specific MTCA Cleanup Level	Exceedances in 2022 (95% UCL)
1,1-Dichloroethane	µg/L	50	No
1,4-Dichlorobenzene	µg/L	2	No
Ammonia	mg/L	0.19	Yes
Arsenic	µg/L	0.427	Yes
Cis-1,2-Dichloroethene	µg/L	35	No
Ethyl ether	µg/L	50	No

Iron	mg/L	1.9	Yes
Manganese	mg/L	0.73	Yes
Trichloroethene	µg/L	1	No
Vinyl Chloride	µg/L	0.2	Yes

Blue indicates this COC reported a 95% UCL exceedance of its site-specific MTCA Cleanup Levels in at least one Compliance or Downgradient well during 2022.

As noted in past compliance years, the OVSL continues to report generally stable to improving groundwater quality. The 95% UCL for vinyl chloride remains below the cleanup level in all Compliance wells and all Downgradient wells except MW-32. It is important to note that minor variations in parameter concentrations observed from year to year can cause exceedances to arise or vanish between reporting periods. This is largely a result of the UCLs hovering very near their site cleanup levels and not an indication of meaningful changes to overall groundwater conditions.

Statistically significant COC trends are also noted on Table 8 in order to provide additional information regarding the status of the UCL relative to the cleanup standard. Trend information may be particularly useful if the calculated UCL value is very close to the cleanup standard (e.g., within 10%). In such cases, trend information may be useful in predicting a change in status of the UCL versus the cleanup level in the relative near term.

Exceedances of the site-specific MTCA cleanup levels were reported in four of the six Compliance well locations during 2022 (refer to Table 8) including MW-34C (arsenic, iron and manganese), MW-39 (ammonia and iron), MW-42 (ammonia, iron and manganese), and MW-43 (iron). Statistically significant decreasing trends were also noted in several Compliance wells for vinyl chloride (in MW-34C), manganese (in MW-15R and MW-42); and ammonia (in MW-43). A new, statistically significant, increasing trend was reported for arsenic in MW-42; however this trend is the result of an apparent outlier arsenic detection (21.9 µg/L) which is suspected to represent either a field or laboratory artifact. No other statistically significant increasing trends were calculated for the site-specific COCs in the remaining Compliance wells. Similar exceedances and trends were reported for these wells during the previous (2021) compliance period. In addition, the 95% UCLs for the VOC COCs remained below the site-specific MTCA cleanup levels in all of the Compliance monitoring wells during 2022.

Exceedances of at least one of the site-specific MTCA cleanup levels were reported in four of the five Downgradient well locations (refer to Table 8) including MW-29A (iron and manganese), MW-32 (arsenic, manganese and vinyl chloride), MW-33A (iron and ammonia), and MW-33C (iron and manganese). Downgradient wells MW-33A and MW-33C reported statistically significant increasing trends for arsenic. However, significant decreasing trends were also reported at MW-29A (for ammonia) and MW-32 (for vinyl chloride). With the exception of vinyl chloride in MW-32, the 95% UCLs for the tracked VOCs remained below their site-specific MTCA cleanup levels in all of the Downgradient monitoring wells.

Other Criteria Comparison (Federal MCLs, WAC 173-200, and MTCA)

In addition to the site-specific MTCA cleanup levels, groundwater at the OVSL is also compared to WAC 173-200 Groundwater Quality Protection Standards and State/Federal Primary and Secondary Maximum Contaminant Levels (MCLs). For comparison purposes, site-specific MTCA cleanup levels are also included.

The WAC 173-200 and MCL exceedances for the 2022 reporting period by parameter and well are summarized on Table 9. Criteria for the following six analytes were exceeded:

- pH

- ammonia
- arsenic
- iron
- manganese
- vinyl chloride

These parameters are noted to have routinely exceeded their respective regulatory standards over the previous five (2018 through 2022) compliance years. The magnitude of the 2022 exceedance remained generally consistent with previous results.

4.2 LEACHATE MONITORING RESULTS

4.2.1 Leachate Quality

November 2022 leachate influent (L-INF) and Old Barney White Landfill Toe Drain (OBWL-TD) sample results are presented on Table 4E. Samples were also obtained from the LP-LCD monitoring station and submitted for selected Appendix II parameter and total metals analysis during each of the 2022 semi-annual events (refer to Table 4E).

Similar to past years, the annual L-INF sample reported relatively elevated concentrations of the typical leachate parameters, including total/bicarbonate alkalinity, ammonia, calcium, chloride, iron, manganese, magnesium, sodium, COD and TOC. In addition, low, but detectable, levels of tert-butyl alcohol and tetrahydrofuran were reported in the November 2022 sample. The annual OBWL-TD sample continued to report generally lower leachate indicator results than the leachate influent.

The 2022 semi-annual LP-LCD samples reported significantly lower alkalinity, ammonia, chloride, sulfate, COD and TOC concentrations than routinely observed in the L-INF leachate sample. A low-level, J-flagged, tetrahydrofuran detection was also reported in the May 2022 LP-LCD sample.

4.2.2 Leachate Generation Rates

Leachate volumes generated at the OVSL have been recorded on a weekly basis since 2008. During the course of the 2022 reporting period, approximately 849,488 gallons of leachate were pumped into the leachate collection pond. A total of 59.15 inches of rainfall was recorded at the OVSL weather station during 2022.

Leachate generation at the OVSL has significantly declined over the past decade. Prior to 2013, the facility typically produced over 2 million gallons annually. Between 2013 and 2021, annual leachate generation ranged from 1,106,803 gallons (in 2014) to 681,901 gallons (in 2016). The leachate volume calculated for 2022 remains in this reduced range, and continues to indicate that ongoing improvements to site maintenance and existing infrastructure are reducing leachate generation rates at the OVSL. Annualized rainfall totals at the OVSL and the volumes of leachate produced on a quarterly and annual basis over the last 16 years are presented on Figure 7.

In addition, the liner leak collection/detection system is checked regularly for the presence of any accumulated liquids beneath the OVSL leachate pond. If liquids are present, they are pumped out of the collection system, pass through the LP-LCD monitoring station, and are returned to the leachate pond. The volumes of liquid pumped out of the liner leakage collection system during 2022 are presented on Table 10. A total of 2,445 gallons of liquid were removed from the collection system during 2022. This is a slightly higher LP-LCD volume than was pumped (1,727 gallons) from this system during the preceding year (2021).

4.3 LANDFILL GAS MONITORING RESULTS

LFG monitoring results for the OVSL are discussed in terms of detected methane and/or carbon dioxide (at concentrations of both gases at levels greater than 0.3 percent by volume) and depressed oxygen (less than 20.3 percent by volume). The detection of these gases, as well as elevated gas pressures within the perimeter probes, are indicative of the potential presence of LFG. The reported values represent measurements under stabilized conditions (after purging at least one probe volume from each sampling zone).

Perimeter LFG probes and surface structure locations were monitored quarterly for the presence of LFG. The third and fourth quarter 2022 LFG monitoring results are summarized in Tables 11A and 11B, respectively. A summary of the LFG probe results over the entire 2022 compliance period is also provided on Table 12. In addition, LFG extraction rates and major gas component results for the 2022 operational period are summarized in Appendix E (on Table E-4). An estimated 99.92 million cubic feet of LFG were collected at the OVSL flare inlet over 2022, with an annualized average concentration of 24.8 percent methane (by volume).

4.3.1 Perimeter Gas Probes

LFG probe GP-15, located on northwest edge of the Phase II waste cell, was the only perimeter probe to report a detectable methane measurement during 2022. Methane was reported at 2.1 percent by volume at this probe during the November monitoring event. It should be noted that methane concentrations of less than five percent by volume have a reading accuracy of ±0.3 percent by volume.

Carbon dioxide was reported at the majority of LFG probe locations with detected concentration readings during September 2022 ranging from 0.2 (GP-14) to 10.9 percent by volume (GP-7). LFG probes reported carbon dioxide concentrations ranging between 0.7 (GP-10S/D) and 10.2 percent by volume (GP-15) during November 2022. Concentrations of carbon dioxide less than five percent by volume also have a reading accuracy of ±0.3 percent by volume.

During the September event depressed oxygen levels (less than 20.3 percent by volume) were measured at the majority of the LFG probes ranging from 4.4 (GP-16) to 20.2 (GP-9S) percent by volume. Two probes (GP-10S and GP-14) reported oxygen levels at or above 20.3 percent by volume. Depressed oxygen levels for the November event ranged from 0.0 (GP-15) to 20.0 (GP-10S) percent by volume. During the latter event, GP-12S/M/D reported oxygen levels at or above 20.3 percent by volume. The reading accuracy for oxygen with the GEM2000 at concentrations less than 25 percent by volume is ±1 percent by volume.

As noted for past compliance years, overall LFG production at the closed OVSL has and will continue to decline over time. The observed declines in methane and carbon dioxide levels in the OVSL gas monitoring probes (as well as the increases in oxygen levels) likely also reflect past improvements to the LFG extraction system components (e.g., replacement of gas flares and blower station and the 2011 installation of six additional LFG wells in the Barney White area) and more recent changes to LFG extraction system operations implemented by Waste Management.

Appendix E includes tables and time-series plots of the historical concentrations of methane, carbon dioxide, and oxygen in the currently monitored gas probes, from March 2008 through the end of the 2022 monitoring year.

4.3.2 Structure Monitoring

Methane was not detected above instrument detection levels in the four monitored OVSL structures (Scale House, South Slope Well House, Electrical Shed and Office) during either the September or November LFG monitoring events. The regulatory standard for methane in structures on or near the landfill is 25% of the lower explosive limit (LEL). Similarly, carbon dioxide was not measured in excess of the instrument's 0.3 percent by volume detection level in any of these structures. Oxygen levels reported in these structures were all ambient, ranging between 20.5 and 22.0 percent by volume over the second half of 2022.

4.3.3 Barometric Pressure Conditions

LFG concentrations and pressures are influenced by fluctuating barometric pressure. Relative to time, the highest LFG concentrations and depressed oxygen concentrations tend to occur shortly after a significantly falling barometric trend. This is due to the effects of the landfill pressures trying to stabilize with the fluctuation in atmospheric (barometric) pressure and the associated lag time for stabilization.

To assist in interpreting data, barometric conditions were recorded prior to and during LFG monitoring. Atmospheric trends recorded during the September and November 2022 LFG monitoring events are presented on Figures 8A and 8B, respectively. LFG probe measurements recorded during both monitoring events were obtained over periods of steady to slightly rising barometric pressure conditions.

5.0 SUMMARY AND CONCLUSIONS

Overall groundwater quality results, LFG concentrations and leachate production rates reported for the OVSL during the 2022 compliance period are consistent with recent past results and continue to indicate the ongoing stabilization of the closed landfill and an overall improvement of environmental site conditions. Groundwater quality data collected over the past decade indicate that historically detected contaminants in groundwater are generally declining, with fewer exceedances of site-specific MTCA cleanup levels reported at POC monitoring wells and downgradient of the site.

Leachate generation volumes for 2022 at the facility were lower than those reported during the preceding year, and remain significantly lower than pre-2015 levels, demonstrating the continued effectiveness of the improved engineering controls being implemented at the facility. The OVSL will continue to explore opportunities to minimize any remaining above ground contribution to leachate volumes to maintain the long-term trend of diminishing leachate generation.

LFG production at the OVSL continues to gradually decline, with flow rates decreasing to several orders of magnitude below their modeled production high as the natural depletion of methane and other landfill gases continues at the site. It is anticipated that on-going operations and maintenance (O&M) efforts at the OVSL will continue to show improving environmental conditions and increased landfill stability.

5.1 GROUNDWATER

5.1.1 Groundwater Quality

Consistent with previous monitoring results, a number of VOCs, general chemistry parameters, inorganic analytes, and field parameters continued to be reported at elevated concentrations in select monitoring wells adjacent to the OVSL. During 2022, site specific MTCA cleanup levels, groundwater protection standards and/or federal MCLs were exceeded for six analytes: pH, total arsenic, total iron, total manganese, ammonia and vinyl chloride. These results are generally consistent with those reported over the past several years, with overall trends showing that the majority of analyte concentrations are stable or decreasing.

Arsenic was the only OVSL parameter that exceeded a primary MCL during the 2022 compliance period. Arsenic was reported above its 10 µg/L MCL in downgradient well MW-32 (11.4 and 10.8 µg/L, during May and November, respectively) and Compliance well MW-34C (21.9 µg/L, during November). As previously noted, the MW-34C arsenic detection was anomalously elevated (by an order of magnitude) compared to past results, and is suspected to represent an outlier result. In addition, all these primary MCL exceedances were reported for unfiltered groundwater samples, which can be affected by groundwater turbidity. The primary MCL for vinyl chloride was not exceeded during the current reporting period and has not been exceeded since 2006.

Over the current reporting year, 95% UCL MTCA cleanup goal exceedances were reported at least once in five OVSL Compliance wells and in four Downgradient monitoring wells. With the exception of vinyl chloride in MW-32, parameters that exceeded the site specific MTCA cleanup goals in these wells were limited to ammonia, arsenic, iron, and manganese.

The majority of parameter exceedances were reported in Compliance wells MW-42 and Downgradient well MW-32. However, an analysis of the 95% UCL for the ten site COCs relative to their respective cleanup levels supports the ongoing overall improvement in groundwater quality.

With the exception of arsenic in MW-33A, MW-33C and MW-42, no statistically significant increasing trends were calculated for the OVSL COCs over the current reporting year.

Prediction limits for inorganic parameters were exceeded at least once in nine Compliance and Downgradient wells during 2022. Significantly increasing concentrations trends (using Sen's Non-Parametric Test for Trend) were reported for at least one inorganic parameter at nine well locations, while significantly decreasing trends occurred at thirteen well locations. Significantly decreasing concentration trends continue to be reported for trichloroethene (MW-19C) and vinyl chloride in wells MW-19C, MW-32 and MW-34C.

The groundwater analytical data, statistical and graphical analyses, and comparison to water quality standards though 2022 continue to indicate similar, but improving conditions to those previously documented at the OVSL, with on-going evidence that natural attenuation continues to be improving the groundwater quality at the site.

5.1.2 Evidence of Natural Attenuation

Natural attention includes a variety of physical, chemical and biological processes that act without human intervention to reduce mass, toxicity, mobility, volume, or concentration of contaminants. Examples of these processes can include biodegradation, dispersion, dilution, sorption, volatilization, chemical transformation, and contaminant destruction. At solid waste landfills, natural attenuation processes are largely controlled by and associated with changes in groundwater chemistry. Typically, for landfills, pathways for aerating subsurface soils and groundwater are impeded, resulting in increasingly anaerobic and reducing conditions. In turn, these conditions promote microbial communities that can degrade organic compounds resulting in the dechlorination of solvents and their daughter products.

Gradual, yet consistent, improvements to water quality continue to be observed at the OVSL. This is illustrated by the overall stability and/or decreasing trends observed in the calculated 95% UCLs for site COCs and through their improving comparison with their respective site-specific MTCA cleanup levels. These data continue to support the conclusion that natural attention is occurring as expected at the OVSL. As has been previously noted, significant areas across and immediately downgradient of the OVSL waste cells exhibit a pronounced anaerobic and/or reducing geochemistry. As a result, dissolved oxygen (DO) levels are significantly reduced in the groundwater immediately beneath and downgradient of the unlined Barney White waste cell. The presence of organic rich wetlands northwest of this waste cell is also suspected be contributing to the locally anoxic groundwater conditions.

These geochemical conditions remain prevalent at well locations showing the most elevated contaminant concentrations (e.g., MW-19C, MW-34C and MW-42 with elevated total manganese, vinyl chloride and other redox sensitive parameters). The lingering presence of vinyl chloride beneath the west-central portions of the site is consistent with the ongoing reductive dechlorination of parent compounds (PCE, TCE and DCE isomers). However, further downgradient, along the far western margins of the site (MW-33A and MW-36A) groundwater geochemistry becomes increasingly less reductive and more oxidative, which in turn is increasingly supportive of the degradation of vinyl chloride. This has been repeatedly demonstrated by the absence of VOCs, including vinyl chloride, in downgradient OVSL wells MW-29A, MW-33A, MW-33C and MW-36A.

The number of decreasing parameter trends reported for the OVSL provides additional evidence supporting this ongoing and expected natural attenuation. Given the current data and historical

trends, natural attenuation at the OVSL can be anticipated to continue throughout the post-closure period and beyond.

5.2 LEACHATE

Comparisons between the 2022 groundwater and L-INF field and water quality results continue to demonstrate that parameters measured and analyzed in the L-INF leachate are elevated relative to the local groundwater. These parameters include total/bicarbonate alkalinity, ammonia, calcium, chloride, iron, manganese, magnesium, sodium, COD and TOC. Low but detectable levels of tert-butyl alcohol and tetrahydrofuran were also reported in the November 2022 sample.

The OBWL-TD sample continues to report generally lower leachate indicator results than the landfill influent. The LP-LCD monitoring station was sampled during both semi-annual events. These samples continued to report elevated specific conductivity, alkalinity, calcium, chloride, sodium, sulfate, TDS and TOC compared to the groundwater results.

A total of 849,488 gallons of leachate were generated from the OVSL over the course of the 2022 reporting year. This volume is lower than that observed in the preceding year (976,647 gallons). The 2022 leachate generation volume remains appreciably less than earlier annualized totals (ranging to over 2 million gallons) reported prior to the implementation of site maintenance and infrastructure improvements initiated in 2013. Liquid volumes recorded at the LP-LCD monitoring station for the leachate pond leakage collection system indicate that approximately 2,445 gallons of liquid were captured and returned to the pond during 2022. The LP-LCD generation volume remains relatively low, and continues to suggest that leakage through the leachate pond liner system is well controlled.

5.3 LANDFILL GAS

Methane was not detected above state regulatory standards in any of the LFG monitoring probes or in any of the landfill structures during 2022. Perimeter LFG probe monitoring results continue to demonstrate that the facility is in compliance with respect to subsurface landfill soil gas migration criteria (less than 5% by volume of methane in soil at the property boundary). Methane was not detected in any of the onsite structures that were monitored over the reporting period.

LFG extraction rates and major gas component results over the 2022 operational period are summarized in Appendix E. An estimated 99.92 million cubic feet of LFG were collected at the OVSL flare inlet over 2022, with an annualized average concentration of 24.8 percent methane (by volume). Improvements (discussed above and in previous reports) to the OVSL LFG extraction system and associated infrastructure have reduced and/or stabilized LFG levels at both perimeter soil gas probe and structural monitoring locations. The LFG collection system will continue to be monitored and optimized to enhance its performance.

6.0 REFERENCES

American Public Health Association (APHA), American Water Works Association, Water Environment Federation, revised 2014. *Standard Methods for the Examination of Water and Wastewater*.

Engineering Management Support, December 2010, Environmental Monitoring Plan, Olympic View Sanitary Landfill, Port Orchard, WA.

Gibbons, Robert D., and Discerning Systems, Inc. Copyright 1994-2005. *DUMPStat Version 2.1.8.*

Parametrix, Inc. 2007 *Draft Final Remedial Investigation Report, Olympic View Sanitary Landfill.*

SCS Engineers. June 2006. *Report of the 2005 Gas Probe and Groundwater Monitoring Well Installation at the Olympic View Sanitary Landfill*.

SCS Engineers. April 2009. G*roundwater Monitoring Well Installation Report, Olympic View Sanitary Landfill*.

SCS Engineers. March 2022*. 2021 Annual Monitoring Report, Olympic View Sanitary Landfill*.

SCS Engineers. September 2021*. Sampling and Analysis Plan, Olympic View Sanitary Landfill, (OVSL)* (Revision 1.4).

SCS Engineers. August 2022*. Semi-Annual (May) 2022 Monitoring Report, Olympic View Sanitary Landfill*.

USEPA 1994. *Method 200.8, Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry*, Revision 5.4 EMMC Version. Environmental Monitoring Systems Laboratory, Office of Research and Development.

USEPA revised 2007. *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods,* Third Ed., Environmental Monitoring Systems Laboratory, Office of Research and Development.

Washington, Attorney General. January 31, 2001. *Agreed Order No. DE 00SWFAPNR-1729*.

Washington Department of Ecology. October 2010*. Cleanup Action Plan, Olympic View Sanitary Landfill, Kitsap County, Washington.*

Washington Department of Ecology. January 2017*. Periodic Review, Olympic View Sanitary Facility Site ID# 79649975,10015 SW Barney White Road, Port Orchard, Washington.*

Washington Department of Ecology. February 14, 2019*. Comments on the Application to Modify Permit (Monitoring Program Reduction) - Olympic View Sanitary Landfill, Kitsap County Washington, February 5, 2019.*

Washington Department of Ecology. March 18, 2019*. Comments on the Application to Modify Permit (Monitoring Program Reduction) - Olympic View Sanitary Landfill, Kitsap County Washington, February 5, 2019 and Email form Phil Perley (OVSL SAP Questions) dated February 27, 2019.*

Tables

Table 1. Groundwater Well Construction Details
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Well ID	Northing	Easting	Measuring Point Elevation (ft. MSL)	Well Depth (ft. bgs)	Top of Screen Elevation (ft. MSL)	Bottom of Screen Elevation (ft. MSL)	Screen Length (ft.)
Water Quality Monitoring Wells							
MW-13A	188233.33	1159346.53	288.74	155	141	131	10
MW-13B	188223.33	1159346.53	288.66	260	36	26	10
MW-15R	189905.03	1157711.29	180.66	33	157	147	10
MW-16	190804.53	1159350.37	240.01	70	178	168	10
MW-19C	188520.03	1157025.96	196.96	90	111	106	5
MW-29A	188570.27	1156121.60	160.21	25	140	135	5
MW-32	188908.88	1156388.52	152.36	21	135	130	5
MW-33A	189304.18	1155636.34	147.68	20	140	125	15
MW-33C	189284.18	1155636.34	147.59	65	89	79	10
MW-34A	189391.16	1156929.63	197.95	48	168	148	20
MW-34C	189391.16	1156943.77	199.89	98	114	99	15
MW-35	188917.42	1159762.03	302.69	149	161	151	10
MW-36A	189754.10	1156935.20	192.68	50	147	142	5
MW-39	190362.60	1158325.32	189.92	25	174	164	10
MW-42	188690.50	1156617.90	187.43	33	159	154	5
MW-43	188407.60	1156636.60	186.42	30	161	156	5
Water Level Measurement Only Wells							
MW-2B1	189232.23	1157544.63	172.94	18	163	153	10
MW-2A1	189242.23	1157544.63	174.22	38	143	133	10
MW-4	188298.52	1156887.57	175.78	34	149	139	10
MW-10	188737.81	1156265.18	155.12	17.5	142	137	5
MW-20	188850.01	1157062.68	198.41	49	165	150	15
MW-21	188737.81	1156245.18	156.03	15	150	140	10
MW-23A	189485.84	1158085.12	182.28	23	172	157	15
MW-24	189795.14	1158383.22	208.24	42	176	161	15
MW-29C	188479.36	1156072.97	156.92	50	111	106	5
MW-30A	188623.50	1155612.45	166.74	35	136	131	5
MW-36	189751.87	1156955.77	189.39	100	99	89	10
MW-41A	188106.83	1157522.05	199.43	35.7	168	163	5
MW-41B	188104.34	1157530.68	200.64	79	126	121	5
MW-41C	188101.13	1157541.93	199.67	117	87	82	5

Table 2. Summary of Analytical Parameters
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Well	Volatile Organic Compounds		Geochemical Indicator Parameters**	Leachate Indicator Parameters			Field Parameters	Metals* and Nitrate	
	WAC 173-351 Appendix I	Vinyl Chloride (SIM)	Cl, Fe, Mn, SO_4, Ca, Mg, Na, K, Alkalinity, Bicarbonate Alkalinity	Ammonia	TOC, TDS	BOD, COD	Dissolved Oxygen, ORP, pH, Specific Conductivity, Temperature, Turbidity	As, Sb, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, V, Zn, NO_3	TSS
Compliance Monitoring Locations									
MW-15R	✓	✓	✓	✓	✓		✓	✓	✓
MW-34A									
MW-34C									
MW-39									
MW-42									
MW-43									
Performance Monitoring Locations									
MW-19C	✓	✓	✓	✓	✓		✓	✓	✓
Downgradient Monitoring Locations									
MW-29A	✓	✓	✓	✓	✓		✓	✓	✓
MW-32									
MW-33A									
MW-33C									
MW-36A									
Upgradient Monitoring Locations									
MW-13A[a]	✓	✓	✓	✓	✓		✓	✓	✓
MW-13B[a]									
MW-35[a]									
MW-16[a]									
Leachate Monitoring Locations									
L-INF [b]	✓	✓	✓	✓	✓	✓	✓	✓	✓
LP-LCD	✓	✓	✓	✓	✓	✓	✓	✓	
OBWL-TD [b]	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes

✓ Indicates wells were sampled for selected parameters.

* The Appendix I metals in the groundwater samples were analyzed for only total metals fractions.

** Only Iron and Manganese were analyzed for both total and dissolved fractions.

[a] Water quality monitoring at the Upgradient wells was limited to Appendix II field parameters during the Semi-annual # 1 event (in May).

[b] Sampled annually (November 2022).

Table 3. Groundwater Elevations
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Location ID	Measuring Point Elevation (ft. MSL)	Semi-Annual #1 May 2022		Semi-Annual #2 November 2022	
		DTW	WLE	DTW	WLE
Water Quality Monitoring Wells					
MW-13A	288.74	46.32	242.42	45.10	243.64
MW-13B	288.66	59.65	229.01	62.16	226.50
MW-15R	180.66	18.62	162.04	19.66	161.00
MW-16	240.01	55.37	184.64	60.92	179.09
MW-19C	196.96	32.96	164.00	35.40	161.56
MW-29A	160.21	13.05	147.16	14.55	145.66
MW-32	152.36	1.20	151.16	2.06	150.30
MW-33A	147.68	5.56	142.12	5.10	142.58
MW-33C	147.59	1.83	145.76	2.64	144.95
MW-34A	197.95	39.32	158.63	40.74	157.21
MW-34C	199.89	41.12	158.77	42.44	157.45
MW-35	302.69	71.97	230.72	72.98	229.71
MW-36A	192.68	30.85	161.83	32.03	160.65
MW-39	189.92	19.03	170.89	22.27	167.65
MW-42	187.43	27.38	160.05	28.76	158.67
MW-43	186.42	23.92	162.50	25.73	160.69
Water Level Measurement Only Wells					
MW-2A1	174.22	7.50	166.72	9.29	164.93
MW-2B1	172.94	6.42	166.52	8.08	164.86
MW-4	175.78	13.62	162.16	15.75	160.03
MW-10	155.12	3.82	151.30	4.86	150.26
MW-20	198.41	35.32	163.09	36.40	162.01
MW-21	156.03	5.05	150.98	5.91	150.12
MW-23A	182.28	11.21	171.07	13.93	168.35
MW-24	208.25	30.40	177.85	31.93	176.32
MW-29C[1]	156.92	11.60	145.32	8.90	148.02
MW-30A	166.74	23.83	142.91	25.31	141.43
MW-36	189.39	31.00	158.39	32.20	157.19
MW-41A[2]	199.43	24.24	175.19	26.95	172.48
MW-41B	200.64	23.55	177.09	27.27	173.37
MW-41C	199.67	25.10	174.57	28.50	171.17

Notes:

Elevations, ft. MSL

WLE = Water level elevation

DTW = Depth to Water (ft)

Table 4A. Detections and Field Measurements - Compliance Monitoring Wells
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	MW-15R 5/10/2022	MW-15R 11/16/2022	MW-34A 5/10/2022	MW-34A 11/16/2022	MW-34C 5/10/2022	MW-34C 11/16/2022	MW-39 5/10/2022	MW-39 11/16/2022	MW-42 5/10/2022	MW-42 11/16/2022	MW-43 5/10/2022	MW-43 11/16/2022
Field Parameter													
Dissolved Oxygen	mg/L	1.00	1.50	6.15	2.50	0.76	0.90	0.40	0.70	1.00	10.00	3.48	10.30
Oxidation Reduction Potential	mV	228.9	249.9	259.3	274.5	49.3	2.1	-29.9	-58.9	-119.9	-49.9	39.5	109.0
pH	SU	6.65	6.76	6.15	6.21	6.77	6.81	6.22	6.31	6.52	6.49	5.80	5.66
Specific Conductivity	umhos/cm	159	147	127	145	199	184	303	271	471	457	40	61
Temperature	deg C	10.2	9.8	11.9	11.6	12.9	12.6	10.2	11.4	12.0	12.7	8.3	11.6
Turbidity	NTU	3.89	3.1	3.69	3.0	96.1	11.7	7.17	3.8	2.5	3.8	2.4	5.4
General Chemistry													
Alkalinity, Bicarbonate (As CaCO3)	mg/L	76	74	62	73	98	93	130	88	210	200	23	26
Alkalinity, Total (As CaCO3)	mg/L	76	74	62	73	98	93	130	88	210	200	23	26
Ammonia (as N)	mg/L	--	--	--	--	--	0.04	0.94	0.57	7.30	0.11	--	--
Calcium, Dissolved	mg/L	13.0	13.0	11.0	13.0	18 B	18 B	14 B	13.0	37 B	36 B	3.8 B	5.7 B
Chloride	mg/L	--	--	--	--	--	--	7.4	7.4	11.0	6.6	--	--
Iron, Dissolved	mg/L	0.17 B	0.01 J B	0.01	0.011 J B	0.47 B	0.49 B	40 B	35.00	26 B	23 B	0.04	--
Iron, Total	mg/L	0.04	0.017 J B	0.02	--	5.8 B	44 B	35 B	33.0	25 B	29 B	6.6 B	1.6 B
Magnesium, Dissolved	mg/L	8.1 B	8.40	5.1 B	6.2	8.1 B	7.7	8.7 B	7.9	13 B	12.00	1.6 B	2.3
Manganese, Dissolved	mg/L	0.0015 B	0.0017 B	0.00035 J	0.0004 J B	0.44	0.38 B	0.46	0.47 B	3.9	3.8 B	0.01	0.007 B
Manganese, Total	mg/L	0.0022 B	0.0019	0.00046	0.00063 J	0.56	3.40	0.45	0.46 J B	3.70	3.90	0.14	0.07
Nitrate (As N)	mg/L	0.26	0.21	0.23	0.44	--	--	--	--	--	--	0.34	1.50
Potassium, Dissolved	mg/L	0.72 J	0.88 J	0.56 J	0.53 J	0.86 J	0.85 J	0.28 B	0.28 J	7.80	7.40	0.41 J	0.66 J
Sodium, Dissolved	mg/L	5.3 B	5.20	6.9 B	7.70	10 B	10.0	9.1 J	9.0	18 B	18.0	2 B	3.0
Sulfate	mg/L	--	--	--	--	--	--	--	--	6.40	5.50	--	--
Total Dissolved Solids (TDS)	mg/L	77.00	73.0	74	94	130	110	120	120	230	210	26 H	32
Total Organic Carbon (TOC)	mg/L	--	--	--	--	--	1.6	2.7	2.5	6.8	8.2	1.6	1.4
Total Suspended Solids (TSS)	mg/L	--	--	--	--	13.0	280.0	28.0	29.0	22.0	39.0	--	--
Metals													
Arsenic, Total	ug/L	0.257	0.186	0.508	0.456	2.52 D	21.9 D	2.68 D	1.98 D	1.81 D	2.18 D	0.072	0.157
Barium, Total	ug/L	4.8 B	3.9 B	3.4 B	4.1 B	28 B	190 B	14 B	14	89 B	95	5.2 B	5.2
Beryllium, Total	ug/L	--	--	--	--	--	--	--	--	--	0.082 JB	--	--
Chromium, Total	ug/L	0.83 J	--	5.3	4.8	--	1.1 J	1.1 J	1.0 J	0.65 J	1.0 J	0.56 J	--
Cobalt, Total	ug/L	--	--	--	0.68 J	--	2.2 J	6.6	6.5	1.3 J	0.94 J	0.95 J	--
Copper, Total	ug/L	--	--	--	--	0.64 J	2.5	--	--	--	--	1.3 J	--
Lead, Total	ug/L	0.18 J	--	--	--	--	0.19 J B	--	--	0.29 J	--	0.44 J	--
Nickel, Total	ug/L	0.86 J	0.87 J	1.6 J	2.0 J	--	0.54 J	2.3 J	2.6 J	0.94 J	1.3 J	--	--
Selenium, Total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Silver, Total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Thallium, Total	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium, Total	ug/L	0.36	3.0	4.4	4.4	--	3.6	1.8 J	1.2 J	1.4 J	2.8	15	--
Zinc, Total	ug/L	--	2.9 J	--	19.0	--	4.3 J	2.1 J	--	2.4 J	--	3.5 J	6.6
Volatile Organic Compounds													
Vinyl chloride	ug/L	--	--	--	--	0.016 J	0.022	--	--	0.022	0.10	--	--

Notes:

Parameters not listed above were not detected at any of the above listed sample locations during the reporting year

$CaCO_3$ = Calcium carbonate
deg-C = Degrees Celcius
J = Concentration is estimated
µmhos/cm = Microhms per centimeter
µg/L = Micrograms per liter
mg/L = Miligrams per liter
mV = Milivolts
N = Nitrogen
NTU = Nephelometric turbidity units
SU = Standard units
B = Analyte detected in sample blank
H = parameter analyzed outside of specified holding time due to lab error
D = The reported value is from a dilution
-- = Parameter not detected above the project-specific reporting limit

Table 4B. Detections and Field Measurements - Performance Monitoring Wells
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	MW-19C 5/10/2022	MW-19C 11/16/2022
Field Parameter			
Dissolved Oxygen	mg/L	0.80	0.70
Oxidative Reduction Potential	mV	-9.4	38.3
pH	SU	6.81	6.54
Specific Conductivity	umhos/cm	142	159
Temperature	deg C	10.7	10.6
Turbidity	NTU	2.70	3.80
General Chemistry			
Alkalinity, Bicarbonate (As CaCO3)	mg/L	74	80
Alkalinity, Total (As CaCO3)	mg/L	74	80
Ammonia (as N)	mg/L	0.85	0.50
Calcium, Dissolved	mg/L	13 B	14
Chloride	mg/L	--	--
Iron, Dissolved	mg/L	0.14 B	0.12 B
Iron, Total	mg/L	0.48 B	0.39
Magnesium, Dissolved	mg/L	7 B	7.20
Manganese, Dissolved	mg/L	0.91	1.1 B
Manganese, Total	mg/L	0.96	1.1 B
Nitrate (As N)	mg/L	1.3	1.3
Potassium, Dissolved	mg/L	6.1 B	6.0
Sodium, Dissolved	mg/L	6.0	6.1
Sulfate	mg/L	--	--
Total Dissolved Solids (TDS)	mg/L	75.0	88.0
Total Organic Carbon (TOC)	mg/L	--	--
Total Suspended Solids (TSS)	mg/L	--	--
Metals			
Arsenic, Total	ug/L	3.04 D	3.06 D
Barium, Total	ug/L	4.3 B	5.0
Beryllium, Total	ug/L	--	--
Chromium, Total	ug/L	--	0.96 J
Cobalt, Total	ug/L	--	--
Copper, Total	ug/L	--	--
Lead, Total	ug/L	0.2 J	--
Nickel, Total	ug/L	--	0.46 J
Selenium, Total	ug/L	--	--
Silver, Total	ug/L	--	--
Thallium, Total	ug/L	--	--
Vanadium, Total	ug/L	--	--
Zinc, Total	ug/L	2.8 J	2.1 J
Volatile Organic Compounds			
Trichloroethene	ug/L	0.92 J	0.82 J
Vinyl chloride	ug/L	0.005 J	0.039

Notes:

Parameters not listed above were not detected at any of the above listed sample locations during the reporting year

$CaCO_3$ = Calcium carbonate

deg-C = Degrees Celcius

mV = Milivolts

B = Analyte detected in sample blank

N = Nitrogen

J = Concentration is estimated

NTU = Nephelometric turbidity units

µmhos/cm = Microhms per centimeter

SU = Standard units

µg/L = Micrograms per liter

mg/L = Miligrams per liter

H = parameter analyzed outside of specified holding time due to lab error

-- = Parameter not detected above the project-specific reporting limit

Table 4C. Detections and Field Measurements - Downgradient Monitoring Wells
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	MW-29A 5/10/2022	MW-29A 11/16/2022	MW-32 5/10/2022	MW-32 11/16/2022	MW-33A 5/10/2022	MW-33A 11/17/2022	MW-33C 5/11/2022	MW-33C 11/17/2022	MW-36A 5/10/2022	MW-36A 11/17/2022
Field Parameter											
Dissolved Oxygen	mg/L	1.90	11.10	1.20	0.70	1.00	0.70	1.50	1.20	1.38	3.10
Oxidative Reduction Potential	mV	0.7	21.5	-45.8	-22.8	-65.5	1.2	-119.4	31.3	239.8	207.9
pH	SU	6.07	6.05	6.86	6.9	6.15	6.72	7.46	6.62	6.18	6.35
Specific Conductivity	umhos/cm	92	86	237	258	94	134	155	154	141	122
Temperature	deg C	8.2	11.4	11.4	11.6	8.5	10.0	8.8	9.1	9.6	9.5
Turbidity	NTU	1.1	1.6	1.3	3.6	7.2	13.1	3.1	3.3	4.2	3.0
General Chemistry											
Alkalinity, Bicarbonate (As CaCO3)	mg/L	47	43	120	130	67	68	74	73	70	64
Alkalinity, Total (As CaCO3)	mg/L	47	43	120	130	67	68	74	73	70	64
Ammonia (as N)	mg/L	0.15	0.13	0.085	0.071	0.38	0.05	--	--	--	--
Calcium, Dissolved	mg/L	6.3 B	5.8 B	23 B	23	11	14	14	17	10 B	9.2
Chloride	mg/L	--	--	3.9	6.6	--	--	--	--	--	--
Iron, Dissolved	mg/L	4.2 B	3.4 B	0.54 B	0.5	2.8 B	0.054 J B	0.048	0.039 J B	0.12 B	0.014 J B
Iron, Total	mg/L	4.4 B	3.7 B	1.1 B	0.67	5.1 B	0.72 B	0.63 B	0.084	0.051	--
Magnesium, Dissolved	mg/L	3.7 B	3.6	12 B	12	4.9 B	6.6	5.6 B	6.7	7.1 B	6.5
Manganese, Dissolved	mg/L	1.3	1.1 B	1.7 B	1.8 B	0.062 B	0.0054 B	0.13 B	0.13 B	--	0.0013 B
Manganese, Total	mg/L	1.3	1.2	1.8 B	2 B	0.08	0.011 B	0.41	0.96 B	0.0012 B	0.00062 J B
Nitrate (As N)	mg/L	--	--	--	--	--	--	--	--	0.79	0.2600
Potassium, Dissolved	mg/L	0.31 J	0.29 J	1.1	0.98 J	0.67 J	0.82 J	1.1	1.2	0.89 J	0.83 J
Sodium, Dissolved	mg/L	3.1 B	3.4	11 B	11	3.7 B	4.0	4 B	4.1	7.5 B	6.3
Sulfate	mg/L	--	--	7	11	--	--	7.6	7.4	--	--
Total Dissolved Solids (TDS)	mg/L	56 H	42	170	170	78	79	100	97	76	79
Total Organic Carbon (TOC)	mg/L	1.6	1.8	--	1.4	2.8	--	--	--	--	--
Total Suspended Solids (TSS)	mg/L	--	--	--	--	8.4	--	--	12.0	--	--
Metals											
Arsenic, Total	ug/L	1.87 D	1.75 D	11.4 D	10.8 D	0.609 D	0.325	2.83 D	4.31 D	0.667 D	0.492
Barium, Total	ug/L	6.1 B	6.6 B	5.9	5.9	3.1	1.7	6.4	3.8	2.4 B	2.3
Beryllium, Total	ug/L	--	--	--	--	--	--	--	0.081 J	--	0.085 J
Chromium, Total	ug/L	0.53 J	0.57 J	--	--	1.2 J	0.75 J B	--	1.8 J	11	9.2 B
Cobalt, Total	ug/L	2.9 J	1.6 J	--	--	--	--	--	2.0	--	--
Copper, Total	ug/L	1.4 J	--	--	4.6 B	1.2 J	--	0.69 J	--	--	--
Lead, Total	ug/L	0.84 J	--	--	0.21 J B	--	--	--	0.41 J	--	--
Nickel, Total	ug/L	1.8 J	1.5 J	1.1 J	0.87 J	0.84	--	0.35	1.7 J	1.4 J	1.2 J
Selenium, Total	ug/L	--	--	--	--	--	--	--	--	0.74 J	0.52 J
Silver, Total	ug/L	--	--	--	--	--	--	--	--	--	--
Thallium, Total	ug/L	--	--	--	--	--	--	--	--	--	--
Vanadium, Total	ug/L	--	--	--	--	2.7	2.5	--	2.1	2.8	2.6
Zinc, Total	ug/L	--	2.6 J	2.5	2.2 J	3.1 J	--	2.1 J	5.4	--	--
Volatile Organic Compounds											
Trichloroethene	ug/L	--	--	0.46 J	--	--	--	--	--	--	--
Vinyl chloride	ug/L	--	--	0.18	0.28	--	--	--	--	--	--

Notes:

Parameters not listed above were not detected at any of the above listed sample locations during the reporting year

$CaCO_3$ = Calcium carbonate
deg-C = Degrees Celcius
J = Concentration is estimated
µmhos/cm = Microhms per centimeter
µg/L = Micrograms per liter
mg/L = Miligrams per liter
mV = Milivolts
N = Nitrogen
NTU = Nephelometric turbidity units
SU = Standard units
-- = Parameter not detected above the project-specific reporting limit
B = Analyte detected in sample blank
H = parameter analyzed outside of specified holding time due to lab error

Table 4D. Detections and Field Measurements - Upgradient Monitoring Wells
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	MW-13A 5/10/2022	MW-13A 11/17/2022	MW-13B 5/10/2022	MW-13B 11/17/2022	MW-16 5/11/2022	MW-16 11/17/2022	MW-35 5/10/2022	MW-35 11/17/2022
Field Parameter									
Dissolved Oxygen	mg/L	7.80	23.20	8.30	0.5	7.22	7.6	6.83	6.90
Oxidative Reduction Potential	mV	74.0	69.1	76.3	65.3	263.7	28.3	153.0	81.4
pH	SU	7.17	6.93	7.66	7.36	6.39	6.64	7.45	7.49
Specific Conductivity	umhos/cm	166	166	165	162	112	115	169	156
Temperature	deg C	9.7	9.6	9.9	9.9	9.3	9.2	10.4	10.0
Turbidity	NTU	0.2	3.4	0.2	3.8	4.0	2.8	3.3	2.9
General Chemistry									
Alkalinity, Bicarbonate (As CaCO3)	mg/L	*	89	*	89	*	67	*	84
Alkalinity, Total (As CaCO3)	mg/L	*	89	*	89	*	67	*	84
Ammonia (as N)	mg/L	*	--	*	--	*	--	*	--
Calcium, Dissolved	mg/L	*	15	*	17	*	10	*	14
Chloride	mg/L	*	--	*	--	*	--	*	--
Iron, Dissolved	mg/L	*	0.043 J B	*	--	*	--	*	0.0099 J B
Iron, Total	mg/L	*	--	*	--	*	0.29 B	*	0.034 J B
Magnesium, Dissolved	mg/L	*	8.9	*	8.6	*	0.012 J	*	8.7
Manganese, Dissolved	mg/L	*	--	*	0.00081 J B	*	5.6	*	--
Manganese, Total	mg/L	*	0.02 B	*	0.00068 J B		0.00034 J B	*	--
Nitrate (As N)	mg/L	*	0.48	*	0.41	*	0.0016 B	*	0.39
Potassium, Dissolved	mg/L	*	0.56 J	*	0.57 J	*	0.75 J	*	0.6 J
Sodium, Dissolved	mg/L	*	5.4	*	5.4	*	5.2	*	5.2
Sulfate	mg/L	*	--	*	--	*	--	*	--
Total Dissolved Solids (TDS)	mg/L	*	88	*	93	*	82	*	85
Total Organic Carbon (TOC)	mg/L	*	--	*	--	*	--	*	--
Total Suspended Solids (TSS)	mg/L	*	--	*	--	*	--	*	--
Metals									
Arsenic, Total	ug/L	*	0.206	*	0.338	*	0.369	*	0.114
Barium, Total	ug/L	*	2.6	*	3.8	*	3.8	*	3.8 B
Beryllium, Total	ug/L	*	--	*	--	*	--	*	--
Chromium, Total	ug/L	*	2.6 J B	*	3.4 B	*	8.5 B	*	2.5 J
Cobalt, Total	ug/L	*	--	*	--	*	--	*	--
Copper, Total	ug/L	*	--	*	--	*	--	*	--
Lead, Total	ug/L	*	--	*	--	*	--	*	--
Nickel, Total	ug/L	*	--	*	--	*	2.0 J	*	--
Selenium, Total	ug/L	*	--	*	--	*	--	*	--
Silver, Total	ug/L	*	--	*	--	*	--	*	--
Thallium, Total	ug/L	*	--	*	--	*	--	*	--
Vanadium, Total	ug/L	*	4.3	*	5.8	*	3.9	*	4.1
Zinc, Total	ug/L	*	2.0 J	*	2.0 J	*	2.8 J	*	2.4 J
Volatile Organic Compounds									
No detections	ug/L	*	--	*	--	*	--	*	--

Notes:

Parameters not listed above were not detected at any of the above listed sample locations during the reporting year

* = Only field parameters analyzed at upgradient wells during Semi-annual #1 event

$CaCO_3$ = Calcium carbonate
deg-C = Degrees Celcius
J = Conentration is estimated
µmhos/cm = Microhms per centimeter
µg/L = Micrograms per liter
mg/L = Miligrams per liter
mV = Milivolts
N = Nitrogen
NTU = Nephelometric turbidity units
SU = Standard units
-- = Parameter not detected above the project-specific reporting limit
B = Analyte detected in sample blank
H = parameter analyzed outside of specified holding time due to lab error

Table 4E. Detections and Field Measurements - Leachate and Leak Detection Locations
2021 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Units	L-INF 11/21/2022	OBWL-TD 11/21/2022	LP-LCD 5/11/2022	LP-LCD 11/17/2022
Field Parameter					
Dissolved Oxygen	mg/L	6.35	3.77	7.92	8.30
Oxidative Reduction Potential	mV	164.1	150.4	229.5	78.5
pH	SU	7.4	3.36	7.4	7.26
Specific Conductivity	umhos/cm	578	467	3,646	3,536
Temperature	Deg C	13.3	22.6	12.4	9.1
Turbidity	NTU	--	--	3.6	0.9
General Chemistry					
Alkalinity, Bicarbonate (As CaCO3)	mg/L	2100	--	790	910
Alkalinity, Total (As CaCO3)	mg/L	2100	--	790	910
Ammonia (as N)	mg/L	270	13	13	5.2
Biochemical Oxygen Demand	mg/L	30	--	5.2	7.1 H B
Calcium, Dissolved	mg/L	120	64	69 B	61
Chemical Oxygen Demand	mg/L	500	--	180	160
Chloride	mg/L	2500	3.1	590	640
Iron, Dissolved	mg/L	0.56	0.90	0.14 B	0.1
Iron, Total	mg/L	3.3	19.0	0.34 B	0.058 J
Magnesium, Dissolved	mg/L	89	15.0	40 B	37
Manganese, Dissolved	mg/L	2.1	6	0.47 B	0.45 B
Manganese, Total	mg/L	2.1	6	0.60	0.47 B
Nitrate (As N)	mg/L	0.11	0.77	8	4
Nitrate/Nitrite, Total	mg/L	0.81	0.79	8	4
Potassium, Dissolved	mg/L	130	3.4	73	75
Sodium, Dissolved	mg/L	920	7.8	720 B	640
Sulfate	mg/L	2600	550	240	210
Total Dissolved Solids (TDS)	mg/L	3300	520	2200	2200
Total Organic Carbon (TOC)	mg/L	180	1.8	50	--
Total Suspended Solids (TSS)	mg/L	5.2	--	*	*
Metals					
Antimony, Total	ug/L	0.63 B	2.4	1.5	2.2 B
Arsenic, Total	ug/L	5.0 B	6.8 B	19.0	19.0
Barium, Total	ug/L	230	64 B	100	91
Beryllium, Total	ug/L	--	0.085 J	--	0.21
Chromium, Total	ug/L	8.7	34	2.8 J	2.8 J
Cobalt, Total	ug/L	14	58	10	9.3
Copper, Total	ug/L	1.8 JB	12 J	8.9	20 B
Lead, Total	ug/L	0.18 J	1.3	1.7	1.9 B
Nickel, Total	ug/L	9.1	460	99 B	99
Selenium, Total	ug/L	0.57 J B	--	0.63 J	0.75 J B
Silver, Total	ug/L	--	--	--	--
Thallium, Total	ug/L	--	--	--	--
Vanadium, Total	ug/L	12	--	5.1	4.7
Zinc, Total	ug/L	40	310	27	40
Volatile Organic Compounds					
Butyl alcohol, tert-	ug/L	160	--	--	--
Tetrahydrofuran	ug/L	96	--	12 J	--
Vinly chloride	ug/L	--	--	--	0.072 J

Notes:

Parameters not listed above were not detected at any of the above listed sample locations during the reporting year.

* = Not analyzed

$CaCO_3$ = Calcium carbonate

deg-C = Degrees Celcius

H = Analyzed beyond hold time

J = Concentration is estimated

mg/L = Miligrams per liter

µg/L = Micrograms per liter

µmhos/cm = Microhms per centimeter

mV = Milivolts

N = Nitrogen

NTU = Nephelometric turbidity units

SU = Standard units

-- = Parameter not detected above the project-specific reporting limit

B = Analyte detected in sample blank

H = parameter analyzed outside of specified holding time due to lab error

Table 5. 2022 Groundwater and Leachate VOC Detections
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Parameter	Event	Well Type	Well	Result
Butyl alcohol, tert-	Q422	System	L-INF	160
Tetrahydrofuran	Q222	System	LP-LCD	12 J
	Q422	System	L-INF	96
Trichloroethene	Q222	Performance	MW-19C	0.92 J
		Performance	MW-32	0.46 J
	Q422	Downgradient	MW-19C	0.82 J
Vinyl chloride	Q222	Performance	MW-19C	0.005 J
		Downgradient	MW-32	0.18
		Compliance	MW-34C	0.016 J
			MW-42	0.022
	Q422	Performance	MW-19C	0.039
		Downgradient	MW-32	0.28
		Compliance	MW-34C	0.022
			MW-42	0.10
		System	LP-LCD	0.072 J

Notes:
All VOCs measured in micrograms per liter (ug/L)
J = Indicates that concentration is estimated due to low concentration in sample

Table 6A. Summary of Significant Parameter Trends by Well Type
2022 Annual Monitoring Report
Olympic View Sanitary Lanfill, Kitsap County, Washington

Significant VOC Trends		Significant Inorganic Parameter Trends	
Increasing	**Decreasing**	**Increasing**	**Decreasing**
Upgradient Wells			
None	None	Alkalinity, Bicarbonate Alkalinity, Total Nitrate (MW-35 only) Specific Conductivity	Chloride Magnesium, Dissolved Nitrate Sulfate
Performance Wells			
None	Trichloroethene Vinyl Chloride	None	Arsenic, Total Ammonia (as N) Chloride Sodium, Dissolved Sulfate
Compliance Wells			
None	Vinyl Chloride	Arsenic, Total (MW-42 only) Chloride (MW-39 only) pH Potassium, Dissolved Temperature	Alkalinity, Bicarbonate Alkalinity, Total Ammonia (as N) Barium, Total Calcium, Dissolved Chloride Magnesium, Dissolved Manganese, Total Sodium, Dissolved Specific Conductivity Sulfate Total Dissolved Solids Total Organic Carbon
Downgradient Wells			
None	Vinyl Chloride	Arsenic, Total pH Specific Conductivity Sulfate (MW-33A only)	Alkalinity, Bicarbonate Alkalinity, Total Ammonia (as N) Calcium, Dissolved Magnesium, Dissolved Sodium, Dissolved Specific Conductivity Sulfate Total Dissolved Solids

Table 6B. Summary of Trends in Groundwater (2005 - 2022)
2022 Annual Monitoring Report
Olympic View Sanitary Lanfill, Kitsap County, Washington

Results of Sen's Non-Parametric Test for Trend

Trend Test Period: January 2005 through December 2022

Trend Test Wells:

- Compliance Wells: MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43
- Performance Wells: MW-19C
- Downgradient Wells: MW-29A, MW-32, MW-33A, MW-33C, MW-36A
- Upgradient Wells* MW-13A, MW-13B, MW-16, MW-35

*trend status shown is based on most recent event with reported data, as shown

Trend Test A *= all organic parameters listed in Appendix I and Appendix II of WAC 173-351-990 that have been detected at least once in at least one of 16 wells comprising the network of 1) compliance, 2) performance, 3) downgradient, and 4) upgradient site monitoring wells, during the trend test period. This includes the following constituents:*

	Significant Increasing Trends	Significant Decreasing Trends
1,2-Dichloroethene (total)	None	None
1,2-Dichlorobenzene	None	None
1,4-Dichlorobenzene	None	None
2-Butanone (MEK)	None	None
Acetone	None	None
Carbon Disulfide	None	None
Chlorobenzene	None	None
Chlorodifluoromethane	None	None
Chloroform	None	None
Chloromethane	None	None
cis-1,2-dichloroethene	None	None
Dichlorodifluoromethane	None	None
Dichlorofluoromethane	None	None
Ethyl Ether	None	None
Methylene Chloride	None	None
Naphthalene	None	None
n-Butyl Alcohol	None	None
tert-Butyl Alcohol	None	None
Tetrahydrofuran	None	None
trans-1,2-Dichloroethene	None	None
Trichloroethene	None	MW-19C (graph 325)
Vinyl Chloride	None	MW-19C (graph 341) MW-32 (graph 343) MW-34C (graph 347)

Table 6B. Summary of Trends in Groundwater (2005 - 2022)
2022 Annual Monitoring Report
Olympic View Sanitary Lanfill, Kitsap County, Washington

Trend Test B *= all metals and groundwater quality parameters listed in Appendix I and Appendix II of WAC (173-351-990)*		
	Significant Increasing Trends	Significant Decreasing Trends
Alkalinity, bicarbonate (as CaCO3)	MW-13B (graph 2) MW-35 (graph 12)	MW-15R (graph 3) MW-34A (graph 10) MW-34C (graph 11) MW-36A (graph 13) MW-42 (graph 15)
Alkalinity, total (as CaCO3)	MW-13B (graph 18) MW-35 (graph 28)	MW-15R (graph 19) MW-34A (graph 26) MW-34C (graph 27) MW-36A (graph 29) MW-42 (graph 31)
Ammonia (as N)	None	MW-19C (graph 37) MW-29A (graph 38) MW-43 (graph 48)
Antimony, total	None	None
Arsenic, total	MW-33A (graph 72) MW-33C (graph 73) MW-42 (graph 79)	MW-19C (graph 69)
Barium, total	None	MW-15R (graph 83)
Beryllium, total	None	None
Cadmium, total	None	None
Calcium, dissolved	None	MW-15R (graph 131) MW-29A (graph 134) MW-32 (graph 135) MW-34A (graph 138) MW-34C (graph 139) MW-36A (graph 141)

Table 6B. Summary of Trends in Groundwater (2005 - 2022)
2022 Annual Monitoring Report
Olympic View Sanitary Lanfill, Kitsap County, Washington

Trend Test B *= all metals and groundwater quality parameters listed in Appendix I and Appendix II of WAC (173-351-990)*		
	Significant Increasing Trends	Significant Decreasing Trends
Chloride	MW-39 (graph 158)	MW-13B (graph 146) MW-15R (graph 147) MW-16 (graph 148) MW-19C (graph 149) MW-34A (graph 154) MW-34C (graph 155)
Chromium, total	None	None
Cobalt, total	None	None
Copper, total	None	None
Iron, total	None	None
Lead, total	None	None
Magnesium, dissolved	None	MW-15R (graph 243) MW-16 (graph 244) MW-33A (graph 248) MW-34A (graph 250) MW-34C (graph 251) MW-42 (graph 255)
Manganese, total	None	MW-15R (graph 259) MW-42 (graph 271)
Nickel, total	None	None
Nitrate (as N)	MW-35 (graph 300)	MW-13B (graph 290) MW-16 (graph 292)
pH	MW-32 (graph 311) MW-34C (graph 315) MW-42 (graph 319)	None
Potassium, dissolved	MW-42 (graph 335)	None
Selenium, total	None	None
Silver, total	None	None

Table 6B. Summary of Trends in Groundwater (2005 - 2022)
2022 Annual Monitoring Report
Olympic View Sanitary Lanfill, Kitsap County, Washington

Trend Test B *= all metals and groundwater quality parameters listed in Appendix I and Appendix II of WAC (173-351-990)*		
	Significant Increasing Trends	Significant Decreasing Trends
Sodium, dissolved	None	MW-15R (graph 371) MW-19C (graph 373) MW-32 (graph 375) MW-34A (graph 378) MW-34C (graph 379) MW-36A (graph 381) MW-42 (graph 383) MW-43 (graph 384)
Specific Conductivity	MW-13B (graph 386) MW-33C (graph 393) MW-35 (graph 396)	MW-15R (graph 387) MW-33A (graph 392) MW-34A (graph 394) MW-34C (graph 395)
Sulfate	MW-33A (graph 408)	MW-13A (graph 401) MW-13B (graph 402) MW-19C (graph 405) MW-32 (graph 407) MW-42 (graph 415)
Temperature	MW-34A (graph 426) MW-34C (graph 427)	None
Thallium, total	None	None
Total Dissolved Solids	None	MW-15R (graph 451) MW-32 (graph 455) MW-33A (graph 456) MW-34A (graph 458) MW-34C (graph 459)
Total Organic Carbon	None	MW-34C (graph 475)
Vanadium, total	None	None
Zinc, total	None	None

Table 7. November 2022 Prediction Limit Exceedances
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Well Type	Well Location	Date Sampled	Parameter	Units	Result	Prediction Limit
Compliance	MW-34A	11/16/2022	Zinc, total	mg/L	0.019	0.0056
	MW-34C	11/16/2022	Arsenic, total	ug/L	21.9	0.4792
		11/16/2022	Barium, total	mg/L	0.19	0.0045
		11/16/2022	Copper, total	mg/L	0.0025	0.0021
		11/16/2022	Iron, total	mg/L	44	0.31
		11/16/2022	Manganese, total	mg/L	3.4	0.11
		11/16/2022	Sodium, dissolved	mg/L	10	7.7
		11/16/2022	Specific conductivity	mS/cm	0.184	0.18
	MW-39	11/17/2022	Ammonia (as n)	mg/L	0.57	0.28
		11/17/2022	Arsenic, total	ug/L	1.98	0.4792
		11/17/2022	Barium, total	mg/L	0.014	0.0045
		11/17/2022	Chloride	mg/L	7.4	4.4
		11/17/2022	Cobalt, total	mg/L	0.0065	0.003
		11/17/2022	Iron, total	mg/L	33	0.31
		11/17/2022	Manganese, total	mg/L	0.46	0.11
		11/17/2022	Sodium, dissolved	mg/L	9	7.7
		11/17/2022	Specific conductivity	mS/cm	0.271	0.18
	MW-42	11/16/2022	Alkalinity, bicarbonate (as caco3)	mg/L	200	96
		11/16/2022	Alkalinity, total (as caco3)	mg/L	200	96
		11/16/2022	Arsenic, total	ug/L	2.18	0.4792
		11/16/2022	Barium, total	mg/L	0.095	0.0045
		11/16/2022	Calcium, dissolved	mg/L	36	18
		11/16/2022	Chloride	mg/L	6.6	4.4
		11/16/2022	Iron, total	mg/L	29	0.31
		11/16/2022	Magnesium, dissolved	mg/L	12	11.175
		11/16/2022	Manganese, total	mg/L	3.9	0.11
		11/16/2022	Potassium, dissolved	mg/L	7.4	1.4
		11/16/2022	Sodium, dissolved	mg/L	18	7.7
		11/16/2022	Specific conductivity	mS/cm	0.457	0.18
		11/16/2022	Total dissolved solids (tds)	mg/L	210	175
		11/16/2022	Total organic carbon (toc)	mg/L	8.2	6
	MW-43	11/16/2022	Barium, total	mg/L	0.0052	0.0045
		11/16/2022	Iron, total	mg/L	1.6	0.31
		11/16/2022	pH	pH Units	5.66	5.81 - 8.20

Table 7. November 2022 Prediction Limit Exceedances
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Well Type	Well Location	Date Sampled	Parameter	Units	Result	Prediction Limit
Downgradient	MW-29A	11/16/2022	Arsenic, total	ug/L	1.75	0.4792
		11/16/2022	Barium, total	mg/L	0.0066	0.0045
		11/16/2022	Iron, total	mg/L	3.7	0.31
		11/16/2022	Manganese, total	mg/L	1.2	0.11
	MW-32	11/17/2022	Alkalinity, bicarbonate (as caco3)	mg/L	130	96
		11/17/2022	Alkalinity, total (as caco3)	mg/L	130	96
		11/17/2022	Arsenic, total	ug/L	10.8	0.4792
		11/17/2022	Barium, total	mg/L	0.0059	0.0045
		11/17/2022	Calcium, dissolved	mg/L	23	18
		11/17/2022	Chloride	mg/L	6.6	4.4
		11/17/2022	Copper, total	mg/L	0.0046	0.0021
		11/17/2022	Iron, total	mg/L	0.67	0.31
		11/17/2022	Magnesium, dissolved	mg/L	12	11.175
		11/17/2022	Manganese, total	mg/L	2	0.11
		11/17/2022	Sodium, dissolved	mg/L	11	7.7
		11/17/2022	Specific conductivity	mS/cm	0.258	0.18
		11/17/2022	Sulfate	mg/L	11	9.9
	MW-33A	11/17/2022	Iron, total	mg/L	0.72	0.31
	MW-33C	11/17/2022	Arsenic, total	ug/L	4.31	0.4792
		11/17/2022	Manganese, total	mg/L	0.96	0.11

Notes:

Contents prepared by GeoChem Applications

deg C = degrees Celcius

CaCO3 = calcium carbonate

N = nitrogen

µg/L = micrograms per liter

mg/L = milligrams per liter

mS/cm = milliSiemens per centimeter

Table 8. 2022 Annual Groundwater Cleanup Level Statistical Evaluation Summary
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Statistical Methodology: calculation of 95% UCL of mean per MTCAStat
Data Input (general): 3-year "moving window", updated annually
Data Input (specific): January 1, 2020 through December 31, 2022
Wells Evaluated: (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-29A, MW-32, MW-33A, MW-33C, MW-36A

Monitoring Well Type	Monitoring Well	Corrective Action Monitoring Parameter	N[1]	% Detect	Max[2]	95% UCL of Mean[3]	Units[4]	Note	Groundwater Cleanup Level[5]	Units[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend?[6]
Compliance	MW-15R	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-15R	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-15R	Arsenic, total	6	100%	0.257	0.243	ug/L	LN	4.27	ug/L	No	No
	MW-15R	Iron, total	6	0%	0.06 (ND)	0.06	mg/L	B	1.90	mg/L	No	No
	MW-15R	Manganese, total	6	100%	0.0026	0.003	mg/L	LN	0.73	mg/L	No	Yes (▼)
	MW-15R	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-15R	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-15R	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-15R	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
	MW-15R	Ammonia as N	6	0%	0.03 (ND)	0.03	mg/L	B	0.19	mg/L	No	No
	MW-34A	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-34A	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-34A	Arsenic, total	6	100%	0.522	0.511	ug/L	LN	4.27	ug/L	No	No
	MW-34A	Iron, total	6	33%	0.11	0.11	mg/L	A	1.90	mg/L	No	No
	MW-34A	Manganese, total	6	50.0%	0.0028	0.003	mg/L	A	0.73	mg/L	No	No
	MW-34A	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-34A	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-34A	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-34A	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
	MW-34A	Ammonia as N	6	0.0%	0.03 (ND)	0.030	mg/L	B	0.19	mg/L	No	No
	MW-34C	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-34C	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-34C	Arsenic, total	6	100%	25.8	17.9	ug/L	Z	4.27	ug/L	Yes	No
	MW-34C	Iron, total	6	100%	46	46.0	mg/L	A**	1.90	mg/L	Yes	No
	MW-34C	Manganese, total	6	100%	4.8	14.3	mg/L	LN	0.73	mg/L	Yes	No
	MW-34C	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-34C	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-34C	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-34C	Vinyl Chloride	6	67%	0.033	0.03	ug/L	A	0.20	ug/L	No	Yes (▼)
	MW-34C	Ammonia as N	6	16.7%	0.036	0.036	mg/L	A	0.19	mg/L	No	No

Table 8. 2022 Annual Groundwater Cleanup Level Statistical Evaluation Summary
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Monitoring Well Type	Monitoring Well	Corrective Action Monitoring Parameter	N[1]	% Detect	Max[2]	95% UCL of Mean[3]	Units[4]	Note	Groundwater Cleanup Level[5]	Units[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend?[6]
Compliance	MW-39	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-39	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-39	Arsenic, total	6	100%	2.68	2.47	ug/L	Z	4.27	ug/L	No	No
	MW-39	Iron, total	6	100%	43	41.4	mg/L	Z	1.90	mg/L	Yes	No
	MW-39	Manganese, total	6	100%	0.49	0.51	mg/L	Z	0.73	mg/L	No	No
	MW-39	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-39	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-39	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-39	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
	MW-39	Ammonia as N	6	83%	0.94	0.94	mg/L	A**	0.19	mg/L	Yes	No
	MW-42	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-42	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-42	Arsenic, total	6	100%	2.18	2.02	ug/L	LN	4.27	ug/L	No	Yes (▲)
	MW-42	Iron, total	6	100%	29	27.5	mg/L	LN	1.90	mg/L	Yes	No
	MW-42	Manganese, total	6	100%	4.1	4.0	mg/L	Z	0.73	mg/L	Yes	Yes (▼)
	MW-42	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-42	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-42	Trichloroethene	6	0.0%	0.46 (ND)	0.47	ug/L	A	1.0	ug/L	No	No
	MW-42	Vinyl Chloride	6	83.3%	0.1	0.08	ug/L	N	0.20	ug/L	No	No
	MW-42	Ammonia as N	6	100%	7.3	5.3	mg/L	Z	0.19	mg/L	Yes	No
	MW-43	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-43	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-43	Arsenic, total	6	100.0%	0.157	0.103	ug/L	Z	4.27	ug/L	No	No
	MW-43	Iron, total	6	83%	6.6	6.6	mg/L	A**	1.90	mg/L	Yes	No
	MW-43	Manganese, total	6	100%	0.14	0.27	mg/L	LN	0.73	mg/L	No	No
	MW-43	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-43	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-43	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-43	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
	MW-43	Ammonia as N	6	0.0%	0.03 (ND)	0.030	mg/L	B	0.19	mg/L	No	Yes (▼)

Table 8. 2022 Annual Groundwater Cleanup Level Statistical Evaluation Summary
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Monitoring Well Type	Monitoring Well	Corrective Action Monitoring Parameter	N[1]	% Detect	Max[2]	95% UCL of Mean[3]	Units[4]	Note	Groundwater Cleanup Level[5]	Units[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend?[6]
Downgradient	MW-29A	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-29A	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-29A	Arsenic, total	6	100%	2.11	2.00	ug/L	Z	4.27	ug/L	No	No
	MW-29A	Iron, total	6	100%	4.5	4.50	mg/L	Z	1.90	mg/L	Yes	No
	MW-29A	Manganese, total	6	100%	1.5	1.47	mg/L	Z	0.73	mg/L	Yes	No
	MW-29A	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-29A	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-29A	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-29A	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
	MW-29A	Ammonia as N	6	100%	0.15	0.12	mg/L	Z	0.19	mg/L	No	Yes (▼)
	MW-32	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-32	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-32	Arsenic, total	6	100%	11.4	11.1	ug/L	LN	4.27	ug/L	Yes	No
	MW-32	Iron, total	6	100%	1.10	0.94	mg/L	LN	1.90	mg/L	No	No
	MW-32	Manganese, total	6	100%	2.6	2.2	mg/L	Z	0.73	mg/L	Yes	No
	MW-32	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-32	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-32	Trichloroethene	6	66.7%	0.54	0.54	ug/L	A	1.0	ug/L	No	No
	MW-32	Vinyl Chloride	6	100%	0.32	0.30	ug/L	LN	0.20	ug/L	Yes	Yes (▼)
	MW-32	Ammonia as N	6	100.0%	0.09	0.08	mg/L	LN	0.19	mg/L	No	No
	MW-33A	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-33A	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-33A	Arsenic, total	6	100%	1.570	0.968	ug/L	Z	4.27	ug/L	No	Yes (▲)
	MW-33A	Iron, total	6	100%	5.1	4.5	mg/L	N	1.90	mg/L	Yes	No
	MW-33A	Manganese, total	6	100%	0.099	0.080	mg/L	Z	0.73	mg/L	No	No
	MW-33A	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-33A	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-33A	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-33A	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
	MW-33A	Ammonia as N	6	67%	0.38	0.26	mg/L	N	0.19	mg/L	Yes	No

Table 8. 2022 Annual Groundwater Cleanup Level Statistical Evaluation Summary
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Monitoring Well Type	Monitoring Well	Corrective Action Monitoring Parameter	N[1]	% Detect	Max[2]	95% UCL of Mean[3]	Units[4]	Note	Groundwater Cleanup Level[5]	Units[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend?[6]
Downgradient	MW-33C	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-33C	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-33C	Arsenic, total	6	100%	4.31	3.50	ug/L	Z	4.27	ug/L	No	Yes (▲)
	MW-33C	Iron, total	6	100%	0.77	2.20	mg/L	LN	1.9	mg/L	Yes	No
	MW-33C	Manganese, total	6	100%	0.96	0.99	mg/L	Z	0.73	mg/L	Yes	No
	MW-33C	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-33C	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-33C	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-33C	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
	MW-33C	Ammonia as N	6	0%	0.03 (ND)	0.03	mg/L	B	0.19	mg/L	No	No
	MW-36A	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
	MW-36A	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
	MW-36A	Arsenic, total	6	100%	0.667	0.614	ug/L	LN	4.27	ug/L	No	No
	MW-36A	Iron, total	6	33%	0.17	0.17	mg/L	A	1.9	mg/L	No	No
	MW-36A	Manganese, total	6	33%	0.0014	0.001	mg/L	A	0.73	mg/L	No	No
	MW-36A	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
	MW-36A	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
	MW-36A	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
	MW-36A	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
	MW-36A	Ammonia as N	6	0%	0.03 (ND)	0.030	mg/L	B	0.19	mg/L	No	No

NOTES:

[1] N = number of data points used for UCL calculation of the mean; only SIM results used for Vinyl Chloride (e.g., duplicate results with higher RLs by non-SIM were omitted).

[2] MAX = maximum detected result in the data set; if no detected results, then = maximum reporting limit for non-detect results (indicated with ND).

[3] A 3-year moving data set is used for calculation of the UCL.

[4] ug/L - micrograms per liter; mg/L = milligrams per liter.

[5] Groundwater Cleanup Levels are listed on Table 3 of the October 2010 Draft CAP; and for As, Fe, Mn and Ammonia-N from the July 15, 2021 Ecology letter approving GQS.

[6] Trend analysis results are based on data for the period January 2005 through December 2022; arrows indicated increasing or decreasing trends.

A = Detection frequency of data set too low and/or N too few to calculate 95% UCL of mean; therefore, the highest detected result in the data set used to represent 95% UCL of mean.

A* = Same as note "A" except that the highest value in the data set is below the reporting limit of one or more non-detected results; therefore, the highest reporting limit is used to represent the 95% UCL of the r

A** = MTCAStat suggests use of lognormal formula but calculation of 95% UCL of mean by Land's formula provides unrealistic result; therefore, the highest detected result is used to represent the 95% UCL of the

A*** = MTCAStat suggests use of the Z-score method but then cites inability to calculate due to presence of censored values; therefore, the highest detected result is used to represent the 95% UCL of the mean

B = Detection frequency = 0; therefore, the highest reporting limit in the data set is used to represent the 95% UCL of mean.

LN = The 95% UCL of the mean is calculated using Land's formula since lognormal distribution is indicated.

N = The 95% UCL of the mean is calculated using a normal-based t-statistic since a normal distribution is indicated.

Z = the 95% UCL of the mean is calculated using the Z-score method in MTCAStat since neither normal nor lognormal distribution can be determined.

Table 9. Groundwater Quality Criteria and Site-Specific Cleanup Level Exceedances
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Comparison Criteria			Field Parameters		General Chemistry				VOCs
			pH (SU)	Specific Conductivity	Ammonia (mg N/L)	Arsenic, Total (µg/L)	Iron, Total (mg/L)	Manganese, Total (mg/L)	Vinyl Chloride (µg/L)
		WAC 173-200	6.5< >8.5	--	0.19*	4.27*	1.9*	0.73*	0.02
		Primary Federal MCL	--	--	--	10	--	--	2
		Secondary Federal MCL	6.5< >8.5	700	--	--	0.3	0.05	--
		Site-specific MTCA Cleanup Levels	--	--	0.19	0.462	--	--	0.2
Well, Location, and Sample Events									
Upgradient	MW-13A	SA #1	--	--	NA	NA	NA	NA	NA
		SA #2	--	--	--	--	--	--	--
	MW-13B	SA #1	--	--	NA	NA	NA	NA	NA
		SA #2	--	--	--	--	--	--	--
	MW-16	SA #1	6.39	--	NA	NA	NA	NA	NA
		SA #2	--	--	--	--	--	--	--
	MW-35	SA #1	--	--	NA	NA	NA	NA	NA
		SA #2	--	--	--	--	--	--	--
	MW-19C	SA #1	--	--	0.85	3.04	0.48	0.96	--
		SA #2	--	--	0.50	3.06	0.39	1.1	--
Compliance Monitoring	MW-15R	SA #1	--	--	--	--	--	--	--
		SA #2	--	--	--	--	--	--	--
	MW-34A	SA #1	6.15	--	--	0.508	--	--	--
		SA #2	6.21	--	--	--	--	--	--
	MW-34C	SA #1	--	--	--	2.52	5.8	0.6	0.033
		SA #2	--	--	--	21.9	44	3.4	--
	MW-39	SA #1	6.22	--	0.94	2.68	35	0.45	--
		SA #2	6.31	--	0.57	1.98	33	0.46	--
	MW-42	SA #1	--	--	3.9	1.81	25	3.7	0.052
		SA #2	6.49	--	3.7	2.18	29	3.9	--
	MW-43	SA #1	5.80	--	--	--	6.6	0.14	--
		SA #2	5.66	--	--	--	1.6	0.07	--
Downgradient	MW-29A	SA #1	6.07	--	--	1.87	4.4	1.3	--
		SA #2	6.05	--	--	1.75	3.7	1.2	--
	MW-32	SA #1	--	--	--	11.4	1.1	1.8	0.28
		SA #2	--	--	--	10.8	0.67	2.0	--
	MW-33A	SA #1	6.15	--	0.38	0.609	5.1	--	--
		SA #2	--	--	--		0.72	0.080	--
	MW-33C	SA #1	--	--	--	2.83	0.63	0.41	--
		SA #2	--	--	--	4.31	--	0.96	--
	MW-36A	SA #1	6.18	--	--	0.682	--	--	--
		SA #2	6.35	--	--	0.492	--	--	--

Notes:

SA #1 = Semi-annual Event No. 1
SA #2 = Semi-annual Event No. 2
mg N/L = miligrams of Nitrogen per liter
mg/L = milligrams per liter
SU = standard units
µg/L = micrograms per liter
B = estimated value due to potential blank contribution
* = Updated site specific groundwater protection standards based on Ecology's recommendations (7/15/21)
NA = upgradient monitoring wells were only sampled for Appendix II field parameters during Semi-annual No. 1 Event

0.00141 = exceeds Site-specific MTCA Cleanup Levels
0.035 = exceeds WAC 173-200 Groundwater Quality Criteria
0.51 = exceeds Federal MCL criteria
0.49 = exceeds Site-specific MTCA Cleanup Levels and WAC 173-200 Criteria
6.44 = exceeds Federal MCL and WAC 173-200 Groundwater Quality Criteria
0.0014 = exceeds Federal MCLs, Site-specific MTCA Cleanup Levels, and WAC 173-200 Criteria

Table 10. Cumulative 2022 Leak Detection System Volumes
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Date	Total Volume (Gals)	Comments
1/31/2022	400	Pumped dry.
2/28/2022	450	Pumped dry.
3/31/2022	225	Pumped dry.
4/30/2022	200	Pumped dry.
5/31/2022	0	LP-LCD sample collected on May 11, 2022.
6/30/2022	250	Pumped dry.
7/31/2022	230	Pumped dry.
8/31/2022	175	Pumped dry.
9/30/2022	100	Pumped dry.
10/31/2022	300	Pumped dry.
11/30/2022	40	LP-LCD sample collected on November 17, 2022.
12/31/2022	75	Pumped dry.
TOTAL	**2,445**	**Volume for period between 1/1/22 through 12/31/2022.**

Notes:

Table 11A. Landfill Gas Measurement Results - September 2022
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County Washington

Waste Management Incorporated

Location Reference Designation	Date	Time	Instrument Readings: Pressure (in H_2O)	CH_4 (% vol.)	CO_2 (% vol.)	O_2 (% vol.)	Comments: CH_4 Spike *Note 1* (% vol.)	CO_2 Spike *Note 1* (% vol.)	Depth to Water TOP (ft)	Exposed Portion of Perforations (*Note 2*) (ft)	(%)	Other
Subsurface Landfill Gas Detection Wells (Gas Probes):												
GP-7	9/29/22	12:19	-0.03	0.00	10.90	8.00			15.25	4.65	93.0%	
GP-8	9/29/22	11:58	0.02	0.00	5.50	11.20			17.50	4.70	94.0%	
GP-9S	9/29/22	15:41	0.03	0.00	1.70	20.20						
GP-9D	9/29/22	15:55	0.01	0.00	1.40	19.70			29.99	3.69	73.8%	
GP-10S	9/29/22	15:14	0.00	0.00	0.70	20.30						
GP-10D	9/29/22	15:24	-0.04	0.00	0.60	19.60			0.00	5.00	100.0%	
GP-11S	9/29/22	14:53	-0.04	0.00	2.50	18.10						
GP-11D	9/29/22	15:03	0.00	0.00	2.10	18.20			27.75	2.45	49.0%	
GP-12S	9/29/22	14:16	-0.03	0.00	1.20	19.70						
GP-12M	9/29/22	14:24	0.01	0.00	1.10	19.50						
GP-12D	9/29/22	14:40	0.01	0.00	1.40	14.80			49.94	4.54	90.8%	
GP-13S	9/29/22	13:25	0.01	0.00	4.20	17.30						
GP-13M	9/29/22	13:34	-0.16	0.00	4.10	15.80						
GP-13D	9/29/22	13:51	-0.18	0.00	1.80	18.50			50.51	5.31	53.1%	
GP-14	9/29/22	13:04	-0.02	0.00	0.20	20.60			0.00	0.00	0.0%	
GP-15	9/29/22	13:11	0.00	0.00	7.40	8.00			0.00	0.00	0.0%	
GP-16	9/29/22	12:51	-0.04	0.00	9.70	4.40			14.80	4.60	92.0%	
Onsite Building Interiors:												
SH-SS	9/29/22	13:57	--	0.00	0.10	20.70						
SH-NS	9/29/22	14:00	--	0.00	0.10	20.70						
SH-IN	9/29/22	14:05	--	0.00	0.10	20.70						
SS-WH	9/29/22	15:30	--	0.00	0.00	21.20						
EL-SH	9/29/22	12:06	--	0.00	0.10	20.80						
TL-OF	9/29/22	11:43	--	0.00	0.10	20.50						

Weather Conditions

Monitoring Date:	9/29/2022	Sky Cover:	Cloudy
Monitored By:	P. Bannister (Aspect)	Wind/Rain/Snow:	0
Instrument:	GEM 2NAV	Temperature (°F):	56
Calibration Date:	9/29/2022	Preceding 24-hr Barometric Trend:	Steady

Notes:
1. Measurement for spike concentrations of CH4 and CO2 are recorded if observed during sampling.
2. Exposed perforations = perforated pipe section not submerged by water.
3. Readings not reported: Screened interval completely submerged.

CH_4 = Methane	SH-SS = Scale House - South Side Exterior	Depressed O2 < 20.3% vol.
CO_2 = Carbon Dioxide	SH-NS = Scale House - North Side Exterior	Detected CO2 > 0.3 % vol.
O_2 = Oxygen	SH-IN = Scale House - Office Interior	Detected CH4 > 0.3 % vol.
GP = Gas Probe	SS-WH = South Slope Well House	
S = Shallow Monitoring Zone	EL-SH = Electrical Shed	
M = Middle Monitoring Zone	TL-OF = Office	
D = Deep Monitoring Zone	-- = Measurements not taken	
TOP = From Top of Pipe	NA = Not Applicable	

Table 11B. Landfill Gas Measurement Results - Fourth Quarter 2022
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County Washington

Waste Management Incorporated

	Instrument Readings						Comments					
Location Reference Designation	Date	Time	Pressure (in H_2O)	CH_4 (% vol.)	CO_2 (% vol.)	O_2 (% vol.)	CH_4 Spike *Note 1* (% vol.)	CO_2 Spike *Note 1* (% vol.)	Depth to Water TOP (ft)	Exposed Portion of Perforations (*Note 2*) (ft)	(%)	Other
Subsurface Landfill Gas Detection Wells (Gas Probes):												
GP-7	11/17/22	9:13	0.00	0.00	9.80	9.20			15.27	4.67	93.4%	
GP-8	11/17/22	8:49	0.01	0.00	6.30	10.50			17.52	4.72	94.4%	
GP-9S	11/17/22	12:26	0.02	0.00	1.50	19.50						
GP-9D	11/17/22	12:36	0.02	0.00	1.50	19.70			31.04	4.74	94.8%	
GP-10S	11/17/22	11:59	0.03	0.00	0.70	20.00						
GP-10D	11/17/22	12:09	-0.02	0.00	0.70	19.30			0.00	0.00	0.0%	
GP-11S	11/17/22	11:39	0.00	0.00	2.20	18.90						
GP-11D	11/17/22	11:49	0.01	0.00	2.40	18.90			28.08	2.78	55.6%	
GP-12S	11/17/22	11:04	-0.07	0.00	0.90	20.70						
GP-12M	11/17/22	11:13	-0.02	0.00	0.90	20.40						
GP-12D	11/17/22	11:28	-0.07	0.00	0.90	20.70			50.02	4.62	92.4%	
GP-13S	11/17/22	10:16	-0.04	0.00	4.50	17.60						
GP-13M	11/17/22	10:25	-0.30	0.00	4.50	16.70						
GP-13D	11/17/22	10:41	-0.23	0.00	1.70	19.50			51.60	6.40	64.0%	
GP-14	11/17/22	10:03	-0.03	0.00	7.50	9.50			0.00	0.00	0.0%	
GP-15	11/17/22	9:44	-0.04	2.10	10.20	0.00			14.96	4.56	91.2%	
GP-16	11/17/22	9:30	-0.02	0.00	2.50	19.50			14.91	4.71	94.2%	
Onsite Building Interiors:												
SH-SS	11/17/22	10:47	--	0.00	0.10	21.40						
SH-NS	11/17/22	10:51	--	0.00	0.10	21.40						
SH-IN	11/17/22	10:54	--	0.00	0.10	21.50						
SS-WH	11/17/22	12:16	--	0.00	0.10	20.80						
EL-SH	11/17/22	9:01	--	0.00	0.10	22.00						
TL-OF	11/17/22	8:55	--	0.00	0.10	21.90						

Weather Conditions

Monitoring Date:	11/17/22	Sky Cover:	Clear
Monitored By:	P. Bannister (Aspect)	Wind/Rain/Snow:	0
Instrument:	GEM 2NAV	Temperature (°F):	44
Calibration Date:	11/17/22	Preceding 24-hr Barometric Trend:	Increasing

Notes:
1. Measurement for spike concentrations of CH4 and CO2 are recorded if observed during sampling.
2. Exposed perforations = perforated pipe section not submerged by water.
3. Readings not reported: Screened interval completely submerged.

CH_4 = Methane	SH-SS = Scale House - South Side Exterior	Depressed O2 < 20.3% vol.
CO_2 = Carbon Dioxide	SH-NS = Scale House - North Side Exterior	Detected CO2 > 0.3 % vol.
O_2 = Oxygen	SH-IN = Scale House - Office Interior	Detected CH4 > 0.3 % vol.
GP = Gas Probe	SS-WH = South Slope Well House	
S = Shallow Monitoring Zone	EL-SH = Electrical Shed	
M = Middle Monitoring Zone	TL-OF = Office	
D = Deep Monitoring Zone	-- = Measurements not taken	
TOP = From Top of Pipe	NA = Not Applicable	

Table 12. Landfill Gas Monitoring Results - 2022
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Location	Date	Pressure (in. H_2O)	CH4 (% vol.)	CO2 (% vol.)	O2 (% vol.)
GP-7	3/29/2022	-0.01	0.0	4.7	6.0
	7/11/2022	0.00	0.0	7.4	3.8
	9/29/2022	-0.03	0.0	10.9	8.0
	11/17/2022	0.00	0.0	9.8	9.2
GP-8	3/29/2022	1.72	0.0	2.7	20.9
	7/11/2022	0.01	0.0	3.8	8.0
	9/29/2022	0.02	0.0	5.5	11.2
	11/17/2022	0.01	0.0	6.3	10.5
GP-9S	3/29/2022	0.03	0.0	1.8	19.2
	7/11/2022	-0.01	0.0	2.5	17.8
	9/29/2022	0.04	0.0	1.8	20.2
	11/17/2022	0.02	0.0	1.5	19.5
GP-9D	3/29/2022	0.00	0.0	0.1	21.1
	7/11/2022	-0.01	0.0	1.3	18.3
	9/29/2022	0.01	0.0	1.4	19.7
	11/17/2022	0.02	0.0	1.5	19.7
GP-10S	3/29/2022	0.00	0.0	0.7	18.8
	7/11/2022	0.2	0.0	0.4	19.1
	9/29/2022	-0.04	0.0	0.6	19.6
	11/17/2022	-0.02	0.0	0.7	19.3
GP-10D	3/29/2022	0.00	0.0	0.7	20.5
	7/11/2022	0.02	0.0	0.6	19.8
	9/29/2022	0.00	0.0	0.7	20.3
	11/17/2022	0.03	0.0	0.7	20.0
GP-11S	3/29/2022	-0.04	0.0	1.7	18.3
	7/11/2022	0.87	0.0	1.0	17.9
	9/29/2022	0.00	0.0	2.1	18.2
	11/17/2022	0.01	0.0	2.4	18.9
GP-11D	3/29/2022	0.02	0.0	2.5	18.7
	7/11/2022	0.07	0.0	2.8	17.5
	9/29/2022	-0.04	0.0	2.5	18.1
	11/17/2022	0.00	0.0	2.2	18.9
GP-12S	3/29/2022	-0.02	0.0	0.1	21.1
	7/11/2022	-0.41	0.0	0.5	18.8
	9/29/2022	0.01	0.0	1.4	14.8
	11/17/2022	-0.06	0.0	1.7	16.8
GP-12M	3/29/2022	0.01	0.0	0.1	21.1
	7/11/2022	0.05	0.0	1.3	19.2
	9/29/2022	0.01	0.0	1.1	19.5
	11/17/2022	-0.02	0.0	0.9	20.4
GP-12D	3/29/2022	0.00	0.0	1.1	20.3
	7/11/2022	0.13	0.0	1.2	18.4
	9/29/2022	-0.03	0.0	1.2	19.7
	11/17/2022	-0.07	0.0	0.9	20.7

Table 12. Landfill Gas Monitoring Results - 2022
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Location	Date	Pressure (in. H_2O)	CH4 (% vol.)	CO2 (% vol.)	O2 (% vol.)
GP-13S	3/29/2022	0.00	0.0	0.1	21.1
	7/11/2022	0.42	0.0	3.1	16.8
	9/29/2022	-0.18	0.0	1.8	18.5
	11/17/2022	-0.23	0.0	1.7	19.5
GP-13M	3/29/2022	-0.02	0.0	3.5	16.6
	7/11/2022	0.34	0.0	3.2	16.0
	9/29/2022	-0.16	0.0	4.1	15.8
	11/17/2022	-0.30	0.0	4.5	16.7
GP-13D	3/29/2022	0.01	0.0	4.5	16.2
	7/11/2022	0.10	0.0	4.5	15.1
	9/29/2022	0.01	0.0	4.2	17.3
	11/17/2022	-0.04	0.0	4.5	17.6
GP-14	3/29/2022	0.00	0.0	4.0	7.6
	7/11/2022	1.39	0.0	4.7	5.2
	9/29/2022	0.00	0.0	7.4	20.6
	11/17/2022	-0.03	0.0	7.5	9.5
GP-15	3/29/2022	0.01	0.0	0.1	21.2
	7/11/2022	-1.53	0.0	5.5	5.6
	9/29/2022	-0.04	0.0	9.7	4.4
	11/17/2022	-0.04	2.1	10.2	0.0
GP-16	3/29/2022	0.01	0.0	2.0	18.6
	7/11/2022	0.05	0.0	4.0	16.5
	9/29/2022	0.01	0.0	2.5	19.2
	11/17/2022	-0.02	0.0	2.5	19.5

Notes:

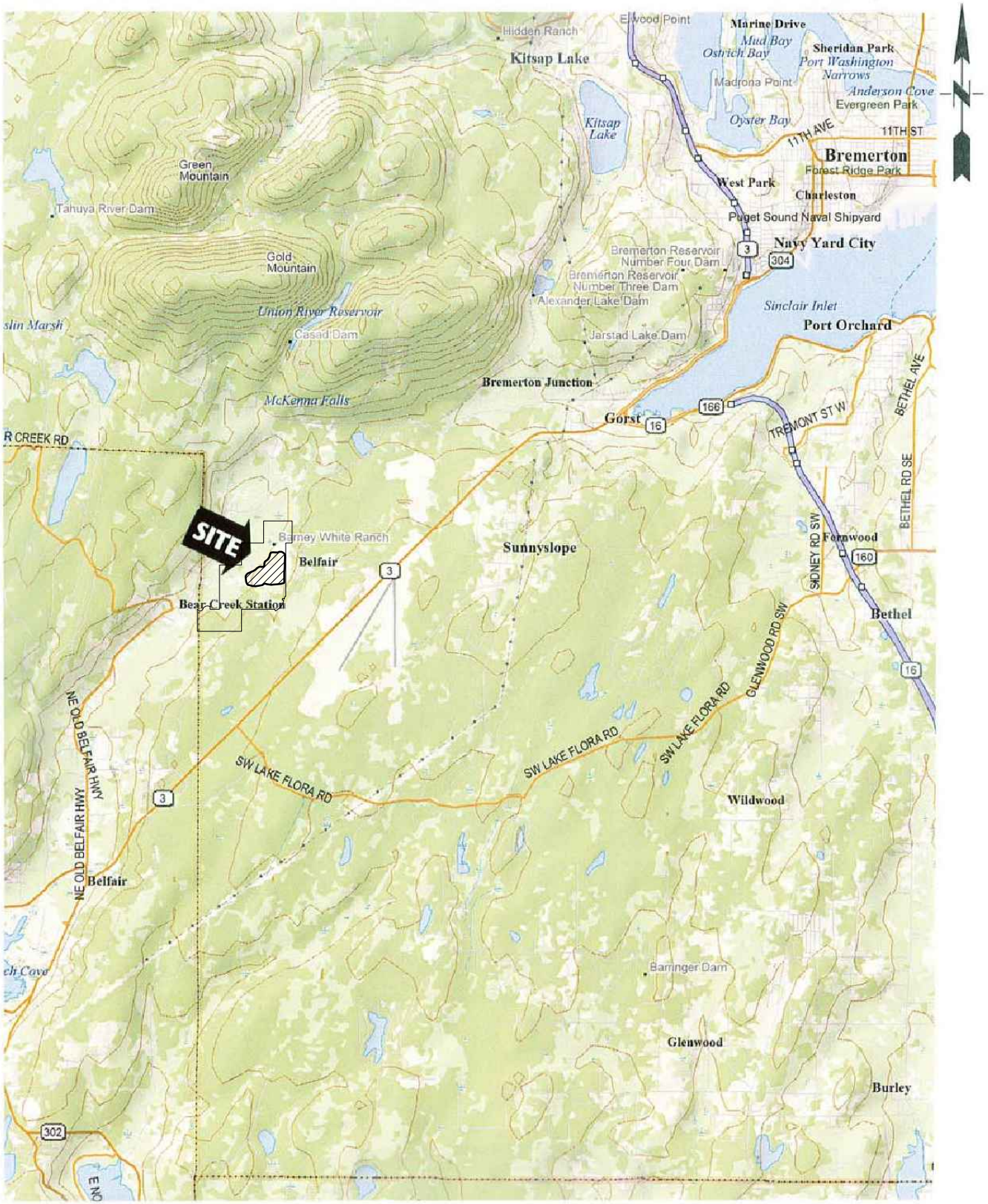
CH4 = Methane

CO2 = Carbon dioxide

O2 = Oxygen

-- = Screened portion of well completely submerged in water. Readings not valid.

Figures



SCS ENGINEERS
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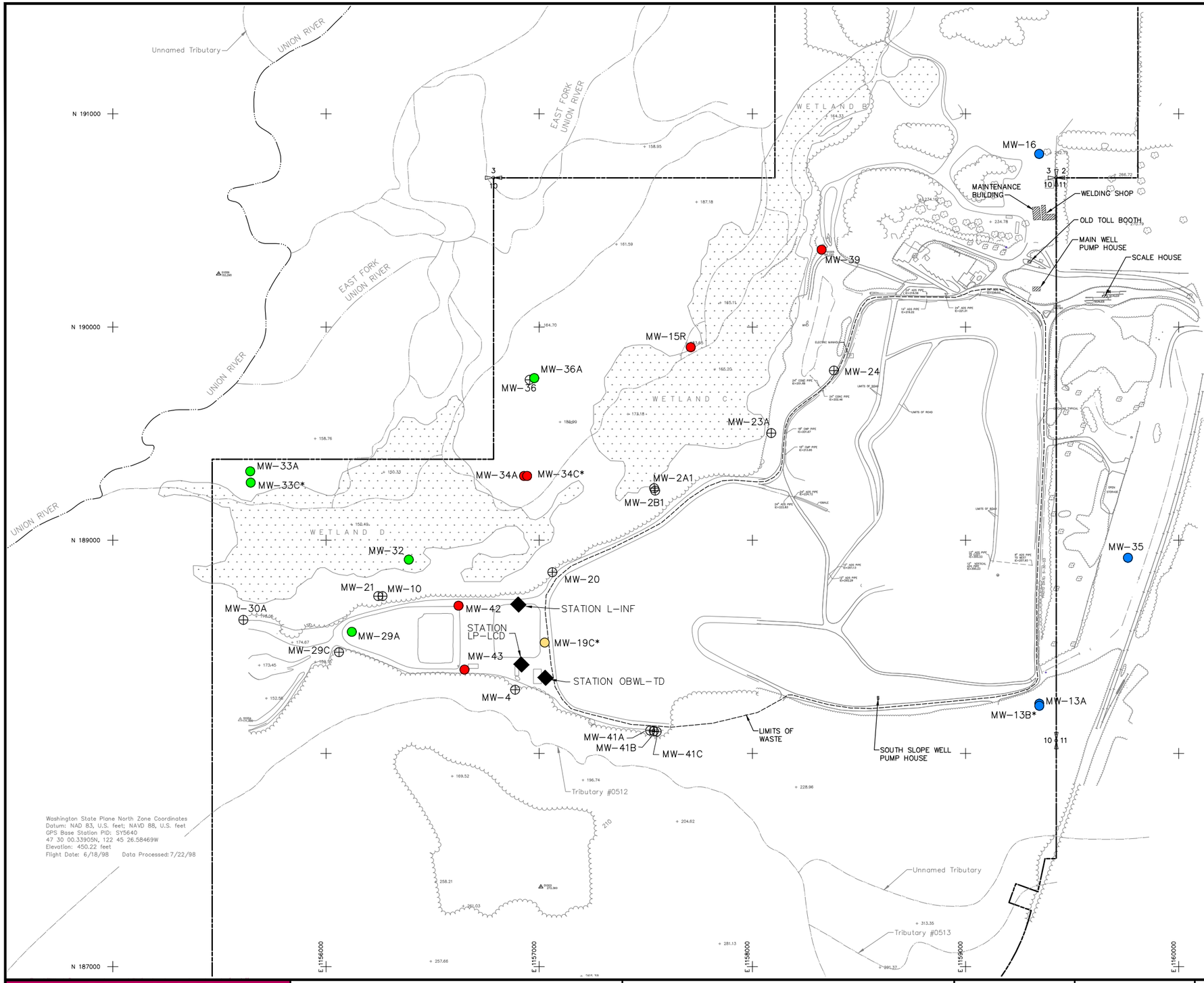
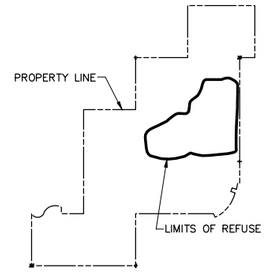
PROJECT NO. 04204027.26	DES BY J.E.	SITE LOCATION MAP	DATE FEBRUARY 2023
SCALE 1:100,000	CHK BY D.V.	OLYMPIC VIEW SANITARY LANDFILL KITSAP COUNTY, WASHINGTON	FIGURE 1
CAD FILE FIGURE 1	APP BY G.H.		





KEY MAP

LEGEND

MW-35	UPGRADIENT (BACKGROUND) GROUNDWATER MONITORING WELL
MW-32	DOWNGRADIENT GROUNDWATER MONITORING WELL
MW-19C	PERFORMANCE GROUNDWATER MONITORING WELL
MW-43	COMPLIANCE GROUNDWATER MONITORING WELL
MW-10	GROUNDWATER MONITORING WELL (WATER LEVEL ONLY)
MW-32	SHALLOW MONITORING WELL
*	DEEP MONITORING WELL
L-INF	LEACHATE MONITORING STATION
	PROPERTY LINE (ASSUMED)

200 0 200 400
SCALE IN FEET

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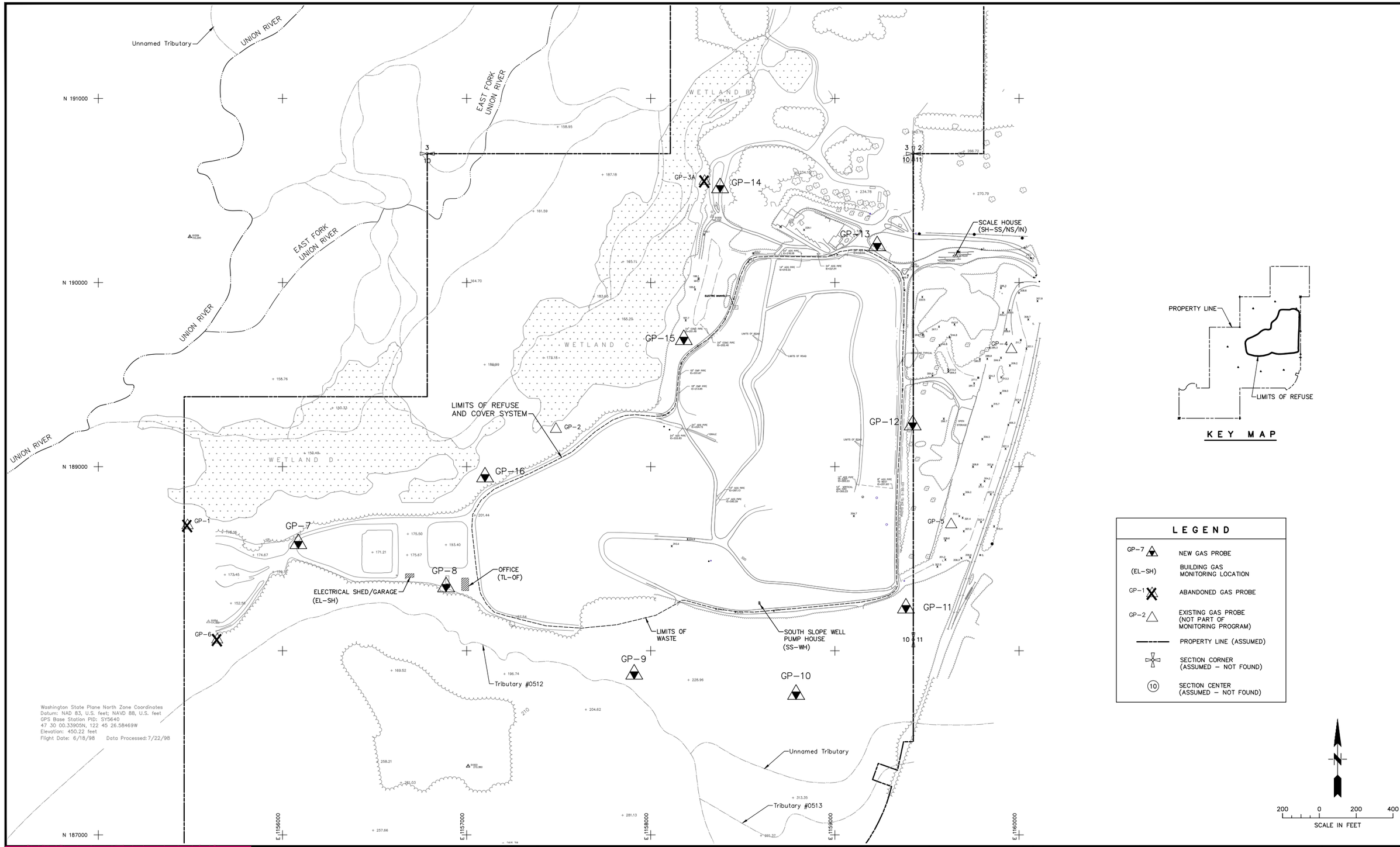
PROJECT NO. 04204027.26	DES BY J.E.	GROUNDWATER MONITORING WELL NETWORK AND LEACHATE MONITORING LOCATIONS	DATE FEBRUARY 2023
SCALE AS SHOWN	CHK BY D.V.	OLYMPIC VIEW SANITARY LANDFILL KITSAP COUNTY, WASHINGTON	FIGURE 2
CAD FILE FIGURE 2	APP BY G.H.		



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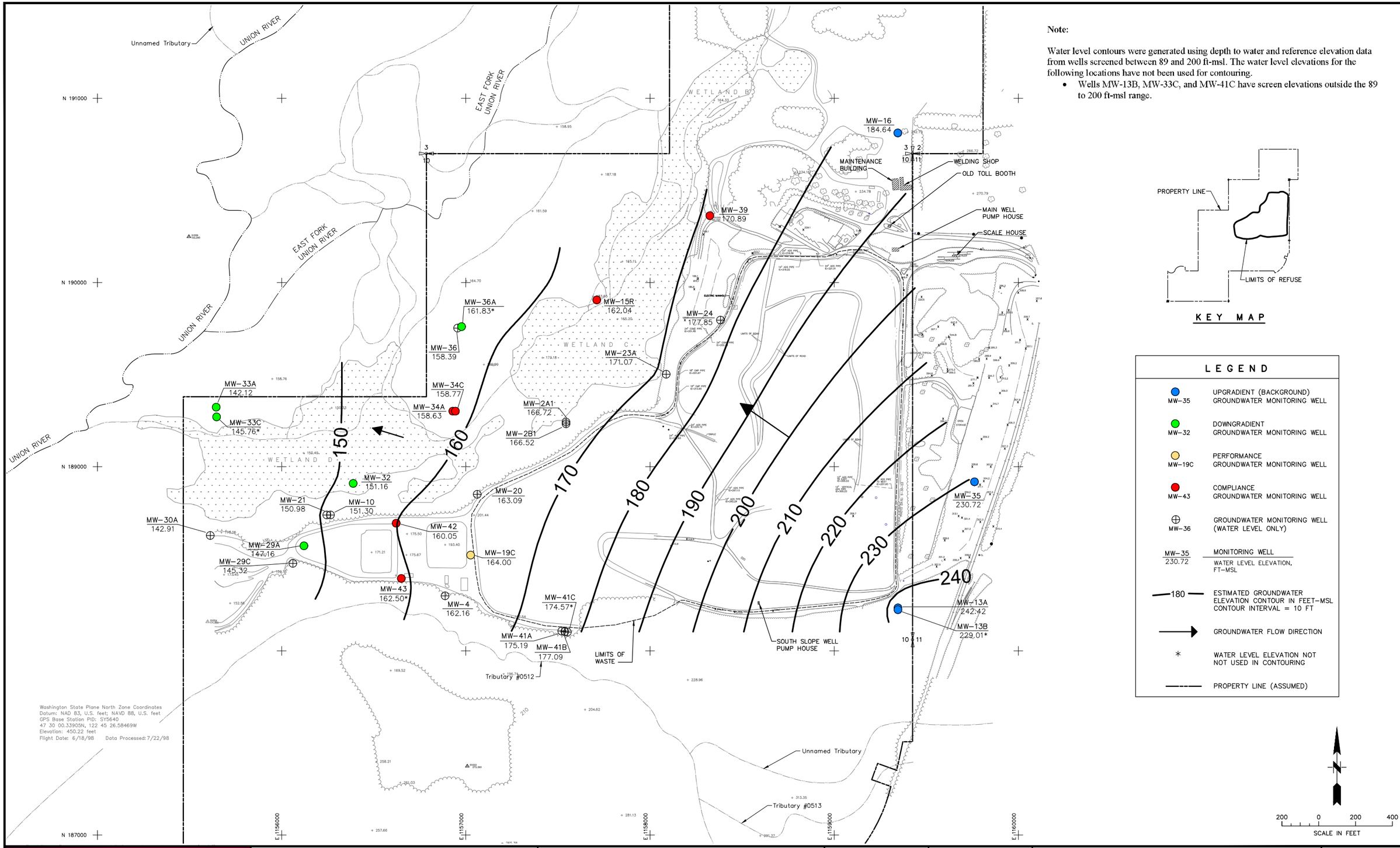
PROJECT NO. 04204027.26	DES BY T.M.	SUBSURFACE GAS MIGRATION MONITORING PROBES AND BUILDING MONITORING LOCATIONS	DATE FEBRUARY 2023
SCALE AS SHOWN	CHK BY D.V.	OLYMPIC VIEW SANITARY LANDFILL PORT ORCHARD, WASHINGTON	FIGURE 3
CAD FILE FIGURE 3	APP BY G.H.		

Note:

Water level contours were generated using depth to water and reference elevation data from wells screened between 89 and 200 ft-msl. The water level elevations for the following locations have not been used for contouring.

- Wells MW-13B, MW-33C, and MW-41C have screen elevations outside the 89 to 200 ft-msl range.



KEY MAP

LEGEND

MW-35	UPGRADIENT (BACKGROUND) GROUNDWATER MONITORING WELL
MW-32	DOWNGRADIENT GROUNDWATER MONITORING WELL
MW-19C	PERFORMANCE GROUNDWATER MONITORING WELL
MW-43	COMPLIANCE GROUNDWATER MONITORING WELL
MW-36	GROUNDWATER MONITORING WELL (WATER LEVEL ONLY)
MW-35 / 230.72	MONITORING WELL — WATER LEVEL ELEVATION, FT-MSL
180	ESTIMATED GROUNDWATER ELEVATION CONTOUR IN FEET-MSL CONTOUR INTERVAL = 10 FT
→	GROUNDWATER FLOW DIRECTION
*	WATER LEVEL ELEVATION NOT NOT USED IN CONTOURING
———	PROPERTY LINE (ASSUMED)

200 0 200 400
SCALE IN FEET

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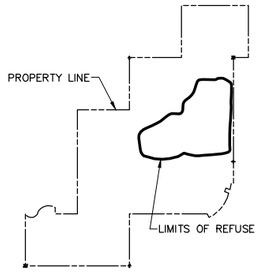
PROJECT NO. 04204027.26	DES BY J.E.	WATER LEVEL CONTOUR MAP MAY 2022	DATE FEBRUARY 2023
SCALE AS SHOWN	CHK BY D.V.	OLYMPIC VIEW SANITARY LANDFILL KITSAP COUNTY, WASHINGTON	FIGURE 4A
CAD FILE FIGURE 4A	APP BY G.H.		

Note:

Water level contours were generated using depth to water and reference elevation data from wells screened between 89 and 200 ft-msl. The water level elevations for the following locations have not been used for contouring.

- Wells MW-13B, MW-33C, and MW-41C have screen elevations outside the 89 to 200 ft-msl range.



KEY MAP

LEGEND

MW-35	UPGRADIENT (BACKGROUND) GROUNDWATER MONITORING WELL
MW-32	DOWNGRADIENT GROUNDWATER MONITORING WELL
MW-19C	PERFORMANCE GROUNDWATER MONITORING WELL
MW-43	COMPLIANCE GROUNDWATER MONITORING WELL
MW-36	GROUNDWATER MONITORING WELL (WATER LEVEL ONLY)
MW-35 / 229.71	MONITORING WELL — WATER LEVEL ELEVATION, FT-MSL
180	ESTIMATED GROUNDWATER ELEVATION CONTOUR IN FEET-MSL CONTOUR INTERVAL = 10 FT
	GROUNDWATER FLOW DIRECTION
*	WATER LEVEL ELEVATION NOT NOT USED IN CONTOURING
	PROPERTY LINE (ASSUMED)

Washington State Plane North Zone Coordinates
Datum: NAD 83, U.S. feet; NAVD 88, U.S. feet
GPS Base Station PID: SY5640
47 30 00.33905N, 122 45 26.58469W
Elevation: 450.22 feet
Flight Date: 6/18/98 Data Processed: 7/22/98

200 0 200 400
SCALE IN FEET

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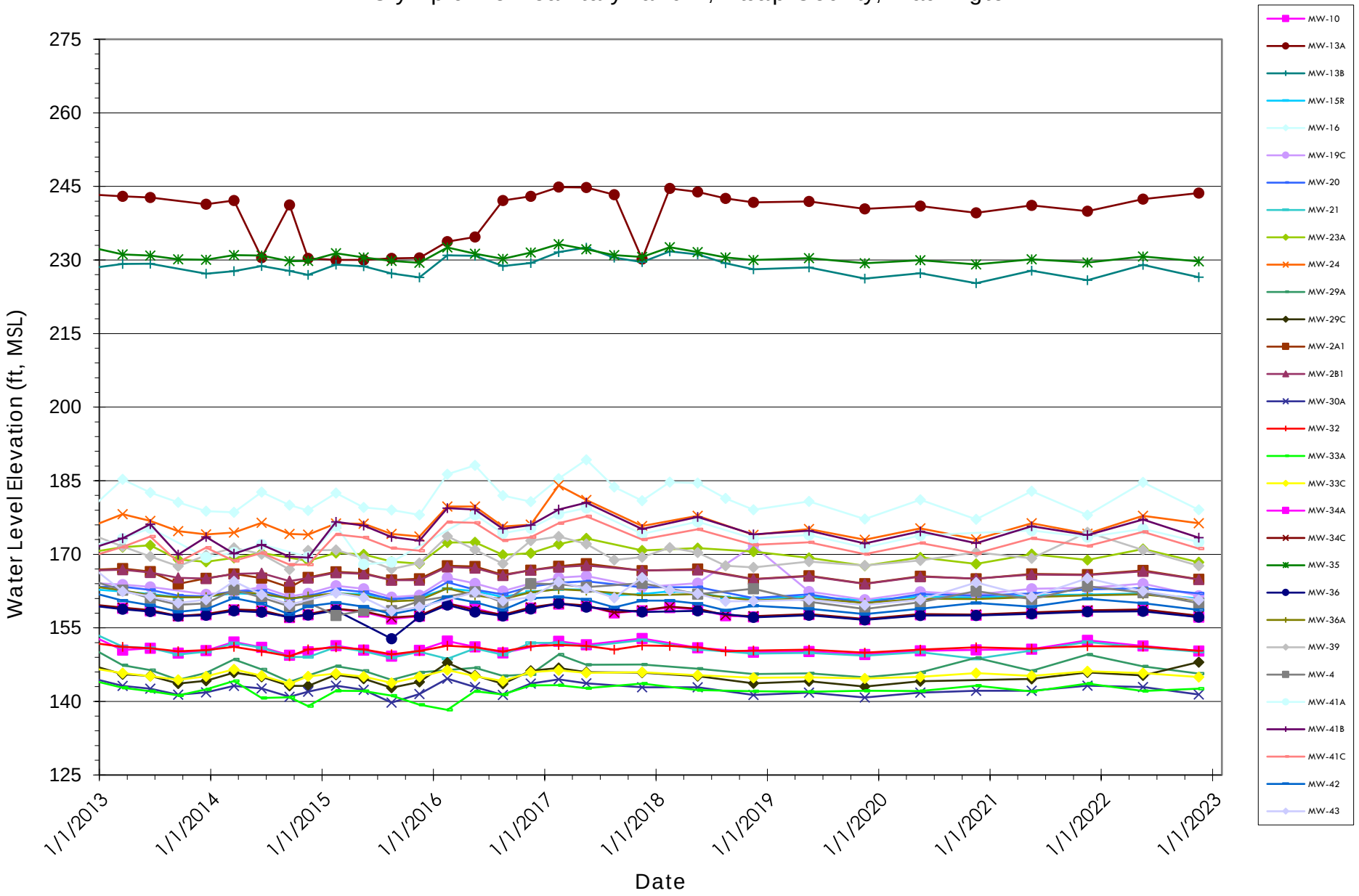
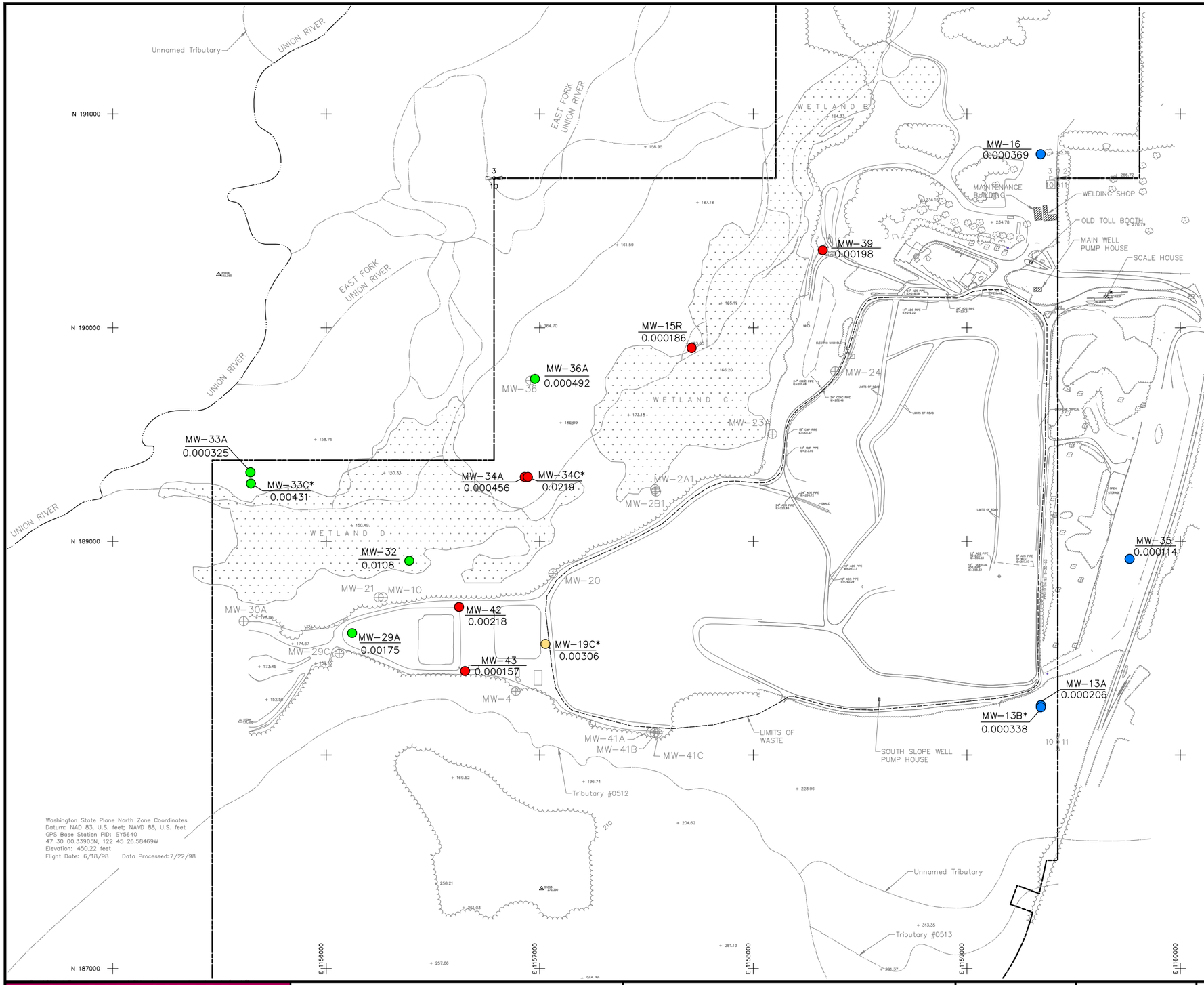
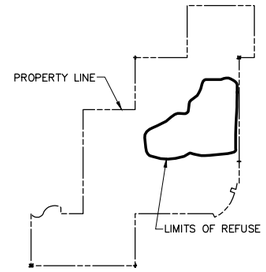
PROJECT NO. 04204027.26	DES BY J.E.	WATER LEVEL CONTOUR MAP NOVEMBER 2022	DATE FEBRUARY 2023
SCALE AS SHOWN	CHK BY D.V.	OLYMPIC VIEW SANITARY LANDFILL KITSAP COUNTY, WASHINGTON	FIGURE 4B
CAD FILE FIGURE 4B	APP BY G.H.		

Figure 5. Historical Groundwater Elevations
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington







KEY MAP

LEGEND

MW-35	UPGRADIENT (BACKGROUND) GROUNDWATER MONITORING WELL
MW-32	DOWNGRADIENT GROUNDWATER MONITORING WELL
MW-19C	PERFORMANCE GROUNDWATER MONITORING WELL
MW-43	COMPLIANCE GROUNDWATER MONITORING WELL
MW-10	GROUNDWATER MONITORING WELL (WATER LEVEL ONLY)
MW-32 / 0.0108	SHALLOW MONITORING WELL ARSENIC, TOTAL (mg/L)
*	DEEP MONITORING WELL
———	PROPERTY LINE (ASSUMED)

200 0 200 400
SCALE IN FEET

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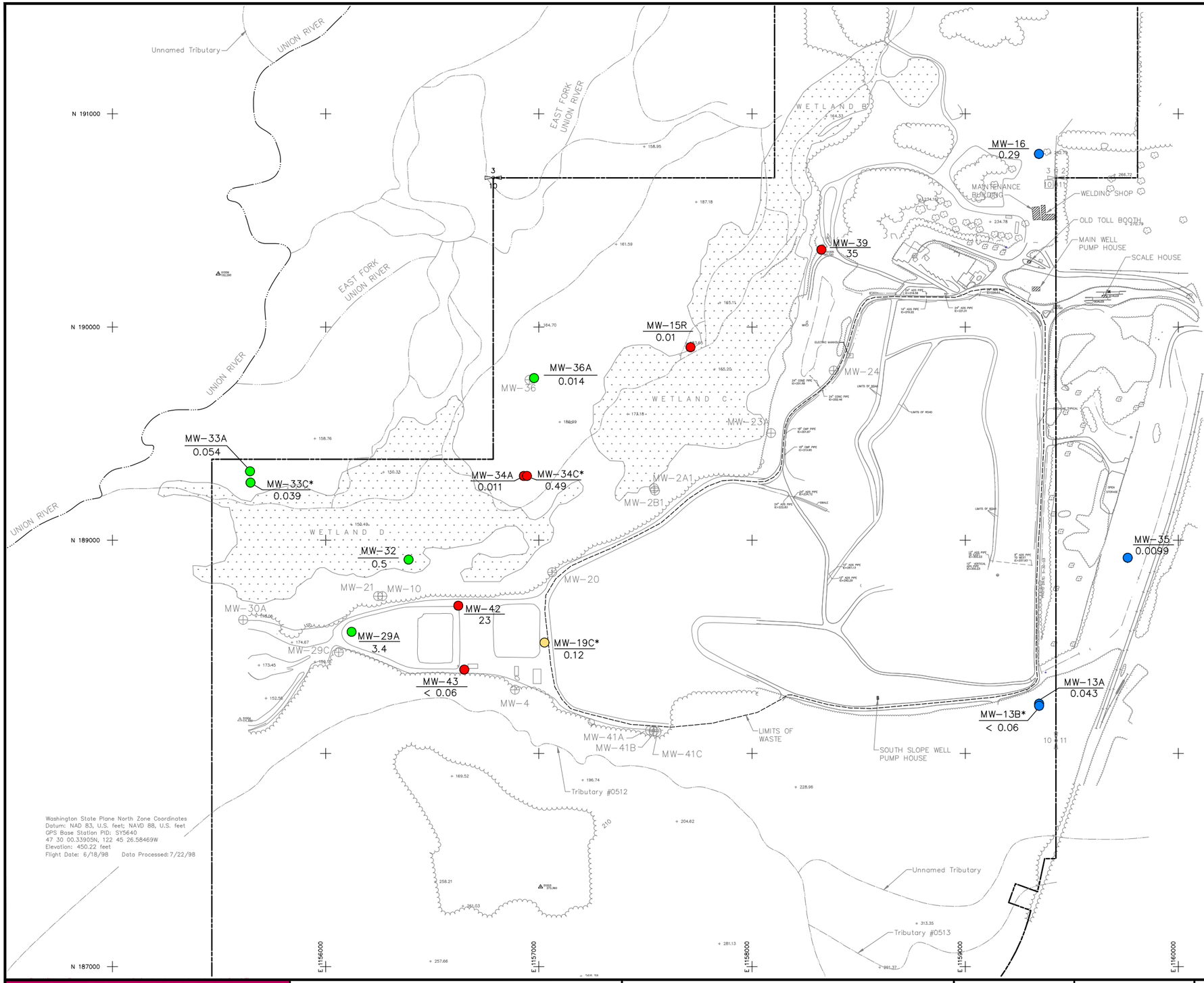
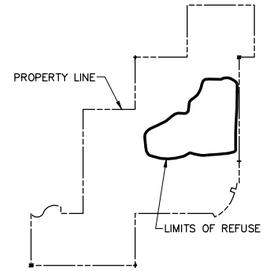
PROJECT NO. 04204027.26	DES BY J.E.	TOTAL ARSENIC CONCENTRATION MAP NOVEMBER 2022	DATE FEBRUARY 2023
SCALE AS SHOWN	CHK BY D.V.	OLYMPIC VIEW SANITARY LANDFILL KITSAP COUNTY, WASHINGTON	FIGURE 6A
CAD FILE FIGURE 6A	APP BY G.H.		



Washington State Plane North Zone Coordinates
Datum: NAD 83, U.S. feet; NAVD 88, U.S. feet
GPS Base Station PID: SY5640
47 30 00.33905N, 122 45 26.58469W
Elevation: 450.22 feet
Flight Date: 6/18/98 Data Processed: 7/22/98



KEY MAP

LEGEND

MW-35	UPGRADIENT (BACKGROUND) GROUNDWATER MONITORING WELL
MW-32	DOWNGRADIENT GROUNDWATER MONITORING WELL
MW-19C	PERFORMANCE GROUNDWATER MONITORING WELL
MW-43	COMPLIANCE GROUNDWATER MONITORING WELL
MW-10	GROUNDWATER MONITORING WELL (WATER LEVEL ONLY)
MW-32 / 0.5	SHALLOW MONITORING WELL IRON, TOTAL (mg/L)
*	DEEP MONITORING WELL
———	PROPERTY LINE (ASSUMED)

200 0 200 400
SCALE IN FEET

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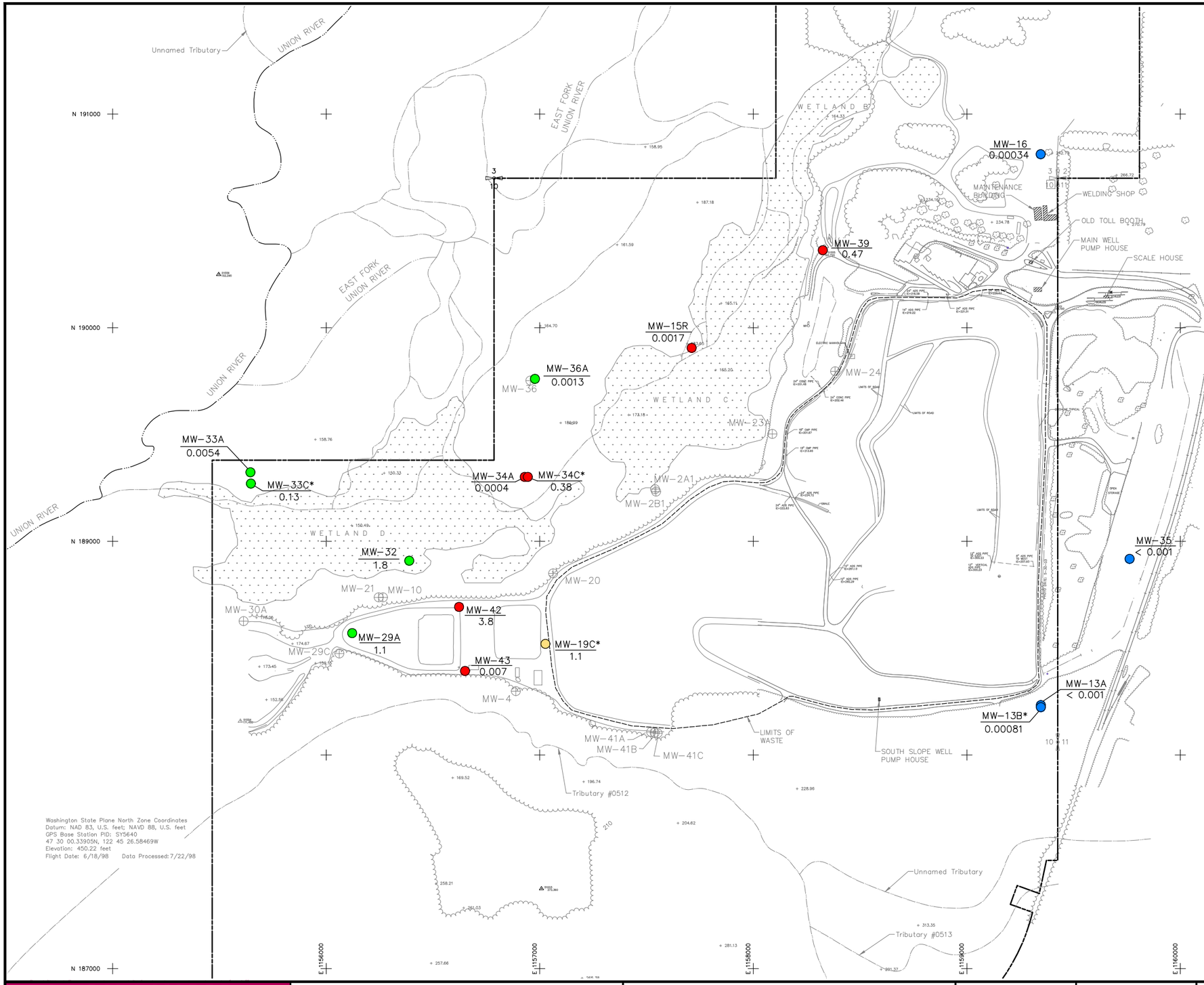
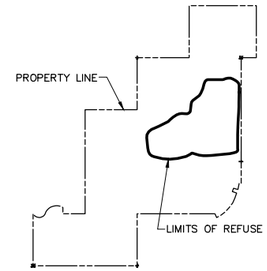
PROJECT NO. 04204027.26	DES BY J.E.	TOTAL IRON CONCENTRATION MAP NOVEMBER 2022	DATE FEBRUARY 2023
SCALE AS SHOWN	CHK BY D.V.	OLYMPIC VIEW SANITARY LANDFILL KITSAP COUNTY, WASHINGTON	FIGURE 6B
CAD FILE FIGURE 6B	APP BY G.H.		





KEY MAP

LEGEND

MW-35	UPGRADIENT (BACKGROUND) GROUNDWATER MONITORING WELL
MW-32	DOWNGRADIENT GROUNDWATER MONITORING WELL
MW-19C	PERFORMANCE GROUNDWATER MONITORING WELL
MW-43	COMPLIANCE GROUNDWATER MONITORING WELL
MW-10	GROUNDWATER MONITORING WELL (WATER LEVEL ONLY)
MW-32 / 1.8	SHALLOW MONITORING WELL MANGANESE, TOTAL (mg/L)
*	DEEP MONITORING WELL
———	PROPERTY LINE (ASSUMED)

200 0 200 400
SCALE IN FEET

SCS ENGINEERS
Environmental Consultants and Contractors
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Bellevue, Washington 98005
(425) 746-4600 FAX: (425) 746-6747

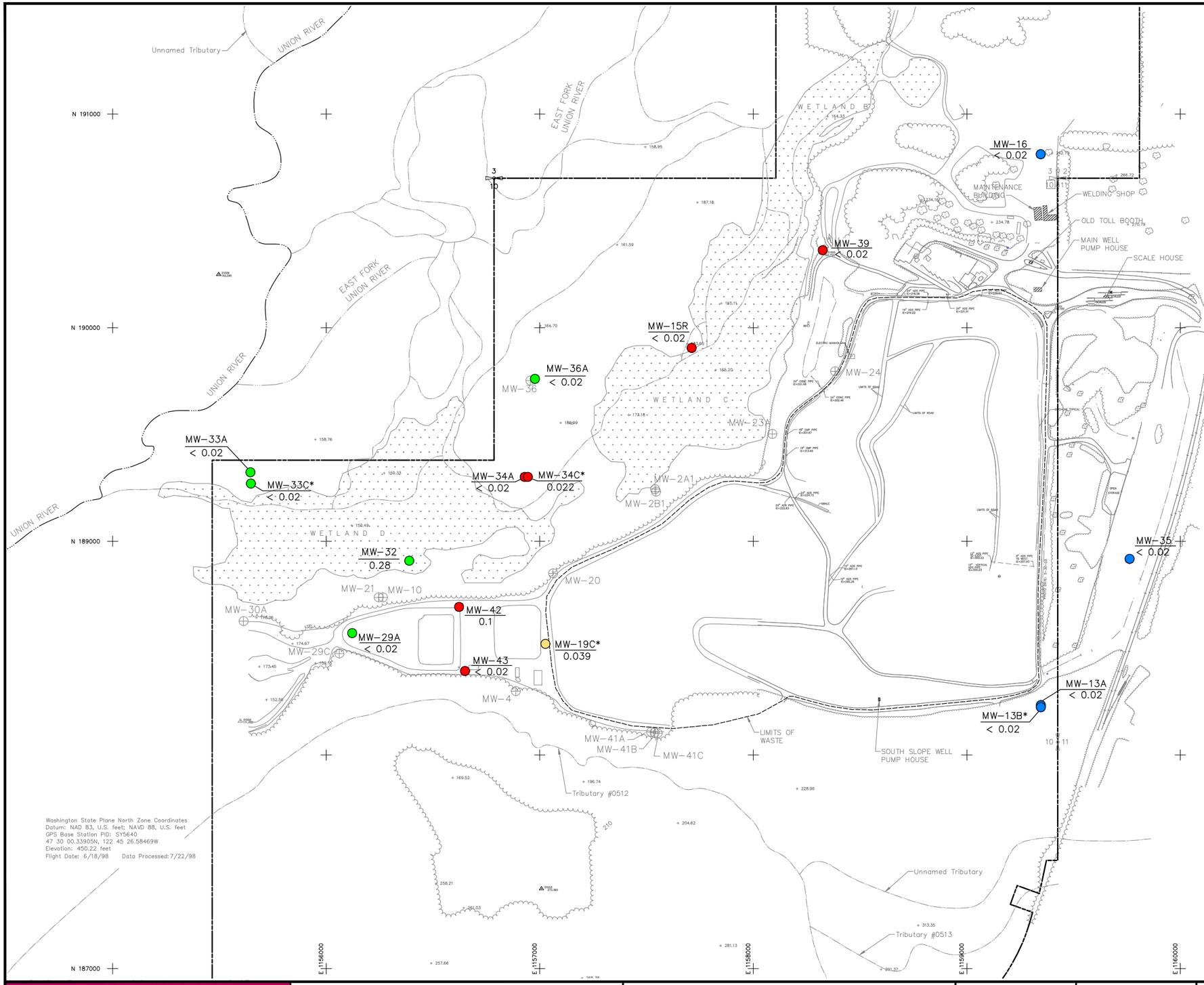
PROJECT NO.	04204027.26
SCALE	AS SHOWN
CAD FILE	FIGURE 6C
DES BY	J.E.
CHK BY	D.V.
APP BY	G.H.

TOTAL MANGANESE CONCENTRATION MAP
NOVEMBER 2022

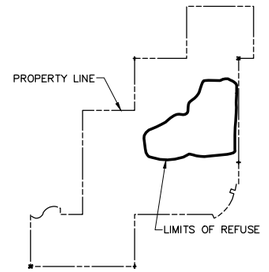
OLYMPIC VIEW SANITARY LANDFILL
KITSAP COUNTY, WASHINGTON

DATE FEBRUARY 2023

FIGURE 6C



Washington State Plane North Zone Coordinates
Datum: NAD 83, U.S. feet; NAVD 88, U.S. feet
GPS Base Station PID: SY5640
47 30 00.33905N, 122 45 26.58469W
Elevation: 450.22 feet
Flight Date: 6/18/98 Data Processed: 7/22/98



KEY MAP

LEGEND

MW-35	UPGRADIENT (BACKGROUND) GROUNDWATER MONITORING WELL
MW-32	DOWNGRADIENT GROUNDWATER MONITORING WELL
MW-19C	PERFORMANCE GROUNDWATER MONITORING WELL
MW-43	COMPLIANCE GROUNDWATER MONITORING WELL
MW-10	GROUNDWATER MONITORING WELL (WATER LEVEL ONLY)
MW-32 / 0.28	SHALLOW MONITORING WELL VINYL CHLORIDE, TOTAL (ug/L)
*	DEEP MONITORING WELL
———	PROPERTY LINE (ASSUMED)

200 0 200 400
SCALE IN FEET

SCS ENGINEERS
Environmental Consultants and Contractors
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005
(425) 746-4600 FAX: (425) 746-6747

PROJECT NO. 04204027.26	DES BY J.E.	VINYL CHLORIDE CONCENTRATION MAP NOVEMBER 2022	DATE FEBRUARY 2023
SCALE AS SHOWN	CHK BY D.V.	OLYMPIC VIEW SANITARY LANDFILL KITSAP COUNTY, WASHINGTON	FIGURE 6D
CAD FILE FIGURE 6D	APP BY G.H.		

Figure 7. Leachate Generation (2007 - 2022)
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

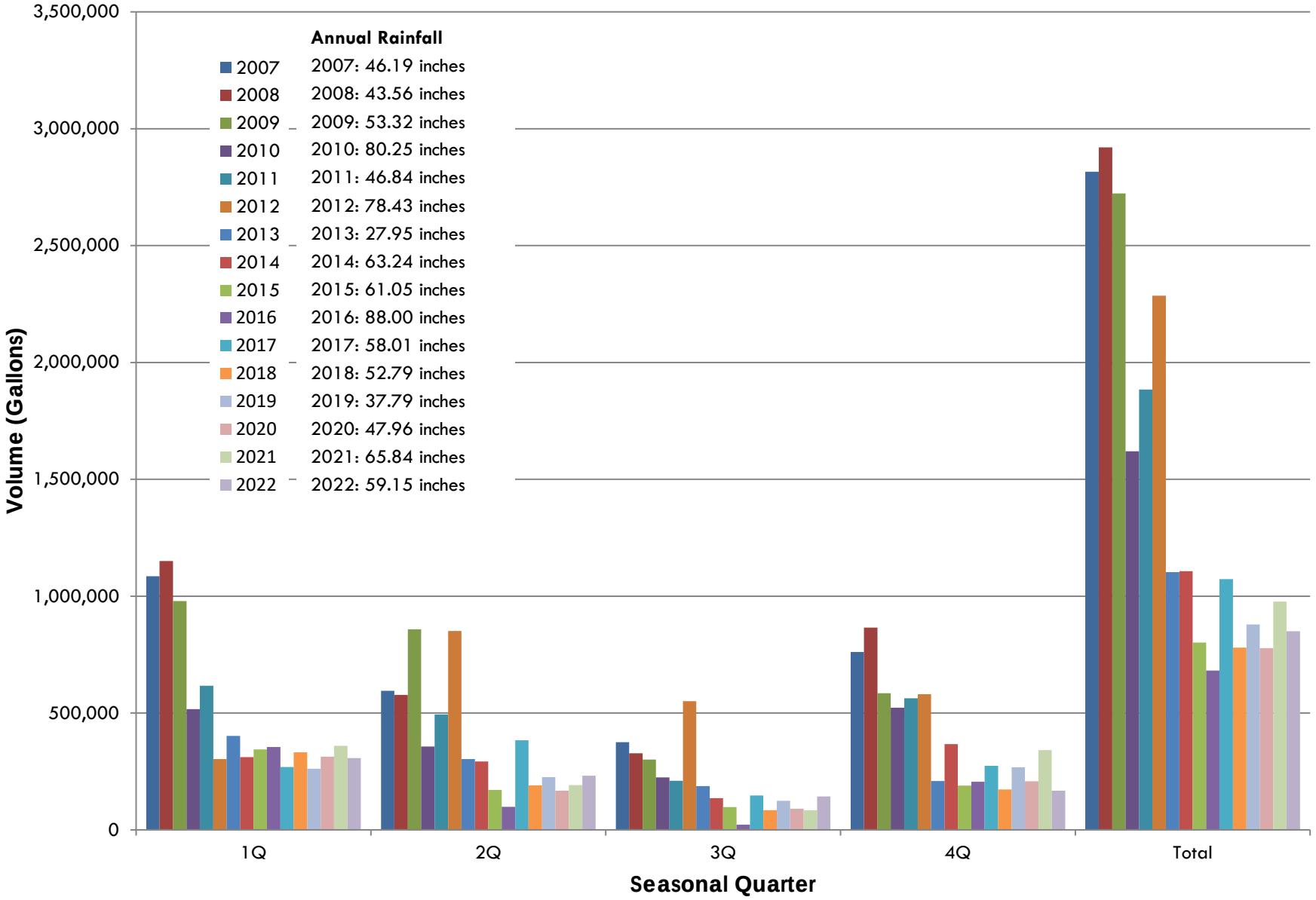
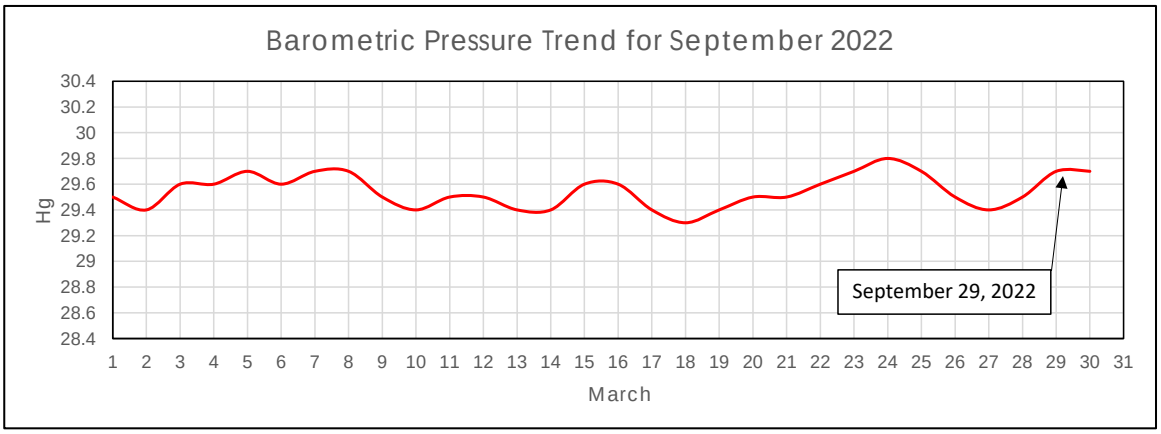
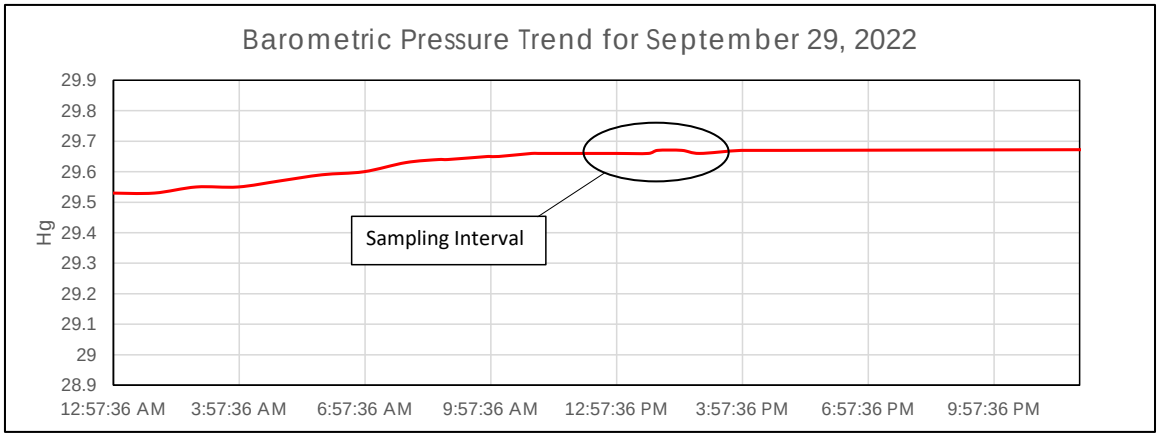


Figure 8A. Barometric Pressure during LFG Migration Monitoring - September 2022
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

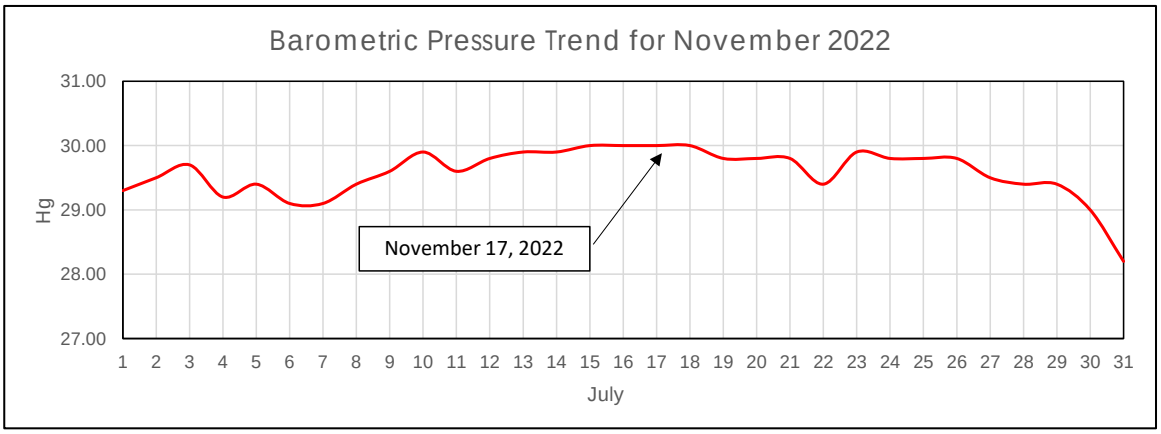


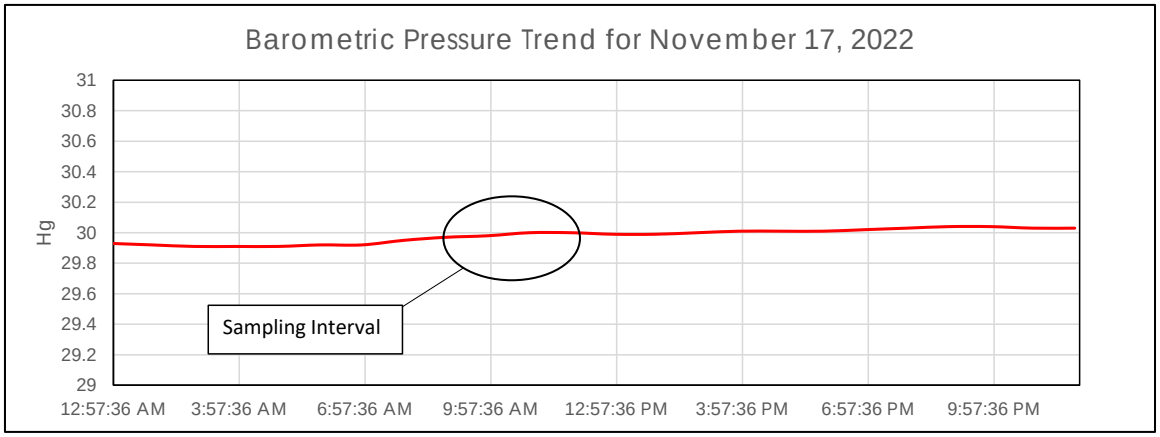


Source: Bremerton National Station
Lat: 47.57 Long: 122.67

Data Source:
https://www.wunderground.com/history/daily/us/wa/bremerton/KPWT/date/2022-3-29

Figure 8B. Barometric Pressure during LFG Migration Monitoring - November 2022
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington





Source: Bremerton National Station
Lat: 47.57 Long: 122.67

Data Source:
https://www.wunderground.com/history/daily/us/wa/bremerton/KPWT/date/2022-7-11

Appendix A

November 2022 Field Documentation

November 18, 2022
File No. 04204027.24

Subject: **Fall 2022 Semi-Annual Compliance Monitoring Event**
Olympic View Sanitary Landfill, Kitsap County, Washington

NOTES/SAMPLE DECODING:

Event Dates: November 16-17, and December 2, 2022
Field Staff: Jovany Estrada & Ruben Martinez

- The gate code to access the site is: 72369
- This event served as the annual monitoring event.
- Duplicate samples were collected at MW-13B (Dup-1) and MW-33C (Dup-2).
- A Solinst water level meter was used to record all water level elevations.
- 3-year Appendix III parameter samples were collected from MW-19C and MW-32 during this event.
- The LP-LCD sample was collected on December 2, 2021 because the pump not was operational in November due to a downed transformer at the site.
- The samples were sent to TestAmerica Denver for analysis at the close of each sampling day, except samples for low level arsenic which were retained until the end of the sampling event and provided to Analytical Resources, Inc. in Tukwila, Washington.

Sample Date	Sample Number	Well ID
11/17/22	1122-01	MW-13A
11/17/22	1122-02	MW-36A
11/17/22	1122-03	MW-13B
11/17/22	1122-04	MW-13B (Dup-1)
11/16/22	1122-05	MW-15R
11/16/22	1122-06	MW-34A
11/17/22	1122-07	MW-19C
11/16/22	1122-08	MW-34C
11/17/22	1122-09	MW-35
11/16/22	1122-10	MW-43
11/17/22	1122-11	MW-16
11/16/22	1122-12	MW-29A
11/17/22	1122-13	MW-39
11/16/22	1122-14	MW-42
11/17/22	1122-15	MW-33A
11/17/22	1122-16	MW-33C

11/17/22	1122-17	MW-33C (Dup-2)
11/17/22	1122-18	MW-32
11/17/22	1122-19	LP-LCD
11/21/22	1122-20	L-INF*
11/21/22	1122-21	OBWL-TD*

* = Samples collected by Aspect Consulting

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-13A (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	1200	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C — Sampling Device: C

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

X-Other:

Filter Device: (Y) or N — 0.45 µ or _____ µ (circle or fill in)

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC): _____ (ft/msl)

Depth to Water (DTW) (from TOC): 45.10 (ft)

Groundwater Elevation (site datum, from TOC): _____ (ft/msl)

Total Well Depth (from TOC): _____ (ft)

Stick Up (from ground elevation): _____ (ft)

Casing ID: 02 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit		pH (std)		Conductance (SC/EC) (µmhos/cm@25°C)		Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1200	500	1st	6.82	1st	167	1st	10.0	3.2	29.0	73.0	45.1
1205	↓	2nd	6.88	2nd	167	2nd	9.9		27.2	74.2	
1208		3rd	6.90	3rd	167	3rd	9.6		26.3	72.1	
1211		4th	6.90	4th	168	4th	9.6	3.3	25.9.0	71.2	
1214			6.91		167		9.6		23.2	69.8	
1217			6.92		167		9.6		23.1.3	69.7	
1220			6.93		166		9.6	3.4	23.2.3	69.1	48.2
Suggested range for 3 consec. readings or note Permit/State requirements:			+/- 0.2		+/- 3%		--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: _____ Units _____
11/17/22	6.93	166	9.6	3.4	2.3.2	69.1	45.1

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: Clear — Odor: — — Color: — — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — — Outlook: — — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

10/5 45 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Ruben Montano		SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-36A (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e, with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	13:50	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Device: (Y) or N — 0.45 µ or _____ µ (circle or fill in)

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC): (ft/msl)

Depth to Water (DTW) (from TOC): 32.03 (ft)

Groundwater Elevation (site datum, from TOC): (ft/msl)

Total Well Depth (from TOC): (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 02 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit ml/min	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
13:50	350	1st 6.68	1st 126	95	33	4.2	161.1	
13:55		2nd 6.38	2nd 122	95	30	2.9	174.8	
13:58		3rd 6.36	3rd 121	95	29	3.0	195.1	
14:01		4th 6.36	4th 122	95	29	3.0	197.8	
14:04		6.36	122	95	29	3.1	199.0	
14:07		6.35	122	95	29	3.1	205.4	
14:10	↓	6.35	122	95	30	3.1	207.9	32.0
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: _____ Units _____
11/17/22	6.35	122	95	30	3.1	207.9	

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: _____ Odor: _____ Color: _____ Other: _____

Weather Conditions (required daily, or as conditions change): Direction/Speed: _____ Outlook: _____ Precipitation: Y or N

Specific Comments (including purge/well volume calculations if required):

9 6 25 PSI

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Jovany Estrada	JE	SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OUSL

Site No.:

Sample Point: MW-13B (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	1240	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C
Sampling Device: C
X-Other:

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Filter Type: A (A-In-line Disposable, B-Pressure, C-Vacuum, X-Other)

Sample Tube Type: D (A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:)

WELL DATA

Well Elevation (at TOC): ____ (ft/msl)
Depth to Water (DTW) (from TOC): 62.16 (ft)
Groundwater Elevation (site datum, from TOC): ____ (ft/msl)
Total Well Depth (from TOC): ____ (ft)
Stick Up (from ground elevation): ____ (ft)
Casing ID: ____ (in)
Casing Material: ____

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1240	500	1st 6.22	1st 165	10.0	7.6	10.1	662	6.22
1245	1	2nd 6.72	2nd 164	9.9		4.19.0	669	
1248		3rd 7.20	3rd 162	9.9	6.5	9.75	663	
1251		4th 7.34	4th 162	9.9		4.89	653	
1254		7.35	162	9.9	4.2	4.99	656	
1257		7.35	162	9.9		4.93.1	656	
1300	↓	7.36	162	9.9	3.8	4.90.2	653	6.22
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: ____ Units ____
11/17/22	7.36	162	9.9	3.8	0.5	653	6.22.0

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: Clear — Odor: — Color: — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

10/5/45psi
Dup1 taken @ 1310

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Ruben Martinez	[signature] 11-17	SCI

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-15R (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
111622	1115	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment ... Dedicated: (Y) or N

Purging Device: C
Sampling Device: C
X-Other:

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Filter Type: A (A-In-line Disposable, B-Pressure, C-Vacuum, X-Other)

Sample Tube Type: D (A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:)

WELL DATA

Well Elevation (at TOC): ____ (ft/msl)
Depth to Water (DTW) (from TOC): 1966 (ft)
Groundwater Elevation (site datum, from TOC): ____ (ft/msl)
Total Well Depth (from TOC): ____ (ft)
Stick Up (from ground elevation): ____ (ft)
Casing ID: 02 (in)
Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit ml/min	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1115	350	1st 6.71	1st 147.1	9.8	31	1.1	2910	
1120		2nd 6.75	2nd 147	9.8	33	1.5	2544	
1123		3rd 6.75	3rd 147	9.8	33	1.5	2527	
1126		4th 6.75	4th 147	9.8	32	1.6	2516	
1129		6.76	147	9.8	31	1.6	2509	
1132		6.76	147	9.8	31	1.5	2503	
1135		6.76	147	9.8	31	1.5	2499	19.1
~~1138~~								
:		:						
:		:						
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: ____ Units ____
111622	676	147	9.8	31	1.5	2499	19.1

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: Clear — Odor: — — Color: — — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

9/6/20 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/16/22	Jovany Estrada	JE	SCS
___/___/___			

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-34A (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/16/22	12:50	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C
Sampling Device: C

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

X-Other:

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Filter Type: A (A-In-line Disposable, B-Pressure, C-Vacuum, X-Other)

Sample Tube Type: D (A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:)

WELL DATA

Well Elevation (at TOC): ____ (ft/msl)

Depth to Water (DTW) (from TOC): 40.74 (ft)

Groundwater Elevation (site datum, from TOC): ____ (ft/msl)

Total Well Depth (from TOC): ____ (ft)

Stick Up (from ground elevation): ____ (ft)

Casing ID: 04 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit ml/min	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
12:50	350	1st 6.13	1st 139	113	30	4.12	280.5	
12:55		2nd 6.20	2nd 160	116	30	1.12	272.4	
13:00		3rd 6.19	3rd 157	116	30	1.15	271.3	
13:05		4th 6.19	4th 154	116	30	1.16	270.7	
13:07		6.20	151	116	30	1.18	271.3	
13:10		6.20	148	116	30	2.1	272.4	
		6.21	145	116	30	2.5	274.5	39.7
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: ____ Units ____
11/16/22	6.21	145	116	30	2.5	274.5	

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: clear — Odor: — — Color: — — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

4/6/30 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Jovany Estrada	je	SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.: ____ Sample Point: MW-19C (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: ____

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11 17 22	14:20	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other: ____

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other ____

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other: ____

WELL DATA

Well Elevation (at TOC): ____ (ft/msl)

Depth to Water (DTW) (from TOC): 35.40 (ft)

Groundwater Elevation (site datum, from TOC): ____ (ft/msl)

Total Well Depth (from TOC): ____ (ft)

Stick Up (from ground elevation): ____ (ft)

Casing ID: 02 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
14:20	500	1st 7.82	1st 206	11.5	39	5.70	527	35.4
14:25	1	2nd 6.49	2nd 201	11.0	30	6.88	506	
14:28		3rd 6.48	3rd 159	10.8	39	6.54	451	
14:31		4th 6.49	4th 159	10.7	39	6.49	401	
14:34		6.46	159	10.7		6.47	395	
14:37		6.53	159	10.6		6.69	385	
14:40	V	6.54	159	10.6	38	6.67	383	35.4
:								
:								
:								
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: ____ Units ____
11 17 22	6.54	159	10.6	3.8	0.7	383	35.4

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: Clear — Odor: — — Color: — Other: —

Weather Conditions (required daily, or as conditions change): — Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

9/6 60 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Ruben Martinez		SCS
___/___/___			

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-34C (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/16/22	1335	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C
Sampling Device: C
A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle
X-Other:

Filter Device (Y) or N — 0.45 µ or _____ µ (circle or fill in)
Filter Type: A (A-In-line Disposable, B-Pressure, C-Vacuum, X-Other)
Sample Tube Type: D (A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:)

WELL DATA

Well Elevation (at TOC): _____ (ft/msl)
Depth to Water (DTW) (from TOC): 42.44 (ft)
Groundwater Elevation (site datum, from TOC): _____ (ft/msl)
Total Well Depth (from TOC): _____ (ft)
Stick Up (from ground elevation): _____ (ft)
Casing ID: 04 (in)
Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1335	1st	7.52	178	11.0	731	.61	236.3	
1340	2nd	6.99	183	12.1	1029	31	54.6	
1343	3rd	6.82	185	12.5	811	11	18.7	
1346	4th	6.81	185	12.5	592	09	11.7	
1349		6.81	185	12.6	627	09	4.5	
1352		6.81	185	12.6	224	08	2.0	
1355		6.81	184	12.6	117	09	2.1	42.44
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: _____ Units _____
11/16/22	6.68	184	12.6	11.7	0.9	2.1	

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: Clear — Odor: slight yellow ~~Color~~ → — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

8/750 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/16/22	Jovany Estrada	JE	SCS
___/___/___			

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-35 (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	1545	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C
Sampling Device: C
X-Other:

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other ____

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other: ____

WELL DATA

Well Elevation (at TOC): ____ (ft/msl)
Depth to Water (DTW) (from TOC): 72.98 (ft)
Groundwater Elevation (site datum, from TOC): ____ (ft/msl)
Total Well Depth (from TOC): ____ (ft)
Stick Up (from ground elevation): ____ (ft)
Casing ID: 04 (in)
Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1545	350 mL/min	1st 7.31	1st 156	10.2	29	6.9	508	
1550		2nd 7.39	2nd 156	10.1	29	6.9	532	
1553		3rd 7.45	3rd 156	10.0	29	6.9	577	
1556		4th 7.48	4th 156	10.0	29	6.9	639	
1559		7.49	156	10.0	29	6.9	705	
1602		7.50	156	10.0	29	6.9	755	
1605	↓	7.49	156	10.0	29	6.9	814	7.32
:								
:								
:								
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: ____ Units ____
11/17/22	7.49	156	10.0	29	6.9	814	

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: clear — Odor: — — Color: — — Other: —

Weather Conditions (required daily, or as conditions change): — Direction/Speed: — — Outlook: — — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

10 | 5 | 50 PSI

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Jovany Estrada	JE	SCS
___/___/___			

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-43 (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
111622	1420	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C

Sampling Device: C

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

X-Other:

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Filter Type: A (A-In-line Disposable, B-Pressure, C-Vacuum, X-Other)

Sample Tube Type: D (A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:)

WELL DATA

Well Elevation (at TOC): ____ (ft/msl)

Depth to Water (DTW) (from TOC): 2573 (ft)

Groundwater Elevation (site datum, from TOC): ____ (ft/msl)

Total Well Depth (from TOC): ____ (ft)

Stick Up (from ground elevation): ____ (ft)

Casing ID: 02 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1420	500	1st 5.72	1st 68	11.6		7.6	881	25.7
1425	1	2nd 5.71	2nd 67	11.6	5.4	7.9	899	
1428		3rd 5.65	3rd 65	11.6		8.8	933	
1431		4th 5.65	4th 65	11.6		9.2	993	
1434		5.67	63	11.6	5.4	9.5	1068	
1437		5.67	62	11.6		10.3	1084	
1440	↓	5.66	61	11.6	9.52	10.3	1090	25.8
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: / Units
111622	5.66	61	11.6	5.4	10.3	1090	2570

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: clear — Odor: — — Color: — — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

9/6/30 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/16/22	Ruben Martinez		SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OUSL

Site No.: ____ Sample Point: MW-16 (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: ____

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11722	1010	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other: ____

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other ____

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other: ____

WELL DATA

Well Elevation (at TOC): ____ (ft/msl)

Depth to Water (DTW) (from TOC): 6092 (ft)

Groundwater Elevation (site datum, from TOC): ____ (ft/msl)

Total Well Depth (from TOC): ____ (ft)

Stick Up (from ground elevation): ____ (ft)

Casing ID: 02 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit ml/min	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1010	350	1st 6.57	1st 108	91	29	8.7	2790	
1015		2nd 6.33	2nd 114	92	27	7.7	2807	
1018		3rd 6.35	3rd 115	92	27	7.7	2811	
1021		4th 6.38	4th 115	92	28	7.7	2815	
1024		6.39	115	92	28	7.7	2821	
1027		6.39	115	92	28	7.6	2825	
1030		6.40	115	92	28	7.6	2828	609
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:								
:								
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: ____ Units ____
11722	6.4	115	92	28	7.6	2828	

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: Clear — Odor: — — Color: — — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — — Outlook: — — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

9/650 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Jovanny Estrada	JE	SCS
/ /			

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client. PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-29A

Sample ID

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11 16 22	13:50	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C

Sampling Device: C

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

X-Other:

Filter Device: (Y) or N — 0.45 µ or _____ µ (circle or fill in)

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC): (ft/msl)

Depth to Water (DTW) (from TOC): 14.55 (ft)

Groundwater Elevation (site datum, from TOC): (ft/msl)

Total Well Depth (from TOC): (ft)

Stick Up (from ground elevation): (ft)

Casing ID: (in)

Casing Material:

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1350	480	6.04 1st	82 1st	11.6		11.2	262	14.5
1355		5.98 2nd	87 2nd	11.5	3.9	11.1	229	
1358		6.01 3rd	86 3rd	11.5		11.1	215	
1401		6.04 4th	87 4th	11.5		11.4	206	
1404		6.07	86	11.4	3.8	11.1	207	
1407		6.04	86	11.4		11.1	213	
1410	V	6.05	86	11.4	3.6	11.1	215	14.5
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: _____ Units
11 16 22	6.05	86	11.4	1.6	11.1	215	14.5

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: clear — Odor: — — Color: — — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

9/6/20 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/16/22	Ruben Martinez		SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-39 (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	1440	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C
Sampling Device: C

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

X-Other:

Filter Device: (Y) or N — 0.45 µ or _____ µ (circle or fill in)

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC): (ft/msl)

Depth to Water (DTW) (from TOC): 22.27 (ft)

Groundwater Elevation (site datum, from TOC): (ft/msl)

Total Well Depth (from TOC): (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 02 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit ml/min	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1440	350	1st 6.27	1st .219.	110	132	3.2	-57	
1445		2nd 6.29	2nd 273	113	71	0.8	-415	
1448		3rd 6.30	3rd 271	114	121	0.8	-458	
1451		4th 6.30	4th 270	114	63	0.8	-483	
1454		6.30	270	115	44	0.7	-515	
1457		6.30	271	114	41	0.7	-569	
1500	↓	6.31	271	114	38	0.7	-589	2.38
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: _____ Units _____
11/17/22	6.31	271	11.4	38	0.7	-589	

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: clear — Odor: — — Color: — — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

11/4/35 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Jovany Estrada Jr		SCS
___/___/___			

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSC

Site No.: | | | | |

Sample Point: MW-42 (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/16/22	13:00	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C
Sampling Device: C
A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

X-Other: _____

Filter Device: (Y) or N — 0.45 µ or _____ µ (circle or fill in)

Filter Type: A (A-In-line Disposable, B-Pressure, C-Vacuum, X-Other _____)

Sample Tube Type: D (A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other: _____)

WELL DATA

Well Elevation (at TOC): _____ (ft/msl)

Depth to Water (DTW) (from TOC): 28.76 (ft)

Groundwater Elevation (site datum, from TOC): _____ (ft/msl)

Total Well Depth (from TOC): _____ (ft)

Stick Up (from ground elevation): _____ (ft)

Casing ID: 02 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
13:00	500	1st 6.47	1st 471	12.7	5.2	10.0	21	28.7
13:05		2nd 6.56	2nd 473	12.7		10	-110	
13:08		3rd 6.57	3rd 469	12.7		0.06	-477	
13:11		4th 6.54	4th 463	12.7	3.9	0.9	-508	
13:14		6.51	460	12.7		8.2	-520	
13:17		6.50	462	12.7	3.9	10.0	-503	
13:20	↓	6.49	457	12.7	3.8	10.0	-499	28.75
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: _____ Units _____
11/16/22	6.49	457	12.7	3.8	10.0	-499	28.75

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: Clear Odor: — Color: — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

9/6 40 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/16/22	Ruben Martinez	[signature]	SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-33A (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	09:25	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C
Sampling Device: C

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

X-Other:

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Filter Type: A (A-In-line Disposable, B-Pressure, C-Vacuum, X-Other)

Sample Tube Type: D (A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:)

WELL DATA

Well Elevation (at TOC): (ft/msl)

Depth to Water (DTW) (from TOC): 5.10 (ft)

Groundwater Elevation (site datum, from TOC): (ft/msl)

Total Well Depth (from TOC): (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 02 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
09:25	1st	5.72	132	10.2		1.70	98.0	5.1
09:30	2nd	6.84	131	10.2	2.48	3.1	45.5	
09:33	3rd	6.85	133	10.1		2.1	45.1	
09:36	4th	6.82	133	10.1		1.7	39.3	
09:39		6.72	134	10.1	1.52	1.3	24.0	
10:42		6.72	134	9.9		1.1	-.59	
10:45		6.72	134	10.0	1.31	0.7	1.2	1.20
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: ____ Units ____
11/17/22	6.72	134	10.0	1.31	0.7	1.2	5.1

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: See below — Odor: — Color: — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: (Y) or (N)

Specific Comments (including purge/well volume calculations if required):

9/6 15 psi
orange color @ start of purge, cleared up after purge

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Ruben Martinez		SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-33C (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11 17 22	1000	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C

Sampling Device: C

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

X-Other:

Filter Device: (Y) or N — 0.45 µ or _____ µ (circle or fill in)

Filter Type: A (A-In-line Disposable, B-Pressure, C-Vacuum, X-Other)

Sample Tube Type: D (A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:)

WELL DATA

Well Elevation (at TOC): (ft/msl)

Depth to Water (DTW) (from TOC): 2.64 (ft)

Groundwater Elevation (site datum, from TOC): (ft/msl)

Total Well Depth (from TOC): (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 02 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1000	350	1st 7.68	1st 142	7.9		8.8	393	2.6
1005	↓	2nd 6.97	2nd 153	8.7	42	3.2	493	
1008		3rd 6.37	3rd 155	8.7		2.1	571	
1011		4th 6.25	4th 153	9.0		1.8	552	
1014		6.34	154	9.0	34	1.7	500	
1017		6.61	154	9.1		1.4	397	
1020		6.62	154	9.1	33	1.2	313	
								2.6
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: Units
11 17 22	6.62	154	9.1	3.3	1.2	313	2.68

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.

FIELD COMMENTS

Sample Appearance: clear — Odor: — Color: — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

9/6/15 psi

Dup-2 collected @ 1040

MW33B DTW = 7.66 ft

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Ruben Martinez		SCS
___/___/___			

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name:

Site No.:

Sample Point: MW-32 (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	1240	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: [Y] or [N]

Purging Device [C]

Sampling Device [C]

X-Other:

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Filter Device: [Y] or [N] [0.45 µ] or [ ] µ (circle or fill in)

Filter Type: [A] A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: [D] A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC) (ft/msl)

Depth to Water (DTW) (from TOC): 206 (ft)

Groundwater Elevation (site datum, from TOC) (ft/msl)

Total Well Depth (from TOC) (ft)

Stick Up (from ground elevation) (ft)

Casing ID: 02 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit ml/min	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1240	350	1st 6.19	1st 234	11.4	47	3.0	104.2	
1245		2nd 6.82	2nd 256	11.6	7.3	0.8	130	
1248		3rd 6.87	3rd 257	11.6	4.7	0.8	-5.3	
1251		4th 6.89	4th 258	11.6	4.0	0.7	-12.8	
1254		6.89	258	11.6	3.8	0.7	-17.1	
1257		6.90	258	11.6	3.6	0.7	-20.5	
1300	↓	6.90	258	11.6	3.6	0.7	-22.8	20
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: Units
11/17/22							

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: clear Odor: – Color: – Other: –

Weather Conditions (required daily, or as conditions change): Direction/Speed: – Outlook: – Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

9 | 6 | 15 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Jovany Estrada	JE	SCS
___/___/___			

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: LP-LCD (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	13:40	:			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: Y or (N)

Purging Device: B — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: B

X-Other:

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC) (ft/msl)

Depth to Water (DTW) (from TOC) (ft)

Groundwater Elevation (site datum, from TOC) (ft/msl)

Total Well Depth (from TOC) (ft)

Stick Up (from ground elevation) (ft)

Casing ID (in)

Casing Material

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
13:40	1st	7.26	3536	9.1	0.9	8.3	78.5	
	2nd							
	3rd							
	4th							
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: ____ Units ____
11/17/22	7.26	3536	9.1	0.9	8.3	78.5	

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: yellow tint — Odor: - — Color: yellow tint — Other: -

Weather Conditions (required daily, or as conditions change): Direction/Speed: - — Outlook: - — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

Ran pump for 2 min before sampling from storage tank

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Ruben Martinez		SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

SCS ENGINEERS

GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

Date	11/16/22					
Time	8:53 AM					
Weather (sky or precip, temp)	Cloudy					
Parameter	Conductivity	pH 4	pH 7	D.O.	Turbidity	Comments/Exceptions
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4	7.00	100% or ~8.5	1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	1404	4.04	7.01	01.95		
Post Cal Reading	1413	4.00	7.00	8.5		
Descrepancy	N/A					
Calib. Successful?	yes					
Calibration by	Jovany Estrada					
Instrument Type, ID	YSI Pro DDS / YSI 556 / Rental				YSI Pro DDS / HACH2000	
Calibration Location	Leachate pond					

* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

SCS ENGINEERS

GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

Date	11-16-22					
Time	Cloudy					
Weather (sky or precip, temp)	0830					
Parameter	Conductivity	pH 4	pH 7	D.O.	Turbidity	Comments/Exceptions
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4.00	7.00	100% or ~8.5	1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	0409	3.86	6.79	5.5		
Post Cal Reading	1413	4.00	7.00	8.5		
Descrepancy	no					
Calib. Successful?	Yes					
Calibration by	R. Nantmeet					
Instrument Type, ID	YSI Pro DDS / YSI 556 / Rental				YSI Pro DDS / HACH2000	
Calibration Location	OVSC					

* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

SCS ENGINEERS

GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

Date	11/17/22					
Time	8:06 AM					
Weather (sky or precip, temp)	clear					
Parameter	Conductivity	pH 4	pH 7	D.O.	Turbidity	Comments/Exceptions
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4	7.00	100% or ~8.5	1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	1422	3.97	6.98	8.42		
Post Cal Reading	1413	4.00	7.00	8.5		
Descrepancy	N/A					
Calib. Successful?	yes					
Calibration by	Jovany Estrada					
Instrument Type, ID	YSI Pro DDS / YSI 556 / Rental				YSI Pro DDS / HACH2000	
Calibration Location	Leachate Pond					

* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

SCS ENGINEERS

GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

Date	11-17-22					
Time	0800					
Weather (sky or precip, temp)	sunny					
Parameter	Conductivity	pH 4	pH 7	D.O.	Turbidity	Comments/Exceptions
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4.00	7.00	100% or ~8.5	1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	1409	420	7.24	9.13		
Post Cal Reading	1413	4.00	7.00	8.5		
Descrepancy	no					
Calib. Successful?	yes					
Calibration by	R. Montibeller					
Instrument Type, ID	YSI Pro DDS / YSI 556 / Rental				YSI Pro DDS / HACH2000	
Calibration Location	OVSL					

* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

Appendix B

November 2022 Data Validation & Analytical Data Reports

(laboratory reports are provided in attached data CD to conserve paper resources)

DATA VALIDATION REPORT – OLYMPIC VIEW SANITARY LANDFILL 2022 – SEMI-ANNUAL EVENT NO. 2

Project Details

Project No.	04204027.25	**Site Name**	Olympic View Sanitary Landfill
Data Validator	Jovany Estrada	**Data Level**	Level II
Date	11/1/2022	**DV Tier**	Tier I
QA Document	Olympic View Sanitary Landfill Sampling Analysis Plan-rev 1.1, August 2, 2017		

Sample Login Summary

Sample Group	Sample Login Comments	Analytical Lab (Primary)
280-169282-1	No Comment.	Eurofins TestAmerica, Denver CO
280-169398-1	No Comment.	Eurofins TestAmerica, Denver CO
280-169454-1	No Comment.	Eurofins TestAmerica, Denver CO
290-169551-1	No Comment.	Eurofins TestAmerica, Denver CO
290-169566-1	No Comment.	Analytical Resources Inc., Seattle WA

Analytical Summary

Sample Group	Analyses					
	Qtrly General Chemistry[1]	Qtrly Metals	Qtrly VOCs	TSS	BOD/COD	L Pond Analytes[2]
280-169282-1	X	X	X	X	--	--
280-169398-1	X	X	X	X	--	--
280-169454-1	X	X	X	X	X	--
290-169551-1	X	X	X	X	X	--
290-169566-1	--	X	--	--	--	--

[1] General Chemistry (NO_3, Cl, SO_4, NH_3, Alkalinity, Bicarbonate, TDS, TOC)

[2] L Pond analytes (pH, Total metals, TSS, BOD, COD) - not collected by SCS

Laboratory Quality Assurance Samples

Lab QA Samples	Notes	Comments
Total Recoverable Metals	See case narrative.	Lead, Total and Beryllium, Total were detected in method blank MB 280-594332/1-A at levels that were above the method detection limit but below the reporting limit. Manganese, Dissolved was detected in method blank MB 280-594393/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. Barium, Total and Lead, Total were detected in method blank MB 280-594691/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.
Chemical Oxygen Demand	See case narrative.	Chemical Oxygen Demand (COD) failed the recovery criteria for the MS/MSD of sample 280-169701-1 in batch 280-595233.
BOD	See case narrative.	All data acceptable and/or within established control limits.
TSS	See case narrative.	All data acceptable and/or within established control limits.
pH	See case narrative.	All data acceptable and/or within established control limits.

Field Quality Assurance Samples

Field QA Samples	Sample Group	Analytes	Notes
Trip Blank	280-169282-1	No Detections	
Trip Blank	280-169454-1	No Detections	
Trip Blank	280-169551-1	Tetrahydrofuran	5.1 *+

Detailed Field Replicate Evaluation

Analyte	Units	MW-13B	MW-13B (DUP-1)	RPD (%)	MW-36A	MW-36A (DUP-2)	RPD (%)
Alkalinity, Bicarbonate (As CaCO3)	mg/L	89	88	1.13	73	74	1.36
Alkalinity, Total (As CaCO3)	mg/L	89	88	1.13	73	74	1.36
Ammonia (As N)	mg/L	0.03 U	0.03 U	0	0.03 U	0.03 U	0
Barium, Total	mg/L	0.0038 U	0.0038 U	0	0.0038	0.0064	50.98
Calcium, Dissolved	mg/L	17	16	6.06	17	17	0
Chromium, Total	mg/L	0.0034	0.0035	2.90	0.0018	0.00053	109.01
Cobalt, Total	mg/L	0.002 U	0.002 U	0	0.002 U	0.002 U	0
Copper, Total	mg/L	0.06 U	0.06 U	0	0.039	0.04	2.53
Iron, Dissolved	mg/L	0.06	0.021	96.30	0.084	0.035	82.35
Iron, Total	mg/L	0.001 U	0.001 U	0	0.00041	0.001	83.69
Lead, Total	mg/L	8.6	8.3	3.55	6.7	6.9	2.94
Magnesium, Dissolved	mg/L	0.00081	0.00038	72.27	0.13	0.13	0
Manganese, Dissolved	mg/L	0.00068	0.00069	1.46	0.96	0.31	102.36
Manganese, Total	mg/L	0.004 U	0.004 U	0	0.0017	0.004	80.70
Nickel, Total	mg/L	0.41	0.05	156.52	0.05	0.05	0
Nitrate (As N)	mg/L	0.57	0.61	6.78	1.2	1.3	8.00
Potassium, Dissolved	mg/L	0.001 U	0.001 U	0	0.001 U	0.001 U	0
Selenium, Total	mg/L	5.4	5.2	3.77	4.1	4.2	2.41
Sodium, Dissolved	mg/L	93	84	10.17	97	94	3.14
Total Dissolved Solids (TDS)	mg/L	1	1	0	1	1	0
Total Organic Carbon (TOC)	mg/L	0.0058	0.0061	5.04	0.0021	0.002	4.88
Vanadium, Total	mg/L	89	88	1.13	73	74	1.36

* RPD based on result as compared to the Reporting Limit (RL) for a non-detection in the compared sample

U = Result was not detected at or above a concentration greater than the RL. Value provided is the RL for the given sample.

NA = Not applicable. Compared samples were below the RL for a given parameter.

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B = Compound was found in the blank and sample.

Lab Qualifier Definitions

Lab Qualifiers	Description	Lab Group
*+	LCS and/or LCSD is outside acceptance limits, high biased.	280-169454-1, 280-169551-1
*1	LCS/LCSD RPD exceeds control limits.	280-169551-1
B	Compound was found in the blank and sample.	280-169282-1, 280-169398-1, 280-169454-1, 280-169551-1
b	Result Detected in the Unseeded Control blank (USB).	280-169454-1, 280-169551-1

Lab Qualifiers	Description	Lab Group
^-	Continuing Calibration Verification (CCV) is outside acceptance limits, low biased.	280-169551-1
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.	280-169551-1
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.	280-169282-1
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	280-169282-1, 280-169398-1, 280-169454-1, 280-169454-1, 280-169551-1,
E	Result exceeded calibration range.	280-169551-1
F1	MS and/or MSD Recovery is outside acceptance limits.	280-169282-1, 280-169398-1, 280-169454-1, 280-169551-1, 280-169551-1
F2	MS/MSD RPD exceeds control limits.	280-169282-1
F3	Duplicate RPD exceeds the control limit.	280-169454-1
H	Sample was prepped or analyzed beyond the specified holding time.	280-169454-1
H3	Sample was received and analyzed past holding time.	280-169454-1
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.	280-169282-1, 280-169398-1, 280-169454-1, 280-169551-1
S1+	Surrogate recovery exceeds control limits, high biased.	280-169282-1, 280-169398-1, 280-169454-1

Additional Qualifier Definitions

Qualifiers	Description	Lab Group
U	Analyte was not detected above the applicable RL or MDL.	

Additional Items of Note

The analytes Acrolein, Acrylonitrile, and 2-Chloroethyl Vinyl Ether cannot be reliably quantitated in acid preserved samples, therefore, the reporting limits for the analytes is not reliable or defensible.

Qualified Data and Usability

Lab qualifiers are noted. All data, as qualified, are acceptable for use.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Patrick Madej
Waste Management
2615 Davis Street
San Leandro, California 94577

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JOB DESCRIPTION

WA02|Olympic View Sanitary LF
Annual GW AppI/II - May

JOB NUMBER

280-169282-1

Eurofins Denver
4955 Yarrow Street
Arvada CO 80002

See page two for job notes and contact information.

Job Notes

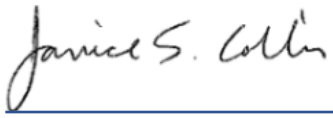
The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization



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Authorized for release by
Janice Collins, Project Manager
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(303)736-0100

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Definitions/Glossary

Client: Waste Management
Job ID: 280-169282-1
Project/Site: WA02|Olympic View Sanitary LF

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Job ID: 280-169282-1

Laboratory: Eurofins Denver

Narrative

CASE NARRATIVE

Client: Waste Management

Project: WA02|Olympic View Sanitary LF

Report Number: 280-169282-1

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.

This report may include reporting limits (RLs) less than Eurofins TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

RECEIPT

The samples were received on 11/17/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt were 0.3°C and 2.6°C.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples MW-43 (280-169282-1), MW-42 (280-169282-2), MW-29A (280-169282-3), MW-34C (280-169282-4), MW-34A (280-169282-5), MW-15R (280-169282-6) and TRIP BLANK (280-169282-7) were analyzed for volatile organic compounds (GC/MS) in accordance with 8260C. The samples were analyzed on 11/23/2022.

The continuing calibration verification (CCV) associated with batch 480-651148 recovered outside acceptance criteria, low biased, for Acetonitrile, 1,1,2-Trichloro-1,2,2-trifluoroethane, and n-Butanol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

The continuing calibration verification (CCV) associated with batch 480-651148 recovered above the upper control limit for 2-Butanone (MEK). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The surrogate recovery for the blank associated with analytical batch 480-651148 was outside the upper control limits. The associated samples are impacted: MW-34C (280-169282-4), MW-34A (280-169282-5), MW-15R (280-169282-6) and TRIP BLANK (280-169282-7).

Method 8260C: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: MW-34C (280-169282-4), MW-34A (280-169282-5), MW-15R (280-169282-6) and TRIP BLANK (280-169282-7). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

Bromomethane failed the RPD for the MSD of sample 480-204112-1 in batch 480-651205.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANICS (GC-MS)

Samples MW-43 (280-169282-1), MW-42 (280-169282-2), MW-29A (280-169282-3), MW-34C (280-169282-4), MW-34A (280-169282-5), MW-15R (280-169282-6) and TRIP BLANK (280-169282-7) were analyzed for volatile organics (GC-MS) in accordance with 8260C_SIM. The samples were analyzed on 11/28/2022 and 11/29/2022.

Surrogate recovery for the following samples were outside the upper control limit: MW-15R (280-169282-6) and TRIP BLANK (280-169282-7). This sample(s) did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Job ID: 280-169282-1 (Continued)

Laboratory: Eurofins Denver (Continued)

The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed outside the 7-day holding time specified for unpreserved samples but within the 14-day holding time specified for preserved samples: MW-29A (280-169282-3). pH is 7.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICP)

Samples MW-43 (280-169282-1), MW-42 (280-169282-2), MW-29A (280-169282-3), MW-34C (280-169282-4), MW-34A (280-169282-5) and MW-15R (280-169282-6) were analyzed for Dissolved Metals (ICP) in accordance with EPA SW846 6010D. The samples were prepared on 12/01/2022 and analyzed on 12/02/2022 and 12/05/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP)

Samples MW-43 (280-169282-1), MW-42 (280-169282-2), MW-29A (280-169282-3), MW-34C (280-169282-4), MW-34A (280-169282-5) and MW-15R (280-169282-6) were analyzed for Total Recoverable Metals (ICP) in accordance with EPA SW846 6010D. The samples were prepared on 12/01/2022 and analyzed on 12/02/2022, 12/03/2022 and 12/06/2022.

Iron, Dissolved and Iron, Total were detected in method blank MB 280-594829/1-A at levels that were above the method detection limit but below the reporting limit. Calcium, Dissolved, Iron, Dissolved and Iron, Total were detected in method blank MB 280-594830/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Calcium, Dissolved, Magnesium, Dissolved, Potassium, Dissolved and Sodium, Dissolved failed the recovery criteria low for the MS/MSD of sample MW-34AMS (280-169282-5) in batch 280-595410. The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICP/MS)

Samples MW-43 (280-169282-1), MW-42 (280-169282-2), MW-29A (280-169282-3), MW-34C (280-169282-4), MW-34A (280-169282-5) and MW-15R (280-169282-6) were analyzed for Dissolved Metals (ICP/MS) in accordance with SW846 6020B. The samples were prepared on 11/27/2022 and 11/28/2022 and analyzed on 11/28/2022.

Manganese, Dissolved failed the recovery criteria low for the MSMSD of sample 280-169459-2 in batch 280-594781. The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

The instrument blank for analytical batch 280-594781 contained 1.2 ppb Manganese which is greater than the reporting limit (RL) of 1 ppb, and were not reanalyzed because the samples are >10x the blank or < RL. The data have been qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP/MS)

Samples MW-43 (280-169282-1), MW-42 (280-169282-2), MW-29A (280-169282-3), MW-34C (280-169282-4), MW-34A (280-169282-5) and MW-15R (280-169282-6) were analyzed for Total Recoverable Metals (ICP/MS) in accordance with SW846 6020B. The samples were prepared on 11/28/2022 and 11/29/2022 and analyzed on 11/28/2022 and 12/01/2022.

Lead, Total and Beryllium, Total were detected in method blank MB 280-594332/1-A at levels that were above the method detection limit but below the reporting limit. Manganese, Dissolved was detected in method blank MB 280-594393/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. Barium, Total and Lead, Total were detected in method blank MB 280-594691/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Job ID: 280-169282-1 (Continued)

Laboratory: Eurofins Denver (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY
Samples MW-43 (280-169282-1), MW-42 (280-169282-2), MW-29A (280-169282-3), MW-34C (280-169282-4), MW-34A (280-169282-5) and MW-15R (280-169282-6) were analyzed for Alkalinity in accordance with SM20 2320B. The samples were analyzed on 11/21/2022 and 11/22/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS
Samples MW-43 (280-169282-1), MW-42 (280-169282-2), MW-29A (280-169282-3), MW-34C (280-169282-4), MW-34A (280-169282-5) and MW-15R (280-169282-6) were analyzed for total dissolved solids in accordance with SM20 2540C. The samples were analyzed on 11/18/2022 and 11/22/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL SUSPENDED SOLIDS
Samples MW-43 (280-169282-1), MW-42 (280-169282-2), MW-29A (280-169282-3), MW-34C (280-169282-4), MW-34A (280-169282-5) and MW-15R (280-169282-6) were analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 11/18/2022 and 11/23/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS (28 DAYS)
Samples MW-43 (280-169282-1), MW-42 (280-169282-2), MW-29A (280-169282-3), MW-34C (280-169282-4), MW-34A (280-169282-5) and MW-15R (280-169282-6) were analyzed for anions (28 days) in accordance with EPA Method 300.0 (28 Days). The samples were analyzed on 12/06/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA
Samples MW-43 (280-169282-1), MW-42 (280-169282-2), MW-29A (280-169282-3), MW-34C (280-169282-4), MW-34A (280-169282-5) and MW-15R (280-169282-6) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 12/07/2022 and 12/08/2022.

The matrix spike and matrix spike duplicate (MS/MSD) recoveries for analytical batch 280-596110 were outside control limits. Sample matrix interference and/or non-homogeneity is suspected because the associated laboratory control sample (LCS), and laboratory control sample duplicate (LCSD) recoveries were within acceptance limits.

The matrix spike and matrix spike duplicate (MS/MSD) recoveries for analytical batch 280-596110 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS), and laboratory control sample duplicate (LCSD) recoveries were within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE
Samples MW-43 (280-169282-1), MW-42 (280-169282-2), MW-29A (280-169282-3), MW-34C (280-169282-4), MW-34A (280-169282-5) and MW-15R (280-169282-6) were analyzed for Nitrate in accordance with EPA Method 353.2. The samples were analyzed on 12/05/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL ORGANIC CARBON
Samples MW-43 (280-169282-1), MW-42 (280-169282-2), MW-29A (280-169282-3), MW-34C (280-169282-4), MW-34A (280-169282-5) and MW-15R (280-169282-6) were analyzed for total organic carbon in accordance with SM20 5310B. The samples were analyzed on 12/03/2022 and 12/06/2022.

Job ID: 280-169282-1 (Continued)

Laboratory: Eurofins Denver (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FIELD SAMPLING

Samples MW-43 (280-169282-1), MW-42 (280-169282-2), MW-29A (280-169282-3), MW-34C (280-169282-4), MW-34A (280-169282-5) and MW-15R (280-169282-6) were analyzed for Field Sampling in accordance with NA. The samples were analyzed on 11/16/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169282-1

Client Sample ID: MW-43 — Lab Sample ID: 280-169282-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Total	1.6	B	0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	5.7	B	0.20	0.024	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	2.3		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.66	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	3.0		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.0052		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.068		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0066		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.0070	B	0.0010	0.00031	mg/L	1		6020B	Dissolved
Nitrate as N	1.5		0.050	0.050	mg/L	1		353.2	Total/NA
Alkalinity, Total (As CaCO3)	26		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	26		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	32		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Average	1.4		1.0	1.0	mg/L	1		SM 5310B	Total/NA
Depth to water	25.73				ft	1		Field Sampling	Total/NA
Specific Conductivity	61				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	10.3				mg/L	1		Field Sampling	Total/NA
eH	109.0				millivolts	1		Field Sampling	Total/NA
Turbidity	5.4				NTU	1		Field Sampling	Total/NA
Temperature	11.6				Degrees C	1		Field Sampling	Total/NA
pH	5.66				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-42 — Lab Sample ID: 280-169282-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.10		0.020	0.0040	ug/L	1		8260C SIM	Total/NA
Cobalt, Total	0.00094	J	0.0030	0.00056	mg/L	1		6010D	Total Recoverable
Iron, Total	29	B	0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	36	B	0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	23	B	0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	12		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	7.4		1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	18		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.095		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Beryllium, Total	0.000082	J B	0.0010	0.000080	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0010	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	3.9		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0013	J	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0028		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	3.8	B	0.0010	0.00031	mg/L	1		6020B	Dissolved
Chloride	6.6		3.0	3.0	mg/L	1		300.0	Total/NA
Sulfate	5.5		5.0	5.0	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

Client Sample ID: MW-42 (Continued) — Lab Sample ID: 280-169282-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Ammonia (as N)	0.11		0.030	0.030	mg/L	1		350.1	Total/NA
Alkalinity, Total (As CaCO3)	200		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	200		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	210		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	39		4.0	4.0	mg/L	1		SM 2540D	Total/NA
Total Organic Carbon - Average	8.2		1.0	1.0	mg/L	1		SM 5310B	Total/NA
Depth to water	28.76				ft	1		Field Sampling	Total/NA
Specific Conductivity	457				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	10.0				mg/L	1		Field Sampling	Total/NA
eH	-49.9				millivolts	1		Field Sampling	Total/NA
Turbidity	3.8				NTU	1		Field Sampling	Total/NA
Temperature	12.7				Degrees C	1		Field Sampling	Total/NA
pH	6.49				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-29A — Lab Sample ID: 280-169282-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt, Total	0.0016	J	0.0030	0.00056	mg/L	1		6010D	Total Recoverable
Iron, Total	3.7	B	0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	5.8	B	0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	3.4	B	0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	3.6		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.29	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	3.4		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.0066	B	0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.00057	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	1.2		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0015	J	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.0026	J	0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	1.1	B ^2	0.0010	0.00031	mg/L	1		6020B	Dissolved
Ammonia (as N)	0.13		0.030	0.030	mg/L	1		350.1	Total/NA
Alkalinity, Total (As CaCO3)	43		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	43		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	42		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Average	1.8		1.0	1.0	mg/L	1		SM 5310B	Total/NA
Depth to water	14.55				ft	1		Field Sampling	Total/NA
Specific Conductivity	86				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	11.1				mg/L	1		Field Sampling	Total/NA
eH	21.5				millivolts	1		Field Sampling	Total/NA
Turbidity	1.6				NTU	1		Field Sampling	Total/NA
Temperature	11.4				Degrees C	1		Field Sampling	Total/NA
pH	6.05				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-34C — Lab Sample ID: 280-169282-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.022		0.020	0.0040	ug/L	1		8260C SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-34C (Continued) — Lab Sample ID: 280-169282-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt, Total	0.0022	J	0.0030	0.00056	mg/L	1		6010D	Total Recoverable
Iron, Total	44	B	0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	18	B	0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.49	B	0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	7.7		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.85	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	10		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.19	B	0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0011	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Copper, Total	0.0025		0.0020	0.00056	mg/L	1		6020B	Total Recoverable
Lead, Total	0.00019	J B	0.0010	0.00018	mg/L	1		6020B	Total Recoverable
Manganese, Total	3.4		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.00054	J	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0036		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.0043	J	0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.38	B ^2	0.0010	0.00031	mg/L	1		6020B	Dissolved
Ammonia (as N)	0.036		0.030	0.030	mg/L	1		350.1	Total/NA
Alkalinity, Total (As CaCO3)	93		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	93		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	110		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	280		4.0	4.0	mg/L	1		SM 2540D	Total/NA
Total Organic Carbon - Average	1.6		1.0	1.0	mg/L	1		SM 5310B	Total/NA
Depth to water	42.44				ft	1		Field Sampling	Total/NA
Specific Conductivity	184				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	0.9				mg/L	1		Field Sampling	Total/NA
eH	2.1				millivolts	1		Field Sampling	Total/NA
Turbidity	11.7				NTU	1		Field Sampling	Total/NA
Temperature	12.6				Degrees C	1		Field Sampling	Total/NA
pH	6.81				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-34A — Lab Sample ID: 280-169282-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium, Dissolved	13		0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.011	J B	0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	6.2		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.53	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	7.7		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.0041	B	0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0048		0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Copper, Total	0.00068	J	0.0020	0.00056	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-34A (Continued) — Lab Sample ID: 280-169282-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese, Total	0.00063	J	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0020	J	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0044		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.019		0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.00040	J B ^2	0.0010	0.00031	mg/L	1		6020B	Dissolved
Nitrate as N	0.44		0.050	0.050	mg/L	1		353.2	Total/NA
Alkalinity, Total (As CaCO3)	73		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	73		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	94		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	40.74				ft	1		Field Sampling	Total/NA
Specific Conductivity	145				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	2.5				mg/L	1		Field Sampling	Total/NA
eH	274.5				millivolts	1		Field Sampling	Total/NA
Turbidity	3.0				NTU	1		Field Sampling	Total/NA
Temperature	11.6				Degrees C	1		Field Sampling	Total/NA
pH	6.21				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-15R — Lab Sample ID: 280-169282-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Total	0.017	J B	0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	13		0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.010	J B	0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	8.4		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.88	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	5.2		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.0039	B	0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.0019		0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.00087	J	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0030		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.0029	J	0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.0017	B	0.0010	0.00031	mg/L	1		6020B	Dissolved
Nitrate as N	0.21		0.050	0.050	mg/L	1		353.2	Total/NA
Alkalinity, Total (As CaCO3)	74		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	74		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	73		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	19.66				ft	1		Field Sampling	Total/NA
Specific Conductivity	147				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	1.5				mg/L	1		Field Sampling	Total/NA
eH	249.9				millivolts	1		Field Sampling	Total/NA
Turbidity	3.1				NTU	1		Field Sampling	Total/NA
Temperature	9.8				Degrees C	1		Field Sampling	Total/NA
pH	6.76				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Waste Management
Job ID: 280-169282-1
Project/Site: WA02|Olympic View Sanitary LF

Client Sample ID: TRIP BLANK
Lab Sample ID: 280-169282-7

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169282-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	EET BUF
6010D	Metals (ICP)	SW846	EET DEN
6020B	Metals (ICP/MS)	SW846	EET DEN
300.0	Anions, Ion Chromatography	MCAWW	EET DEN
350.1	Nitrogen, Ammonia	MCAWW	EET DEN
353.2	Nitrate	EPA	EET DEN
SM 2320B	Alkalinity	SM	EET DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	EET DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	EET DEN
Field Sampling	Field Sampling	EPA	EET DEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET DEN
5030C	Purge and Trap	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169282-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-169282-1	MW-43	Water	11/16/22 14:40	11/17/22 10:30
280-169282-2	MW-42	Water	11/16/22 13:20	11/17/22 10:30
280-169282-3	MW-29A	Water	11/16/22 14:10	11/17/22 10:30
280-169282-4	MW-34C	Water	11/16/22 13:55	11/17/22 10:30
280-169282-5	MW-34A	Water	11/16/22 13:10	11/17/22 10:30
280-169282-6	MW-15R	Water	11/16/22 11:35	11/17/22 10:30
280-169282-7	TRIP BLANK	Water	11/16/22 15:02	11/17/22 10:30

Method: SW846 8260C SIM - Volatile Organic Compounds (GC/MS)

Client Sample ID: MW-43
Date Collected: 11/16/22 14:40
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/28/22 22:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*145*		*50 - 150*		*11/28/22 22:26*	*1*
TBA-d9 (Surr)	*125*		*50 - 150*		*11/28/22 22:26*	*1*

Client Sample ID: MW-42
Date Collected: 11/16/22 13:20
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**0.10**		0.020	0.0040	ug/L			11/28/22 22:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*143*		*50 - 150*		*11/28/22 22:50*	*1*
TBA-d9 (Surr)	*136*		*50 - 150*		*11/28/22 22:50*	*1*

Client Sample ID: MW-29A
Date Collected: 11/16/22 14:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/28/22 23:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*147*		*50 - 150*		*11/28/22 23:13*	*1*
TBA-d9 (Surr)	*142*		*50 - 150*		*11/28/22 23:13*	*1*

Client Sample ID: MW-34C
Date Collected: 11/16/22 13:55
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**0.022**		0.020	0.0040	ug/L			11/28/22 23:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*148*		*50 - 150*		*11/28/22 23:37*	*1*
TBA-d9 (Surr)	*138*		*50 - 150*		*11/28/22 23:37*	*1*

Client Sample ID: MW-34A
Date Collected: 11/16/22 13:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/29/22 00:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*149*		*50 - 150*		*11/29/22 00:01*	*1*
TBA-d9 (Surr)	*136*		*50 - 150*		*11/29/22 00:01*	*1*

Client Sample ID: MW-15R
Date Collected: 11/16/22 11:35
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/29/22 00:25	1

Method: SW846 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*154*	*S1+*	*50 - 150*		*11/29/22 00:25*	*1*
TBA-d9 (Surr)	*138*		*50 - 150*		*11/29/22 00:25*	*1*

Client Sample ID: TRIP BLANK
Date Collected: 11/16/22 15:02
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/29/22 00:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*155*	*S1+*	*50 - 150*		*11/29/22 00:48*	*1*
TBA-d9 (Surr)	*138*		*50 - 150*		*11/29/22 00:48*	*1*

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: MW-43
Date Collected: 11/16/22 14:40
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/23/22 22:40	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/22 22:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/22 22:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/22 22:40	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/22 22:40	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/23/22 22:40	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/22 22:40	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/23/22 22:40	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 22:40	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/23/22 22:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 22:40	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/23/22 22:40	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/22 22:40	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/23/22 22:40	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/22 22:40	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/22 22:40	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/23/22 22:40	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/22 22:40	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/23/22 22:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/23/22 22:40	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/22 22:40	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/23/22 22:40	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/22 22:40	1
1,4-Dioxane	ND		40	9.3	ug/L			11/23/22 22:40	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/23/22 22:40	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/22 22:40	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/23/22 22:40	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/22 22:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/22 22:40	1
Acetone	ND		10	3.0	ug/L			11/23/22 22:40	1
Acetonitrile	ND		15	4.9	ug/L			11/23/22 22:40	1
Acrolein	ND		20	0.91	ug/L			11/23/22 22:40	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/23/22 22:40	1
Benzene	ND		1.0	0.41	ug/L			11/23/22 22:40	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-43
Date Collected: 11/16/22 14:40
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	ND		1.0	0.80	ug/L			11/23/22 22:40	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/23/22 22:40	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/22 22:40	1
Bromoform	ND		1.0	0.26	ug/L			11/23/22 22:40	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/22 22:40	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/23/22 22:40	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/23/22 22:40	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/22 22:40	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/22 22:40	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/22 22:40	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/23/22 22:40	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/22 22:40	1
Chloroform	ND		1.0	0.34	ug/L			11/23/22 22:40	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/22 22:40	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/22 22:40	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/22 22:40	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/22 22:40	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/22 22:40	1
Dibromomethane	ND		1.0	0.41	ug/L			11/23/22 22:40	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/22 22:40	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/23/22 22:40	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/23/22 22:40	1
Ethyl ether	ND		1.0	0.72	ug/L			11/23/22 22:40	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/23/22 22:40	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/22 22:40	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/23/22 22:40	1
Hexane	ND		10	0.40	ug/L			11/23/22 22:40	1
Iodomethane	ND		1.0	0.30	ug/L			11/23/22 22:40	1
Isobutanol	ND		25	4.8	ug/L			11/23/22 22:40	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/23/22 22:40	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/22 22:40	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/23/22 22:40	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/22 22:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/22 22:40	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/22 22:40	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/22 22:40	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/23/22 22:40	1
Naphthalene	ND		1.0	0.43	ug/L			11/23/22 22:40	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/23/22 22:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/23/22 22:40	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/23/22 22:40	1
o-Xylene	ND		1.0	0.76	ug/L			11/23/22 22:40	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/23/22 22:40	1
p-Cymene	ND		1.0	0.31	ug/L			11/23/22 22:40	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/23/22 22:40	1
Styrene	ND		1.0	0.73	ug/L			11/23/22 22:40	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/23/22 22:40	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/23/22 22:40	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/22 22:40	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-43
Date Collected: 11/16/22 14:40
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/23/22 22:40	1
Toluene	ND		1.0	0.51	ug/L			11/23/22 22:40	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/22 22:40	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/22 22:40	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/23/22 22:40	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/22 22:40	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/22 22:40	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/23/22 22:40	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/22 22:40	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/23/22 22:40*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*11/23/22 22:40*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*11/23/22 22:40*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*11/23/22 22:40*	*1*

Client Sample ID: MW-42
Date Collected: 11/16/22 13:20
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/23/22 23:03	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/22 23:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/22 23:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/22 23:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/22 23:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/23/22 23:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/22 23:03	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/23/22 23:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 23:03	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/23/22 23:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 23:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/23/22 23:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/22 23:03	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/23/22 23:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/22 23:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/22 23:03	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/23/22 23:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/22 23:03	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/23/22 23:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/23/22 23:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/22 23:03	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/23/22 23:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/22 23:03	1
1,4-Dioxane	ND		40	9.3	ug/L			11/23/22 23:03	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/23/22 23:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/22 23:03	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/23/22 23:03	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/22 23:03	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-42
Date Collected: 11/16/22 13:20
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/22 23:03	1
Acetone	ND		10	3.0	ug/L			11/23/22 23:03	1
Acetonitrile	ND		15	4.9	ug/L			11/23/22 23:03	1
Acrolein	ND		20	0.91	ug/L			11/23/22 23:03	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/23/22 23:03	1
Benzene	ND		1.0	0.41	ug/L			11/23/22 23:03	1
Bromobenzene	ND		1.0	0.80	ug/L			11/23/22 23:03	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/23/22 23:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/22 23:03	1
Bromoform	ND		1.0	0.26	ug/L			11/23/22 23:03	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/22 23:03	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/23/22 23:03	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/23/22 23:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/22 23:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/22 23:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/22 23:03	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/23/22 23:03	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/22 23:03	1
Chloroform	ND		1.0	0.34	ug/L			11/23/22 23:03	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/22 23:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/22 23:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/22 23:03	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/22 23:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/22 23:03	1
Dibromomethane	ND		1.0	0.41	ug/L			11/23/22 23:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/22 23:03	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/23/22 23:03	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/23/22 23:03	1
Ethyl ether	ND		1.0	0.72	ug/L			11/23/22 23:03	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/23/22 23:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/22 23:03	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/23/22 23:03	1
Hexane	ND		10	0.40	ug/L			11/23/22 23:03	1
Iodomethane	ND		1.0	0.30	ug/L			11/23/22 23:03	1
Isobutanol	ND		25	4.8	ug/L			11/23/22 23:03	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/23/22 23:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/22 23:03	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/23/22 23:03	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/22 23:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/22 23:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/22 23:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/22 23:03	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/23/22 23:03	1
Naphthalene	ND		1.0	0.43	ug/L			11/23/22 23:03	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/23/22 23:03	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/23/22 23:03	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/23/22 23:03	1
o-Xylene	ND		1.0	0.76	ug/L			11/23/22 23:03	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/23/22 23:03	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-42
Date Collected: 11/16/22 13:20
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Cymene	ND		1.0	0.31	ug/L			11/23/22 23:03	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/23/22 23:03	1
Styrene	ND		1.0	0.73	ug/L			11/23/22 23:03	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/23/22 23:03	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/23/22 23:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/22 23:03	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/23/22 23:03	1
Toluene	ND		1.0	0.51	ug/L			11/23/22 23:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/22 23:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/22 23:03	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/23/22 23:03	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/22 23:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/22 23:03	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/23/22 23:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/22 23:03	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/23/22 23:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*11/23/22 23:03*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*11/23/22 23:03*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*11/23/22 23:03*	*1*

Client Sample ID: MW-29A
Date Collected: 11/16/22 14:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/23/22 23:27	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/22 23:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/22 23:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/22 23:27	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/22 23:27	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/23/22 23:27	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/22 23:27	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/23/22 23:27	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 23:27	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/23/22 23:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 23:27	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/23/22 23:27	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/22 23:27	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/23/22 23:27	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/22 23:27	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/22 23:27	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/23/22 23:27	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/22 23:27	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/23/22 23:27	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/23/22 23:27	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/22 23:27	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/23/22 23:27	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-29A
Date Collected: 11/16/22 14:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/22 23:27	1
1,4-Dioxane	ND		40	9.3	ug/L			11/23/22 23:27	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/23/22 23:27	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/22 23:27	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/23/22 23:27	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/22 23:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/22 23:27	1
Acetone	ND		10	3.0	ug/L			11/23/22 23:27	1
Acetonitrile	ND		15	4.9	ug/L			11/23/22 23:27	1
Acrolein	ND		20	0.91	ug/L			11/23/22 23:27	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/23/22 23:27	1
Benzene	ND		1.0	0.41	ug/L			11/23/22 23:27	1
Bromobenzene	ND		1.0	0.80	ug/L			11/23/22 23:27	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/23/22 23:27	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/22 23:27	1
Bromoform	ND		1.0	0.26	ug/L			11/23/22 23:27	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/22 23:27	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/23/22 23:27	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/23/22 23:27	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/22 23:27	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/22 23:27	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/22 23:27	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/23/22 23:27	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/22 23:27	1
Chloroform	ND		1.0	0.34	ug/L			11/23/22 23:27	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/22 23:27	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/22 23:27	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/22 23:27	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/22 23:27	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/22 23:27	1
Dibromomethane	ND		1.0	0.41	ug/L			11/23/22 23:27	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/22 23:27	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/23/22 23:27	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/23/22 23:27	1
Ethyl ether	ND		1.0	0.72	ug/L			11/23/22 23:27	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/23/22 23:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/22 23:27	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/23/22 23:27	1
Hexane	ND		10	0.40	ug/L			11/23/22 23:27	1
Iodomethane	ND		1.0	0.30	ug/L			11/23/22 23:27	1
Isobutanol	ND		25	4.8	ug/L			11/23/22 23:27	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/23/22 23:27	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/22 23:27	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/23/22 23:27	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/22 23:27	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/22 23:27	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/22 23:27	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/22 23:27	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/23/22 23:27	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-29A
Date Collected: 11/16/22 14:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.43	ug/L			11/23/22 23:27	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/23/22 23:27	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/23/22 23:27	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/23/22 23:27	1
o-Xylene	ND		1.0	0.76	ug/L			11/23/22 23:27	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/23/22 23:27	1
p-Cymene	ND		1.0	0.31	ug/L			11/23/22 23:27	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/23/22 23:27	1
Styrene	ND		1.0	0.73	ug/L			11/23/22 23:27	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/23/22 23:27	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/23/22 23:27	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/22 23:27	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/23/22 23:27	1
Toluene	ND		1.0	0.51	ug/L			11/23/22 23:27	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/22 23:27	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/22 23:27	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/23/22 23:27	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/22 23:27	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/22 23:27	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/23/22 23:27	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/22 23:27	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/23/22 23:27*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*11/23/22 23:27*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*11/23/22 23:27*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*11/23/22 23:27*	*1*

Client Sample ID: MW-34C
Date Collected: 11/16/22 13:55
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/23/22 17:26	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/22 17:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/22 17:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/22 17:26	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/22 17:26	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/23/22 17:26	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/22 17:26	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/23/22 17:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 17:26	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/23/22 17:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 17:26	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/23/22 17:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/22 17:26	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/23/22 17:26	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/22 17:26	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/22 17:26	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-34C
Date Collected: 11/16/22 13:55
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/23/22 17:26	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/22 17:26	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/23/22 17:26	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/23/22 17:26	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/22 17:26	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/23/22 17:26	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/22 17:26	1
1,4-Dioxane	ND		40	9.3	ug/L			11/23/22 17:26	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/23/22 17:26	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/22 17:26	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/23/22 17:26	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/22 17:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/22 17:26	1
Acetone	ND		10	3.0	ug/L			11/23/22 17:26	1
Acetonitrile	ND		15	4.9	ug/L			11/23/22 17:26	1
Acrolein	ND		20	0.91	ug/L			11/23/22 17:26	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/23/22 17:26	1
Benzene	ND		1.0	0.41	ug/L			11/23/22 17:26	1
Bromobenzene	ND		1.0	0.80	ug/L			11/23/22 17:26	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/23/22 17:26	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/22 17:26	1
Bromoform	ND		1.0	0.26	ug/L			11/23/22 17:26	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/22 17:26	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/23/22 17:26	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/23/22 17:26	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/22 17:26	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/22 17:26	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/22 17:26	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/23/22 17:26	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/22 17:26	1
Chloroform	ND		1.0	0.34	ug/L			11/23/22 17:26	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/22 17:26	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/22 17:26	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/22 17:26	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/22 17:26	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/22 17:26	1
Dibromomethane	ND		1.0	0.41	ug/L			11/23/22 17:26	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/22 17:26	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/23/22 17:26	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/23/22 17:26	1
Ethyl ether	ND		1.0	0.72	ug/L			11/23/22 17:26	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/23/22 17:26	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/22 17:26	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/23/22 17:26	1
Hexane	ND		10	0.40	ug/L			11/23/22 17:26	1
Iodomethane	ND		1.0	0.30	ug/L			11/23/22 17:26	1
Isobutanol	ND		25	4.8	ug/L			11/23/22 17:26	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/23/22 17:26	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/22 17:26	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-34C
Date Collected: 11/16/22 13:55
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methacrylonitrile	ND		5.0	0.69	ug/L			11/23/22 17:26	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/22 17:26	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/22 17:26	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/22 17:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/22 17:26	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/23/22 17:26	1
Naphthalene	ND		1.0	0.43	ug/L			11/23/22 17:26	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/23/22 17:26	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/23/22 17:26	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/23/22 17:26	1
o-Xylene	ND		1.0	0.76	ug/L			11/23/22 17:26	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/23/22 17:26	1
p-Cymene	ND		1.0	0.31	ug/L			11/23/22 17:26	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/23/22 17:26	1
Styrene	ND		1.0	0.73	ug/L			11/23/22 17:26	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/23/22 17:26	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/23/22 17:26	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/22 17:26	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/23/22 17:26	1
Toluene	ND		1.0	0.51	ug/L			11/23/22 17:26	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/22 17:26	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/22 17:26	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/23/22 17:26	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/22 17:26	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/22 17:26	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/23/22 17:26	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/22 17:26	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/23/22 17:26*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*77 - 120*		*11/23/22 17:26*	*1*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*		*11/23/22 17:26*	*1*
Toluene-d8 (Surr)	*109*		*80 - 120*		*11/23/22 17:26*	*1*

Client Sample ID: MW-34A
Date Collected: 11/16/22 13:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/23/22 17:49	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/22 17:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/22 17:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/22 17:49	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/22 17:49	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/23/22 17:49	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/22 17:49	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/23/22 17:49	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 17:49	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/23/22 17:49	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-34A
Date Collected: 11/16/22 13:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 17:49	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/23/22 17:49	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/22 17:49	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/23/22 17:49	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/22 17:49	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/22 17:49	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/23/22 17:49	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/22 17:49	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/23/22 17:49	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/23/22 17:49	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/22 17:49	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/23/22 17:49	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/22 17:49	1
1,4-Dioxane	ND		40	9.3	ug/L			11/23/22 17:49	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/23/22 17:49	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/22 17:49	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/23/22 17:49	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/22 17:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/22 17:49	1
Acetone	ND		10	3.0	ug/L			11/23/22 17:49	1
Acetonitrile	ND		15	4.9	ug/L			11/23/22 17:49	1
Acrolein	ND		20	0.91	ug/L			11/23/22 17:49	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/23/22 17:49	1
Benzene	ND		1.0	0.41	ug/L			11/23/22 17:49	1
Bromobenzene	ND		1.0	0.80	ug/L			11/23/22 17:49	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/23/22 17:49	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/22 17:49	1
Bromoform	ND		1.0	0.26	ug/L			11/23/22 17:49	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/22 17:49	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/23/22 17:49	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/23/22 17:49	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/22 17:49	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/22 17:49	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/22 17:49	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/23/22 17:49	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/22 17:49	1
Chloroform	ND		1.0	0.34	ug/L			11/23/22 17:49	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/22 17:49	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/22 17:49	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/22 17:49	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/22 17:49	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/22 17:49	1
Dibromomethane	ND		1.0	0.41	ug/L			11/23/22 17:49	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/22 17:49	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/23/22 17:49	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/23/22 17:49	1
Ethyl ether	ND		1.0	0.72	ug/L			11/23/22 17:49	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/23/22 17:49	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/22 17:49	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-34A
Date Collected: 11/16/22 13:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/23/22 17:49	1
Hexane	ND		10	0.40	ug/L			11/23/22 17:49	1
Iodomethane	ND		1.0	0.30	ug/L			11/23/22 17:49	1
Isobutanol	ND		25	4.8	ug/L			11/23/22 17:49	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/23/22 17:49	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/22 17:49	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/23/22 17:49	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/22 17:49	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/22 17:49	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/22 17:49	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/22 17:49	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/23/22 17:49	1
Naphthalene	ND		1.0	0.43	ug/L			11/23/22 17:49	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/23/22 17:49	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/23/22 17:49	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/23/22 17:49	1
o-Xylene	ND		1.0	0.76	ug/L			11/23/22 17:49	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/23/22 17:49	1
p-Cymene	ND		1.0	0.31	ug/L			11/23/22 17:49	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/23/22 17:49	1
Styrene	ND		1.0	0.73	ug/L			11/23/22 17:49	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/23/22 17:49	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/23/22 17:49	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/22 17:49	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/23/22 17:49	1
Toluene	ND		1.0	0.51	ug/L			11/23/22 17:49	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/22 17:49	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/22 17:49	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/23/22 17:49	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/22 17:49	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/22 17:49	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/23/22 17:49	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/22 17:49	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/23/22 17:49*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*77 - 120*		*11/23/22 17:49*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*11/23/22 17:49*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*11/23/22 17:49*	*1*

Client Sample ID: MW-15R
Date Collected: 11/16/22 11:35
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/23/22 18:12	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/22 18:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/22 18:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/22 18:12	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-15R
Date Collected: 11/16/22 11:35
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/22 18:12	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/23/22 18:12	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/22 18:12	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/23/22 18:12	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 18:12	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/23/22 18:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 18:12	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/23/22 18:12	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/22 18:12	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/23/22 18:12	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/22 18:12	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/22 18:12	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/23/22 18:12	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/22 18:12	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/23/22 18:12	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/23/22 18:12	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/22 18:12	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/23/22 18:12	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/22 18:12	1
1,4-Dioxane	ND		40	9.3	ug/L			11/23/22 18:12	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/23/22 18:12	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/22 18:12	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/23/22 18:12	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/22 18:12	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/22 18:12	1
Acetone	ND		10	3.0	ug/L			11/23/22 18:12	1
Acetonitrile	ND		15	4.9	ug/L			11/23/22 18:12	1
Acrolein	ND		20	0.91	ug/L			11/23/22 18:12	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/23/22 18:12	1
Benzene	ND		1.0	0.41	ug/L			11/23/22 18:12	1
Bromobenzene	ND		1.0	0.80	ug/L			11/23/22 18:12	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/23/22 18:12	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/22 18:12	1
Bromoform	ND		1.0	0.26	ug/L			11/23/22 18:12	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/22 18:12	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/23/22 18:12	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/23/22 18:12	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/22 18:12	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/22 18:12	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/22 18:12	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/23/22 18:12	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/22 18:12	1
Chloroform	ND		1.0	0.34	ug/L			11/23/22 18:12	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/22 18:12	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/22 18:12	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/22 18:12	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/22 18:12	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/22 18:12	1
Dibromomethane	ND		1.0	0.41	ug/L			11/23/22 18:12	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-15R
Date Collected: 11/16/22 11:35
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/22 18:12	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/23/22 18:12	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/23/22 18:12	1
Ethyl ether	ND		1.0	0.72	ug/L			11/23/22 18:12	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/23/22 18:12	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/22 18:12	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/23/22 18:12	1
Hexane	ND		10	0.40	ug/L			11/23/22 18:12	1
Iodomethane	ND		1.0	0.30	ug/L			11/23/22 18:12	1
Isobutanol	ND		25	4.8	ug/L			11/23/22 18:12	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/23/22 18:12	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/22 18:12	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/23/22 18:12	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/22 18:12	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/22 18:12	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/22 18:12	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/22 18:12	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/23/22 18:12	1
Naphthalene	ND		1.0	0.43	ug/L			11/23/22 18:12	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/23/22 18:12	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/23/22 18:12	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/23/22 18:12	1
o-Xylene	ND		1.0	0.76	ug/L			11/23/22 18:12	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/23/22 18:12	1
p-Cymene	ND		1.0	0.31	ug/L			11/23/22 18:12	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/23/22 18:12	1
Styrene	ND		1.0	0.73	ug/L			11/23/22 18:12	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/23/22 18:12	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/23/22 18:12	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/22 18:12	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/23/22 18:12	1
Toluene	ND		1.0	0.51	ug/L			11/23/22 18:12	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/22 18:12	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/22 18:12	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/23/22 18:12	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/22 18:12	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/22 18:12	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/23/22 18:12	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/22 18:12	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/23/22 18:12*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*77 - 120*		*11/23/22 18:12*	*1*
4-Bromofluorobenzene (Surr)	*118*		*73 - 120*		*11/23/22 18:12*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*11/23/22 18:12*	*1*

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: TRIP BLANK
Date Collected: 11/16/22 15:02
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/23/22 18:35	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/22 18:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/22 18:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/22 18:35	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/22 18:35	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/23/22 18:35	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/22 18:35	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/23/22 18:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 18:35	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/23/22 18:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 18:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/23/22 18:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/22 18:35	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/23/22 18:35	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/22 18:35	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/22 18:35	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/23/22 18:35	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/22 18:35	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/23/22 18:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/23/22 18:35	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/22 18:35	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/23/22 18:35	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/22 18:35	1
1,4-Dioxane	ND		40	9.3	ug/L			11/23/22 18:35	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/23/22 18:35	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/22 18:35	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/23/22 18:35	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/22 18:35	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/22 18:35	1
Acetone	ND		10	3.0	ug/L			11/23/22 18:35	1
Acetonitrile	ND		15	4.9	ug/L			11/23/22 18:35	1
Acrolein	ND		20	0.91	ug/L			11/23/22 18:35	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/23/22 18:35	1
Benzene	ND		1.0	0.41	ug/L			11/23/22 18:35	1
Bromobenzene	ND		1.0	0.80	ug/L			11/23/22 18:35	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/23/22 18:35	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/22 18:35	1
Bromoform	ND		1.0	0.26	ug/L			11/23/22 18:35	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/22 18:35	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/23/22 18:35	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/23/22 18:35	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/22 18:35	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/22 18:35	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/22 18:35	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/23/22 18:35	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/22 18:35	1
Chloroform	ND		1.0	0.34	ug/L			11/23/22 18:35	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/22 18:35	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/22 18:35	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 11/16/22 15:02
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/22 18:35	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/22 18:35	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/22 18:35	1
Dibromomethane	ND		1.0	0.41	ug/L			11/23/22 18:35	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/22 18:35	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/23/22 18:35	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/23/22 18:35	1
Ethyl ether	ND		1.0	0.72	ug/L			11/23/22 18:35	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/23/22 18:35	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/22 18:35	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/23/22 18:35	1
Hexane	ND		10	0.40	ug/L			11/23/22 18:35	1
Iodomethane	ND		1.0	0.30	ug/L			11/23/22 18:35	1
Isobutanol	ND		25	4.8	ug/L			11/23/22 18:35	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/23/22 18:35	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/22 18:35	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/23/22 18:35	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/22 18:35	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/22 18:35	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/22 18:35	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/22 18:35	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/23/22 18:35	1
Naphthalene	ND		1.0	0.43	ug/L			11/23/22 18:35	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/23/22 18:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/23/22 18:35	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/23/22 18:35	1
o-Xylene	ND		1.0	0.76	ug/L			11/23/22 18:35	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/23/22 18:35	1
p-Cymene	ND		1.0	0.31	ug/L			11/23/22 18:35	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/23/22 18:35	1
Styrene	ND		1.0	0.73	ug/L			11/23/22 18:35	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/23/22 18:35	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/23/22 18:35	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/22 18:35	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/23/22 18:35	1
Toluene	ND		1.0	0.51	ug/L			11/23/22 18:35	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/22 18:35	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/22 18:35	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/23/22 18:35	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/22 18:35	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/22 18:35	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/23/22 18:35	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/22 18:35	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/23/22 18:35*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*11/23/22 18:35*	*1*
4-Bromofluorobenzene (Surr)	*115*		*73 - 120*		*11/23/22 18:35*	*1*

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 11/16/22 15:02
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-7
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*80 - 120*		*11/23/22 18:35*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Client Sample ID: MW-43
Date Collected: 11/16/22 14:40
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/01/22 09:30	12/03/22 00:38	1
Iron, Total	**1.6**	**B**	0.060	0.0091	mg/L		12/01/22 09:30	12/06/22 15:20	1

Client Sample ID: MW-42
Date Collected: 11/16/22 13:20
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	**0.00094**	**J**	0.0030	0.00056	mg/L		12/01/22 09:30	12/03/22 00:42	1
Iron, Total	**29**	**B**	0.060	0.0091	mg/L		12/01/22 09:30	12/06/22 15:24	1

Client Sample ID: MW-29A
Date Collected: 11/16/22 14:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	**0.0016**	**J**	0.0030	0.00056	mg/L		12/01/22 09:30	12/03/22 00:46	1
Iron, Total	**3.7**	**B**	0.060	0.0091	mg/L		12/01/22 09:30	12/06/22 15:28	1

Client Sample ID: MW-34C
Date Collected: 11/16/22 13:55
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	**0.0022**	**J**	0.0030	0.00056	mg/L		12/01/22 09:30	12/03/22 00:50	1
Iron, Total	**44**	**B**	0.060	0.0091	mg/L		12/01/22 09:30	12/06/22 15:32	1

Client Sample ID: MW-34A
Date Collected: 11/16/22 13:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/01/22 09:30	12/02/22 04:27	1
Iron, Total	ND		0.060	0.0091	mg/L		12/01/22 09:30	12/02/22 04:27	1

Client Sample ID: MW-15R
Date Collected: 11/16/22 11:35
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/01/22 09:30	12/02/22 04:48	1
Iron, Total	**0.017**	**J B**	0.060	0.0091	mg/L		12/01/22 09:30	12/02/22 04:48	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Client Sample ID: MW-43
Date Collected: 11/16/22 14:40
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	5.7	B	0.20	0.024	mg/L		12/01/22 09:30	12/02/22 23:05	1
Iron, Dissolved	ND		0.060	0.0091	mg/L		12/01/22 09:30	12/02/22 23:05	1
Magnesium, Dissolved	2.3		0.050	0.0042	mg/L		12/01/22 09:30	12/05/22 18:44	1
Potassium, Dissolved	0.66	J	1.0	0.24	mg/L		12/01/22 09:30	12/02/22 23:05	1
Sodium, Dissolved	3.0		1.0	0.097	mg/L		12/01/22 09:30	12/05/22 18:44	1

Client Sample ID: MW-42
Date Collected: 11/16/22 13:20
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	36	B	0.20	0.024	mg/L		12/01/22 09:30	12/05/22 18:48	1
Iron, Dissolved	23	B	0.060	0.0091	mg/L		12/01/22 09:30	12/02/22 23:09	1
Magnesium, Dissolved	12		0.050	0.0042	mg/L		12/01/22 09:30	12/02/22 23:09	1
Potassium, Dissolved	7.4		1.0	0.24	mg/L		12/01/22 09:30	12/05/22 18:48	1
Sodium, Dissolved	18		1.0	0.097	mg/L		12/01/22 09:30	12/05/22 18:48	1

Client Sample ID: MW-29A
Date Collected: 11/16/22 14:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	5.8	B	0.20	0.024	mg/L		12/01/22 09:30	12/02/22 23:29	1
Iron, Dissolved	3.4	B	0.060	0.0091	mg/L		12/01/22 09:30	12/05/22 18:52	1
Magnesium, Dissolved	3.6		0.050	0.0042	mg/L		12/01/22 09:30	12/02/22 23:29	1
Potassium, Dissolved	0.29	J	1.0	0.24	mg/L		12/01/22 09:30	12/02/22 23:29	1
Sodium, Dissolved	3.4		1.0	0.097	mg/L		12/01/22 09:30	12/05/22 18:52	1

Client Sample ID: MW-34C
Date Collected: 11/16/22 13:55
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	18	B	0.20	0.024	mg/L		12/01/22 09:30	12/02/22 23:33	1
Iron, Dissolved	0.49	B	0.060	0.0091	mg/L		12/01/22 09:30	12/05/22 18:56	1
Magnesium, Dissolved	7.7		0.050	0.0042	mg/L		12/01/22 09:30	12/02/22 23:33	1
Potassium, Dissolved	0.85	J	1.0	0.24	mg/L		12/01/22 09:30	12/02/22 23:33	1
Sodium, Dissolved	10		1.0	0.097	mg/L		12/01/22 09:30	12/05/22 18:56	1

Client Sample ID: MW-34A
Date Collected: 11/16/22 13:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	13		0.20	0.024	mg/L		12/01/22 09:30	12/02/22 05:44	1
Iron, Dissolved	0.011	J B	0.060	0.0091	mg/L		12/01/22 09:30	12/02/22 05:44	1
Magnesium, Dissolved	6.2		0.050	0.0042	mg/L		12/01/22 09:30	12/02/22 05:44	1
Potassium, Dissolved	0.53	J	1.0	0.24	mg/L		12/01/22 09:30	12/02/22 05:44	1
Sodium, Dissolved	7.7		1.0	0.097	mg/L		12/01/22 09:30	12/02/22 05:44	1

Client Sample ID: MW-15R
Date Collected: 11/16/22 11:35
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	13		0.20	0.024	mg/L		12/01/22 09:30	12/02/22 05:48	1

Method: SW846 6010D - Metals (ICP) - Dissolved (Continued)

Client Sample ID: MW-15R
Date Collected: 11/16/22 11:35
Date Received: 11/17/22 10:30
Lab Sample ID: 280-169282-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	**0.010**	**J B**	0.060	0.0091	mg/L		12/01/22 09:30	12/02/22 05:48	1
Magnesium, Dissolved	**8.4**		0.050	0.0042	mg/L		12/01/22 09:30	12/02/22 05:48	1
Potassium, Dissolved	**0.88**	**J**	1.0	0.24	mg/L		12/01/22 09:30	12/02/22 05:48	1
Sodium, Dissolved	**5.2**		1.0	0.097	mg/L		12/01/22 09:30	12/02/22 05:48	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Client Sample ID: MW-43
Date Collected: 11/16/22 14:40
Date Received: 11/17/22 10:30
Lab Sample ID: 280-169282-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		11/28/22 08:18	11/28/22 18:56	1
Barium, Total	**0.0052**		0.0010	0.00029	mg/L		11/28/22 08:18	11/28/22 18:56	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		11/28/22 08:18	11/28/22 18:56	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		11/28/22 08:18	11/28/22 18:56	1
Chromium, Total	ND		0.0030	0.00050	mg/L		11/28/22 08:18	11/28/22 18:56	1
Copper, Total	ND		0.0020	0.00056	mg/L		11/28/22 08:18	11/28/22 18:56	1
Lead, Total	ND		0.0010	0.00018	mg/L		11/28/22 08:18	11/28/22 18:56	1
Manganese, Total	**0.068**		0.0010	0.00031	mg/L		11/28/22 08:18	11/28/22 18:56	1
Nickel, Total	ND		0.0040	0.00030	mg/L		11/28/22 08:18	11/28/22 18:56	1
Selenium, Total	ND		0.0010	0.00037	mg/L		11/28/22 08:18	11/28/22 18:56	1
Silver, Total	ND		0.0020	0.000033	mg/L		11/28/22 08:18	11/28/22 18:56	1
Thallium, Total	ND		0.0010	0.000089	mg/L		11/28/22 08:18	11/28/22 18:56	1
Vanadium, Total	**0.0066**		0.0020	0.0012	mg/L		11/28/22 08:18	11/28/22 18:56	1
Zinc, Total	ND		0.0050	0.0020	mg/L		11/28/22 08:18	11/28/22 18:56	1

Client Sample ID: MW-42
Date Collected: 11/16/22 13:20
Date Received: 11/17/22 10:30
Lab Sample ID: 280-169282-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		11/28/22 08:18	11/28/22 18:58	1
Barium, Total	**0.095**		0.0010	0.00029	mg/L		11/28/22 08:18	11/28/22 18:58	1
Beryllium, Total	**0.000082**	**J B**	0.0010	0.000080	mg/L		11/28/22 08:18	11/28/22 18:58	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		11/28/22 08:18	11/28/22 18:58	1
Chromium, Total	**0.0010**	**J**	0.0030	0.00050	mg/L		11/28/22 08:18	11/28/22 18:58	1
Copper, Total	ND		0.0020	0.00056	mg/L		11/28/22 08:18	11/28/22 18:58	1
Lead, Total	ND		0.0010	0.00018	mg/L		11/28/22 08:18	11/28/22 18:58	1
Manganese, Total	**3.9**		0.0010	0.00031	mg/L		11/28/22 08:18	11/28/22 18:58	1
Nickel, Total	**0.0013**	**J**	0.0040	0.00030	mg/L		11/28/22 08:18	11/28/22 18:58	1
Selenium, Total	ND		0.0010	0.00037	mg/L		11/28/22 08:18	11/28/22 18:58	1
Silver, Total	ND		0.0020	0.000033	mg/L		11/28/22 08:18	11/28/22 18:58	1
Thallium, Total	ND		0.0010	0.000089	mg/L		11/28/22 08:18	11/28/22 18:58	1
Vanadium, Total	**0.0028**		0.0020	0.0012	mg/L		11/28/22 08:18	11/28/22 18:58	1
Zinc, Total	ND		0.0050	0.0020	mg/L		11/28/22 08:18	11/28/22 18:58	1

Client Sample ID: MW-29A
Date Collected: 11/16/22 14:10
Date Received: 11/17/22 10:30
Lab Sample ID: 280-169282-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		11/29/22 07:22	12/01/22 18:58	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: MW-29A
Date Collected: 11/16/22 14:10
Date Received: 11/17/22 10:30
Lab Sample ID: 280-169282-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Total	**0.0066**	**B**	0.0010	0.00029	mg/L		11/29/22 07:22	12/01/22 18:58	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		11/29/22 07:22	12/01/22 18:58	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		11/29/22 07:22	12/01/22 18:58	1
Chromium, Total	**0.00057**	**J**	0.0030	0.00050	mg/L		11/29/22 07:22	12/01/22 18:58	1
Copper, Total	ND		0.0020	0.00056	mg/L		11/29/22 07:22	12/01/22 18:58	1
Lead, Total	ND		0.0010	0.00018	mg/L		11/29/22 07:22	12/01/22 18:58	1
Manganese, Total	**1.2**		0.0010	0.00031	mg/L		11/29/22 07:22	12/01/22 18:58	1
Nickel, Total	**0.0015**	**J**	0.0040	0.00030	mg/L		11/29/22 07:22	12/01/22 18:58	1
Selenium, Total	ND		0.0010	0.00037	mg/L		11/29/22 07:22	12/01/22 18:58	1
Silver, Total	ND		0.0020	0.000033	mg/L		11/29/22 07:22	12/01/22 18:58	1
Thallium, Total	ND		0.0010	0.000089	mg/L		11/29/22 07:22	12/01/22 18:58	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		11/29/22 07:22	12/01/22 18:58	1
Zinc, Total	**0.0026**	**J**	0.0050	0.0020	mg/L		11/29/22 07:22	12/01/22 18:58	1

Client Sample ID: MW-34C
Date Collected: 11/16/22 13:55
Date Received: 11/17/22 10:30
Lab Sample ID: 280-169282-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		11/29/22 07:22	12/01/22 19:03	1
Barium, Total	**0.19**	**B**	0.0010	0.00029	mg/L		11/29/22 07:22	12/01/22 19:03	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		11/29/22 07:22	12/01/22 19:03	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		11/29/22 07:22	12/01/22 19:03	1
Chromium, Total	**0.0011**	**J**	0.0030	0.00050	mg/L		11/29/22 07:22	12/01/22 19:03	1
Copper, Total	**0.0025**		0.0020	0.00056	mg/L		11/29/22 07:22	12/01/22 19:03	1
Lead, Total	**0.00019**	**J B**	0.0010	0.00018	mg/L		11/29/22 07:22	12/01/22 19:03	1
Manganese, Total	**3.4**		0.0010	0.00031	mg/L		11/29/22 07:22	12/01/22 19:03	1
Nickel, Total	**0.00054**	**J**	0.0040	0.00030	mg/L		11/29/22 07:22	12/01/22 19:03	1
Selenium, Total	ND		0.0010	0.00037	mg/L		11/29/22 07:22	12/01/22 19:03	1
Silver, Total	ND		0.0020	0.000033	mg/L		11/29/22 07:22	12/01/22 19:03	1
Thallium, Total	ND		0.0010	0.000089	mg/L		11/29/22 07:22	12/01/22 19:03	1
Vanadium, Total	**0.0036**		0.0020	0.0012	mg/L		11/29/22 07:22	12/01/22 19:03	1
Zinc, Total	**0.0043**	**J**	0.0050	0.0020	mg/L		11/29/22 07:22	12/01/22 19:03	1

Client Sample ID: MW-34A
Date Collected: 11/16/22 13:10
Date Received: 11/17/22 10:30
Lab Sample ID: 280-169282-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		11/29/22 07:22	12/01/22 19:05	1
Barium, Total	**0.0041**	**B**	0.0010	0.00029	mg/L		11/29/22 07:22	12/01/22 19:05	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		11/29/22 07:22	12/01/22 19:05	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		11/29/22 07:22	12/01/22 19:05	1
Chromium, Total	**0.0048**		0.0030	0.00050	mg/L		11/29/22 07:22	12/01/22 19:05	1
Copper, Total	**0.00068**	**J**	0.0020	0.00056	mg/L		11/29/22 07:22	12/01/22 19:05	1
Lead, Total	ND		0.0010	0.00018	mg/L		11/29/22 07:22	12/01/22 19:05	1
Manganese, Total	**0.00063**	**J**	0.0010	0.00031	mg/L		11/29/22 07:22	12/01/22 19:05	1
Nickel, Total	**0.0020**	**J**	0.0040	0.00030	mg/L		11/29/22 07:22	12/01/22 19:05	1
Selenium, Total	ND		0.0010	0.00037	mg/L		11/29/22 07:22	12/01/22 19:05	1
Silver, Total	ND		0.0020	0.000033	mg/L		11/29/22 07:22	12/01/22 19:05	1
Thallium, Total	ND		0.0010	0.000089	mg/L		11/29/22 07:22	12/01/22 19:05	1
Vanadium, Total	**0.0044**		0.0020	0.0012	mg/L		11/29/22 07:22	12/01/22 19:05	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: MW-34A
Date Collected: 11/16/22 13:10
Date Received: 11/17/22 10:30
Lab Sample ID: 280-169282-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc, Total	**0.019**		0.0050	0.0020	mg/L		11/29/22 07:22	12/01/22 19:05	1

Client Sample ID: MW-15R
Date Collected: 11/16/22 11:35
Date Received: 11/17/22 10:30
Lab Sample ID: 280-169282-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		11/29/22 07:22	12/01/22 19:07	1
Barium, Total	**0.0039**	**B**	0.0010	0.00029	mg/L		11/29/22 07:22	12/01/22 19:07	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		11/29/22 07:22	12/01/22 19:07	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		11/29/22 07:22	12/01/22 19:07	1
Chromium, Total	ND		0.0030	0.00050	mg/L		11/29/22 07:22	12/01/22 19:07	1
Copper, Total	ND		0.0020	0.00056	mg/L		11/29/22 07:22	12/01/22 19:07	1
Lead, Total	ND		0.0010	0.00018	mg/L		11/29/22 07:22	12/01/22 19:07	1
Manganese, Total	**0.0019**		0.0010	0.00031	mg/L		11/29/22 07:22	12/01/22 19:07	1
Nickel, Total	**0.00087**	**J**	0.0040	0.00030	mg/L		11/29/22 07:22	12/01/22 19:07	1
Selenium, Total	ND		0.0010	0.00037	mg/L		11/29/22 07:22	12/01/22 19:07	1
Silver, Total	ND		0.0020	0.000033	mg/L		11/29/22 07:22	12/01/22 19:07	1
Thallium, Total	ND		0.0010	0.000089	mg/L		11/29/22 07:22	12/01/22 19:07	1
Vanadium, Total	**0.0030**		0.0020	0.0012	mg/L		11/29/22 07:22	12/01/22 19:07	1
Zinc, Total	**0.0029**	**J**	0.0050	0.0020	mg/L		11/29/22 07:22	12/01/22 19:07	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Client Sample ID: MW-43
Date Collected: 11/16/22 14:40
Date Received: 11/17/22 10:30
Lab Sample ID: 280-169282-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.0070**	**B**	0.0010	0.00031	mg/L		11/28/22 08:18	11/28/22 19:24	1

Client Sample ID: MW-42
Date Collected: 11/16/22 13:20
Date Received: 11/17/22 10:30
Lab Sample ID: 280-169282-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**3.8**	**B**	0.0010	0.00031	mg/L		11/28/22 08:18	11/28/22 19:26	1

Client Sample ID: MW-29A
Date Collected: 11/16/22 14:10
Date Received: 11/17/22 10:30
Lab Sample ID: 280-169282-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**1.1**	**B ^2**	0.0010	0.00031	mg/L		11/27/22 14:46	11/28/22 12:44	1

Client Sample ID: MW-34C
Date Collected: 11/16/22 13:55
Date Received: 11/17/22 10:30
Lab Sample ID: 280-169282-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.38**	**B ^2**	0.0010	0.00031	mg/L		11/27/22 14:46	11/28/22 12:52	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Client Sample ID: MW-34A
Date Collected: 11/16/22 13:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.00040**	**J B ^2**	0.0010	0.00031	mg/L		11/27/22 14:46	11/28/22 12:54	1

Client Sample ID: MW-15R
Date Collected: 11/16/22 11:35
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.0017**	**B**	0.0010	0.00031	mg/L		11/27/22 14:46	11/28/22 15:35	1

General Chemistry

Client Sample ID: MW-43
Date Collected: 11/16/22 14:40
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-1
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	ND		3.0	3.0	mg/L			12/06/22 12:47	1
Sulfate (MCAWW 300.0)	ND		5.0	5.0	mg/L			12/06/22 12:47	1
Ammonia (as N) (MCAWW 350.1)	ND		0.030	0.030	mg/L			12/07/22 11:16	1
Nitrate as N (EPA 353.2)	**1.5**		0.050	0.050	mg/L			12/05/22 16:14	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**26**		10	10	mg/L			11/22/22 18:29	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**26**		10	10	mg/L			11/22/22 18:29	1
Total Dissolved Solids (TDS) (SM 2540C)	**32**		5.0	5.0	mg/L			11/22/22 11:21	1
Total Suspended Solids (SM 2540D)	ND		4.0	4.0	mg/L			11/18/22 10:35	1
Total Organic Carbon - Average (SM 5310B)	**1.4**		1.0	1.0	mg/L			12/06/22 02:27	1

Client Sample ID: MW-42
Date Collected: 11/16/22 13:20
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-2
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	**6.6**		3.0	3.0	mg/L			12/06/22 13:19	1
Sulfate (MCAWW 300.0)	**5.5**		5.0	5.0	mg/L			12/06/22 13:19	1
Ammonia (as N) (MCAWW 350.1)	**0.11**		0.030	0.030	mg/L			12/08/22 15:58	1
Nitrate as N (EPA 353.2)	ND		0.050	0.050	mg/L			12/05/22 16:14	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**200**		10	10	mg/L			11/22/22 18:24	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**200**		10	10	mg/L			11/22/22 18:24	1
Total Dissolved Solids (TDS) (SM 2540C)	**210**		5.0	5.0	mg/L			11/22/22 11:21	1
Total Suspended Solids (SM 2540D)	**39**		4.0	4.0	mg/L			11/23/22 12:16	1
Total Organic Carbon - Average (SM 5310B)	**8.2**		1.0	1.0	mg/L			12/06/22 01:40	1

Client Sample ID: MW-29A
Date Collected: 11/16/22 14:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-3
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	ND		3.0	3.0	mg/L			12/06/22 13:51	1
Sulfate (MCAWW 300.0)	ND		5.0	5.0	mg/L			12/06/22 13:51	1

General Chemistry (Continued)

Client Sample ID: MW-29A
Date Collected: 11/16/22 14:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-3
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N) (MCAWW 350.1)	**0.13**		0.030	0.030	mg/L			12/07/22 11:21	1
Nitrate as N (EPA 353.2)	ND		0.050	0.050	mg/L			12/05/22 16:14	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**43**		10	10	mg/L			11/21/22 18:26	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**43**		10	10	mg/L			11/21/22 18:26	1
Total Dissolved Solids (TDS) (SM 2540C)	**42**		5.0	5.0	mg/L			11/18/22 10:18	1
Total Suspended Solids (SM 2540D)	ND		4.0	4.0	mg/L			11/18/22 10:35	1
Total Organic Carbon - Average (SM 5310B)	**1.8**		1.0	1.0	mg/L			12/06/22 02:24	1

Client Sample ID: MW-34C
Date Collected: 11/16/22 13:55
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-4
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	ND		3.0	3.0	mg/L			12/06/22 14:54	1
Sulfate (MCAWW 300.0)	ND		5.0	5.0	mg/L			12/06/22 14:54	1
Ammonia (as N) (MCAWW 350.1)	**0.036**		0.030	0.030	mg/L			12/07/22 11:24	1
Nitrate as N (EPA 353.2)	ND		0.050	0.050	mg/L			12/05/22 16:14	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**93**		10	10	mg/L			11/21/22 18:32	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**93**		10	10	mg/L			11/21/22 18:32	1
Total Dissolved Solids (TDS) (SM 2540C)	**110**		5.0	5.0	mg/L			11/18/22 10:18	1
Total Suspended Solids (SM 2540D)	**280**		4.0	4.0	mg/L			11/23/22 12:16	1
Total Organic Carbon - Average (SM 5310B)	**1.6**		1.0	1.0	mg/L			12/06/22 02:38	1

Client Sample ID: MW-34A
Date Collected: 11/16/22 13:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-5
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	ND		3.0	3.0	mg/L			12/06/22 15:41	1
Sulfate (MCAWW 300.0)	ND		5.0	5.0	mg/L			12/06/22 15:41	1
Ammonia (as N) (MCAWW 350.1)	ND		0.030	0.030	mg/L			12/07/22 11:27	1
Nitrate as N (EPA 353.2)	**0.44**		0.050	0.050	mg/L			12/05/22 16:14	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**73**		10	10	mg/L			11/21/22 18:37	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**73**		10	10	mg/L			11/21/22 18:37	1
Total Dissolved Solids (TDS) (SM 2540C)	**94**		5.0	5.0	mg/L			11/18/22 10:18	1
Total Suspended Solids (SM 2540D)	ND		4.0	4.0	mg/L			11/18/22 10:35	1
Total Organic Carbon - Average (SM 5310B)	ND		1.0	1.0	mg/L			12/06/22 02:53	1

General Chemistry

Client Sample ID: MW-15R
Date Collected: 11/16/22 11:35
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-6
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	ND		3.0	3.0	mg/L			12/06/22 15:57	1
Sulfate (MCAWW 300.0)	ND		5.0	5.0	mg/L			12/06/22 15:57	1
Ammonia (as N) (MCAWW 350.1)	ND		0.030	0.030	mg/L			12/08/22 16:33	1
Nitrate as N (EPA 353.2)	**0.21**		0.050	0.050	mg/L			12/05/22 16:14	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**74**		10	10	mg/L			11/21/22 18:43	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**74**		10	10	mg/L			11/21/22 18:43	1
Total Dissolved Solids (TDS) (SM 2540C)	**73**		5.0	5.0	mg/L			11/18/22 10:18	1
Total Suspended Solids (SM 2540D)	ND		4.0	4.0	mg/L			11/18/22 10:35	1
Total Organic Carbon - Average (SM 5310B)	ND		1.0	1.0	mg/L			12/03/22 09:45	1

Method: EPA Field Sampling - Field Sampling

Client Sample ID: MW-43
Date Collected: 11/16/22 14:40
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-1
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	**25.73**				ft			11/16/22 15:40	1
Specific Conductivity	**61**				umhos/cm			11/16/22 15:40	1
Dissolved Oxygen	**10.3**				mg/L			11/16/22 15:40	1
eH	**109.0**				millivolts			11/16/22 15:40	1
Turbidity	**5.4**				NTU			11/16/22 15:40	1
Temperature	**11.6**				Degrees C			11/16/22 15:40	1
pH	**5.66**				SU			11/16/22 15:40	1

Client Sample ID: MW-42
Date Collected: 11/16/22 13:20
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-2
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	**28.76**				ft			11/16/22 14:20	1
Specific Conductivity	**457**				umhos/cm			11/16/22 14:20	1
Dissolved Oxygen	**10.0**				mg/L			11/16/22 14:20	1
eH	**-49.9**				millivolts			11/16/22 14:20	1
Turbidity	**3.8**				NTU			11/16/22 14:20	1
Temperature	**12.7**				Degrees C			11/16/22 14:20	1
pH	**6.49**				SU			11/16/22 14:20	1

Client Sample ID: MW-29A
Date Collected: 11/16/22 14:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-3
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	**14.55**				ft			11/16/22 15:10	1
Specific Conductivity	**86**				umhos/cm			11/16/22 15:10	1
Dissolved Oxygen	**11.1**				mg/L			11/16/22 15:10	1
eH	**21.5**				millivolts			11/16/22 15:10	1
Turbidity	**1.6**				NTU			11/16/22 15:10	1
Temperature	**11.4**				Degrees C			11/16/22 15:10	1
pH	**6.05**				SU			11/16/22 15:10	1

Method: EPA Field Sampling - Field Sampling

Client Sample ID: MW-34C
Date Collected: 11/16/22 13:55
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-4
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	42.44				ft			11/16/22 14:55	1
Specific Conductivity	184				umhos/cm			11/16/22 14:55	1
Dissolved Oxygen	0.9				mg/L			11/16/22 14:55	1
eH	2.1				millivolts			11/16/22 14:55	1
Turbidity	11.7				NTU			11/16/22 14:55	1
Temperature	12.6				Degrees C			11/16/22 14:55	1
pH	6.81				SU			11/16/22 14:55	1

Client Sample ID: MW-34A
Date Collected: 11/16/22 13:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-5
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	40.74				ft			11/16/22 14:10	1
Specific Conductivity	145				umhos/cm			11/16/22 14:10	1
Dissolved Oxygen	2.5				mg/L			11/16/22 14:10	1
eH	274.5				millivolts			11/16/22 14:10	1
Turbidity	3.0				NTU			11/16/22 14:10	1
Temperature	11.6				Degrees C			11/16/22 14:10	1
pH	6.21				SU			11/16/22 14:10	1

Client Sample ID: MW-15R
Date Collected: 11/16/22 11:35
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-6
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	19.66				ft			11/16/22 12:35	1
Specific Conductivity	147				umhos/cm			11/16/22 12:35	1
Dissolved Oxygen	1.5				mg/L			11/16/22 12:35	1
eH	249.9				millivolts			11/16/22 12:35	1
Turbidity	3.1				NTU			11/16/22 12:35	1
Temperature	9.8				Degrees C			11/16/22 12:35	1
pH	6.76				SU			11/16/22 12:35	1

Surrogate Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169282-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)
480-204112-AA-1 MS	Matrix Spike	104	94	100
480-204112-AA-1 MSD	Matrix Spike Duplicate	98	100	100
LCS 480-651148/6	Lab Control Sample	103	114	85
LCS 480-651205/6	Lab Control Sample	108	98	99
MB 480-651148/8	Method Blank	111	109	101
MB 480-651205/9	Method Blank	103	97	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		DBFM	TBA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)
LCS 480-651411/6	Lab Control Sample	103	104
LCSD 480-651411/7	Lab Control Sample Dup	98	109
MB 480-651411/9	Method Blank	140	136

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TBA = TBA-d9 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-651148/8
Matrix: Water
Analysis Batch: 651148

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/23/22 17:03	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/22 17:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/22 17:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/22 17:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/22 17:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/23/22 17:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/22 17:03	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/23/22 17:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 17:03	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/23/22 17:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 17:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/23/22 17:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/22 17:03	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/23/22 17:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/22 17:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/22 17:03	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/23/22 17:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/22 17:03	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/23/22 17:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/23/22 17:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/22 17:03	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/23/22 17:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/22 17:03	1
1,4-Dioxane	ND		40	9.3	ug/L			11/23/22 17:03	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/23/22 17:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/22 17:03	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/23/22 17:03	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/22 17:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/22 17:03	1
Acetone	ND		10	3.0	ug/L			11/23/22 17:03	1
Acetonitrile	ND		15	4.9	ug/L			11/23/22 17:03	1
Acrolein	ND		20	0.91	ug/L			11/23/22 17:03	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/23/22 17:03	1
Benzene	ND		1.0	0.41	ug/L			11/23/22 17:03	1
Bromobenzene	ND		1.0	0.80	ug/L			11/23/22 17:03	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/23/22 17:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/22 17:03	1
Bromoform	ND		1.0	0.26	ug/L			11/23/22 17:03	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/22 17:03	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/23/22 17:03	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/23/22 17:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/22 17:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/22 17:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/22 17:03	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/23/22 17:03	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/22 17:03	1
Chloroform	ND		1.0	0.34	ug/L			11/23/22 17:03	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/22 17:03	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-651148/8
Matrix: Water
Analysis Batch: 651148

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/22 17:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/22 17:03	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/22 17:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/22 17:03	1
Dibromomethane	ND		1.0	0.41	ug/L			11/23/22 17:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/22 17:03	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/23/22 17:03	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/23/22 17:03	1
Ethyl ether	ND		1.0	0.72	ug/L			11/23/22 17:03	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/23/22 17:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/22 17:03	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/23/22 17:03	1
Hexane	ND		10	0.40	ug/L			11/23/22 17:03	1
Iodomethane	ND		1.0	0.30	ug/L			11/23/22 17:03	1
Isobutanol	ND		25	4.8	ug/L			11/23/22 17:03	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/23/22 17:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/22 17:03	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/23/22 17:03	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/22 17:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/22 17:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/22 17:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/22 17:03	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/23/22 17:03	1
Naphthalene	ND		1.0	0.43	ug/L			11/23/22 17:03	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/23/22 17:03	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/23/22 17:03	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/23/22 17:03	1
o-Xylene	ND		1.0	0.76	ug/L			11/23/22 17:03	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/23/22 17:03	1
p-Cymene	ND		1.0	0.31	ug/L			11/23/22 17:03	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/23/22 17:03	1
Styrene	ND		1.0	0.73	ug/L			11/23/22 17:03	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/23/22 17:03	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/23/22 17:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/22 17:03	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/23/22 17:03	1
Toluene	ND		1.0	0.51	ug/L			11/23/22 17:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/22 17:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/22 17:03	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/23/22 17:03	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/22 17:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/22 17:03	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/23/22 17:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/22 17:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*77 - 120*		*11/23/22 17:03*	*1*
4-Bromofluorobenzene (Surr)	*109*		*73 - 120*		*11/23/22 17:03*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-651148/8
Matrix: Water
Analysis Batch: 651148

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		11/23/22 17:03	1

Lab Sample ID: LCS 480-651148/6
Matrix: Water
Analysis Batch: 651148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	25.0	24.2		ug/L		97	80 - 120
1,1,1-Trichloroethane	25.0	22.9		ug/L		91	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.0		ug/L		96	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	18.7		ug/L		75	61 - 148
1,1,2-Trichloroethane	25.0	24.2		ug/L		97	76 - 122
1,1-Dichloroethane	25.0	24.9		ug/L		100	77 - 120
1,1-Dichloroethene	25.0	19.9		ug/L		79	66 - 127
1,1-Dichloropropene	25.0	24.4		ug/L		98	72 - 122
1,2,3-Trichlorobenzene	25.0	20.0		ug/L		80	75 - 123
1,2,3-Trichloropropane	25.0	25.2		ug/L		101	68 - 122
1,2,4-Trichlorobenzene	25.0	19.8		ug/L		79	79 - 122
1,2,4-Trimethylbenzene	25.0	23.7		ug/L		95	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	19.1		ug/L		76	56 - 134
1,2-Dibromoethane (EDB)	25.0	26.4		ug/L		106	77 - 120
1,2-Dichlorobenzene	25.0	21.7		ug/L		87	80 - 124
1,2-Dichloroethane	25.0	25.8		ug/L		103	75 - 120
1,2-Dichloropropane	25.0	23.6		ug/L		94	76 - 120
1,3,5-Trimethylbenzene	25.0	23.4		ug/L		94	77 - 121
1,3-Dichlorobenzene	25.0	25.0		ug/L		100	77 - 120
1,3-Dichloropropane	25.0	26.6		ug/L		106	75 - 120
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	80 - 120
1,4-Dioxane	500	679		ug/L		136	50 - 150
2,2-Dichloropropane	25.0	21.2		ug/L		85	63 - 136
2-Butanone (MEK)	125	158		ug/L		127	57 - 140
2-Chloroethyl vinyl ether	25.0	23.6		ug/L		94	70 - 129
2-Hexanone	125	125		ug/L		100	65 - 127
4-Methyl-2-pentanone (MIBK)	125	92.1		ug/L		74	71 - 125
Acetone	125	138		ug/L		110	56 - 142
Acrolein	125	74.7		ug/L		60	52 - 143
Acrylonitrile	250	284		ug/L		113	63 - 125
Benzene	25.0	25.4		ug/L		101	71 - 124
Bromobenzene	25.0	25.4		ug/L		102	78 - 120
Bromochloromethane	25.0	28.3		ug/L		113	72 - 130
Bromodichloromethane	25.0	22.1		ug/L		88	80 - 122
Bromoform	25.0	24.8		ug/L		99	61 - 132
Bromomethane	25.0	21.7		ug/L		87	55 - 144
Butyl alcohol, tert-	250	222		ug/L		89	75 - 125
Carbon disulfide	25.0	20.2		ug/L		81	59 - 134
Carbon tetrachloride	25.0	22.0		ug/L		88	72 - 134
Chlorobenzene	25.0	25.9		ug/L		104	80 - 120
Chloroethane	25.0	19.2		ug/L		77	69 - 136

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-651148/6
Matrix: Water
Analysis Batch: 651148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	25.0	25.0		ug/L		100	73 - 127
Chloromethane	25.0	22.9		ug/L		92	68 - 124
cis-1,2-Dichloroethene	25.0	25.4		ug/L		101	74 - 124
cis-1,3-Dichloropropene	25.0	22.9		ug/L		92	74 - 124
Cyclohexane	25.0	20.7		ug/L		83	59 - 135
Dibromochloromethane	25.0	24.9		ug/L		100	75 - 125
Dibromomethane	25.0	24.5		ug/L		98	76 - 127
Dichlorodifluoromethane	25.0	22.9		ug/L		92	59 - 135
Dichlorofluoromethane	25.0	19.9		ug/L		80	76 - 127
Ethyl ether	25.0	21.7		ug/L		87	76 - 123
Ethylbenzene	25.0	26.0		ug/L		104	77 - 123
Hexachlorobutadiene	25.0	19.2		ug/L		77	68 - 131
Iodomethane	25.0	23.2		ug/L		93	78 - 123
Isobutanol	625	522		ug/L		83	51 - 150
Isopropylbenzene	25.0	23.8		ug/L		95	77 - 122
Methyl acetate	50.0	41.2		ug/L		82	74 - 133
Methyl tert-butyl ether	25.0	25.7		ug/L		103	77 - 120
Methylcyclohexane	25.0	21.0		ug/L		84	68 - 134
Methylene Chloride	25.0	24.6		ug/L		98	75 - 124
m-Xylene & p-Xylene	25.0	26.4		ug/L		105	76 - 122
Naphthalene	25.0	18.8		ug/L		75	66 - 125
n-Butylbenzene	25.0	20.3		ug/L		81	71 - 128
N-Propylbenzene	25.0	23.9		ug/L		95	75 - 127
o-Chlorotoluene	25.0	23.9		ug/L		96	76 - 121
o-Xylene	25.0	25.5		ug/L		102	76 - 122
p-Chlorotoluene	25.0	24.8		ug/L		99	77 - 121
p-Cymene	25.0	23.2		ug/L		93	73 - 120
sec-Butylbenzene	25.0	22.9		ug/L		92	74 - 127
Styrene	25.0	25.4		ug/L		101	80 - 120
tert-Butylbenzene	25.0	24.0		ug/L		96	75 - 123
Tetrachloroethene	25.0	25.8		ug/L		103	74 - 122
Tetrahydrofuran	50.0	55.6		ug/L		111	62 - 132
Toluene	25.0	20.9		ug/L		84	80 - 122
trans-1,2-Dichloroethene	25.0	24.1		ug/L		97	73 - 127
trans-1,3-Dichloropropene	25.0	21.0		ug/L		84	80 - 120
trans-1,4-Dichloro-2-butene	25.0	15.8		ug/L		63	41 - 131
Trichloroethene	25.0	23.1		ug/L		92	74 - 123
Trichlorofluoromethane	25.0	20.6		ug/L		83	62 - 150
Vinyl acetate	50.0	45.4		ug/L		91	50 - 144
Vinyl chloride	25.0	24.8		ug/L		99	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*
4-Bromofluorobenzene (Surr)	*114*		*73 - 120*
Toluene-d8 (Surr)	*85*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-651205/9
Matrix: Water
Analysis Batch: 651205

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/23/22 22:17	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/22 22:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/22 22:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/22 22:17	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/22 22:17	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/23/22 22:17	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/22 22:17	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/23/22 22:17	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 22:17	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/23/22 22:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 22:17	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/23/22 22:17	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/22 22:17	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/23/22 22:17	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/22 22:17	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/22 22:17	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/23/22 22:17	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/22 22:17	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/23/22 22:17	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/23/22 22:17	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/22 22:17	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/23/22 22:17	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/22 22:17	1
1,4-Dioxane	ND		40	9.3	ug/L			11/23/22 22:17	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/23/22 22:17	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/22 22:17	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/23/22 22:17	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/22 22:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/22 22:17	1
Acetone	ND		10	3.0	ug/L			11/23/22 22:17	1
Acetonitrile	ND		15	4.9	ug/L			11/23/22 22:17	1
Acrolein	ND		20	0.91	ug/L			11/23/22 22:17	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/23/22 22:17	1
Benzene	ND		1.0	0.41	ug/L			11/23/22 22:17	1
Bromobenzene	ND		1.0	0.80	ug/L			11/23/22 22:17	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/23/22 22:17	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/22 22:17	1
Bromoform	ND		1.0	0.26	ug/L			11/23/22 22:17	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/22 22:17	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/23/22 22:17	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/23/22 22:17	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/22 22:17	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/22 22:17	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/22 22:17	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/23/22 22:17	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/22 22:17	1
Chloroform	ND		1.0	0.34	ug/L			11/23/22 22:17	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/22 22:17	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-651205/9
Matrix: Water
Analysis Batch: 651205

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/22 22:17	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/22 22:17	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/22 22:17	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/22 22:17	1
Dibromomethane	ND		1.0	0.41	ug/L			11/23/22 22:17	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/22 22:17	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/23/22 22:17	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/23/22 22:17	1
Ethyl ether	ND		1.0	0.72	ug/L			11/23/22 22:17	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/23/22 22:17	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/22 22:17	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/23/22 22:17	1
Hexane	ND		10	0.40	ug/L			11/23/22 22:17	1
Iodomethane	ND		1.0	0.30	ug/L			11/23/22 22:17	1
Isobutanol	ND		25	4.8	ug/L			11/23/22 22:17	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/23/22 22:17	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/22 22:17	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/23/22 22:17	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/22 22:17	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/22 22:17	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/22 22:17	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/22 22:17	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/23/22 22:17	1
Naphthalene	ND		1.0	0.43	ug/L			11/23/22 22:17	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/23/22 22:17	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/23/22 22:17	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/23/22 22:17	1
o-Xylene	ND		1.0	0.76	ug/L			11/23/22 22:17	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/23/22 22:17	1
p-Cymene	ND		1.0	0.31	ug/L			11/23/22 22:17	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/23/22 22:17	1
Styrene	ND		1.0	0.73	ug/L			11/23/22 22:17	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/23/22 22:17	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/23/22 22:17	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/22 22:17	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/23/22 22:17	1
Toluene	ND		1.0	0.51	ug/L			11/23/22 22:17	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/22 22:17	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/22 22:17	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/23/22 22:17	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/22 22:17	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/22 22:17	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/23/22 22:17	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/22 22:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*11/23/22 22:17*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*11/23/22 22:17*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-651205/9
Matrix: Water
Analysis Batch: 651205

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		11/23/22 22:17	1

Lab Sample ID: LCS 480-651205/6
Matrix: Water
Analysis Batch: 651205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	25.0	25.2		ug/L		101	80 - 120
1,1,1-Trichloroethane	25.0	24.5		ug/L		98	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.0		ug/L		100	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.5		ug/L		90	61 - 148
1,1,2-Trichloroethane	25.0	24.6		ug/L		98	76 - 122
1,1-Dichloroethane	25.0	24.3		ug/L		97	77 - 120
1,1-Dichloroethene	25.0	22.5		ug/L		90	66 - 127
1,1-Dichloropropene	25.0	22.7		ug/L		91	72 - 122
1,2,3-Trichlorobenzene	25.0	23.2		ug/L		93	75 - 123
1,2,3-Trichloropropane	25.0	25.1		ug/L		101	68 - 122
1,2,4-Trichlorobenzene	25.0	23.3		ug/L		93	79 - 122
1,2,4-Trimethylbenzene	25.0	23.8		ug/L		95	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	26.5		ug/L		106	56 - 134
1,2-Dibromoethane (EDB)	25.0	24.8		ug/L		99	77 - 120
1,2-Dichlorobenzene	25.0	22.9		ug/L		91	80 - 124
1,2-Dichloroethane	25.0	24.5		ug/L		98	75 - 120
1,2-Dichloropropane	25.0	23.0		ug/L		92	76 - 120
1,3,5-Trimethylbenzene	25.0	24.2		ug/L		97	77 - 121
1,3-Dichlorobenzene	25.0	23.9		ug/L		96	77 - 120
1,3-Dichloropropane	25.0	24.1		ug/L		96	75 - 120
1,4-Dichlorobenzene	25.0	24.2		ug/L		97	80 - 120
1,4-Dioxane	500	410		ug/L		82	50 - 150
2,2-Dichloropropane	25.0	20.8		ug/L		83	63 - 136
2-Butanone (MEK)	125	124		ug/L		99	57 - 140
2-Chloroethyl vinyl ether	25.0	24.9		ug/L		99	70 - 129
2-Hexanone	125	132		ug/L		105	65 - 127
4-Methyl-2-pentanone (MIBK)	125	129		ug/L		103	71 - 125
Acetone	125	118		ug/L		94	56 - 142
Acrolein	125	122		ug/L		97	52 - 143
Acrylonitrile	250	235		ug/L		94	63 - 125
Benzene	25.0	22.4		ug/L		90	71 - 124
Bromobenzene	25.0	24.1		ug/L		96	78 - 120
Bromochloromethane	25.0	20.9		ug/L		84	72 - 130
Bromodichloromethane	25.0	24.5		ug/L		98	80 - 122
Bromoform	25.0	24.5		ug/L		98	61 - 132
Bromomethane	25.0	23.6		ug/L		94	55 - 144
Butyl alcohol, tert-	250	287		ug/L		115	75 - 125
Carbon disulfide	25.0	20.6		ug/L		82	59 - 134
Carbon tetrachloride	25.0	24.8		ug/L		99	72 - 134
Chlorobenzene	25.0	23.5		ug/L		94	80 - 120
Chloroethane	25.0	25.1		ug/L		101	69 - 136

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-651205/6
Matrix: Water
Analysis Batch: 651205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	25.0	22.3		ug/L		89	73 - 127
Chloromethane	25.0	22.7		ug/L		91	68 - 124
cis-1,2-Dichloroethene	25.0	24.3		ug/L		97	74 - 124
cis-1,3-Dichloropropene	25.0	24.5		ug/L		98	74 - 124
Cyclohexane	25.0	22.6		ug/L		90	59 - 135
Dibromochloromethane	25.0	23.2		ug/L		93	75 - 125
Dibromomethane	25.0	23.5		ug/L		94	76 - 127
Dichlorodifluoromethane	25.0	23.9		ug/L		96	59 - 135
Dichlorofluoromethane	25.0	25.5		ug/L		102	76 - 127
Ethyl ether	25.0	25.2		ug/L		101	76 - 123
Ethylbenzene	25.0	23.6		ug/L		94	77 - 123
Hexachlorobutadiene	25.0	25.8		ug/L		103	68 - 131
Iodomethane	25.0	22.1		ug/L		88	78 - 123
Isobutanol	625	745		ug/L		119	51 - 150
Isopropylbenzene	25.0	24.4		ug/L		97	77 - 122
Methyl acetate	50.0	50.8		ug/L		102	74 - 133
Methyl tert-butyl ether	25.0	21.6		ug/L		86	77 - 120
Methylcyclohexane	25.0	23.3		ug/L		93	68 - 134
Methylene Chloride	25.0	26.7		ug/L		107	75 - 124
m-Xylene & p-Xylene	25.0	24.5		ug/L		98	76 - 122
Naphthalene	25.0	23.5		ug/L		94	66 - 125
n-Butylbenzene	25.0	24.4		ug/L		98	71 - 128
N-Propylbenzene	25.0	25.2		ug/L		101	75 - 127
o-Chlorotoluene	25.0	23.4		ug/L		94	76 - 121
o-Xylene	25.0	23.3		ug/L		93	76 - 122
p-Chlorotoluene	25.0	25.3		ug/L		101	77 - 121
p-Cymene	25.0	24.0		ug/L		96	73 - 120
sec-Butylbenzene	25.0	24.2		ug/L		97	74 - 127
Styrene	25.0	24.0		ug/L		96	80 - 120
tert-Butylbenzene	25.0	23.9		ug/L		96	75 - 123
Tetrachloroethene	25.0	23.7		ug/L		95	74 - 122
Tetrahydrofuran	50.0	47.9		ug/L		96	62 - 132
Toluene	25.0	23.6		ug/L		94	80 - 122
trans-1,2-Dichloroethene	25.0	23.2		ug/L		93	73 - 127
trans-1,3-Dichloropropene	25.0	25.3		ug/L		101	80 - 120
trans-1,4-Dichloro-2-butene	25.0	22.8		ug/L		91	41 - 131
Trichloroethene	25.0	24.3		ug/L		97	74 - 123
Trichlorofluoromethane	25.0	23.0		ug/L		92	62 - 150
Vinyl acetate	50.0	55.0		ug/L		110	50 - 144
Vinyl chloride	25.0	26.2		ug/L		105	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-204112-AA-1 MS
Matrix: Water
Analysis Batch: 651205

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	ND		500	516		ug/L		103	80 - 120
1,1,1-Trichloroethane	ND		500	526		ug/L		105	73 - 126
1,1,2,2-Tetrachloroethane	ND		500	475		ug/L		95	76 - 120
1,1,2-Trichloroethane	ND		500	485		ug/L		97	76 - 122
1,1-Dichloroethane	ND		500	501		ug/L		100	77 - 120
1,1-Dichloroethene	ND		500	508		ug/L		102	66 - 127
1,1-Dichloropropene	ND		500	481		ug/L		96	72 - 122
1,2,3-Trichlorobenzene	ND		500	455		ug/L		91	75 - 123
1,2,3-Trichloropropane	ND		500	468		ug/L		94	68 - 122
1,2,4-Trichlorobenzene	ND		500	447		ug/L		89	79 - 122
1,2,4-Trimethylbenzene	ND		500	491		ug/L		98	76 - 121
1,2-Dibromo-3-Chloropropane	ND		500	490		ug/L		98	56 - 134
1,2-Dibromoethane (EDB)	ND		500	486		ug/L		97	77 - 120
1,2-Dichlorobenzene	ND		500	453		ug/L		91	80 - 124
1,2-Dichloroethane	ND		500	503		ug/L		101	75 - 120
1,2-Dichloropropane	ND		500	469		ug/L		94	76 - 120
1,3,5-Trimethylbenzene	ND		500	483		ug/L		97	77 - 121
1,3-Dichlorobenzene	ND		500	457		ug/L		91	77 - 120
1,3-Dichloropropane	ND		500	493		ug/L		99	75 - 120
1,4-Dichlorobenzene	ND		500	469		ug/L		94	78 - 124
2,2-Dichloropropane	ND		500	388		ug/L		78	63 - 136
2-Butanone (MEK)	ND		2500	2340		ug/L		93	57 - 140
2-Chloroethyl vinyl ether	ND		500	501		ug/L		100	70 - 129
2-Hexanone	ND		2500	2540		ug/L		102	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		2500	2520		ug/L		101	71 - 125
Acetone	ND		2500	2210		ug/L		88	56 - 142
Acrolein	ND		2500	2130		ug/L		85	52 - 143
Acrylonitrile	ND		5000	4610		ug/L		92	63 - 125
Benzene	ND		500	479		ug/L		96	71 - 124
Bromobenzene	ND		500	456		ug/L		91	78 - 120
Bromochloromethane	ND		500	424		ug/L		85	72 - 130
Bromodichloromethane	ND		500	486		ug/L		97	80 - 122
Bromoform	ND		500	483		ug/L		97	61 - 132
Bromomethane	ND	F2	500	347		ug/L		69	55 - 144
Carbon disulfide	ND		500	454		ug/L		91	59 - 134
Carbon tetrachloride	ND		500	533		ug/L		107	72 - 134
Chlorobenzene	ND		500	487		ug/L		97	80 - 120
Chloroethane	ND		500	521		ug/L		104	69 - 136
Chloroform	ND		500	479		ug/L		96	73 - 127
Chloromethane	ND		500	483		ug/L		97	68 - 124
cis-1,2-Dichloroethene	ND		500	492		ug/L		98	74 - 124
cis-1,3-Dichloropropene	ND		500	481		ug/L		96	74 - 124
Dibromochloromethane	ND		500	490		ug/L		98	75 - 125
Dibromomethane	ND		500	484		ug/L		97	76 - 127
Dichlorodifluoromethane	ND		500	525		ug/L		105	59 - 135
Ethylbenzene	ND		500	494		ug/L		99	77 - 123
Iodomethane	ND		500	432		ug/L		86	78 - 123
Isopropylbenzene	ND		500	478		ug/L		96	77 - 122

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-204112-AA-1 MS
Matrix: Water
Analysis Batch: 651205

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	ND		500	488		ug/L		98	75 - 124
m-Xylene & p-Xylene	ND		500	497		ug/L		99	76 - 122
Naphthalene	ND		500	438		ug/L		88	66 - 125
n-Butylbenzene	ND		500	474		ug/L		95	71 - 128
N-Propylbenzene	ND		500	502		ug/L		100	75 - 127
o-Chlorotoluene	ND		500	466		ug/L		93	76 - 121
o-Xylene	ND		500	469		ug/L		94	76 - 122
p-Chlorotoluene	ND		500	490		ug/L		98	77 - 121
p-Cymene	ND		500	487		ug/L		97	73 - 120
sec-Butylbenzene	ND		500	497		ug/L		99	74 - 127
Styrene	ND		500	499		ug/L		100	80 - 120
tert-Butylbenzene	ND		500	463		ug/L		93	75 - 123
Tetrachloroethene	ND		500	475		ug/L		95	74 - 122
Tetrahydrofuran	250		1000	1210		ug/L		96	62 - 132
Toluene	ND		500	487		ug/L		97	80 - 122
trans-1,2-Dichloroethene	ND		500	492		ug/L		98	73 - 127
trans-1,3-Dichloropropene	ND		500	502		ug/L		100	80 - 120
trans-1,4-Dichloro-2-butene	ND		500	416		ug/L		83	41 - 131
Trichloroethene	ND		500	514		ug/L		103	74 - 123
Trichlorofluoromethane	ND		500	518		ug/L		104	62 - 150
Vinyl acetate	ND		1000	1020		ug/L		102	50 - 144
Vinyl chloride	ND		500	448		ug/L		90	65 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: 480-204112-AA-1 MSD
Matrix: Water
Analysis Batch: 651205

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		500	515		ug/L		103	80 - 120	0	20
1,1,1-Trichloroethane	ND		500	488		ug/L		98	73 - 126	8	15
1,1,2,2-Tetrachloroethane	ND		500	441		ug/L		88	76 - 120	7	15
1,1,2-Trichloroethane	ND		500	491		ug/L		98	76 - 122	1	15
1,1-Dichloroethane	ND		500	465		ug/L		93	77 - 120	7	20
1,1-Dichloroethene	ND		500	495		ug/L		99	66 - 127	3	16
1,1-Dichloropropene	ND		500	439		ug/L		88	72 - 122	9	20
1,2,3-Trichlorobenzene	ND		500	417		ug/L		83	75 - 123	9	20
1,2,3-Trichloropropane	ND		500	453		ug/L		91	68 - 122	3	14
1,2,4-Trichlorobenzene	ND		500	419		ug/L		84	79 - 122	6	20
1,2,4-Trimethylbenzene	ND		500	449		ug/L		90	76 - 121	9	20
1,2-Dibromo-3-Chloropropane	ND		500	494		ug/L		99	56 - 134	1	15
1,2-Dibromoethane (EDB)	ND		500	476		ug/L		95	77 - 120	2	15
1,2-Dichlorobenzene	ND		500	432		ug/L		86	80 - 124	5	20
1,2-Dichloroethane	ND		500	468		ug/L		94	75 - 120	7	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-204112-AA-1 MSD
Matrix: Water
Analysis Batch: 651205

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichloropropane	ND		500	445		ug/L		89	76 - 120	5	20
1,3,5-Trimethylbenzene	ND		500	463		ug/L		93	77 - 121	4	20
1,3-Dichlorobenzene	ND		500	430		ug/L		86	77 - 120	6	20
1,3-Dichloropropane	ND		500	494		ug/L		99	75 - 120	0	20
1,4-Dichlorobenzene	ND		500	446		ug/L		89	78 - 124	5	20
2,2-Dichloropropane	ND		500	346		ug/L		69	63 - 136	11	20
2-Butanone (MEK)	ND		2500	2230		ug/L		89	57 - 140	4	20
2-Chloroethyl vinyl ether	ND		500	459		ug/L		92	70 - 129	9	20
2-Hexanone	ND		2500	2560		ug/L		102	65 - 127	0	15
4-Methyl-2-pentanone (MIBK)	ND		2500	2490		ug/L		100	71 - 125	1	35
Acetone	ND		2500	2150		ug/L		86	56 - 142	3	15
Acrolein	ND		2500	1860		ug/L		74	52 - 143	13	20
Acrylonitrile	ND		5000	4420		ug/L		88	63 - 125	4	20
Benzene	ND		500	432		ug/L		86	71 - 124	10	13
Bromobenzene	ND		500	438		ug/L		88	78 - 120	4	15
Bromochloromethane	ND		500	408		ug/L		82	72 - 130	4	15
Bromodichloromethane	ND		500	467		ug/L		93	80 - 122	4	15
Bromoform	ND		500	497		ug/L		99	61 - 132	3	15
Bromomethane	ND	F2	500	484	F2	ug/L		97	55 - 144	33	15
Carbon disulfide	ND		500	407		ug/L		81	59 - 134	11	15
Carbon tetrachloride	ND		500	515		ug/L		103	72 - 134	4	15
Chlorobenzene	ND		500	484		ug/L		97	80 - 120	1	25
Chloroethane	ND		500	477		ug/L		95	69 - 136	9	15
Chloroform	ND		500	446		ug/L		89	73 - 127	7	20
Chloromethane	ND		500	458		ug/L		92	68 - 124	5	15
cis-1,2-Dichloroethene	ND		500	455		ug/L		91	74 - 124	8	15
cis-1,3-Dichloropropene	ND		500	449		ug/L		90	74 - 124	7	15
Dibromochloromethane	ND		500	478		ug/L		96	75 - 125	3	15
Dibromomethane	ND		500	455		ug/L		91	76 - 127	6	15
Dichlorodifluoromethane	ND		500	473		ug/L		95	59 - 135	11	20
Ethylbenzene	ND		500	487		ug/L		97	77 - 123	1	15
Iodomethane	ND		500	406		ug/L		81	78 - 123	6	20
Isopropylbenzene	ND		500	451		ug/L		90	77 - 122	6	20
Methylene Chloride	ND		500	464		ug/L		93	75 - 124	5	15
m-Xylene & p-Xylene	ND		500	488		ug/L		98	76 - 122	2	16
Naphthalene	ND		500	425		ug/L		85	66 - 125	3	20
n-Butylbenzene	ND		500	456		ug/L		91	71 - 128	4	15
N-Propylbenzene	ND		500	460		ug/L		92	75 - 127	9	15
o-Chlorotoluene	ND		500	439		ug/L		88	76 - 121	6	20
o-Xylene	ND		500	471		ug/L		94	76 - 122	0	16
p-Chlorotoluene	ND		500	467		ug/L		93	77 - 121	5	15
p-Cymene	ND		500	448		ug/L		90	73 - 120	8	20
sec-Butylbenzene	ND		500	459		ug/L		92	74 - 127	8	15
Styrene	ND		500	490		ug/L		98	80 - 120	2	20
tert-Butylbenzene	ND		500	447		ug/L		89	75 - 123	3	15
Tetrachloroethene	ND		500	483		ug/L		97	74 - 122	2	20
Tetrahydrofuran	250		1000	1150		ug/L		90	62 - 132	5	25
Toluene	ND		500	470		ug/L		94	80 - 122	4	15
trans-1,2-Dichloroethene	ND		500	454		ug/L		91	73 - 127	8	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-204112-AA-1 MSD
Matrix: Water
Analysis Batch: 651205

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	ND		500	506		ug/L		101	80 - 120	1	15
trans-1,4-Dichloro-2-butene	ND		500	418		ug/L		84	41 - 131	1	20
Trichloroethene	ND		500	478		ug/L		96	74 - 123	7	16
Trichlorofluoromethane	ND		500	456		ug/L		91	62 - 150	13	20
Vinyl acetate	ND		1000	981		ug/L		98	50 - 144	4	23
Vinyl chloride	ND		500	427		ug/L		85	65 - 133	5	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-651411/9
Matrix: Water
Analysis Batch: 651411

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/28/22 21:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*140*		*50 - 150*		*11/28/22 21:39*	*1*
TBA-d9 (Surr)	*136*		*50 - 150*		*11/28/22 21:39*	*1*

Lab Sample ID: LCS 480-651411/6
Matrix: Water
Analysis Batch: 651411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Vinyl chloride			0.200	0.190		ug/L		95	50 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*103*		*50 - 150*
TBA-d9 (Surr)	*104*		*50 - 150*

Lab Sample ID: LCSD 480-651411/7
Matrix: Water
Analysis Batch: 651411

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Vinyl chloride			0.200	0.184		ug/L		92	50 - 150	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*98*		*50 - 150*
TBA-d9 (Surr)	*109*		*50 - 150*

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 280-594829/1-A
Matrix: Water
Analysis Batch: 595410

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	ND		0.20	0.024	mg/L		12/01/22 09:30	12/02/22 04:19	1
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/01/22 09:30	12/02/22 04:19	1
Iron, Dissolved	0.00967	J	0.060	0.0091	mg/L		12/01/22 09:30	12/02/22 04:19	1
Iron, Total	0.00967	J	0.060	0.0091	mg/L		12/01/22 09:30	12/02/22 04:19	1
Magnesium, Dissolved	ND		0.20	0.0042	mg/L		12/01/22 09:30	12/02/22 04:19	1
Potassium, Dissolved	ND		3.0	0.24	mg/L		12/01/22 09:30	12/02/22 04:19	1
Sodium, Dissolved	ND		1.0	0.097	mg/L		12/01/22 09:30	12/02/22 04:19	1

Lab Sample ID: LCS 280-594829/2-A
Matrix: Water
Analysis Batch: 595410

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium, Dissolved	50.0	52.0		mg/L		104	90 - 111
Cobalt, Total	1.00	0.981		mg/L		98	89 - 111
Iron, Dissolved	10.0	10.6		mg/L		106	89 - 115
Iron, Total	10.0	10.6		mg/L		106	89 - 115
Magnesium, Dissolved	50.0	50.3		mg/L		101	90 - 113
Potassium, Dissolved	50.0	53.2		mg/L		106	89 - 114
Sodium, Dissolved	50.0	50.3		mg/L		101	90 - 115

Lab Sample ID: 280-169282-5 MS
Matrix: Water
Analysis Batch: 595410

Client Sample ID: MW-34A
Prep Type: Total Recoverable
Prep Batch: 594829

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium, Dissolved	14000		50.0	65.6	4	mg/L		-27311	75 - 125
Cobalt, Total	ND		1.00	0.983		mg/L		98	82 - 119
Iron, Dissolved	ND		10.0	10.6		mg/L		106	75 - 125
Iron, Total	ND		10.0	10.6		mg/L		106	75 - 125
Magnesium, Dissolved	6500		50.0	57.0	4	mg/L		-12837	75 - 125
Potassium, Dissolved	570	J	50.0	54.1	4	mg/L		-1031	76 - 125
Sodium, Dissolved	7800		50.0	57.9	4	mg/L		-15504	75 - 125

Lab Sample ID: 280-169282-5 MSD
Matrix: Water
Analysis Batch: 595410

Client Sample ID: MW-34A
Prep Type: Total Recoverable
Prep Batch: 594829

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium, Dissolved	14000		50.0	65.8	4	mg/L		-27310	75 - 125	0	20
Cobalt, Total	ND		1.00	0.994		mg/L		99	82 - 119	1	20
Iron, Dissolved	ND		10.0	10.6		mg/L		106	75 - 125	0	20
Iron, Total	ND		10.0	10.6		mg/L		106	75 - 125	0	20
Magnesium, Dissolved	6500		50.0	57.7	4	mg/L		-12836	75 - 125	1	20
Potassium, Dissolved	570	J	50.0	54.5	4	mg/L		-1031	76 - 125	1	20

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 280-169282-5 MSD
Matrix: Water
Analysis Batch: 595410

Client Sample ID: MW-34A
Prep Type: Total Recoverable
Prep Batch: 594829

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium, Dissolved	7800		50.0	58.3	4	mg/L		-1550 3	75 - 125	1	20

Lab Sample ID: MB 280-594830/1-A
Matrix: Water
Analysis Batch: 595469

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594830

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	0.0261	J	0.20	0.024	mg/L		12/01/22 09:30	12/02/22 22:36	1
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/01/22 09:30	12/02/22 22:36	1
Iron, Dissolved	0.00950	J	0.060	0.0091	mg/L		12/01/22 09:30	12/02/22 22:36	1
Iron, Total	0.00950	J	0.060	0.0091	mg/L		12/01/22 09:30	12/02/22 22:36	1
Magnesium, Dissolved	ND		0.050	0.0042	mg/L		12/01/22 09:30	12/02/22 22:36	1
Potassium, Dissolved	ND		1.0	0.24	mg/L		12/01/22 09:30	12/02/22 22:36	1

Lab Sample ID: MB 280-594830/1-A
Matrix: Water
Analysis Batch: 595720

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594830

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium, Dissolved	ND		1.0	0.097	mg/L		12/01/22 09:30	12/05/22 18:31	1

Lab Sample ID: LCS 280-594830/2-A
Matrix: Water
Analysis Batch: 595469

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594830

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium, Dissolved	50.0	49.5		mg/L		99	90 - 111
Cobalt, Total	1.00	0.945		mg/L		95	89 - 111
Iron, Dissolved	10.0	9.69		mg/L		97	89 - 115
Iron, Total	10.0	9.69		mg/L		97	89 - 115
Magnesium, Dissolved	50.0	50.2		mg/L		100	90 - 113
Potassium, Dissolved	50.0	50.2		mg/L		100	89 - 114

Lab Sample ID: LCS 280-594830/2-A
Matrix: Water
Analysis Batch: 595720

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594830

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium, Dissolved	50.0	49.8		mg/L		100	90 - 115

Lab Sample ID: LCSD 280-594830/3-A
Matrix: Water
Analysis Batch: 595469

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 594830

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium, Dissolved	50.0	50.1		mg/L		100	90 - 111	1	20
Cobalt, Total	1.00	0.954		mg/L		95	89 - 111	1	20
Iron, Dissolved	10.0	9.80		mg/L		98	89 - 115	1	20
Iron, Total	10.0	9.80		mg/L		98	89 - 115	1	20

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCSD 280-594830/3-A
Matrix: Water
Analysis Batch: 595469

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 594830

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Magnesium, Dissolved			50.0	51.0		mg/L		102	90 - 113	1	20
Potassium, Dissolved			50.0	50.3		mg/L		101	89 - 114	0	20

Lab Sample ID: LCSD 280-594830/3-A
Matrix: Water
Analysis Batch: 595720

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 594830

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium, Dissolved			50.0	49.9		mg/L		100	90 - 115	0	20

Lab Sample ID: 280-169268-E-1-B MS
Matrix: Water
Analysis Batch: 595469

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 594830

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Calcium, Dissolved	44	B	50.0	95.7		mg/L		103	75 - 125		
Cobalt, Total	ND		1.00	0.975		mg/L		98	82 - 119		
Iron, Dissolved	0.54	B	10.0	10.4		mg/L		99	75 - 125		
Iron, Total	0.54	B	10.0	10.4		mg/L		99	75 - 125		
Magnesium, Dissolved	21		50.0	72.3		mg/L		103	75 - 125		
Potassium, Dissolved	5.1		50.0	58.0		mg/L		106	76 - 125		

Lab Sample ID: 280-169268-E-1-C MSD
Matrix: Water
Analysis Batch: 595469

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 594830

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium, Dissolved	44	B	50.0	96.9		mg/L		105	75 - 125	1	20
Cobalt, Total	ND		1.00	0.988		mg/L		99	82 - 119	1	20
Iron, Dissolved	0.54	B	10.0	10.6		mg/L		101	75 - 125	2	20
Iron, Total	0.54	B	10.0	10.6		mg/L		101	75 - 125	2	20
Magnesium, Dissolved	21		50.0	73.3		mg/L		106	75 - 125	2	20
Potassium, Dissolved	5.1		50.0	58.6		mg/L		107	76 - 125	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 280-594332/1-A
Matrix: Water
Analysis Batch: 594857

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594332

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		11/28/22 08:18	11/28/22 18:28	1
Barium, Total	ND		0.0010	0.00029	mg/L		11/28/22 08:18	11/28/22 18:28	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		11/28/22 08:18	11/28/22 18:28	1
Chromium, Total	ND		0.0030	0.00050	mg/L		11/28/22 08:18	11/28/22 18:28	1
Copper, Total	ND		0.0020	0.00056	mg/L		11/28/22 08:18	11/28/22 18:28	1
Lead, Total	0.000233	J	0.0010	0.00018	mg/L		11/28/22 08:18	11/28/22 18:28	1
Manganese, Dissolved	ND		0.0010	0.00031	mg/L		11/28/22 08:18	11/28/22 18:28	1
Manganese, Total	ND		0.0010	0.00031	mg/L		11/28/22 08:18	11/28/22 18:28	1
Nickel, Total	ND		0.0040	0.00030	mg/L		11/28/22 08:18	11/28/22 18:28	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-594332/1-A
Matrix: Water
Analysis Batch: 594857

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594332

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium, Total	ND		0.0010	0.00037	mg/L		11/28/22 08:18	11/28/22 18:28	1
Silver, Total	ND		0.0020	0.000033	mg/L		11/28/22 08:18	11/28/22 18:28	1
Thallium, Total	ND		0.0010	0.000089	mg/L		11/28/22 08:18	11/28/22 18:28	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		11/28/22 08:18	11/28/22 18:28	1
Zinc, Total	ND		0.0050	0.0020	mg/L		11/28/22 08:18	11/28/22 18:28	1

Lab Sample ID: MB 280-594332/1-A
Matrix: Water
Analysis Batch: 595623

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594332

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium, Total	0.000115	J	0.0010	0.000080	mg/L		11/28/22 08:18	12/05/22 14:44	1

Lab Sample ID: LCS 280-594332/2-A
Matrix: Water
Analysis Batch: 594857

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594332

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony, Total	0.0400	0.0410		mg/L		103	85 - 115
Barium, Total	0.0400	0.0423		mg/L		106	85 - 118
Cadmium, Total	0.0400	0.0418		mg/L		104	85 - 115
Chromium, Total	0.0400	0.0426		mg/L		107	84 - 121
Copper, Total	0.0400	0.0421		mg/L		105	85 - 119
Lead, Total	0.0400	0.0419		mg/L		105	85 - 118
Manganese, Dissolved	0.0400	0.0428		mg/L		107	85 - 117
Manganese, Total	0.0400	0.0428		mg/L		107	85 - 117
Nickel, Total	0.0400	0.0415		mg/L		104	85 - 119
Selenium, Total	0.0400	0.0419		mg/L		105	77 - 122
Silver, Total	0.0400	0.0394		mg/L		98	85 - 115
Thallium, Total	0.0400	0.0422		mg/L		106	85 - 118
Vanadium, Total	0.0400	0.0423		mg/L		106	85 - 120
Zinc, Total	0.0400	0.0422		mg/L		105	83 - 122

Lab Sample ID: LCS 280-594332/2-A
Matrix: Water
Analysis Batch: 595623

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594332

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium, Total	0.0400	0.0412		mg/L		103	80 - 125

Lab Sample ID: 280-168883-A-4-B MS
Matrix: Water
Analysis Batch: 594857

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 594332

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony, Total	ND		0.0400	0.0393		mg/L		98	80 - 111
Barium, Total	0.054		0.0400	0.0939		mg/L		100	92 - 117
Cadmium, Total	ND		0.0400	0.0383		mg/L		96	91 - 114
Chromium, Total	0.0037		0.0400	0.0434		mg/L		99	91 - 114
Copper, Total	0.00061	J	0.0400	0.0398		mg/L		98	89 - 116

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-168883-A-4-B MS
Matrix: Water
Analysis Batch: 594857

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 594332

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead, Total	ND		0.0400	0.0393		mg/L		98	95 - 116
Manganese, Total	ND		0.0400	0.0402		mg/L		100	89 - 119
Nickel, Total	ND		0.0400	0.0388		mg/L		97	92 - 116
Selenium, Total	0.0035		0.0400	0.0422		mg/L		97	90 - 115
Silver, Total	ND		0.0400	0.0399		mg/L		100	93 - 118
Thallium, Total	ND		0.0400	0.0398		mg/L		99	94 - 115
Vanadium, Total	0.027		0.0400	0.0680		mg/L		104	91 - 114
Zinc, Total	ND		0.0400	0.0408		mg/L		102	86 - 120

Lab Sample ID: 280-168883-A-4-B MS
Matrix: Water
Analysis Batch: 595623

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 594332

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium, Total	ND		0.0400	0.0395		mg/L		99	87 - 118

Lab Sample ID: 280-168883-A-4-C MSD
Matrix: Water
Analysis Batch: 594857

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 594332

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony, Total	ND		0.0400	0.0386		mg/L		97	80 - 111	2	20
Barium, Total	0.054		0.0400	0.0922		mg/L		96	92 - 117	2	20
Cadmium, Total	ND		0.0400	0.0380		mg/L		95	91 - 114	1	20
Chromium, Total	0.0037		0.0400	0.0427		mg/L		97	91 - 114	2	20
Copper, Total	0.00061	J	0.0400	0.0401		mg/L		99	89 - 116	1	20
Lead, Total	ND		0.0400	0.0390		mg/L		97	95 - 116	1	20
Manganese, Total	ND		0.0400	0.0392		mg/L		98	89 - 119	3	20
Nickel, Total	ND		0.0400	0.0385		mg/L		96	92 - 116	1	20
Selenium, Total	0.0035		0.0400	0.0439		mg/L		101	90 - 115	4	20
Silver, Total	ND		0.0400	0.0394		mg/L		99	93 - 118	1	20
Thallium, Total	ND		0.0400	0.0393		mg/L		98	94 - 115	1	20
Vanadium, Total	0.027		0.0400	0.0670		mg/L		101	91 - 114	2	20
Zinc, Total	ND		0.0400	0.0431		mg/L		108	86 - 120	6	20

Lab Sample ID: 280-168883-A-4-C MSD
Matrix: Water
Analysis Batch: 595623

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 594332

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium, Total	ND		0.0400	0.0404		mg/L		101	87 - 118	2	20

Lab Sample ID: MB 280-594393/1-A
Matrix: Water
Analysis Batch: 594781

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594393

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.000460	J	0.0010	0.00031	mg/L		11/27/22 14:46	11/28/22 12:27	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-594393/2-A
Matrix: Water
Analysis Batch: 594781

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594393

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese, Dissolved	0.0400	0.0407		mg/L		102	85 - 117

Lab Sample ID: MB 280-594691/1-A
Matrix: Water
Analysis Batch: 595317

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		11/29/22 07:22	12/01/22 18:43	1
Barium, Total	0.000306	J	0.0010	0.00029	mg/L		11/29/22 07:22	12/01/22 18:43	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		11/29/22 07:22	12/01/22 18:43	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		11/29/22 07:22	12/01/22 18:43	1
Chromium, Total	ND		0.0030	0.00050	mg/L		11/29/22 07:22	12/01/22 18:43	1
Copper, Total	ND		0.0020	0.00056	mg/L		11/29/22 07:22	12/01/22 18:43	1
Lead, Total	0.000239	J	0.0010	0.00018	mg/L		11/29/22 07:22	12/01/22 18:43	1
Manganese, Total	ND		0.0010	0.00031	mg/L		11/29/22 07:22	12/01/22 18:43	1
Nickel, Total	ND		0.0040	0.00030	mg/L		11/29/22 07:22	12/01/22 18:43	1
Selenium, Total	ND		0.0010	0.00037	mg/L		11/29/22 07:22	12/01/22 18:43	1
Silver, Total	ND		0.0020	0.000033	mg/L		11/29/22 07:22	12/01/22 18:43	1
Thallium, Total	ND		0.0010	0.000089	mg/L		11/29/22 07:22	12/01/22 18:43	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		11/29/22 07:22	12/01/22 18:43	1
Zinc, Total	ND		0.0050	0.0020	mg/L		11/29/22 07:22	12/01/22 18:43	1

Lab Sample ID: LCS 280-594691/2-A
Matrix: Water
Analysis Batch: 595317

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony, Total	0.0400	0.0397		mg/L		99	85 - 115
Barium, Total	0.0400	0.0412		mg/L		103	85 - 118
Beryllium, Total	0.0400	0.0404		mg/L		101	80 - 125
Cadmium, Total	0.0400	0.0387		mg/L		97	85 - 115
Chromium, Total	0.0400	0.0395		mg/L		99	84 - 121
Copper, Total	0.0400	0.0388		mg/L		97	85 - 119
Lead, Total	0.0400	0.0417		mg/L		104	85 - 118
Manganese, Total	0.0400	0.0387		mg/L		97	85 - 117
Nickel, Total	0.0400	0.0385		mg/L		96	85 - 119
Selenium, Total	0.0400	0.0399		mg/L		100	77 - 122
Silver, Total	0.0400	0.0384		mg/L		96	85 - 115
Thallium, Total	0.0400	0.0413		mg/L		103	85 - 118
Vanadium, Total	0.0400	0.0397		mg/L		99	85 - 120
Zinc, Total	0.0400	0.0404		mg/L		101	83 - 122

Lab Sample ID: 280-169506-A-2-F MS
Matrix: Water
Analysis Batch: 595317

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony, Total	ND		0.0400	0.0383		mg/L		96	80 - 111
Barium, Total	0.030	B	0.0400	0.0688		mg/L		96	92 - 117

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-169506-A-2-F MS
Matrix: Water
Analysis Batch: 595317

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium, Total	ND		0.0400	0.0409		mg/L		102	87 - 118
Cadmium, Total	ND		0.0400	0.0390		mg/L		98	91 - 114
Chromium, Total	0.0083		0.0400	0.0462		mg/L		95	91 - 114
Copper, Total	0.0012	J	0.0400	0.0377		mg/L		91	89 - 116
Lead, Total	0.00020	J B	0.0400	0.0414		mg/L		103	95 - 116
Manganese, Total	ND		0.0400	0.0382		mg/L		96	89 - 119
Nickel, Total	ND		0.0400	0.0382		mg/L		95	92 - 116
Selenium, Total	0.0014		0.0400	0.0408		mg/L		99	90 - 115
Silver, Total	ND		0.0400	0.0374		mg/L		94	93 - 118
Thallium, Total	ND		0.0400	0.0409		mg/L		102	94 - 115
Vanadium, Total	0.0097		0.0400	0.0480		mg/L		96	91 - 114
Zinc, Total	0.0026	J	0.0400	0.0407		mg/L		95	86 - 120

Lab Sample ID: 280-169506-A-2-G MSD
Matrix: Water
Analysis Batch: 595317

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony, Total	ND		0.0400	0.0399		mg/L		100	80 - 111	4	20
Barium, Total	0.030	B	0.0400	0.0713		mg/L		102	92 - 117	4	20
Beryllium, Total	ND		0.0400	0.0404		mg/L		101	87 - 118	1	20
Cadmium, Total	ND		0.0400	0.0404		mg/L		101	91 - 114	3	20
Chromium, Total	0.0083		0.0400	0.0473		mg/L		97	91 - 114	2	20
Copper, Total	0.0012	J	0.0400	0.0384		mg/L		93	89 - 116	2	20
Lead, Total	0.00020	J B	0.0400	0.0422		mg/L		105	95 - 116	2	20
Manganese, Total	ND		0.0400	0.0385		mg/L		96	89 - 119	1	20
Nickel, Total	ND		0.0400	0.0393		mg/L		98	92 - 116	3	20
Selenium, Total	0.0014		0.0400	0.0404		mg/L		97	90 - 115	1	20
Silver, Total	ND		0.0400	0.0386		mg/L		97	93 - 118	3	20
Thallium, Total	ND		0.0400	0.0414		mg/L		103	94 - 115	1	20
Vanadium, Total	0.0097		0.0400	0.0491		mg/L		99	91 - 114	2	20
Zinc, Total	0.0026	J	0.0400	0.0416		mg/L		97	86 - 120	2	20

Lab Sample ID: 280-169459-J-2-B MS
Matrix: Water
Analysis Batch: 594781

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 594393

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese, Dissolved	5.1	B ^2	0.0400	5.01	4	mg/L		-159	89 - 119

Lab Sample ID: 280-169459-J-2-C MSD
Matrix: Water
Analysis Batch: 594781

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 594393

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese, Dissolved	5.1	B ^2	0.0400	5.21	4	mg/L		331	89 - 119	4	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-595577/59
Matrix: Water
Analysis Batch: 595577

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/06/22 10:25	1
Sulfate	ND		5.0	5.0	mg/L			12/06/22 10:25	1

Lab Sample ID: MB 280-595577/6
Matrix: Water
Analysis Batch: 595577

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/05/22 17:33	1
Sulfate	ND		5.0	5.0	mg/L			12/05/22 17:33	1

Lab Sample ID: LCS 280-595577/57
Matrix: Water
Analysis Batch: 595577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	50.3		mg/L		101	90 - 110		
Sulfate			50.0	48.4		mg/L		97	90 - 110		

Lab Sample ID: LCSD 280-595577/58
Matrix: Water
Analysis Batch: 595577

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			50.0	50.3		mg/L		101	90 - 110	0	10
Sulfate			50.0	48.5		mg/L		97	90 - 110	0	10

Lab Sample ID: MRL 280-595577/3
Matrix: Water
Analysis Batch: 595577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			2.50	ND		mg/L		83	50 - 150		
Sulfate			2.50	ND		mg/L		85	50 - 150		

Lab Sample ID: 280-169282-3 MS
Matrix: Water
Analysis Batch: 595577

Client Sample ID: MW-29A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND		50.0	52.6		mg/L		105	80 - 120		
Sulfate	ND		50.0	50.4		mg/L		101	80 - 120		

Lab Sample ID: 280-169282-3 MSD
Matrix: Water
Analysis Batch: 595577

Client Sample ID: MW-29A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		50.0	52.8		mg/L		106	80 - 120	0	20
Sulfate	ND		50.0	50.5		mg/L		101	80 - 120	0	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 280-169282-3 DU
Matrix: Water
Analysis Batch: 595577

Client Sample ID: MW-29A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chloride	ND			ND		mg/L				NC	15
Sulfate	ND			ND		mg/L				NC	15

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-596038/19
Matrix: Water
Analysis Batch: 596038

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.030	0.030	mg/L			12/07/22 09:56	1

Lab Sample ID: LCS 280-596038/17
Matrix: Water
Analysis Batch: 596038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia (as N)			2.50	2.53		mg/L		101	90 - 110		

Lab Sample ID: LCSD 280-596038/18
Matrix: Water
Analysis Batch: 596038

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)			2.50	2.52		mg/L		101	90 - 110	0	10

Lab Sample ID: 280-169301-B-10 MS
Matrix: Water
Analysis Batch: 596038

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia (as N)	0.26		1.00	1.31		mg/L		105	90 - 110		

Lab Sample ID: 280-169301-B-10 MSD
Matrix: Water
Analysis Batch: 596038

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)	0.26		1.00	1.32		mg/L		105	90 - 110	0	10

Lab Sample ID: MB 280-596110/140
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.030	0.030	mg/L			12/08/22 15:18	1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 280-596110/138
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia (as N)			2.50	2.56		mg/L		103	90 - 110		

Lab Sample ID: LCSD 280-596110/139
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)			2.50	2.63		mg/L		105	90 - 110	3	10

Lab Sample ID: 280-169381-A-3 MS
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia (as N)	ND	F1	1.00	1.12	F1	mg/L		112	90 - 110		

Lab Sample ID: 280-169381-A-3 MSD
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)	ND	F1	1.00	1.12	F1	mg/L		112	90 - 110	1	10

Lab Sample ID: 580-120709-E-1 MS
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia (as N)	ND	F1	1.00	1.13	F1	mg/L		113	90 - 110		

Lab Sample ID: 580-120709-E-1 MSD
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)	ND	F1	1.00	1.13	F1	mg/L		113	90 - 110	1	10

Method: 353.2 - Nitrate

Lab Sample ID: MB 280-595609/18
Matrix: Water
Analysis Batch: 595609

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050	0.050	mg/L			12/05/22 16:14	1

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-594347/32
Matrix: Water
Analysis Batch: 594347

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		10	10	mg/L			11/21/22 15:06	1
Alkalinity, Bicarbonate (As CaCO3)	ND		10	10	mg/L			11/21/22 15:06	1

Lab Sample ID: MB 280-594347/58
Matrix: Water
Analysis Batch: 594347

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		10	10	mg/L			11/21/22 18:08	1
Alkalinity, Bicarbonate (As CaCO3)	ND		10	10	mg/L			11/21/22 18:08	1

Lab Sample ID: LCS 280-594347/57
Matrix: Water
Analysis Batch: 594347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity, Total (As CaCO3)			200	204		mg/L		102	89 - 109		

Lab Sample ID: MB 280-594522/32
Matrix: Water
Analysis Batch: 594522

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		10	10	mg/L			11/22/22 15:40	1
Alkalinity, Bicarbonate (As CaCO3)	ND		10	10	mg/L			11/22/22 15:40	1

Lab Sample ID: LCS 280-594522/31
Matrix: Water
Analysis Batch: 594522

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity, Total (As CaCO3)			200	203		mg/L		101	89 - 109		

Lab Sample ID: 280-169380-B-7 DU
Matrix: Water
Analysis Batch: 594522

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity, Total (As CaCO3)	380			387		mg/L				0.7	10
Alkalinity, Bicarbonate (As CaCO3)	380			387		mg/L				0.7	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-594006/1
Matrix: Water
Analysis Batch: 594006

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		5.0	5.0	mg/L			11/18/22 10:17	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 280-594006/2
Matrix: Water
Analysis Batch: 594006

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids (TDS)			502	467		mg/L		93	88 - 114		

Lab Sample ID: LCSD 280-594006/3
Matrix: Water
Analysis Batch: 594006

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids (TDS)			502	472		mg/L		94	88 - 114	1	20

Lab Sample ID: 280-169317-A-5 DU
Matrix: Water
Analysis Batch: 594006

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids (TDS)	620			626		mg/L				0.3	10

Lab Sample ID: MB 280-594400/1
Matrix: Water
Analysis Batch: 594400

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		5.0		5.0	mg/L			11/22/22 11:21	1

Lab Sample ID: LCS 280-594400/2
Matrix: Water
Analysis Batch: 594400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids (TDS)			501	490		mg/L		98	88 - 114		

Lab Sample ID: 280-169282-2 DU
Matrix: Water
Analysis Batch: 594400

Client Sample ID: MW-42
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids (TDS)	210			216		mg/L				1	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-594018/3
Matrix: Water
Analysis Batch: 594018

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0		4.0	mg/L			11/18/22 10:35	1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 280-594018/1
Matrix: Water
Analysis Batch: 594018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	503	473		mg/L		94	79 - 114

Lab Sample ID: LCSD 280-594018/2
Matrix: Water
Analysis Batch: 594018

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Suspended Solids	503	513		mg/L		102	79 - 114	8	20

Lab Sample ID: 280-169238-A-5 DU
Matrix: Water
Analysis Batch: 594018

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	9.6		9.60		mg/L		0	10

Lab Sample ID: MB 280-594583/2
Matrix: Water
Analysis Batch: 594583

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			11/23/22 12:16	1

Lab Sample ID: LCS 280-594583/1
Matrix: Water
Analysis Batch: 594583

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	501	463		mg/L		92	79 - 114

Lab Sample ID: 280-169436-A-1 DU
Matrix: Water
Analysis Batch: 594583

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	6.4		6.80		mg/L		6	10

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-595506/4
Matrix: Water
Analysis Batch: 595506

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/02/22 15:11	1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: MB 280-595506/49
Matrix: Water
Analysis Batch: 595506

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/03/22 02:02	1

Lab Sample ID: LCS 280-595506/47
Matrix: Water
Analysis Batch: 595506

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Average			25.0	26.0		mg/L		104	88 - 112		

Lab Sample ID: LCSD 280-595506/48
Matrix: Water
Analysis Batch: 595506

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Average			25.0	26.2		mg/L		105	88 - 112	1	15

Lab Sample ID: 280-169282-6 MS
Matrix: Water
Analysis Batch: 595506

Client Sample ID: MW-15R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Average	ND		25.0	26.5		mg/L		106	88 - 112		

Lab Sample ID: 280-169282-6 MSD
Matrix: Water
Analysis Batch: 595506

Client Sample ID: MW-15R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Average	ND		25.0	26.5		mg/L		106	88 - 112	0	15

Lab Sample ID: MB 280-595659/38
Matrix: Water
Analysis Batch: 595659

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/06/22 00:43	1

Lab Sample ID: MB 280-595659/4
Matrix: Water
Analysis Batch: 595659

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/05/22 16:31	1

Lab Sample ID: LCS 280-595659/36
Matrix: Water
Analysis Batch: 595659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Average			25.0	25.7		mg/L		103	88 - 112		

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: LCSD 280-595659/37
Matrix: Water
Analysis Batch: 595659

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Average			25.0	25.6		mg/L		103	88 - 112	0	15

Lab Sample ID: 280-169282-2 MS
Matrix: Water
Analysis Batch: 595659

Client Sample ID: MW-42
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon - Average	8.2		25.0	33.8		mg/L		102	88 - 112

Lab Sample ID: 280-169282-2 MSD
Matrix: Water
Analysis Batch: 595659

Client Sample ID: MW-42
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Average	8.2		25.0	33.5		mg/L		101	88 - 112	1	15

Lab Sample ID: MB 280-595666/26
Matrix: Water
Analysis Batch: 595666

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/05/22 23:39	1

Lab Sample ID: LCS 280-595666/24
Matrix: Water
Analysis Batch: 595666

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon - Average			25.0	23.4		mg/L		94	88 - 112

Lab Sample ID: LCSD 280-595666/25
Matrix: Water
Analysis Batch: 595666

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Average			25.0	23.3		mg/L		93	88 - 112	1	15

Lab Sample ID: 280-169346-J-1 MS
Matrix: Water
Analysis Batch: 595666

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon - Average	ND		25.0	23.7		mg/L		95	88 - 112

Lab Sample ID: 280-169346-J-1 MSD
Matrix: Water
Analysis Batch: 595666

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Average	ND		25.0	23.6		mg/L		94	88 - 112	0	15

GC/MS VOA

Analysis Batch: 651148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-4	MW-34C	Total/NA	Water	8260C	
280-169282-5	MW-34A	Total/NA	Water	8260C	
280-169282-6	MW-15R	Total/NA	Water	8260C	
280-169282-7	TRIP BLANK	Total/NA	Water	8260C	
MB 480-651148/8	Method Blank	Total/NA	Water	8260C	
LCS 480-651148/6	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 651205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Total/NA	Water	8260C	
280-169282-2	MW-42	Total/NA	Water	8260C	
280-169282-3	MW-29A	Total/NA	Water	8260C	
MB 480-651205/9	Method Blank	Total/NA	Water	8260C	
LCS 480-651205/6	Lab Control Sample	Total/NA	Water	8260C	
480-204112-AA-1 MS	Matrix Spike	Total/NA	Water	8260C	
480-204112-AA-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

Analysis Batch: 651411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Total/NA	Water	8260C SIM	
280-169282-2	MW-42	Total/NA	Water	8260C SIM	
280-169282-3	MW-29A	Total/NA	Water	8260C SIM	
280-169282-4	MW-34C	Total/NA	Water	8260C SIM	
280-169282-5	MW-34A	Total/NA	Water	8260C SIM	
280-169282-6	MW-15R	Total/NA	Water	8260C SIM	
280-169282-7	TRIP BLANK	Total/NA	Water	8260C SIM	
MB 480-651411/9	Method Blank	Total/NA	Water	8260C SIM	
LCS 480-651411/6	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 480-651411/7	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Metals

Prep Batch: 594332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Dissolved	Water	3005A	
280-169282-1	MW-43	Total Recoverable	Water	3005A	
280-169282-2	MW-42	Dissolved	Water	3005A	
280-169282-2	MW-42	Total Recoverable	Water	3005A	
MB 280-594332/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-594332/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-168883-A-4-B MS	Matrix Spike	Total Recoverable	Water	3005A	
280-168883-A-4-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 594393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-3	MW-29A	Dissolved	Water	3005A	
280-169282-4	MW-34C	Dissolved	Water	3005A	
280-169282-5	MW-34A	Dissolved	Water	3005A	
280-169282-6	MW-15R	Dissolved	Water	3005A	
MB 280-594393/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-594393/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 594393 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169459-J-2-B MS	Matrix Spike	Dissolved	Water	3005A	
280-169459-J-2-C MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Prep Batch: 594691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-3	MW-29A	Total Recoverable	Water	3005A	
280-169282-4	MW-34C	Total Recoverable	Water	3005A	
280-169282-5	MW-34A	Total Recoverable	Water	3005A	
280-169282-6	MW-15R	Total Recoverable	Water	3005A	
MB 280-594691/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-594691/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-169506-A-2-F MS	Matrix Spike	Total Recoverable	Water	3005A	
280-169506-A-2-G MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 594781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-3	MW-29A	Dissolved	Water	6020B	594393
280-169282-4	MW-34C	Dissolved	Water	6020B	594393
280-169282-5	MW-34A	Dissolved	Water	6020B	594393
MB 280-594393/1-A	Method Blank	Total Recoverable	Water	6020B	594393
LCS 280-594393/2-A	Lab Control Sample	Total Recoverable	Water	6020B	594393
280-169459-J-2-B MS	Matrix Spike	Dissolved	Water	6020B	594393
280-169459-J-2-C MSD	Matrix Spike Duplicate	Dissolved	Water	6020B	594393

Analysis Batch: 594822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-6	MW-15R	Dissolved	Water	6020B	594393

Prep Batch: 594829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-5	MW-34A	Dissolved	Water	3005A	
280-169282-5	MW-34A	Total Recoverable	Water	3005A	
280-169282-6	MW-15R	Dissolved	Water	3005A	
280-169282-6	MW-15R	Total Recoverable	Water	3005A	
MB 280-594829/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-594829/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-169282-5 MS	MW-34A	Total Recoverable	Water	3005A	
280-169282-5 MSD	MW-34A	Total Recoverable	Water	3005A	

Prep Batch: 594830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Dissolved	Water	3005A	
280-169282-1	MW-43	Total Recoverable	Water	3005A	
280-169282-2	MW-42	Dissolved	Water	3005A	
280-169282-2	MW-42	Total Recoverable	Water	3005A	
280-169282-3	MW-29A	Dissolved	Water	3005A	
280-169282-3	MW-29A	Total Recoverable	Water	3005A	
280-169282-4	MW-34C	Dissolved	Water	3005A	
280-169282-4	MW-34C	Total Recoverable	Water	3005A	
MB 280-594830/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-594830/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 594830 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 280-594830/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
280-169268-E-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
280-169268-E-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 594857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Dissolved	Water	6020B	594332
280-169282-1	MW-43	Total Recoverable	Water	6020B	594332
280-169282-2	MW-42	Dissolved	Water	6020B	594332
280-169282-2	MW-42	Total Recoverable	Water	6020B	594332
MB 280-594332/1-A	Method Blank	Total Recoverable	Water	6020B	594332
LCS 280-594332/2-A	Lab Control Sample	Total Recoverable	Water	6020B	594332
280-168883-A-4-B MS	Matrix Spike	Total Recoverable	Water	6020B	594332
280-168883-A-4-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	594332

Analysis Batch: 595317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-3	MW-29A	Total Recoverable	Water	6020B	594691
280-169282-4	MW-34C	Total Recoverable	Water	6020B	594691
280-169282-5	MW-34A	Total Recoverable	Water	6020B	594691
280-169282-6	MW-15R	Total Recoverable	Water	6020B	594691
MB 280-594691/1-A	Method Blank	Total Recoverable	Water	6020B	594691
LCS 280-594691/2-A	Lab Control Sample	Total Recoverable	Water	6020B	594691
280-169506-A-2-F MS	Matrix Spike	Total Recoverable	Water	6020B	594691
280-169506-A-2-G MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	594691

Analysis Batch: 595410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-5	MW-34A	Dissolved	Water	6010D	594829
280-169282-5	MW-34A	Total Recoverable	Water	6010D	594829
280-169282-6	MW-15R	Dissolved	Water	6010D	594829
280-169282-6	MW-15R	Total Recoverable	Water	6010D	594829
MB 280-594829/1-A	Method Blank	Total Recoverable	Water	6010D	594829
LCS 280-594829/2-A	Lab Control Sample	Total Recoverable	Water	6010D	594829
280-169282-5 MS	MW-34A	Total Recoverable	Water	6010D	594829
280-169282-5 MSD	MW-34A	Total Recoverable	Water	6010D	594829

Analysis Batch: 595469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Dissolved	Water	6010D	594830
280-169282-1	MW-43	Total Recoverable	Water	6010D	594830
280-169282-2	MW-42	Dissolved	Water	6010D	594830
280-169282-2	MW-42	Total Recoverable	Water	6010D	594830
280-169282-3	MW-29A	Dissolved	Water	6010D	594830
280-169282-3	MW-29A	Total Recoverable	Water	6010D	594830
280-169282-4	MW-34C	Dissolved	Water	6010D	594830
280-169282-4	MW-34C	Total Recoverable	Water	6010D	594830
MB 280-594830/1-A	Method Blank	Total Recoverable	Water	6010D	594830
LCS 280-594830/2-A	Lab Control Sample	Total Recoverable	Water	6010D	594830
LCSD 280-594830/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010D	594830
280-169268-E-1-B MS	Matrix Spike	Total Recoverable	Water	6010D	594830

Metals (Continued)

Analysis Batch: 595469 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169268-E-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010D	594830

Analysis Batch: 595623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-594332/1-A	Method Blank	Total Recoverable	Water	6020B	594332
LCS 280-594332/2-A	Lab Control Sample	Total Recoverable	Water	6020B	594332
280-168883-A-4-B MS	Matrix Spike	Total Recoverable	Water	6020B	594332
280-168883-A-4-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	594332

Analysis Batch: 595720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Dissolved	Water	6010D	594830
280-169282-2	MW-42	Dissolved	Water	6010D	594830
280-169282-3	MW-29A	Dissolved	Water	6010D	594830
280-169282-4	MW-34C	Dissolved	Water	6010D	594830
MB 280-594830/1-A	Method Blank	Total Recoverable	Water	6010D	594830
LCS 280-594830/2-A	Lab Control Sample	Total Recoverable	Water	6010D	594830
LCSD 280-594830/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010D	594830

Analysis Batch: 595821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Total Recoverable	Water	6010D	594830
280-169282-2	MW-42	Total Recoverable	Water	6010D	594830
280-169282-3	MW-29A	Total Recoverable	Water	6010D	594830
280-169282-4	MW-34C	Total Recoverable	Water	6010D	594830

General Chemistry

Analysis Batch: 594006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-3	MW-29A	Total/NA	Water	SM 2540C	
280-169282-4	MW-34C	Total/NA	Water	SM 2540C	
280-169282-5	MW-34A	Total/NA	Water	SM 2540C	
280-169282-6	MW-15R	Total/NA	Water	SM 2540C	
MB 280-594006/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-594006/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 280-594006/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
280-169317-A-5 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 594018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Total/NA	Water	SM 2540D	
280-169282-3	MW-29A	Total/NA	Water	SM 2540D	
280-169282-5	MW-34A	Total/NA	Water	SM 2540D	
280-169282-6	MW-15R	Total/NA	Water	SM 2540D	
MB 280-594018/3	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-594018/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-594018/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
280-169238-A-5 DU	Duplicate	Total/NA	Water	SM 2540D	

General Chemistry

Analysis Batch: 594347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-3	MW-29A	Total/NA	Water	SM 2320B	
280-169282-4	MW-34C	Total/NA	Water	SM 2320B	
280-169282-5	MW-34A	Total/NA	Water	SM 2320B	
280-169282-6	MW-15R	Total/NA	Water	SM 2320B	
MB 280-594347/32	Method Blank	Total/NA	Water	SM 2320B	
MB 280-594347/58	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-594347/57	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 594400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Total/NA	Water	SM 2540C	
280-169282-2	MW-42	Total/NA	Water	SM 2540C	
MB 280-594400/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-594400/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-169282-2 DU	MW-42	Total/NA	Water	SM 2540C	

Analysis Batch: 594522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Total/NA	Water	SM 2320B	
280-169282-2	MW-42	Total/NA	Water	SM 2320B	
MB 280-594522/32	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-594522/31	Lab Control Sample	Total/NA	Water	SM 2320B	
280-169380-B-7 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 594583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-2	MW-42	Total/NA	Water	SM 2540D	
280-169282-4	MW-34C	Total/NA	Water	SM 2540D	
MB 280-594583/2	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-594583/1	Lab Control Sample	Total/NA	Water	SM 2540D	
280-169436-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	

Analysis Batch: 595506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-6	MW-15R	Total/NA	Water	SM 5310B	
MB 280-595506/4	Method Blank	Total/NA	Water	SM 5310B	
MB 280-595506/49	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-595506/47	Lab Control Sample	Total/NA	Water	SM 5310B	
LCSD 280-595506/48	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
280-169282-6 MS	MW-15R	Total/NA	Water	SM 5310B	
280-169282-6 MSD	MW-15R	Total/NA	Water	SM 5310B	

Analysis Batch: 595577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Total/NA	Water	300.0	
280-169282-2	MW-42	Total/NA	Water	300.0	
280-169282-3	MW-29A	Total/NA	Water	300.0	
280-169282-4	MW-34C	Total/NA	Water	300.0	
280-169282-5	MW-34A	Total/NA	Water	300.0	
280-169282-6	MW-15R	Total/NA	Water	300.0	
MB 280-595577/59	Method Blank	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 595577 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-595577/6	Method Blank	Total/NA	Water	300.0	
LCS 280-595577/57	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-595577/58	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-595577/3	Lab Control Sample	Total/NA	Water	300.0	
280-169282-3 MS	MW-29A	Total/NA	Water	300.0	
280-169282-3 MSD	MW-29A	Total/NA	Water	300.0	
280-169282-3 DU	MW-29A	Total/NA	Water	300.0	

Analysis Batch: 595609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Total/NA	Water	353.2	
280-169282-2	MW-42	Total/NA	Water	353.2	
280-169282-3	MW-29A	Total/NA	Water	353.2	
280-169282-4	MW-34C	Total/NA	Water	353.2	
280-169282-5	MW-34A	Total/NA	Water	353.2	
280-169282-6	MW-15R	Total/NA	Water	353.2	
MB 280-595609/18	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 595659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-2	MW-42	Total/NA	Water	SM 5310B	
280-169282-3	MW-29A	Total/NA	Water	SM 5310B	
280-169282-4	MW-34C	Total/NA	Water	SM 5310B	
280-169282-5	MW-34A	Total/NA	Water	SM 5310B	
MB 280-595659/38	Method Blank	Total/NA	Water	SM 5310B	
MB 280-595659/4	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-595659/36	Lab Control Sample	Total/NA	Water	SM 5310B	
LCSD 280-595659/37	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
280-169282-2 MS	MW-42	Total/NA	Water	SM 5310B	
280-169282-2 MSD	MW-42	Total/NA	Water	SM 5310B	

Analysis Batch: 595666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Total/NA	Water	SM 5310B	
MB 280-595666/26	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-595666/24	Lab Control Sample	Total/NA	Water	SM 5310B	
LCSD 280-595666/25	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
280-169346-J-1 MS	Matrix Spike	Total/NA	Water	SM 5310B	
280-169346-J-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

Analysis Batch: 596038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Total/NA	Water	350.1	
280-169282-3	MW-29A	Total/NA	Water	350.1	
280-169282-4	MW-34C	Total/NA	Water	350.1	
280-169282-5	MW-34A	Total/NA	Water	350.1	
MB 280-596038/19	Method Blank	Total/NA	Water	350.1	
LCS 280-596038/17	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-596038/18	Lab Control Sample Dup	Total/NA	Water	350.1	
280-169301-B-10 MS	Matrix Spike	Total/NA	Water	350.1	
280-169301-B-10 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

QC Association Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169282-1

General Chemistry

Analysis Batch: 596110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-2	MW-42	Total/NA	Water	350.1	
280-169282-6	MW-15R	Total/NA	Water	350.1	
MB 280-596110/140	Method Blank	Total/NA	Water	350.1	
LCS 280-596110/138	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-596110/139	Lab Control Sample Dup	Total/NA	Water	350.1	
280-169381-A-3 MS	Matrix Spike	Total/NA	Water	350.1	
280-169381-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
580-120709-E-1 MS	Matrix Spike	Total/NA	Water	350.1	
580-120709-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Field Service / Mobile Lab

Analysis Batch: 595019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169282-1	MW-43	Total/NA	Water	Field Sampling	
280-169282-2	MW-42	Total/NA	Water	Field Sampling	
280-169282-3	MW-29A	Total/NA	Water	Field Sampling	
280-169282-4	MW-34C	Total/NA	Water	Field Sampling	
280-169282-5	MW-34A	Total/NA	Water	Field Sampling	
280-169282-6	MW-15R	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169282-1

Client Sample ID: MW-43

Date Collected: 11/16/22 14:40
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651205	11/23/22 22:40	CR	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/28/22 22:26	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Dissolved	Analysis	6010D		1			595469	12/02/22 23:05	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Dissolved	Analysis	6010D		1			595720	12/05/22 18:44	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Total Recoverable	Analysis	6010D		1			595469	12/03/22 00:38	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Total Recoverable	Analysis	6010D		1			595821	12/06/22 15:20	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	594332	11/28/22 08:18	LJS	EET DEN
Dissolved	Analysis	6020B		1			594857	11/28/22 19:24	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594332	11/28/22 08:18	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			594857	11/28/22 18:56	LMT	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	595577	12/06/22 12:47	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596038	12/07/22 11:16	MMP	EET DEN
Total/NA	Analysis	353.2		1			595609	12/05/22 16:14	ZPM	EET DEN
Total/NA	Analysis	SM 2320B		1			594522	11/22/22 18:29	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594400	11/22/22 11:21	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594018	11/18/22 10:35	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595666	12/06/22 02:27	ABW	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/16/22 15:40	S1S	EET DEN

Client Sample ID: MW-42

Date Collected: 11/16/22 13:20
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651205	11/23/22 23:03	CR	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/28/22 22:50	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Dissolved	Analysis	6010D		1			595469	12/02/22 23:09	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Dissolved	Analysis	6010D		1			595720	12/05/22 18:48	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Total Recoverable	Analysis	6010D		1			595469	12/03/22 00:42	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Total Recoverable	Analysis	6010D		1			595821	12/06/22 15:24	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	594332	11/28/22 08:18	LJS	EET DEN
Dissolved	Analysis	6020B		1			594857	11/28/22 19:26	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594332	11/28/22 08:18	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			594857	11/28/22 18:58	LMT	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	595577	12/06/22 13:19	EJS	EET DEN

Client Sample ID: MW-42

Lab Sample ID: 280-169282-2

Date Collected: 11/16/22 13:20

Matrix: Water

Date Received: 11/17/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	596110	12/08/22 15:58	MMP	EET DEN
Total/NA	Analysis	353.2		1			595609	12/05/22 16:14	ZPM	EET DEN
Total/NA	Analysis	SM 2320B		1			594522	11/22/22 18:24	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594400	11/22/22 11:21	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594583	11/23/22 12:16	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595659	12/06/22 01:40	ABW	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/16/22 14:20	S1S	EET DEN

Client Sample ID: MW-29A

Lab Sample ID: 280-169282-3

Date Collected: 11/16/22 14:10

Matrix: Water

Date Received: 11/17/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651205	11/23/22 23:27	CR	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/28/22 23:13	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Dissolved	Analysis	6010D		1			595469	12/02/22 23:29	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Dissolved	Analysis	6010D		1			595720	12/05/22 18:52	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Total Recoverable	Analysis	6010D		1			595469	12/03/22 00:46	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Total Recoverable	Analysis	6010D		1			595821	12/06/22 15:28	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	594393	11/27/22 14:46	MCR	EET DEN
Dissolved	Analysis	6020B		1			594781	11/28/22 12:44	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	11/29/22 07:22	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595317	12/01/22 18:58	LMT	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	595577	12/06/22 13:51	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596038	12/07/22 11:21	MMP	EET DEN
Total/NA	Analysis	353.2		1			595609	12/05/22 16:14	ZPM	EET DEN
Total/NA	Analysis	SM 2320B		1			594347	11/21/22 18:26	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594006	11/18/22 10:18	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594018	11/18/22 10:35	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595659	12/06/22 02:24	ABW	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/16/22 15:10	S1S	EET DEN

Client Sample ID: MW-34C

Lab Sample ID: 280-169282-4

Date Collected: 11/16/22 13:55

Matrix: Water

Date Received: 11/17/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651148	11/23/22 17:26	ATG	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/28/22 23:37	CDC	EET BUF

Client Sample ID: MW-34C

Lab Sample ID: 280-169282-4

Date Collected: 11/16/22 13:55

Matrix: Water

Date Received: 11/17/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Dissolved	Analysis	6010D		1			595469	12/02/22 23:33	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Dissolved	Analysis	6010D		1			595720	12/05/22 18:56	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Total Recoverable	Analysis	6010D		1			595469	12/03/22 00:50	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594830	12/01/22 09:30	PFM	EET DEN
Total Recoverable	Analysis	6010D		1			595821	12/06/22 15:32	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	594393	11/27/22 14:46	MCR	EET DEN
Dissolved	Analysis	6020B		1			594781	11/28/22 12:52	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	11/29/22 07:22	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595317	12/01/22 19:03	LMT	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	595577	12/06/22 14:54	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596038	12/07/22 11:24	MMP	EET DEN
Total/NA	Analysis	353.2		1			595609	12/05/22 16:14	ZPM	EET DEN
Total/NA	Analysis	SM 2320B		1			594347	11/21/22 18:32	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594006	11/18/22 10:18	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594583	11/23/22 12:16	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595659	12/06/22 02:38	ABW	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/16/22 14:55	S1S	EET DEN

Client Sample ID: MW-34A

Lab Sample ID: 280-169282-5

Date Collected: 11/16/22 13:10

Matrix: Water

Date Received: 11/17/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651148	11/23/22 17:49	ATG	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/29/22 00:01	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	594829	12/01/22 09:30	PFM	EET DEN
Dissolved	Analysis	6010D		1			595410	12/02/22 05:44	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594829	12/01/22 09:30	PFM	EET DEN
Total Recoverable	Analysis	6010D		1			595410	12/02/22 04:27	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	594393	11/27/22 14:46	MCR	EET DEN
Dissolved	Analysis	6020B		1			594781	11/28/22 12:54	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	11/29/22 07:22	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595317	12/01/22 19:05	LMT	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	595577	12/06/22 15:41	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596038	12/07/22 11:27	MMP	EET DEN
Total/NA	Analysis	353.2		1			595609	12/05/22 16:14	ZPM	EET DEN
Total/NA	Analysis	SM 2320B		1			594347	11/21/22 18:37	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594006	11/18/22 10:18	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594018	11/18/22 10:35	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595659	12/06/22 02:53	ABW	EET DEN

Lab Chronicle

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169282-1

Client Sample ID: MW-34A
Date Collected: 11/16/22 13:10
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1			595019	11/16/22 14:10	S1S	EET DEN

Client Sample ID: MW-15R
Date Collected: 11/16/22 11:35
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651148	11/23/22 18:12	ATG	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/29/22 00:25	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	594829	12/01/22 09:30	PFM	EET DEN
Dissolved	Analysis	6010D		1			595410	12/02/22 05:48	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594829	12/01/22 09:30	PFM	EET DEN
Total Recoverable	Analysis	6010D		1			595410	12/02/22 04:48	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	594393	11/27/22 14:46	MCR	EET DEN
Dissolved	Analysis	6020B		1			594822	11/28/22 15:35	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	11/29/22 07:22	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595317	12/01/22 19:07	LMT	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	595577	12/06/22 15:57	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596110	12/08/22 16:33	MMP	EET DEN
Total/NA	Analysis	353.2		1			595609	12/05/22 16:14	ZPM	EET DEN
Total/NA	Analysis	SM 2320B		1			594347	11/21/22 18:43	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594006	11/18/22 10:18	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594018	11/18/22 10:35	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595506	12/03/22 09:45	ABW	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/16/22 12:35	S1S	EET DEN

Client Sample ID: TRIP BLANK
Date Collected: 11/16/22 15:02
Date Received: 11/17/22 10:30

Lab Sample ID: 280-169282-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651148	11/23/22 18:35	ATG	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/29/22 00:48	CDC	EET BUF

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Analytical Resources, LLC
Analytical Chemists and Consultants

15 December 2022

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4955 Yarrow Street
Arvada, CO 80002

RE: Olympic View Sanitary LF (OVSL) w/SCS Engineers (04204027.25)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
22K0381	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Shelly Fishel, Project Manager

ACCREDITED IN ACCORDANCE WITH nelac
Cert# 100006-012

4611 S. 134th Place, Suite 100 • Tukwila, WA 98168 • Ph: (206) 695-6200 • Fax: (206) 695-6202

Chain of Custody Record & Laboratory Analysis Request

AR Assigned Number: 22K0381	Turn-around Requested: Standard	Date: 11/17/2022	
AR Client Company: SCS Engineers	Phone: 425-289-5455	Page: 1 of 2	
Client Contact: Dan Venchiarutti		No. of Coolers:	Cooler Temps:
Client Project Name: OVSL			
Client Project #: 04204027.25	Samplers: JE and RM		

Analytical Resources, LLC
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6202 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: Low level Total Arsenic	Notes/Comments
MW-36A	11/17/22	14:10	groundwater	1	X	
Dup-2	11/17/22	10:40				
MW-15R	11/16/22	11:35				
MW-19C	11/17/22	14:40				
MW-39	11/17/22	15:00				
MW-42	11/16/22	13:20				
MW-34C	11/16/22	13:55				
MW-34A	11/16/22	13:40				
MW-43	11/16/22	14:20				
MW-35	11/17/22	16:05				

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: Dan Venchiarutti	Printed Name: Matt Smith	Printed Name:	Printed Name:
	Company: SCS Engineers	Company: AOI LLC	Company:	Company:
	Date & Time: 11/21/22	Date & Time: 11/21/22 12:04	Date & Time:	Date & Time:

Limits of Liability: *Analytical Resources, LLC (AR) will perform all requested services in accordance with appropriate methodology following AR Standard Operating Procedures and the AR Quality Assurance Program. This program meets standards for the industry. The total liability of AR, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by AR release AR from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between AR and the Client.*

Sample Retention Policy: Unless specified by work order or contract, all water/soil samples submitted to AR will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hard copy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

Chain of Custody Record & Laboratory Analysis Request

AR Assigned Number: 22K0361	Turn-around Requested: Standard	Date: 11/17/2022	
AR Client Company: SCS Engineers	Phone: 425-289-5455	Page: 2 of 2	
Client Contact: Dan Venchiarutti		No. of Coolers:	Cooler Temps:
Client Project Name: OVSL			
Client Project #: 04204027.25	Samplers: JE and RM		

Analytical Resources, LLC
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6202 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: Low level total Arsenic	Notes/Comments
MW-32	11/17/22	13:00	groundwater	1	X	
MW-16	11/17/22	10:30				
Dup-1	11/17/22	13:10				
LP-LCD	11/17/22	13:40				
MW-29A	11/16/22	14:10				
MW-13B	11/17/22	13:00				
MW-33C	11/17/22	10:20				
MW-33A	11/17/22	10:45				
MW-13A	11/17/22	12:20				

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: Dan Venchiarutti	Printed Name: Trent Smith	Printed Name:	Printed Name:
	Company: SCS Engineers	Company: ARI LLC	Company:	Company:
	Date & Time: 11/21/22	Date & Time: 11/21/22 12:04	Date & Time:	Date & Time:

Limits of Liability: *Analytical Resources, LLC (AR) will perform all requested services in accordance with appropriate methodology following AR Standard Operating Procedures and the AR Quality Assurance Program. This program meets standards for the industry. The total liability of AR, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by AR release AR from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between AR and the Client.*

Sample Retention Policy: Unless specified by work order or contract, all water/soil samples submitted to AR will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hard copy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-36A	22K0381-01	Water	17-Nov-2022 14:10	21-Nov-2022 12:04
Dup-2	22K0381-02	Water	17-Nov-2022 10:40	21-Nov-2022 12:04
MW-15R	22K0381-03	Water	17-Nov-2022 11:35	21-Nov-2022 12:04
MW-19C	22K0381-04	Water	17-Nov-2022 14:40	21-Nov-2022 12:04
MW-39	22K0381-05	Water	17-Nov-2022 15:00	21-Nov-2022 12:04
MW-42	22K0381-06	Water	16-Nov-2022 13:20	21-Nov-2022 12:04
MW-34C	22K0381-07	Water	16-Nov-2022 13:55	21-Nov-2022 12:04
MW-34A	22K0381-08	Water	16-Nov-2022 13:10	21-Nov-2022 12:04
MW-43	22K0381-09	Water	16-Nov-2022 14:20	21-Nov-2022 12:04
MW-35	22K0381-10	Water	17-Nov-2022 16:05	21-Nov-2022 12:04
MW-32	22K0381-11	Water	17-Nov-2022 13:00	21-Nov-2022 12:04
MW-16	22K0381-12	Water	17-Nov-2022 10:30	21-Nov-2022 12:04
Dup-1	22K0381-13	Water	17-Nov-2022 13:10	21-Nov-2022 12:04
LP-LCD	22K0381-14	Water	17-Nov-2022 13:40	21-Nov-2022 12:04
MW-29A	22K0381-15	Water	16-Nov-2022 14:10	21-Nov-2022 12:04
MW-13B	22K0381-16	Water	17-Nov-2022 13:00	21-Nov-2022 12:04
MW-33C	22K0381-17	Water	17-Nov-2022 10:20	21-Nov-2022 12:04
MW-33A	22K0381-18	Water	17-Nov-2022 10:45	21-Nov-2022 12:04
MW-13A	22K0381-19	Water	17-Nov-2022 12:20	21-Nov-2022 12:04

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Work Order Case Narrative

Client: Eurofins - Test America - Denver
Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers
Project Number: 04204027.25
Work Order: 22K0381

Sample receipt

Sample(s) as listed on the preceding page were received 21-Nov-2022 12:04 under ARI work order 22K0381. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Total Metals - EPA Method 6020B

The sample(s) were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

WORK ORDER

22K0381

Samples will be discarded 90 days after submission of a final report unless other instructions are received

Client: Eurofins - Test America - Denver **Project Manager:** Shelly Fishel

Project: Olympic View Sanitary LF (OVSL) w/SCS Engine **Project Number:** 04204027.25

Preservation Confirmation

Container ID	Container Type	pH
22K0381-01 A	HDPE NM, 250mL HNO3	L2 P
22K0381-02 A	HDPE NM, 250mL HNO3	L2 P
22K0381-03 A	HDPE NM, 250mL HNO3	L2 P
22K0381-04 A	HDPE NM, 250mL HNO3	L2 P
22K0381-05 A	HDPE NM, 250mL HNO3	L2 P
22K0381-06 A	HDPE NM, 250mL HNO3	L2 P
22K0381-07 A	HDPE NM, 250mL HNO3	L2 P
22K0381-08 A	HDPE NM, 250mL HNO3	L2 P
22K0381-09 A	HDPE NM, 250mL HNO3	L2 P
22K0381-10 A	HDPE NM, 250mL HNO3	L2 P
22K0381-11 A	HDPE NM, 250mL HNO3	L2 P
22K0381-12 A	HDPE NM, 250mL HNO3	L2 P
22K0381-13 A	HDPE NM, 250mL HNO3	L2 P
22K0381-14 A	HDPE NM, 250mL HNO3	L2 P
22K0381-15 A	HDPE NM, 250mL HNO3	L2 P
22K0381-16 A	HDPE NM, 250mL HNO3	L2 P
22K0381-17 A	HDPE NM, 250mL HNO3	L2 P
22K0381-18 A	HDPE NM, 250mL HNO3	L2 P
22K0381-19 A	HDPE NM, 250mL HNO3	L2 P

Preservation Confirmed By

11/21/22
Date

Reviewed By

Date

Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: SCS Engineers — Project Name: OVSL

COC No(s): _____ (NA) — Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 22K0381 — Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 12:47 — 1.7

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID#: D209208

Cooler Accepted by: [signature] Date: 11/21/22 Time: 12:04

Complete custody forms and attach all shipping documents

Log-In Phase:

J. S.

Was a temperature blank included in the cooler?		(YES)	NO
What kind of packing material was used? ... Bubble Wrap (Wet Ice) Gel Packs (Baggies) Foam Block Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
How were bottles sealed in plastic bags?	Individually	(Grouped)	Not
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ...	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		_____

Were the sample(s) split by ARI? (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: [signature] Date: 11/21/22 Time: 13:07 Labels checked by: JS

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

MW-43 Sampled at 14:20 CoC, Bottle label says 14:40

By: Date:

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-36A

22K0381-01 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 14:10

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:38

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-01 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000492	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Dup-2

22K0381-02 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 10:40
Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:28

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-02 A 01
Preparation Batch: BKL0170 — Sample Size: 100 mL
Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.0000373	0.000200	0.00330	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-15R

22K0381-03 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 11:35

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:42

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-03 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000186	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-19C

22K0381-04 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 14:40
Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:33

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-04 A 01
Preparation Batch: BKL0170 — Sample Size: 100 mL
Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.0000373	0.000200	0.00306	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-39

22K0381-05 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 15:00

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 07:56

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-05 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.0000149	0.0000800	0.00198	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-42

22K0381-06 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/16/2022 13:20

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 06:52

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-06 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.0000149	0.0000800	0.00218	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-34C

22K0381-07 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/16/2022 13:55

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 06:55

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-07 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.0000373	0.000200	0.0219	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-34A

22K0381-08 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/16/2022 13:10

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:52

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-08 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000456	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-43

22K0381-09 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/16/2022 14:20

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:56

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-09 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000157	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-35

22K0381-10 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 16:05

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 09:02

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-10 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000114	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-32

22K0381-11 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 13:00

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:23

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-11 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	10	0.0000746	0.000400	0.0108	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-16

22K0381-12 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 10:30

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 07:03

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-12 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000369	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Dup-1

22K0381-13 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 13:10
Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 07:06

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-13 A 01
Preparation Batch: BKL0170 — Sample Size: 100 mL
Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000332	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

LP-LCD

22K0381-14 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 13:40

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 05:26

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-14 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	20	0.000149	0.000800	0.0171	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-29A

22K0381-15 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/16/2022 14:10

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:02

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-15 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.0000149	0.0000800	0.00175	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-13B

22K0381-16 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 13:00

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 07:13

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-16 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000338	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-33C

22K0381-17 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 10:20
Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 06:59

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-17 A 01
Preparation Batch: BKL0170 — Sample Size: 100 mL
Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.0000373	0.000200	0.00431	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-33A

22K0381-18 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 10:45

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 07:17

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-18 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000325	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-13A

22K0381-19 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 12:20

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 07:21

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-19 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000206	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds - Quality Control

Batch BKL0170 - EPA 6020B UCT-KED

Instrument: ICPMS1 Analyst: MCB

QC Sample/Analyte	Isotope	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BKL0170-BLK1)					Prepared: 07-Dec-2022 Analyzed: 09-Dec-2022 20:32							
Arsenic	75a	ND	0.00000746	0.0000400	mg/L							U
LCS (BKL0170-BS1)					Prepared: 07-Dec-2022 Analyzed: 09-Dec-2022 20:36							
Arsenic	75a	0.00495	0.00000746	0.0000400	mg/L	0.00500		99.1	80-120			
LCS Dup (BKL0170-BSD1)					Prepared: 07-Dec-2022 Analyzed: 09-Dec-2022 20:40							
Arsenic	75a	0.00420	0.00000746	0.0000400	mg/L	0.00500		83.9	80-120	16.60	20	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Certified Analyses included in this Report

Analyte	Certifications
EPA 6020B UCT-KED in Water	
Arsenic-75a	WADOE,WA-DW,DoD-ELAP,ADEC,NELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2023
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	02/28/2023
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2023
WADOE	WA Dept of Ecology	C558	06/30/2023
WA-DW	Ecology - Drinking Water	C558	06/30/2023

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Notes and Definitions

*	Flagged value is not within established control limits.
D	The reported value is from a dilution
J	Estimated concentration value detected below the reporting limit.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.

Eurofins TestAmerica, Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: RMB + JE	Lab PM: Collins, Janice S	Carrier Tracking No(s): 817249176334 / 817253048207	COC No: 280-17318-3224.1
Client Contact: Mr. Patrick Madej	Phone:	E-Mail: Janice.Collins@ET.EurofinsUS.com		Page: 1 of 1
Company: Waste Management				Job #: 04204027.25
Address: 2615 Davis Street	Due Date Requested:			
City: San Leandro	TAT Requested (days):			
State, Zip: CA, 94577				
Phone: 206-406-3241	PO #:			
Email: rmartinez@scsengineers.com	WO #:			
Project Name: WA02|Olympic View Sanitary LF Event Desc: Annual GW Appl/II ~~May~~ NOV	Project #: 28002692			
Site: Washington	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TDS/Alks/Cl/SO4/NO3(cad)	Dissolved Metals	Ammonia/TOC	8260B - long list (TA Buffalo)	8260B SIM (TA Buffalo)	Total Metals	TSS	Total Arsenic (direct sub to ARI)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	S	A	A	D	N	D		
MW-43	11-16-22	1440	G	W	Y	N	X	X	X	X	X	X	X	X	11	Short Hold: NO3(cad)
MW-42		1320														Arsenic - Direct sub to ARI
MW-29A		1410														
MW-34C		1355														
MW-34A		1310														
MW-15R		1135														
Trip blank	↓	1502	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		

280-169282 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
RMB MW	11-16-22 1600	SCS	Cliff Comp	11/17/22 1030	ETA-Den
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company ~~ETA-Den~~
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

SC 11/17/22

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 1998048, 1998049

Cooler Temperature(s) °C and Other Remarks: IR#12 Temp. 0.3, 2.6 CF (0.0)

12/30/2022

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-43 (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
111622	1420	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment Dedicated: (Y) or N

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC): (ft msl)

Depth to Water (DTW) (from TOC): 2573 (ft)

Groundwater Elevation (site datum, from TOC): (ft msl)

Total Well Depth (from TOC): (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 03 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit		pH (std)		Conductance (SC/EC) (µmhos/cm@25°C)		Temp (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	cH/ORP (mV)	DTW (ft)
1420	500	1st	5.72	1st	68	1st	11.6		7.6	88.1	25.7
1425		2nd	5.71	2nd	67	2nd	11.6	5.4	7.9	89.9	
1428		3rd	5.65	3rd	65	3rd	11.6		8.8	93.3	
1431		4th	5.65	4th	65	4th	11.6		9.2	99.3	
1434			5.67		63		11.6	5.4	9.5	106.8	
1437			5.67		62		11.6		10.3	108.4	
1440	↓		5.66		61		11.6	5.2	10.3	109.0	25.8
:											
:											
:											
Suggested range for 3 consec. readings or note Permit/State requirements:			+/- 0.2		+/- 3%		–	–	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	cH/ORP (mV)	Other: Units
111622	5.66	61	11.6	5.4	10.3	109.0	2570

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.

Sample Appearance: Clear — Odor: — — Color: — — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

9/6/30 PSI

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/16/22	Ruben Martinez	[signature] 11-16	SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSC
Site No.:
Sample Point: MW-42 (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory)

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/16/22	13:00	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment ... Dedicated: (Y) or N
Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Purging Device: C
Sampling Device: C
A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle
X-Other:

Filter Type: A
A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: D
A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC): (ft/msl)
Depth to Water (DTW) (from TOC): 25.76 (ft)
Groundwater Elevation (site datum, from TOC): (ft msl)
Total Well Depth (from TOC): (ft)
Stick Up (from ground elevation): (ft)
Casing ID: 02 (in)
Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id, etc are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW and Groundwater Elevation must be current

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
13:00	500 1st	6.47 1st	471	12.7	5.2	10.0	2.1	28.7
13:05	1 2nd	6.56 2nd	473	12.7		1.0	-110	
13:08	3rd	6.57 3rd	469	12.7		0.06	-47.7	
13:11	4th	6.54 4th	463	12.7	3.9	0.9	-508	
13:14		6.51	460	12.7		8.2	-510	
13:17		6.50	462	12.7	3.9	10.0	-503	
13:20	V	6.49	457	12.7	3.8	10.0	-499	28.75
:								
:								
:								
Suggested range for 3 consec readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: Units
11/16/22	6.49	457	12.7	3.8	10.0	-499	28.75

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site)

FIELD COMMENTS

Sample Appearance: Clear
Odor: —
Color: —
Other: —

Weather Conditions (required daily, or as conditions change):
Direction/Speed: —
Outlook: —
Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

9/6 40 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/16/22	Ruben Martinez	[signature]	SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.: | | | | | Sample Point: MW-29A (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/16/22	1350	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment.. Dedicated: (Y) or N — Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Purging Device: C — Sampling Device: C

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other ____

X-Other: ____ — Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other: ____

WELL DATA

Well Elevation (at TOC): ____ (ft msl) — Depth to Water (DTW) (from TOC): 14.55 (ft) — Groundwater Elevation (site datum, from TOC): ____ (ft msl)

Total Well Depth (from TOC): ____ (ft) — Stick Up (from ground elevation): ____ (ft) — Casing ID: ____ (in) — Casing Material: ____

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1350	480	1st 6.04	1st 82	11.6		11.2	262	14.5
1355	1	2nd 5.98	2nd 87	11.5	3.9	11.1	229	
1358	1	3rd 6.01	3rd 86	11.5		11.1	215	
1401	1	4th 6.04	4th 87	11.5		11.1	208	
1404	1	6.03	86	11.4	3.8	11.1	207	
1407	1	6.04	86	11.4		11.1	213	
1410	V	6.05	86	11.4	Δ1.6	11.1	215	14.5
:								
:								
:								
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: ____ Units ____
11/16/22	6.05	86	11.4	1.6	11.1	215	14.5

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.

FIELD COMMENTS

Sample Appearance: clear — Odor: — — Color: — — Other: —

Weather Conditions (required daily, or as conditions change): — Direction/Speed: — — Outlook: — — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

9/6/20 gs!

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/16/22	Ruben Martinez	[signature]	SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample. YELLOW - Returned to Client. PINK - Field Copy

TAL-8029WM (1013)

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-34C

Sample ID

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/16/22	13:35	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Filter Device (Y) or N — 0.45 µ or _____ µ (circle or fill in)

Purging Device: C
Sampling Device: C
X-Other:

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Filter Type: A
A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: D
A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC) (ft/msl)	Depth to Water (DTW) (from TOC) (ft)	Groundwater Elevation (site datum, from TOC) (ft/msl)
	42.44	

Total Well Depth (from TOC) (ft)	Stick Up (from ground elevation) (ft)	Casing ID (in)	Casing Material
		04	PVC

Note: Total Well Depth, Stick Up, Casing Id etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

	Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1st	13:35		7.52	178	11.0	731	6.1	236.3	
2nd	13:40		6.99	183	12.1	1029	3.1	54.6	
3rd	13:43		6.82	185	12.5	811	1.1	18.7	
4th	13:46		6.81	185	12.5	592	0.9	11.7	
	13:49		6.81	185	12.6	627	0.9	4.5	
	13:52		6.81	185	12.6	224	0.8	2.0	
	13:55		6.81	184	12.6	117	0.9	2.1	42.44
	:								
	:								
	:								
Suggested range for 3 consec. readings or note Permit/State requirements:			+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.*

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: Units
11/16/22	6.81	184	12.6	11.7	0.9	2.1	

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: Clear **Odor:** slight yellow ~~Color~~ → — **Other:** —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

817.50 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/16/22	Jovany Estrada	JE	SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-34A (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/16/22	12:50	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment ... Dedicated: (Y) or N

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

X-Other:

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC) (ft/msl)	Depth to Water (DTW) (from TOC) (ft)	Groundwater Elevation (site datum, from TOC) (ft/msl)
	40.74	

Total Well Depth (from TOC) (ft)	Stick Up (from ground elevation) (ft)	Casing ID (in)	Casing Material
		04	PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
12:50	350 mL/min	6.13 (1st)	139 (1st)	11.3	30	1.2	280.5	
12:55		6.20 (2nd)	160 (2nd)	11.6	30	1.2	272.4	
13:58		6.19 (3rd)	157 (3rd)	11.6	30	1.5	271.3	
13:02		6.19 (4th)	154 (4th)	11.6	30	1.6	270.7	
13:05		6.20	151	11.6	30	1.8	271.3	
13:07		6.20	148	11.6	30	2.1	272.4	
13:10		6.21	145	11.6	30	2.5	274.5	39.7
:								
:								
:								
Suggested range for 3 consec. readings or note Permit/State requirement:		+/- 0.2	+/- 3%	–	–	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.*

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: / Units
11/16/22	6.21	145	11.6	30	2.5	274.5	

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: clear — **Odor:** — **Color:** — **Other:** —

Weather Conditions (required daily, or as conditions change): **Direction/Speed:** — **Outlook:** — **Precipitation:** Y or (N)

Specific Comments (including purge/well volume calculations if required):

4/6/30 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Jovany Estrada	je	SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.: | | | |

Sample Point: MW-15R (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/6/22	11:15	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment: Dedicated (Y) or N

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC): (ft/msl)

Depth to Water (DTW) (from TOC): 19.66 (ft)

Groundwater Elevation (site datum, from TOC): (ft msl)

Total Well Depth (from TOC): (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 02 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Rate Unit: ~~ml/min~~

Sample Time (2400 Hr Clock)	Rate	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
11:15	350	6.71	147.1	9.8	3.1	1.1	259.0	
11:20		6.75	147	9.8	3.3	1.5	254.4	
11:23		6.75	147	9.8	3.3	1.5	252.7	
11:26		6.75	147	9.8	3.2	1.6	251.6	
11:29		6.76	147	9.8	3.1	1.6	250.9	
11:32		6.76	147	9.8	3.1	1.5	250.3	
11:35		6.76	147	9.8	3.1	1.5	249.9	19.1
~~11:38~~								
:								
:								
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: Units
11/6/22	6.76	147	9.8	3.1	1.5	249.9	19.1

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site)

FIELD COMMENTS

Sample Appearance: Clear — Odor: — — Color: — — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

9/6/20 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/16/22	Jovany Estrada	JE	SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample. YELLOW - Returned to Client. PINK - Field Copy

TAL-8029WM (1013)

ORIGIN ID:PWTA

SHIP DATE: 16NOV22
ACTWGT: 61.25 LB
CAD: /SSFE2341
DIMS: 25x13x14 IN

Part # 156267-[illegible] REV [illegible] 09/23

TO SAMPLE RECEIVING
EUROFINS TESTAMERICA
4955 YARROW ST

ARVADA CO 80002 (US)

(303) 736-0100 REF:

INV:
PO: DEPT:

0.3

FedEx Express

J2422221018O2uv

THU - 17 NOV 10:30A
PRIORITY OVERNIGHT
AHS
80002
CO-US DEN

TRK# 0667 8172 5304 8207

XA LAAA

1998049

Custody Seal

DATE 11-16-22

SIGNATURE

eurofins | Environment Testing TestAmerica

FedEx Express

Expanded Billable Stamp

Use only for shipments within the U.S. Saturday delivery available.

1 From See optional release signature below.

ORDER: 00863049

DECLARED VALUE $100
PACKAGE WEIGHT
( ) ___-___

2 To Shipment will not be accepted if address below is altered.

SAMPLE RECEIVING
EUROFINS TESTAMERICA
4955 YARROW ST
ARVADA, CO 80002
(303) 736-0100

FedEx Priority Overnight

Next business morning by 10:30 a.m. Not available to all locations. Please consult the current FedEx Service Guide for specific commitments.

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Please see back for declared value information and important terms and conditions.

SATURDAY DELIVERY

Shipments tendered on Friday are delivered on Saturday to most locations.

280-169282 Waybill

REF:

8172 5304 8207

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1998049


ORIGIN ID:PWTA
SHIP DATE: 16NOV22
ACTWGT: 58.00 LB
CAD: /SSFE2341
DIMS: 25x13x14 IN
TO SAMPLE RECEIVING
EUROFINS TESTAMERICA
4955 YARROW ST
ARVADA CO 80002
(US)
(303) 736-0100
INV:
PO:
REF:
DEPT:
FedEx
Express
THU - 17 NOV 10:30A
PRIORITY OVERNIGHT
TRK# 0667 8172 4919 6334
AHS
80002
XA LAAA
2.6
CO - US
DEN
eurofins | Environment Testing TestAmerica
1998048
Custody Seal
DATE
SIGNATURE
11-15-22
eurofins | Environment TestAmerica
1998048

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0100 Fax: 303-431-7171

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Collins, Janice S	Carrier Tracking No(s):	COC No: 280-637047.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Janice.Collins@et.eurofinsus.com	State of Origin: Washington	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State - Washington		Job #: 280-169282-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 12/12/2022			
City: Amherst	TAT Requested (days):			
State, Zip: NY, 14228-2298				
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:			
Email:	WO #:			
Project Name: WA02|Olympic View Sanitary LF	Project #: 28002692			
Site: WA02|Olympic View Sanitary LF	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, Other:
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C_SIM/5030C (MOD) Local Method	8260C/5030C (MOD) Appendix II Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
MW-43 (280-169282-1)	11/16/22	14:40 Pacific		Water			X	X	6	
MW-42 (280-169282-2)	11/16/22	13:20 Pacific		Water			X	X	6	
MW-29A (280-169282-3)	11/16/22	14:10 Pacific		Water			X	X	6	
MW-34C (280-169282-4)	11/16/22	13:55 Pacific		Water			X	X	6	
MW-34A (280-169282-5)	11/16/22	13:10 Pacific		Water			X	X	6	
MW-15R (280-169282-6)	11/16/22	11:35 Pacific		Water			X	X	6	
TRIP BLANK (280-169282-7)	11/16/22	15:02 Pacific		Water			X	X	3	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:
Empty Kit Relinquished by: Date: Time:	Method of Shipment:
Relinquished by: Date/Time: 11/21/22 13:40 Company EDEN	Received by: Date/Time: 11/23/22 1000 Company TVA
Relinquished by: Date/Time: Company	Received by: Date/Time: Company
Relinquished by: Date/Time: Company	Received by: Date/Time: Company
Custody Seals Intact: Δ Yes Δ No Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.7 # ICE

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-169282-1

Login Number: 169282

List Source: Eurofins Denver

List Number: 1

Creator: Roehsner, Karen P

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	Refer to job narrative for details
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	False	Refer to job narrative for details
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-169282-1

Login Number: 169282
List Number: 2
Creator: Kolb, Chris M

List Source: Eurofins Buffalo
List Creation: 11/23/22 11:34 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7 ir gun #1 ice
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Patrick Madej
Waste Management
2615 Davis Street
San Leandro, California 94577

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JOB DESCRIPTION

WA02|Olympic View Sanitary LF
Semiannual GW AppI/II - May Nov

JOB NUMBER

280-169398-1

Eurofins Denver
4955 Yarrow Street
Arvada CO 80002

See page two for job notes and contact information.

Job Notes

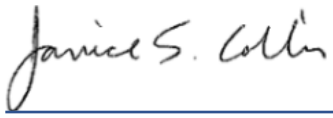
The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization



Generated
12/19/2022 1:07:05 PM

Authorized for release by
Janice Collins, Project Manager
Janice.Collins@et.eurofinsus.com
(303)736-0100

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Definitions/Glossary

Client: Waste Management
Job ID: 280-169398-1
Project/Site: WA02|Olympic View Sanitary LF

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Job ID: 280-169398-1

Laboratory: Eurofins Denver

Narrative

CASE NARRATIVE

Client: Waste Management

Project: WA02|Olympic View Sanitary LF

Report Number: 280-169398-1

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.

This report may include reporting limits (RLs) less than Eurofins TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

RECEIPT

The samples were received on 11/19/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.0 C.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample MW-35 (280-169398-1) was analyzed for volatile organic compounds (GC/MS) in accordance with 8260C. The samples were analyzed on 11/23/2022.

The continuing calibration verification (CCV) associated with batch 480-651148 recovered outside acceptance criteria, low biased, for Acetonitrile, 1,1,2-Trichloro-1,2,2-trifluoroethane, and n-Butanol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported. The associated sample is impacted: MW-35 (280-169398-1).

The continuing calibration verification (CCV) associated with batch 480-651148 recovered above the upper control limit for 2-Butanone (MEK). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: MW-35 (280-169398-1).

The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following sample was received preserved with hydrochloric acid: MW-35 (280-169398-1). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANICS (GC-MS)

Sample MW-35 (280-169398-1) was analyzed for volatile organics (GC-MS) in accordance with 8260C_SIM. The samples were analyzed on 11/29/2022.

Surrogate Dibromofluoromethane recovery for the following sample was outside the upper control limit: MW-35 (280-169398-1). This sample(s) did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICP)

Sample MW-35 (280-169398-1) was analyzed for Dissolved Metals (ICP) in accordance with EPA SW846 6010D. The samples were prepared on 12/05/2022 and analyzed on 12/06/2022.

Job ID: 280-169398-1 (Continued)

Laboratory: Eurofins Denver (Continued)

Dissolved Iron was detected in method blank MB 280-595470/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP)

Sample MW-35 (280-169398-1) was analyzed for Total Recoverable Metals (ICP) in accordance with EPA SW846 6010D. The samples were prepared on 12/01/2022 and analyzed on 12/02/2022.

Total Iron, was detected in method blank MB 280-595162/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICP/MS)

Sample MW-35 (280-169398-1) was analyzed for Dissolved Metals (ICP/MS) in accordance with SW846 6020B. The samples were prepared on 11/27/2022 and analyzed on 11/28/2022.

Manganese, Dissolved was detected in method blank MB 280-594393/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Manganese, Dissolved failed the recovery criteria for the MS/MSD of sample 280-169459-2 in batch 280-594781. The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

The instrument blank for analytical batch 280-594781 contained 1.2 ppb Manganese which is greater than the reporting limit (RL) of 1 ppb, and were not reanalyzed because the samples are >10x the blank or <RL. The data have been qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP/MS)

Sample MW-35 (280-169398-1) was analyzed for Total Recoverable Metals (ICP/MS) in accordance with SW846 6020B. The samples were prepared on 11/29/2022 and analyzed on 12/01/2022.

Barium and Lead were detected in method blank MB 280-594691/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY

Sample MW-35 (280-169398-1) was analyzed for Alkalinity in accordance with SM20 2320B. The samples were analyzed on 11/23/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS

Sample MW-35 (280-169398-1) was analyzed for total dissolved solids in accordance with SM20 2540C. The samples were analyzed on 11/22/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL SUSPENDED SOLIDS

Job ID: 280-169398-1 (Continued)

Laboratory: Eurofins Denver (Continued)

Sample MW-35 (280-169398-1) was analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 11/21/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS (28 DAYS)
Sample MW-35 (280-169398-1) was analyzed for anions (28 days) in accordance with EPA Method 300.0 (28 Days). The samples were analyzed on 12/14/2022.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 280-596572 were outside control limits for Sulfate. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA
Sample MW-35 (280-169398-1) was analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 12/08/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE
Sample MW-35 (280-169398-1) was analyzed for Nitrate in accordance with EPA Method 353.2. The samples were analyzed on 12/13/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL ORGANIC CARBON
Sample MW-35 (280-169398-1) was analyzed for total organic carbon in accordance with SM20 5310B. The samples were analyzed on 12/06/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FIELD SAMPLING
Sample MW-35 (280-169398-1) was analyzed for Field Sampling in accordance with NA. The samples were analyzed on 11/17/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169398-1

Client Sample ID: MW-35

Lab Sample ID: 280-169398-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Total	0.034	J B	0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	14		0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.0099	J B	0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	8.7		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.60	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	5.2		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.0038	B	0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0025	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0041		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.0024	J	0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Nitrate as N	0.39		0.050	0.050	mg/L	1		353.2	Total/NA
Alkalinity, Total (As CaCO3)	84		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	84		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	85		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	72.98				ft	1		Field Sampling	Total/NA
Specific Conductivity	156				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	6.9				mg/L	1		Field Sampling	Total/NA
eH	81.4				millivolts	1		Field Sampling	Total/NA
Turbidity	2.9				NTU	1		Field Sampling	Total/NA
Temperature	10.0				Degrees C	1		Field Sampling	Total/NA
pH	7.49				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169398-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	EET BUF
6010D	Metals (ICP)	SW846	EET DEN
6020B	Metals (ICP/MS)	SW846	EET DEN
300.0	Anions, Ion Chromatography	MCAWW	EET DEN
350.1	Nitrogen, Ammonia	MCAWW	EET DEN
353.2	Nitrate	EPA	EET DEN
SM 2320B	Alkalinity	SM	EET DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	EET DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	EET DEN
Field Sampling	Field Sampling	EPA	EET DEN
Subcontract	Total Arsenic (ARI)	None	SC0056
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET DEN
5030C	Purge and Trap	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

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:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200

Sample Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169398-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-169398-1	MW-35	Water	11/17/22 16:05	11/19/22 09:20

Method: SW846 8260C SIM - Volatile Organic Compounds (GC/MS)

Client Sample ID: MW-35
Date Collected: 11/17/22 16:05
Date Received: 11/19/22 09:20

Lab Sample ID: 280-169398-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/29/22 01:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*154*	*S1+*	*50 - 150*		*11/29/22 01:12*	*1*
TBA-d9 (Surr)	*138*		*50 - 150*		*11/29/22 01:12*	*1*

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: MW-35
Date Collected: 11/17/22 16:05
Date Received: 11/19/22 09:20

Lab Sample ID: 280-169398-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/23/22 18:59	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/22 18:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/22 18:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/22 18:59	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/22 18:59	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/23/22 18:59	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/22 18:59	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/23/22 18:59	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 18:59	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/23/22 18:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 18:59	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/23/22 18:59	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/22 18:59	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/23/22 18:59	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/22 18:59	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/22 18:59	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/23/22 18:59	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/22 18:59	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/23/22 18:59	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/23/22 18:59	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/22 18:59	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/23/22 18:59	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/22 18:59	1
1,4-Dioxane	ND		40	9.3	ug/L			11/23/22 18:59	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/23/22 18:59	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/22 18:59	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/23/22 18:59	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/22 18:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/22 18:59	1
Acetone	ND		10	3.0	ug/L			11/23/22 18:59	1
Acetonitrile	ND		15	4.9	ug/L			11/23/22 18:59	1
Acrolein	ND		20	0.91	ug/L			11/23/22 18:59	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/23/22 18:59	1
Benzene	ND		1.0	0.41	ug/L			11/23/22 18:59	1
Bromobenzene	ND		1.0	0.80	ug/L			11/23/22 18:59	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/23/22 18:59	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/22 18:59	1
Bromoform	ND		1.0	0.26	ug/L			11/23/22 18:59	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-35
Date Collected: 11/17/22 16:05
Date Received: 11/19/22 09:20

Lab Sample ID: 280-169398-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		1.0	0.69	ug/L			11/23/22 18:59	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/23/22 18:59	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/23/22 18:59	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/22 18:59	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/22 18:59	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/22 18:59	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/23/22 18:59	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/22 18:59	1
Chloroform	ND		1.0	0.34	ug/L			11/23/22 18:59	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/22 18:59	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/22 18:59	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/22 18:59	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/22 18:59	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/22 18:59	1
Dibromomethane	ND		1.0	0.41	ug/L			11/23/22 18:59	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/22 18:59	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/23/22 18:59	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/23/22 18:59	1
Ethyl ether	ND		1.0	0.72	ug/L			11/23/22 18:59	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/23/22 18:59	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/22 18:59	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/23/22 18:59	1
Hexane	ND		10	0.40	ug/L			11/23/22 18:59	1
Iodomethane	ND		1.0	0.30	ug/L			11/23/22 18:59	1
Isobutanol	ND		25	4.8	ug/L			11/23/22 18:59	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/23/22 18:59	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/22 18:59	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/23/22 18:59	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/22 18:59	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/22 18:59	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/22 18:59	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/22 18:59	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/23/22 18:59	1
Naphthalene	ND		1.0	0.43	ug/L			11/23/22 18:59	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/23/22 18:59	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/23/22 18:59	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/23/22 18:59	1
o-Xylene	ND		1.0	0.76	ug/L			11/23/22 18:59	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/23/22 18:59	1
p-Cymene	ND		1.0	0.31	ug/L			11/23/22 18:59	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/23/22 18:59	1
Styrene	ND		1.0	0.73	ug/L			11/23/22 18:59	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/23/22 18:59	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/23/22 18:59	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/22 18:59	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/23/22 18:59	1
Toluene	ND		1.0	0.51	ug/L			11/23/22 18:59	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/22 18:59	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/22 18:59	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-35
Date Collected: 11/17/22 16:05
Date Received: 11/19/22 09:20
Lab Sample ID: 280-169398-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/23/22 18:59	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/22 18:59	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/22 18:59	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/23/22 18:59	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/22 18:59	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/23/22 18:59*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*77 - 120*		*11/23/22 18:59*	*1*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*11/23/22 18:59*	*1*
Toluene-d8 (Surr)	*90*		*80 - 120*		*11/23/22 18:59*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Client Sample ID: MW-35
Date Collected: 11/17/22 16:05
Date Received: 11/19/22 09:20
Lab Sample ID: 280-169398-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/01/22 17:42	12/02/22 22:40	1
Iron, Total	**0.034**	**J B**	0.060	0.0091	mg/L		12/01/22 17:42	12/02/22 22:40	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Client Sample ID: MW-35
Date Collected: 11/17/22 16:05
Date Received: 11/19/22 09:20
Lab Sample ID: 280-169398-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	**14**		0.20	0.024	mg/L		12/05/22 19:16	12/06/22 18:18	1
Iron, Dissolved	**0.0099**	**J B**	0.060	0.0091	mg/L		12/05/22 19:16	12/06/22 18:18	1
Magnesium, Dissolved	**8.7**		0.050	0.0042	mg/L		12/05/22 19:16	12/06/22 18:18	1
Potassium, Dissolved	**0.60**	**J**	1.0	0.24	mg/L		12/05/22 19:16	12/06/22 18:18	1
Sodium, Dissolved	**5.2**		1.0	0.097	mg/L		12/05/22 19:16	12/06/22 18:18	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Client Sample ID: MW-35
Date Collected: 11/17/22 16:05
Date Received: 11/19/22 09:20
Lab Sample ID: 280-169398-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		11/29/22 07:22	12/01/22 19:31	1
Barium, Total	**0.0038**	**B**	0.0010	0.00029	mg/L		11/29/22 07:22	12/01/22 19:31	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		11/29/22 07:22	12/01/22 19:31	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		11/29/22 07:22	12/01/22 19:31	1
Chromium, Total	**0.0025**	**J**	0.0030	0.00050	mg/L		11/29/22 07:22	12/01/22 19:31	1
Copper, Total	ND		0.0020	0.00056	mg/L		11/29/22 07:22	12/01/22 19:31	1
Lead, Total	ND		0.0010	0.00018	mg/L		11/29/22 07:22	12/01/22 19:31	1
Manganese, Total	ND		0.0010	0.00031	mg/L		11/29/22 07:22	12/01/22 19:31	1
Nickel, Total	ND		0.0040	0.00030	mg/L		11/29/22 07:22	12/01/22 19:31	1
Selenium, Total	ND		0.0010	0.00037	mg/L		11/29/22 07:22	12/01/22 19:31	1

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169398-1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: MW-35
Date Collected: 11/17/22 16:05
Date Received: 11/19/22 09:20

Lab Sample ID: 280-169398-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver, Total	ND		0.0020	0.000033	mg/L		11/29/22 07:22	12/01/22 19:31	1
Thallium, Total	ND		0.0010	0.000089	mg/L		11/29/22 07:22	12/01/22 19:31	1
Vanadium, Total	**0.0041**		0.0020	0.0012	mg/L		11/29/22 07:22	12/01/22 19:31	1
Zinc, Total	**0.0024**	**J**	0.0050	0.0020	mg/L		11/29/22 07:22	12/01/22 19:31	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Client Sample ID: MW-35
Date Collected: 11/17/22 16:05
Date Received: 11/19/22 09:20

Lab Sample ID: 280-169398-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	ND		0.0010	0.00031	mg/L		11/27/22 14:46	11/28/22 12:58	1

General Chemistry

Client Sample ID: MW-35
Date Collected: 11/17/22 16:05
Date Received: 11/19/22 09:20

Lab Sample ID: 280-169398-1
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	ND		3.0	3.0	mg/L			12/14/22 07:30	1
Sulfate (MCAWW 300.0)	ND		5.0	5.0	mg/L			12/14/22 07:30	1
Ammonia (as N) (MCAWW 350.1)	ND		0.030	0.030	mg/L			12/08/22 11:24	1
Nitrate as N (EPA 353.2)	**0.39**		0.050	0.050	mg/L			12/13/22 13:39	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**84**		10	10	mg/L			11/23/22 12:42	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**84**		10	10	mg/L			11/23/22 12:42	1
Total Dissolved Solids (TDS) (SM 2540C)	**85**		5.0	5.0	mg/L			11/22/22 11:21	1
Total Suspended Solids (SM 2540D)	ND		4.0	4.0	mg/L			11/21/22 12:36	1
Total Organic Carbon - Average (SM 5310B)	ND		1.0	1.0	mg/L			12/06/22 23:12	1

Method: EPA Field Sampling - Field Sampling

Client Sample ID: MW-35
Date Collected: 11/17/22 16:05
Date Received: 11/19/22 09:20

Lab Sample ID: 280-169398-1
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	**72.98**				ft			11/17/22 17:05	1
Specific Conductivity	**156**				umhos/cm			11/17/22 17:05	1
Dissolved Oxygen	**6.9**				mg/L			11/17/22 17:05	1
eH	**81.4**				millivolts			11/17/22 17:05	1
Turbidity	**2.9**				NTU			11/17/22 17:05	1
Temperature	**10.0**				Degrees C			11/17/22 17:05	1
pH	**7.49**				SU			11/17/22 17:05	1

Surrogate Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169398-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)
280-169398-1	MW-35	120	93	90
LCS 480-651148/6	Lab Control Sample	103	114	85
MB 480-651148/8	Method Blank	111	109	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DBFM	TBA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)
280-169398-1	MW-35	154 S1+	138
LCS 480-651411/6	Lab Control Sample	103	104
LCSD 480-651411/7	Lab Control Sample Dup	98	109
MB 480-651411/9	Method Blank	140	136

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TBA = TBA-d9 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-651148/8
Matrix: Water
Analysis Batch: 651148

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/23/22 17:03	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/23/22 17:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/23/22 17:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/23/22 17:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/23/22 17:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/23/22 17:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/23/22 17:03	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/23/22 17:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 17:03	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/23/22 17:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/23/22 17:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/23/22 17:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/23/22 17:03	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/23/22 17:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/23/22 17:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/23/22 17:03	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/23/22 17:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/23/22 17:03	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/23/22 17:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/23/22 17:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/23/22 17:03	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/23/22 17:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/23/22 17:03	1
1,4-Dioxane	ND		40	9.3	ug/L			11/23/22 17:03	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/23/22 17:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/23/22 17:03	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/23/22 17:03	1
2-Hexanone	ND		5.0	1.2	ug/L			11/23/22 17:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/23/22 17:03	1
Acetone	ND		10	3.0	ug/L			11/23/22 17:03	1
Acetonitrile	ND		15	4.9	ug/L			11/23/22 17:03	1
Acrolein	ND		20	0.91	ug/L			11/23/22 17:03	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/23/22 17:03	1
Benzene	ND		1.0	0.41	ug/L			11/23/22 17:03	1
Bromobenzene	ND		1.0	0.80	ug/L			11/23/22 17:03	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/23/22 17:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/23/22 17:03	1
Bromoform	ND		1.0	0.26	ug/L			11/23/22 17:03	1
Bromomethane	ND		1.0	0.69	ug/L			11/23/22 17:03	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/23/22 17:03	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/23/22 17:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/23/22 17:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/23/22 17:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/23/22 17:03	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/23/22 17:03	1
Chloroethane	ND		1.0	0.32	ug/L			11/23/22 17:03	1
Chloroform	ND		1.0	0.34	ug/L			11/23/22 17:03	1
Chloromethane	ND		1.0	0.35	ug/L			11/23/22 17:03	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-651148/8
Matrix: Water
Analysis Batch: 651148

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/23/22 17:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/23/22 17:03	1
Cyclohexane	ND		1.0	0.18	ug/L			11/23/22 17:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/23/22 17:03	1
Dibromomethane	ND		1.0	0.41	ug/L			11/23/22 17:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/23/22 17:03	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/23/22 17:03	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/23/22 17:03	1
Ethyl ether	ND		1.0	0.72	ug/L			11/23/22 17:03	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/23/22 17:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/23/22 17:03	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/23/22 17:03	1
Hexane	ND		10	0.40	ug/L			11/23/22 17:03	1
Iodomethane	ND		1.0	0.30	ug/L			11/23/22 17:03	1
Isobutanol	ND		25	4.8	ug/L			11/23/22 17:03	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/23/22 17:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/23/22 17:03	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/23/22 17:03	1
Methyl acetate	ND		2.5	1.3	ug/L			11/23/22 17:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/23/22 17:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/23/22 17:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/23/22 17:03	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/23/22 17:03	1
Naphthalene	ND		1.0	0.43	ug/L			11/23/22 17:03	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/23/22 17:03	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/23/22 17:03	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/23/22 17:03	1
o-Xylene	ND		1.0	0.76	ug/L			11/23/22 17:03	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/23/22 17:03	1
p-Cymene	ND		1.0	0.31	ug/L			11/23/22 17:03	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/23/22 17:03	1
Styrene	ND		1.0	0.73	ug/L			11/23/22 17:03	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/23/22 17:03	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/23/22 17:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/23/22 17:03	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/23/22 17:03	1
Toluene	ND		1.0	0.51	ug/L			11/23/22 17:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/23/22 17:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/23/22 17:03	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/23/22 17:03	1
Trichloroethene	ND		1.0	0.46	ug/L			11/23/22 17:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/23/22 17:03	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/23/22 17:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/23/22 17:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*77 - 120*		*11/23/22 17:03*	*1*
4-Bromofluorobenzene (Surr)	*109*		*73 - 120*		*11/23/22 17:03*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-651148/8
Matrix: Water
Analysis Batch: 651148

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		11/23/22 17:03	1

Lab Sample ID: LCS 480-651148/6
Matrix: Water
Analysis Batch: 651148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	25.0	24.2		ug/L		97	80 - 120
1,1,1-Trichloroethane	25.0	22.9		ug/L		91	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.0		ug/L		96	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	18.7		ug/L		75	61 - 148
1,1,2-Trichloroethane	25.0	24.2		ug/L		97	76 - 122
1,1-Dichloroethane	25.0	24.9		ug/L		100	77 - 120
1,1-Dichloroethene	25.0	19.9		ug/L		79	66 - 127
1,1-Dichloropropene	25.0	24.4		ug/L		98	72 - 122
1,2,3-Trichlorobenzene	25.0	20.0		ug/L		80	75 - 123
1,2,3-Trichloropropane	25.0	25.2		ug/L		101	68 - 122
1,2,4-Trichlorobenzene	25.0	19.8		ug/L		79	79 - 122
1,2,4-Trimethylbenzene	25.0	23.7		ug/L		95	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	19.1		ug/L		76	56 - 134
1,2-Dibromoethane (EDB)	25.0	26.4		ug/L		106	77 - 120
1,2-Dichlorobenzene	25.0	21.7		ug/L		87	80 - 124
1,2-Dichloroethane	25.0	25.8		ug/L		103	75 - 120
1,2-Dichloropropane	25.0	23.6		ug/L		94	76 - 120
1,3,5-Trimethylbenzene	25.0	23.4		ug/L		94	77 - 121
1,3-Dichlorobenzene	25.0	25.0		ug/L		100	77 - 120
1,3-Dichloropropane	25.0	26.6		ug/L		106	75 - 120
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	80 - 120
1,4-Dioxane	500	679		ug/L		136	50 - 150
2,2-Dichloropropane	25.0	21.2		ug/L		85	63 - 136
2-Butanone (MEK)	125	158		ug/L		127	57 - 140
2-Chloroethyl vinyl ether	25.0	23.6		ug/L		94	70 - 129
2-Hexanone	125	125		ug/L		100	65 - 127
4-Methyl-2-pentanone (MIBK)	125	92.1		ug/L		74	71 - 125
Acetone	125	138		ug/L		110	56 - 142
Acrolein	125	74.7		ug/L		60	52 - 143
Acrylonitrile	250	284		ug/L		113	63 - 125
Benzene	25.0	25.4		ug/L		101	71 - 124
Bromobenzene	25.0	25.4		ug/L		102	78 - 120
Bromochloromethane	25.0	28.3		ug/L		113	72 - 130
Bromodichloromethane	25.0	22.1		ug/L		88	80 - 122
Bromoform	25.0	24.8		ug/L		99	61 - 132
Bromomethane	25.0	21.7		ug/L		87	55 - 144
Butyl alcohol, tert-	250	222		ug/L		89	75 - 125
Carbon disulfide	25.0	20.2		ug/L		81	59 - 134
Carbon tetrachloride	25.0	22.0		ug/L		88	72 - 134
Chlorobenzene	25.0	25.9		ug/L		104	80 - 120
Chloroethane	25.0	19.2		ug/L		77	69 - 136

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-651148/6
Matrix: Water
Analysis Batch: 651148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	25.0	25.0		ug/L		100	73 - 127
Chloromethane	25.0	22.9		ug/L		92	68 - 124
cis-1,2-Dichloroethene	25.0	25.4		ug/L		101	74 - 124
cis-1,3-Dichloropropene	25.0	22.9		ug/L		92	74 - 124
Cyclohexane	25.0	20.7		ug/L		83	59 - 135
Dibromochloromethane	25.0	24.9		ug/L		100	75 - 125
Dibromomethane	25.0	24.5		ug/L		98	76 - 127
Dichlorodifluoromethane	25.0	22.9		ug/L		92	59 - 135
Dichlorofluoromethane	25.0	19.9		ug/L		80	76 - 127
Ethyl ether	25.0	21.7		ug/L		87	76 - 123
Ethylbenzene	25.0	26.0		ug/L		104	77 - 123
Hexachlorobutadiene	25.0	19.2		ug/L		77	68 - 131
Iodomethane	25.0	23.2		ug/L		93	78 - 123
Isobutanol	625	522		ug/L		83	51 - 150
Isopropylbenzene	25.0	23.8		ug/L		95	77 - 122
Methyl acetate	50.0	41.2		ug/L		82	74 - 133
Methyl tert-butyl ether	25.0	25.7		ug/L		103	77 - 120
Methylcyclohexane	25.0	21.0		ug/L		84	68 - 134
Methylene Chloride	25.0	24.6		ug/L		98	75 - 124
m-Xylene & p-Xylene	25.0	26.4		ug/L		105	76 - 122
Naphthalene	25.0	18.8		ug/L		75	66 - 125
n-Butylbenzene	25.0	20.3		ug/L		81	71 - 128
N-Propylbenzene	25.0	23.9		ug/L		95	75 - 127
o-Chlorotoluene	25.0	23.9		ug/L		96	76 - 121
o-Xylene	25.0	25.5		ug/L		102	76 - 122
p-Chlorotoluene	25.0	24.8		ug/L		99	77 - 121
p-Cymene	25.0	23.2		ug/L		93	73 - 120
sec-Butylbenzene	25.0	22.9		ug/L		92	74 - 127
Styrene	25.0	25.4		ug/L		101	80 - 120
tert-Butylbenzene	25.0	24.0		ug/L		96	75 - 123
Tetrachloroethene	25.0	25.8		ug/L		103	74 - 122
Tetrahydrofuran	50.0	55.6		ug/L		111	62 - 132
Toluene	25.0	20.9		ug/L		84	80 - 122
trans-1,2-Dichloroethene	25.0	24.1		ug/L		97	73 - 127
trans-1,3-Dichloropropene	25.0	21.0		ug/L		84	80 - 120
trans-1,4-Dichloro-2-butene	25.0	15.8		ug/L		63	41 - 131
Trichloroethene	25.0	23.1		ug/L		92	74 - 123
Trichlorofluoromethane	25.0	20.6		ug/L		83	62 - 150
Vinyl acetate	50.0	45.4		ug/L		91	50 - 144
Vinyl chloride	25.0	24.8		ug/L		99	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*
4-Bromofluorobenzene (Surr)	*114*		*73 - 120*
Toluene-d8 (Surr)	*85*		*80 - 120*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-651411/9
Matrix: Water
Analysis Batch: 651411

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/28/22 21:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*140*		*50 - 150*		*11/28/22 21:39*	*1*
TBA-d9 (Surr)	*136*		*50 - 150*		*11/28/22 21:39*	*1*

Lab Sample ID: LCS 480-651411/6
Matrix: Water
Analysis Batch: 651411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Vinyl chloride			0.200	0.190		ug/L		95	50 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*103*		*50 - 150*
TBA-d9 (Surr)	*104*		*50 - 150*

Lab Sample ID: LCSD 480-651411/7
Matrix: Water
Analysis Batch: 651411

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Vinyl chloride			0.200	0.184		ug/L		92	50 - 150	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*98*		*50 - 150*
TBA-d9 (Surr)	*109*		*50 - 150*

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 280-595162/1-A
Matrix: Water
Analysis Batch: 595466

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595162

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/01/22 17:42	12/02/22 20:35	1
Iron, Total	0.0145	J	0.060	0.0091	mg/L		12/01/22 17:42	12/02/22 20:35	1

Lab Sample ID: LCS 280-595162/2-A
Matrix: Water
Analysis Batch: 595466

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595162

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cobalt, Total			1.00	0.970		mg/L		97	89 - 111		
Iron, Total			10.0	10.3		mg/L		103	89 - 115		

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 280-169358-H-1-B MS
Matrix: Water
Analysis Batch: 595466

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 595162

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt, Total	0.0010	J	1.00	0.971		mg/L		97	82 - 119
Iron, Total	0.10	B	10.0	10.3		mg/L		102	75 - 125

Lab Sample ID: 280-169358-H-1-C MSD
Matrix: Water
Analysis Batch: 595466

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 595162

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt, Total	0.0010	J	1.00	0.964		mg/L		96	82 - 119	1	20
Iron, Total	0.10	B	10.0	10.2		mg/L		101	75 - 125	0	20

Lab Sample ID: MB 280-595470/1-A
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595470

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	ND		0.20	0.024	mg/L		12/05/22 19:16	12/06/22 17:30	1
Iron, Dissolved	0.0138	J	0.060	0.0091	mg/L		12/05/22 19:16	12/06/22 17:30	1
Magnesium, Dissolved	ND		0.050	0.0042	mg/L		12/05/22 19:16	12/06/22 17:30	1
Potassium, Dissolved	ND		1.0	0.24	mg/L		12/05/22 19:16	12/06/22 17:30	1
Sodium, Dissolved	ND		1.0	0.097	mg/L		12/05/22 19:16	12/06/22 17:30	1

Lab Sample ID: LCS 280-595470/2-A
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595470

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium, Dissolved	50.0	49.1		mg/L		98	90 - 111
Iron, Dissolved	10.0	9.91		mg/L		99	89 - 115
Magnesium, Dissolved	50.0	49.8		mg/L		100	90 - 113
Potassium, Dissolved	50.0	48.9		mg/L		98	89 - 114
Sodium, Dissolved	50.0	49.3		mg/L		99	90 - 115

Lab Sample ID: LCSD 280-595470/3-A
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 595470

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium, Dissolved	50.0	48.7		mg/L		97	90 - 111	1	20
Iron, Dissolved	10.0	9.83		mg/L		98	89 - 115	1	20
Magnesium, Dissolved	50.0	49.5		mg/L		99	90 - 113	0	20
Potassium, Dissolved	50.0	48.8		mg/L		98	89 - 114	0	20
Sodium, Dissolved	50.0	49.0		mg/L		98	90 - 115	1	20

Lab Sample ID: 280-168996-A-4-C MS
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 595470

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium, Dissolved	83		50.0	130		mg/L		94	75 - 125

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 280-168996-A-4-C MS
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 595470

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron, Dissolved	0.041	J B	10.0	9.88		mg/L		98	75 - 125
Magnesium, Dissolved	20		50.0	68.9		mg/L		98	75 - 125
Potassium, Dissolved	8.2		50.0	57.5		mg/L		99	76 - 125
Sodium, Dissolved	21		50.0	71.2		mg/L		101	75 - 125

Lab Sample ID: 280-168996-A-4-D MSD
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 595470

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium, Dissolved	83		50.0	126		mg/L		87	75 - 125	3	20
Iron, Dissolved	0.041	J B	10.0	9.70		mg/L		97	75 - 125	2	20
Magnesium, Dissolved	20		50.0	67.7		mg/L		96	75 - 125	2	20
Potassium, Dissolved	8.2		50.0	56.9		mg/L		97	76 - 125	1	20
Sodium, Dissolved	21		50.0	70.4		mg/L		99	75 - 125	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 280-594393/1-A
Matrix: Water
Analysis Batch: 594781

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594393

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.000460	J	0.0010	0.00031	mg/L		11/27/22 14:46	11/28/22 12:27	1

Lab Sample ID: LCS 280-594393/2-A
Matrix: Water
Analysis Batch: 594781

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594393

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese, Dissolved	0.0400	0.0407		mg/L		102	85 - 117

Lab Sample ID: MB 280-594691/1-A
Matrix: Water
Analysis Batch: 595317

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		11/29/22 07:22	12/01/22 18:43	1
Barium, Total	0.000306	J	0.0010	0.00029	mg/L		11/29/22 07:22	12/01/22 18:43	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		11/29/22 07:22	12/01/22 18:43	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		11/29/22 07:22	12/01/22 18:43	1
Chromium, Total	ND		0.0030	0.00050	mg/L		11/29/22 07:22	12/01/22 18:43	1
Copper, Total	ND		0.0020	0.00056	mg/L		11/29/22 07:22	12/01/22 18:43	1
Lead, Total	0.000239	J	0.0010	0.00018	mg/L		11/29/22 07:22	12/01/22 18:43	1
Manganese, Total	ND		0.0010	0.00031	mg/L		11/29/22 07:22	12/01/22 18:43	1
Nickel, Total	ND		0.0040	0.00030	mg/L		11/29/22 07:22	12/01/22 18:43	1
Selenium, Total	ND		0.0010	0.00037	mg/L		11/29/22 07:22	12/01/22 18:43	1
Silver, Total	ND		0.0020	0.000033	mg/L		11/29/22 07:22	12/01/22 18:43	1
Thallium, Total	ND		0.0010	0.000089	mg/L		11/29/22 07:22	12/01/22 18:43	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		11/29/22 07:22	12/01/22 18:43	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-594691/1-A
Matrix: Water
Analysis Batch: 595317

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc, Total	ND		0.0050	0.0020	mg/L		11/29/22 07:22	12/01/22 18:43	1

Lab Sample ID: LCS 280-594691/2-A
Matrix: Water
Analysis Batch: 595317

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony, Total	0.0400	0.0397		mg/L		99	85 - 115
Barium, Total	0.0400	0.0412		mg/L		103	85 - 118
Beryllium, Total	0.0400	0.0404		mg/L		101	80 - 125
Cadmium, Total	0.0400	0.0387		mg/L		97	85 - 115
Chromium, Total	0.0400	0.0395		mg/L		99	84 - 121
Copper, Total	0.0400	0.0388		mg/L		97	85 - 119
Lead, Total	0.0400	0.0417		mg/L		104	85 - 118
Manganese, Total	0.0400	0.0387		mg/L		97	85 - 117
Nickel, Total	0.0400	0.0385		mg/L		96	85 - 119
Selenium, Total	0.0400	0.0399		mg/L		100	77 - 122
Silver, Total	0.0400	0.0384		mg/L		96	85 - 115
Thallium, Total	0.0400	0.0413		mg/L		103	85 - 118
Vanadium, Total	0.0400	0.0397		mg/L		99	85 - 120
Zinc, Total	0.0400	0.0404		mg/L		101	83 - 122

Lab Sample ID: 280-169506-A-2-F MS
Matrix: Water
Analysis Batch: 595317

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony, Total	ND		0.0400	0.0383		mg/L		96	80 - 111
Barium, Total	0.030	B	0.0400	0.0688		mg/L		96	92 - 117
Beryllium, Total	ND		0.0400	0.0409		mg/L		102	87 - 118
Cadmium, Total	ND		0.0400	0.0390		mg/L		98	91 - 114
Chromium, Total	0.0083		0.0400	0.0462		mg/L		95	91 - 114
Copper, Total	0.0012	J	0.0400	0.0377		mg/L		91	89 - 116
Lead, Total	0.00020	J B	0.0400	0.0414		mg/L		103	95 - 116
Manganese, Total	ND		0.0400	0.0382		mg/L		96	89 - 119
Nickel, Total	ND		0.0400	0.0382		mg/L		95	92 - 116
Selenium, Total	0.0014		0.0400	0.0408		mg/L		99	90 - 115
Silver, Total	ND		0.0400	0.0374		mg/L		94	93 - 118
Thallium, Total	ND		0.0400	0.0409		mg/L		102	94 - 115
Vanadium, Total	0.0097		0.0400	0.0480		mg/L		96	91 - 114
Zinc, Total	0.0026	J	0.0400	0.0407		mg/L		95	86 - 120

Lab Sample ID: 280-169506-A-2-G MSD
Matrix: Water
Analysis Batch: 595317

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony, Total	ND		0.0400	0.0399		mg/L		100	80 - 111	4	20
Barium, Total	0.030	B	0.0400	0.0713		mg/L		102	92 - 117	4	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-169506-A-2-G MSD
Matrix: Water
Analysis Batch: 595317

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 594691

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium, Total	ND		0.0400	0.0404		mg/L		101	87 - 118	1	20
Cadmium, Total	ND		0.0400	0.0404		mg/L		101	91 - 114	3	20
Chromium, Total	0.0083		0.0400	0.0473		mg/L		97	91 - 114	2	20
Copper, Total	0.0012	J	0.0400	0.0384		mg/L		93	89 - 116	2	20
Lead, Total	0.00020	J B	0.0400	0.0422		mg/L		105	95 - 116	2	20
Manganese, Total	ND		0.0400	0.0385		mg/L		96	89 - 119	1	20
Nickel, Total	ND		0.0400	0.0393		mg/L		98	92 - 116	3	20
Selenium, Total	0.0014		0.0400	0.0404		mg/L		97	90 - 115	1	20
Silver, Total	ND		0.0400	0.0386		mg/L		97	93 - 118	3	20
Thallium, Total	ND		0.0400	0.0414		mg/L		103	94 - 115	1	20
Vanadium, Total	0.0097		0.0400	0.0491		mg/L		99	91 - 114	2	20
Zinc, Total	0.0026	J	0.0400	0.0416		mg/L		97	86 - 120	2	20

Lab Sample ID: 280-169459-J-2-B MS
Matrix: Water
Analysis Batch: 594781

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 594393

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese, Dissolved	5.1	B ^2	0.0400	5.01	4	mg/L		-159	89 - 119

Lab Sample ID: 280-169459-J-2-C MSD
Matrix: Water
Analysis Batch: 594781

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 594393

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese, Dissolved	5.1	B ^2	0.0400	5.21	4	mg/L		331	89 - 119	4	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-596572/46
Matrix: Water
Analysis Batch: 596572

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/14/22 07:13	1
Sulfate	ND		5.0	5.0	mg/L			12/14/22 07:13	1

Lab Sample ID: LCS 280-596572/44
Matrix: Water
Analysis Batch: 596572

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.7		mg/L		101	90 - 110
Sulfate	50.0	48.9		mg/L		98	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 280-596572/45
Matrix: Water
Analysis Batch: 596572

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			50.0	50.7		mg/L		101	90 - 110	0	10
Sulfate			50.0	49.3		mg/L		99	90 - 110	1	10

Lab Sample ID: MRL 280-596572/3
Matrix: Water
Analysis Batch: 596572

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			2.50	ND		mg/L		84	50 - 150		
Sulfate			2.50	ND		mg/L		79	50 - 150		

Lab Sample ID: 280-169353-Y-7 MS
Matrix: Water
Analysis Batch: 596572

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND		50.0	58.2		mg/L		116	80 - 120		
Sulfate	ND	F1	50.0	58.9		mg/L		118	80 - 120		

Lab Sample ID: 280-169353-Y-7 MSD
Matrix: Water
Analysis Batch: 596572

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		50.0	59.6		mg/L		119	80 - 120	2	20
Sulfate	ND	F1	50.0	60.5	F1	mg/L		121	80 - 120	3	20

Lab Sample ID: 280-169353-Y-7 DU
Matrix: Water
Analysis Batch: 596572

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chloride	ND			ND		mg/L				NC	15
Sulfate	ND	F1		ND		mg/L				NC	15

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-596110/19
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.030	0.030	mg/L			12/08/22 09:56	1

Lab Sample ID: LCS 280-596110/17
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia (as N)			2.50	2.52		mg/L		101	90 - 110		

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCSD 280-596110/18
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)			2.50	2.53		mg/L		101	90 - 110	0	10

Lab Sample ID: 280-169390-A-4 MS
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia (as N)	ND		1.00	1.08		mg/L		108	90 - 110		

Lab Sample ID: 280-169390-A-4 MSD
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)	ND		1.00	1.09		mg/L		109	90 - 110	0	10

Method: 353.2 - Nitrate

Lab Sample ID: MB 280-596541/1
Matrix: Water
Analysis Batch: 596541

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050	0.050	mg/L			12/13/22 13:39	1

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-594596/5
Matrix: Water
Analysis Batch: 594596

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		10	10	mg/L			11/23/22 10:24	1
Alkalinity, Bicarbonate (As CaCO3)	ND		10	10	mg/L			11/23/22 10:24	1

Lab Sample ID: LCS 280-594596/4
Matrix: Water
Analysis Batch: 594596

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity, Total (As CaCO3)			200	200		mg/L		100	89 - 109		

Lab Sample ID: 280-169353-J-1 DU
Matrix: Water
Analysis Batch: 594596

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity, Total (As CaCO3)	440			442		mg/L				0.1	10
Alkalinity, Bicarbonate (As CaCO3)	440			442		mg/L				0.1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-594400/1
Matrix: Water
Analysis Batch: 594400

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		5.0	5.0	mg/L			11/22/22 11:21	1

Lab Sample ID: LCS 280-594400/2
Matrix: Water
Analysis Batch: 594400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids (TDS)			501	490		mg/L		98	88 - 114		

Lab Sample ID: 280-169351-A-5 DU
Matrix: Water
Analysis Batch: 594400

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids (TDS)	3200			3250		mg/L				0.2	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-594259/3
Matrix: Water
Analysis Batch: 594259

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			11/21/22 12:35	1

Lab Sample ID: LCS 280-594259/1
Matrix: Water
Analysis Batch: 594259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			503	473		mg/L		94	79 - 114		

Lab Sample ID: LCSD 280-594259/2
Matrix: Water
Analysis Batch: 594259

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Suspended Solids			503	520		mg/L		104	79 - 114	10	20

Lab Sample ID: 280-169383-A-1 DU
Matrix: Water
Analysis Batch: 594259

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	ND			ND		mg/L				NC	10

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-595843/22
Matrix: Water
Analysis Batch: 595843

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/06/22 22:43	1

Lab Sample ID: MB 280-595843/4
Matrix: Water
Analysis Batch: 595843

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/06/22 18:18	1

Lab Sample ID: LCS 280-595843/20
Matrix: Water
Analysis Batch: 595843

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Average			25.0	25.4		mg/L		102	88 - 112		

Lab Sample ID: LCSD 280-595843/21
Matrix: Water
Analysis Batch: 595843

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Average			25.0	25.2		mg/L		101	88 - 112	1	15

Lab Sample ID: 280-169398-1 MS
Matrix: Water
Analysis Batch: 595843

Client Sample ID: MW-35
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Average	ND		25.0	26.0		mg/L		104	88 - 112		

Lab Sample ID: 280-169398-1 MSD
Matrix: Water
Analysis Batch: 595843

Client Sample ID: MW-35
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Average	ND		25.0	26.1		mg/L		104	88 - 112	0	15

GC/MS VOA

Analysis Batch: 651148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Total/NA	Water	8260C	
MB 480-651148/8	Method Blank	Total/NA	Water	8260C	
LCS 480-651148/6	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 651411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Total/NA	Water	8260C SIM	
MB 480-651411/9	Method Blank	Total/NA	Water	8260C SIM	
LCS 480-651411/6	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 480-651411/7	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Metals

Prep Batch: 594393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Dissolved	Water	3005A	
MB 280-594393/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-594393/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-169459-J-2-B MS	Matrix Spike	Dissolved	Water	3005A	
280-169459-J-2-C MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Prep Batch: 594691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Total Recoverable	Water	3005A	
MB 280-594691/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-594691/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-169506-A-2-F MS	Matrix Spike	Total Recoverable	Water	3005A	
280-169506-A-2-G MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 594781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Dissolved	Water	6020B	594393
MB 280-594393/1-A	Method Blank	Total Recoverable	Water	6020B	594393
LCS 280-594393/2-A	Lab Control Sample	Total Recoverable	Water	6020B	594393
280-169459-J-2-B MS	Matrix Spike	Dissolved	Water	6020B	594393
280-169459-J-2-C MSD	Matrix Spike Duplicate	Dissolved	Water	6020B	594393

Prep Batch: 595162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Total Recoverable	Water	3005A	
MB 280-595162/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595162/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-169358-H-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
280-169358-H-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 595317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Total Recoverable	Water	6020B	594691
MB 280-594691/1-A	Method Blank	Total Recoverable	Water	6020B	594691
LCS 280-594691/2-A	Lab Control Sample	Total Recoverable	Water	6020B	594691
280-169506-A-2-F MS	Matrix Spike	Total Recoverable	Water	6020B	594691

Metals (Continued)

Analysis Batch: 595317 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169506-A-2-G MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	594691

Analysis Batch: 595466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Total Recoverable	Water	6010D	595162
MB 280-595162/1-A	Method Blank	Total Recoverable	Water	6010D	595162
LCS 280-595162/2-A	Lab Control Sample	Total Recoverable	Water	6010D	595162
280-169358-H-1-B MS	Matrix Spike	Total Recoverable	Water	6010D	595162
280-169358-H-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010D	595162

Prep Batch: 595470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Dissolved	Water	3005A	
MB 280-595470/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595470/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 280-595470/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
280-168996-A-4-C MS	Matrix Spike	Dissolved	Water	3005A	
280-168996-A-4-D MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Analysis Batch: 595900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Dissolved	Water	6010D	595470
MB 280-595470/1-A	Method Blank	Total Recoverable	Water	6010D	595470
LCS 280-595470/2-A	Lab Control Sample	Total Recoverable	Water	6010D	595470
LCSD 280-595470/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010D	595470
280-168996-A-4-C MS	Matrix Spike	Dissolved	Water	6010D	595470
280-168996-A-4-D MSD	Matrix Spike Duplicate	Dissolved	Water	6010D	595470

General Chemistry

Analysis Batch: 594259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Total/NA	Water	SM 2540D	
MB 280-594259/3	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-594259/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-594259/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
280-169383-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	

Analysis Batch: 594400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Total/NA	Water	SM 2540C	
MB 280-594400/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-594400/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-169351-A-5 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 594596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Total/NA	Water	SM 2320B	
MB 280-594596/5	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-594596/4	Lab Control Sample	Total/NA	Water	SM 2320B	
280-169353-J-1 DU	Duplicate	Total/NA	Water	SM 2320B	

QC Association Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169398-1

General Chemistry

Analysis Batch: 595843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Total/NA	Water	SM 5310B	
MB 280-595843/22	Method Blank	Total/NA	Water	SM 5310B	
MB 280-595843/4	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-595843/20	Lab Control Sample	Total/NA	Water	SM 5310B	
LCSD 280-595843/21	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
280-169398-1 MS	MW-35	Total/NA	Water	SM 5310B	
280-169398-1 MSD	MW-35	Total/NA	Water	SM 5310B	

Analysis Batch: 596110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Total/NA	Water	350.1	
MB 280-596110/19	Method Blank	Total/NA	Water	350.1	
LCS 280-596110/17	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-596110/18	Lab Control Sample Dup	Total/NA	Water	350.1	
280-169390-A-4 MS	Matrix Spike	Total/NA	Water	350.1	
280-169390-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 596541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Total/NA	Water	353.2	
MB 280-596541/1	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 596572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Total/NA	Water	300.0	
MB 280-596572/46	Method Blank	Total/NA	Water	300.0	
LCS 280-596572/44	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-596572/45	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-596572/3	Lab Control Sample	Total/NA	Water	300.0	
280-169353-Y-7 MS	Matrix Spike	Total/NA	Water	300.0	
280-169353-Y-7 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-169353-Y-7 DU	Duplicate	Total/NA	Water	300.0	

Field Service / Mobile Lab

Analysis Batch: 595019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169398-1	MW-35	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169398-1

Client Sample ID: MW-35

Date Collected: 11/17/22 16:05
Date Received: 11/19/22 09:20

Lab Sample ID: 280-169398-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651148	11/23/22 18:59	ATG	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/29/22 01:12	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	595470	12/05/22 19:16	LJS	EET DEN
Dissolved	Analysis	6010D		1			595900	12/06/22 18:18	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595162	12/01/22 17:42	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595466	12/02/22 22:40	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	594393	11/27/22 14:46	MCR	EET DEN
Dissolved	Analysis	6020B		1			594781	11/28/22 12:58	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	594691	11/29/22 07:22	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595317	12/01/22 19:31	LMT	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	596572	12/14/22 07:30	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596110	12/08/22 11:24	MMP	EET DEN
Total/NA	Analysis	353.2		1			596541	12/13/22 13:39	SAH	EET DEN
Total/NA	Analysis	SM 2320B		1			594596	11/23/22 12:42	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594400	11/22/22 11:21	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594259	11/21/22 12:36	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595843	12/06/22 23:12	ABW	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/17/22 17:05	S1S	EET DEN

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200

Analytical Resources, LLC
Analytical Chemists and Consultants

15 December 2022

Janice Collins
Eurofins - Test America - Denver
4955 Yarrow Street
Arvada, CO 80002

RE: Olympic View Sanitary LF (OVSL) w/SCS Engineers (04204027.25)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
22K0381	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

Shelly Fishel, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Cert# 100006-012

Chain of Custody Record & Laboratory Analysis Request

AR Assigned Number: 22K0381	Turn-around Requested: Standard	Date: 11/17/2022	
AR Client Company: SCS Engineers	Phone: 425-289-5455	Page: 1 of 2	
Client Contact: Dan Venchiarutti		No. of Coolers:	Cooler Temps:
Client Project Name: OVSL			
Client Project #: 04204027.25	Samplers: JE and RM		

Analytical Resources, LLC
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6202 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: Low level Total Arsenic	Notes/Comments
MW-36A	11/17/22	14:10	groundwater	1	X	
Dup-2	11/17/22	10:40				
MW-15R	11/16/22	11:35				
MW-19C	11/17/22	14:40				
MW-39	11/17/22	15:00				
MW-42	11/16/22	13:20				
MW-34C	11/16/22	13:55				
MW-34A	11/16/22	13:40				
MW-43	11/16/22	14:20				
MW-35	11/17/22	16:05				

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: Dan Venchiarutti	Printed Name: Matt Smith	Printed Name:	Printed Name:
	Company: SCS Engineers	Company: AOI LLC	Company:	Company:
	Date & Time: 11/21/22	Date & Time: 11/21/22 12:04	Date & Time:	Date & Time:

Limits of Liability: *Analytical Resources, LLC (AR) will perform all requested services in accordance with appropriate methodology following AR Standard Operating Procedures and the AR Quality Assurance Program. This program meets standards for the industry. The total liability of AR, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by AR release AR from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between AR and the Client.*

Sample Retention Policy: Unless specified by work order or contract, all water/soil samples submitted to AR will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hard copy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

Chain of Custody Record & Laboratory Analysis Request

AR Assigned Number: 22K0361	Turn-around Requested: Standard	Date: 11/17/2022	
AR Client Company: SCS Engineers	Phone: 425-289-5455	Page: 2 of 2	
Client Contact: Dan Venchiarutti		No. of Coolers:	Cooler Temps:
Client Project Name: OVSL			
Client Project #: 04204027.25	Samplers: JE and RM		

Analytical Resources, LLC
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6202 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: Low level total Arsenic	Notes/Comments
MW-32	11/17/22	13:00	groundwater	1	X	
MW-16	11/17/22	10:30				
Dup-1	11/17/22	13:10				
LP-LCD	11/17/22	13:40				
MW-29A	11/16/22	14:10				
MW-13B	11/17/22	13:00				
MW-33C	11/17/22	10:20				
MW-33A	11/17/22	10:45				
MW-13A	11/17/22	12:20				

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: Dan Venchiarutti	Printed Name: Trent Swinson	Printed Name:	Printed Name:
	Company: SCS Engineers	Company: ARI LLC	Company:	Company:
	Date & Time: 11/21/22	Date & Time: 11/21/22 12:04	Date & Time:	Date & Time:

Limits of Liability: *Analytical Resources, LLC (AR) will perform all requested services in accordance with appropriate methodology following AR Standard Operating Procedures and the AR Quality Assurance Program. This program meets standards for the industry. The total liability of AR, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by AR release AR from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between AR and the Client.*

Sample Retention Policy: Unless specified by work order or contract, all water/soil samples submitted to AR will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hard copy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-36A	22K0381-01	Water	17-Nov-2022 14:10	21-Nov-2022 12:04
Dup-2	22K0381-02	Water	17-Nov-2022 10:40	21-Nov-2022 12:04
MW-15R	22K0381-03	Water	17-Nov-2022 11:35	21-Nov-2022 12:04
MW-19C	22K0381-04	Water	17-Nov-2022 14:40	21-Nov-2022 12:04
MW-39	22K0381-05	Water	17-Nov-2022 15:00	21-Nov-2022 12:04
MW-42	22K0381-06	Water	16-Nov-2022 13:20	21-Nov-2022 12:04
MW-34C	22K0381-07	Water	16-Nov-2022 13:55	21-Nov-2022 12:04
MW-34A	22K0381-08	Water	16-Nov-2022 13:10	21-Nov-2022 12:04
MW-43	22K0381-09	Water	16-Nov-2022 14:20	21-Nov-2022 12:04
MW-35	22K0381-10	Water	17-Nov-2022 16:05	21-Nov-2022 12:04
MW-32	22K0381-11	Water	17-Nov-2022 13:00	21-Nov-2022 12:04
MW-16	22K0381-12	Water	17-Nov-2022 10:30	21-Nov-2022 12:04
Dup-1	22K0381-13	Water	17-Nov-2022 13:10	21-Nov-2022 12:04
LP-LCD	22K0381-14	Water	17-Nov-2022 13:40	21-Nov-2022 12:04
MW-29A	22K0381-15	Water	16-Nov-2022 14:10	21-Nov-2022 12:04
MW-13B	22K0381-16	Water	17-Nov-2022 13:00	21-Nov-2022 12:04
MW-33C	22K0381-17	Water	17-Nov-2022 10:20	21-Nov-2022 12:04
MW-33A	22K0381-18	Water	17-Nov-2022 10:45	21-Nov-2022 12:04
MW-13A	22K0381-19	Water	17-Nov-2022 12:20	21-Nov-2022 12:04

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Work Order Case Narrative

Client: Eurofins - Test America - Denver
Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers
Project Number: 04204027.25
Work Order: 22K0381

Sample receipt

Sample(s) as listed on the preceding page were received 21-Nov-2022 12:04 under ARI work order 22K0381. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Total Metals - EPA Method 6020B

The sample(s) were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

WORK ORDER

22K0381

Samples will be discarded 90 days after submission of a final report unless other instructions are received

Client: Eurofins - Test America - Denver | Project Manager: Shelly Fishel

Project: Olympic View Sanitary LF (OVSL) w/SCS Engine | Project Number: 04204027.25

Preservation Confirmation

Container ID	Container Type	pH
22K0381-01 A	HDPE NM, 250mL HNO3	L2 P
22K0381-02 A	HDPE NM, 250mL HNO3	L2 P
22K0381-03 A	HDPE NM, 250mL HNO3	L2 P
22K0381-04 A	HDPE NM, 250mL HNO3	L2 P
22K0381-05 A	HDPE NM, 250mL HNO3	L2 P
22K0381-06 A	HDPE NM, 250mL HNO3	L2 P
22K0381-07 A	HDPE NM, 250mL HNO3	L2 P
22K0381-08 A	HDPE NM, 250mL HNO3	L2 P
22K0381-09 A	HDPE NM, 250mL HNO3	L2 P
22K0381-10 A	HDPE NM, 250mL HNO3	L2 P
22K0381-11 A	HDPE NM, 250mL HNO3	L2 P
22K0381-12 A	HDPE NM, 250mL HNO3	L2 P
22K0381-13 A	HDPE NM, 250mL HNO3	L2 P
22K0381-14 A	HDPE NM, 250mL HNO3	L2 P
22K0381-15 A	HDPE NM, 250mL HNO3	L2 P
22K0381-16 A	HDPE NM, 250mL HNO3	L2 P
22K0381-17 A	HDPE NM, 250mL HNO3	L2 P
22K0381-18 A	HDPE NM, 250mL HNO3	L2 P
22K0381-19 A	HDPE NM, 250mL HNO3	L2 P

Preservation Confirmed By

11/21/22
Date

Reviewed By

Date

Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: SCS Engineers Project Name: OVSL

COC No(s): _____ (NA) Delivered by: Fed-Ex UPS Courier Hand Delivered Other:_____

Assigned ARI Job No: 22K0381 Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 12:47 1.7 ____ ____ ____ ____ ____ ____

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: D209208

Cooler Accepted by: [signature] Date: 11/21/22 Time: 12:04

Complete custody forms and attach all shipping documents

Log-In Phase:

J. S.

Was a temperature blank included in the cooler?		(YES)	NO
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
How were bottles sealed in plastic bags?	Individually	(Grouped)	Not
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ...	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		_____

Were the sample(s) split by ARI? (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: [signature] Date: 11/21/22 Time: 13:07 Labels checked by: JS

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

MW-43 Sampled at 14:20 CoC, Bottle label says 14:40

By: Date:

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-36A

22K0381-01 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 14:10

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:38

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-01 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000492	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Dup-2

22K0381-02 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 10:40
Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:28

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-02 A 01
Preparation Batch: BKL0170 — Sample Size: 100 mL
Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.0000373	0.000200	0.00330	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-15R

22K0381-03 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 11:35

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:42

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-03 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000186	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-19C

22K0381-04 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 14:40
Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:33

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-04 A 01
Preparation Batch: BKL0170 — Sample Size: 100 mL
Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.0000373	0.000200	0.00306	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-39

22K0381-05 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 15:00

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 07:56

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-05 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.0000149	0.0000800	0.00198	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-42

22K0381-06 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/16/2022 13:20

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 06:52

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-06 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.0000149	0.0000800	0.00218	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-34C

22K0381-07 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/16/2022 13:55

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 06:55

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-07 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.0000373	0.000200	0.0219	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-34A

22K0381-08 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/16/2022 13:10

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:52

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-08 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000456	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-43

22K0381-09 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/16/2022 14:20

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:56

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-09 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000157	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-35

22K0381-10 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 16:05

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 09:02

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-10 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000114	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-32

22K0381-11 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 13:00

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:23

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-11 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	10	0.0000746	0.000400	0.0108	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-16

22K0381-12 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 10:30

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 07:03

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-12 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000369	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Dup-1

22K0381-13 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 13:10

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 07:06

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-13 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000332	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

LP-LCD

22K0381-14 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 13:40

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 05:26

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-14 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	20	0.000149	0.000800	0.0171	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-29A

22K0381-15 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/16/2022 14:10

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:02

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-15 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.0000149	0.0000800	0.00175	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-13B

22K0381-16 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 13:00
Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 07:13

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-16 A 01
Preparation Batch: BKL0170 — Sample Size: 100 mL
Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000338	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-33C

22K0381-17 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 10:20

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 06:59

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-17 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.0000373	0.000200	0.00431	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-33A

22K0381-18 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 10:45

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 07:17

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-18 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000325	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-13A

22K0381-19 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 12:20

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 07:21

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-19 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000206	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds - Quality Control

Batch BKL0170 - EPA 6020B UCT-KED

Instrument: ICPMS1 Analyst: MCB

QC Sample/Analyte	Isotope	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BKL0170-BLK1)					Prepared: 07-Dec-2022 Analyzed: 09-Dec-2022 20:32							
Arsenic	75a	ND	0.00000746	0.0000400	mg/L							U
LCS (BKL0170-BS1)					Prepared: 07-Dec-2022 Analyzed: 09-Dec-2022 20:36							
Arsenic	75a	0.00495	0.00000746	0.0000400	mg/L	0.00500		99.1	80-120			
LCS Dup (BKL0170-BSD1)					Prepared: 07-Dec-2022 Analyzed: 09-Dec-2022 20:40							
Arsenic	75a	0.00420	0.00000746	0.0000400	mg/L	0.00500		83.9	80-120	16.60	20	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Certified Analyses included in this Report

Analyte	Certifications
EPA 6020B UCT-KED in Water	
Arsenic-75a	WADOE,WA-DW,DoD-ELAP,ADEC,NELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2023
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	02/28/2023
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2023
WADOE	WA Dept of Ecology	C558	06/30/2023
WA-DW	Ecology - Drinking Water	C558	06/30/2023

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Notes and Definitions

*	Flagged value is not within established control limits.
D	The reported value is from a dilution
J	Estimated concentration value detected below the reporting limit.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.

Eurofins TestAmerica, Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jovany Estrada	Lab PM: Collins, Janice S	Carrier Tracking No(s): 817253052817	COC No: 280-17318-3224.1
Client Contact: Mr. Patrick Madej	Phone: 425-507-6703	E-Mail: Janice.Collins@ET.EurofinsUS.com		Page: 1 of 1
Company: Waste Management				Job #: 04204027.25
Address: 2615 Davis Street	Due Date Requested: Standard			
City: San Leandro	TAT Requested (days):			
State, Zip: CA, 94577				
Phone:	PO #:			
Email:	WO #:			
Project Name: WA02|Olympic View Sanitary LF Event Desc: SemiAnnual GW Appl/II - May Nov	Project #: 28002692			
Site: Washington	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TDS/Alks/Cl/SO4/NO3(cad)	Dissolved Metals	Ammonia/TOC	8260B - long list (TA Buffalo)	8260B SIM (TA Buffalo)	Total Metals	TSS	Total Arsenic (direct sub to ARI)	Total Number of Containers	Special Instructions/Note:
			Preservation Code:		X	X	N	D	S	A	A	D	N	D		
MW-35	11/17/22	16:05	G	W	Y	N	X	X	X	X	X	X	X	X		Short Hold: NO3(cad)
																Arsenic - Direct sub to ARI

280-169398 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: 11-19-22 WR		
Relinquished by: B Mantooth	Date/Time:	Company	Received by:	Date/Time: 11-20-22 0920	Company: ETA DEN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 2061988 | Cooler Temperature(s) °C and Other Remarks: 1.0°C IR12 CF0.0

12/19/2022

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.: | | | | | Sample Point: MW-35 (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	15:45	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Filter Device: (Y) or N — 0.45 µ or _____ µ (circle or fill in)

Purging Device: C
Sampling Device: C
X-Other: _____

A-Submersible Pump; B-Peristaltic Pump; C-QED Bladder Pump; D-Bailer; E-Piston Pump; F-Dipper/Bottle

Filter Type: A
A-In-line Disposable; B-Pressure; C-Vacuum; X-Other _____

Sample Tube Type: D
A-Teflon; B-Stainless Steel; C-PVC; D-Polypropylene; X-Other: _____

WELL DATA

Well Elevation (at TOC) (ft/msl)	Depth to Water (DTW) (from TOC) (ft)	Groundwater Elevation (site datum, from TOC) (ft/msl)
	72.98	

Total Well Depth (from TOC) (ft)	Stick Up (from ground elevation) (ft)	Casing ID (in)	Casing Material
		04	PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Rate/Unit: 350 mL/min

Sample Time (2400 Hr Clock)	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
15:45 (1st)	7.31	156	10.2	29	6.9	508	
15:50 (2nd)	7.39	156	10.1	29	6.9	532	
15:53 (3rd)	7.45	156	10.0	29	6.9	577	
15:56 (4th)	7.48	156	10.0	29	6.9	639	
15:59	7.49	156	10.0	29	6.9	705	
16:02	7.50	156	10.0	29	6.9	755	
16:05	7.49	156	10.0	29	6.9	814	7.32
:							
:							
:							
Suggested range for 3 consec. readings or note Permit/State requirements:	+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: _____ Units _____
11/17/22	7.49	156	10.0	29	6.9	814	

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling) for all field parameters required by State/Permit/Site.*

Sample Appearance: clear Odor: — Color: — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required): _____

FIELD COMMENTS

10/5/50 PSI

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Jovany Estrada	JE	SCS
__/__/__			

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

ORIGIN ID:BVUA

SHIP DATE: 18NOV22
ACTWGT: 0.25 LB
CAD: /SSF02341
DIMS: 24x13x13 IN

TO EUROFINS DENVER
EUROFINS DENVER
4955 YARROW ST

ARVADA CO 80002 (US
(303) 736-0100
INV:
PO:
REF:
DEPT:

1.0°C
2201938

FedEx
Express

E

J224222101802uv

TRK# 0667 8172 5305 2817

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO LAAA

80002
CO-US DEN

280-169398 Waybill

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0100 Fax: 303-431-7171

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Collins, Janice S	Carrier Tracking No(s):	COC No: 280-637052.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Janice.Collins@et.eurofinsus.com	State of Origin: Washington	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State - Washington		Job #: 280-169398-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 12/12/2022			
City: Amherst	TAT Requested (days):			
State, Zip: NY, 14228-2298				
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:			
Email:	WO #:			
Project Name: WA02|Olympic View Sanitary LF	Project #: 28002692			
Site: WA02|Olympic View Sanitary LF	SSOW#:			

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C_SIM/5030C (MOD) Local Method	8260C/5030C (MOD) Appendix II Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
MW-35 (280-169398-1)	11/17/22	16:05 Pacific		Water			X	X	6	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time: 11/21/22 13:40	Company ETADEN	Received by:	Date/Time: 11/23/22 1000	Company TA	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.7 #1 ICE

Ver: 06/08/2021

12/19/2022

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-169398-1

Login Number: 169398
List Number: 1
Creator: Roehsner, Karen P

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-169398-1

Login Number: 169398
List Number: 2
Creator: Kolb, Chris M

List Source: Eurofins Buffalo
List Creation: 11/23/22 11:35 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7 ir gun #1 ice
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Patrick Madej
Waste Management
2615 Davis Street
San Leandro, California 94577

Generated 12/19/2022 2:46:36 PM

JOB DESCRIPTION

WA02|Olympic View Sanitary LF

JOB NUMBER

280-169454-1

Eurofins Denver
4955 Yarrow Street
Arvada CO 80002

See page two for job notes and contact information.

Eurofins Denver

Job Notes

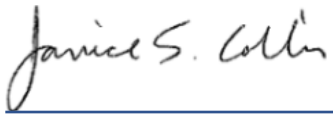
The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization



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12/19/2022 2:46:36 PM

Authorized for release by
Janice Collins, Project Manager
Janice.Collins@et.eurofinsus.com
(303)736-0100

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Definitions/Glossary

Client: Waste Management
Job ID: 280-169454-1
Project/Site: WA02|Olympic View Sanitary LF

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
b	Result Detected in the Unseeded Control blank (USB).
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Job ID: 280-169454-1

Laboratory: Eurofins Denver

Narrative

CASE NARRATIVE

Client: Waste Management

Project: WA02|Olympic View Sanitary LF

Report Number: 280-169454-1

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.

This report may include reporting limits (RLs) less than Eurofins TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

RECEIPT

The samples were received on 11/21/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was C.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5), DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), TRIP BLANK (280-169454-9), MW-19C (280-169454-10), LP-LCD (280-169454-11), MW-39 (280-169454-12) and MW-32 (280-169454-13) were analyzed for volatile organic compounds (GC/MS) in accordance with 8260C. The samples were analyzed on 11/29/2022.

The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5), DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), TRIP BLANK (280-169454-9), MW-19C (280-169454-10), LP-LCD (280-169454-11), MW-39 (280-169454-12) and MW-32 (280-169454-13). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: LP-LCD (280-169454-11). Elevated reporting limits (RLs) are provided.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 480-651418 recovered outside control limits for the following analytes: 2-Hexanone, 4-Methyl-2-pentanone (MIBK) and trans-1,4-Dichloro-2-butene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) associated with batch 480-651418 recovered above the upper control limit for 2-Hexanone and 4-Methyl-2-pentanone (MIBK). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5), DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), TRIP BLANK (280-169454-9), MW-19C (280-169454-10), LP-LCD (280-169454-11), MW-39 (280-169454-12) and MW-32 (280-169454-13).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANICS (GC-MS)

Samples MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5), DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), TRIP BLANK (280-169454-9), MW-19C (280-169454-10), LP-LCD (280-169454-11), MW-39 (280-169454-12) and MW-32 (280-169454-13) were analyzed for volatile organics (GC-MS) in

Job ID: 280-169454-1 (Continued)

Laboratory: Eurofins Denver (Continued)

accordance with 8260C_SIM. The samples were analyzed on 11/29/2022.

The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed outside the 7-day holding time specified for unpreserved samples but within the 14-day holding time specified for preserved samples: DUP-2 (280-169454-6). pH is 7.

Surrogate Dibromofluoromethane recovery for the following samples were outside the upper control limit: MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5), DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), MW-39 (280-169454-12) and TRIP BLANK (280-169454-9). This sample(s) did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: LP-LCD (280-169454-11). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICP)

Samples MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5), DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), MW-19C (280-169454-10), LP-LCD (280-169454-11), MW-39 (280-169454-12) and MW-32 (280-169454-13) were analyzed for Dissolved Metals (ICP) in accordance with EPA SW846 6010D. The samples were prepared on 12/05/2022 and 12/06/2022 and analyzed on 12/06/2022.

Iron was detected in method blank MB 280-595470/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP)

Samples MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5), DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), MW-19C (280-169454-10), LP-LCD (280-169454-11), MW-39 (280-169454-12) and MW-32 (280-169454-13) were analyzed for Total Recoverable Metals (ICP) in accordance with EPA SW846 6010D. The samples were prepared on 12/02/2022 and 12/06/2022 and analyzed on 12/05/2022 and 12/07/2022.

Iron was detected in method blank MB 280-595768/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICP/MS)

Samples MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5), DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), MW-19C (280-169454-10), LP-LCD (280-169454-11), MW-39 (280-169454-12) and MW-32 (280-169454-13) were analyzed for Dissolved Metals (ICP/MS) in accordance with SW846 6020B. The samples were prepared on 12/06/2022 and analyzed on 12/07/2022.

Manganese was detected in method blank MB 280-595289/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP/MS)

Samples MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5), DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), MW-19C (280-169454-10), LP-LCD (280-169454-11), MW-39

Job ID: 280-169454-1 (Continued)

Laboratory: Eurofins Denver (Continued)

(280-169454-12) and MW-32 (280-169454-13) were analyzed for Total Recoverable Metals (ICP/MS) in accordance with SW846 6020B. The samples were prepared on 12/05/2022, 12/06/2022 and 12/08/2022 and analyzed on 12/06/2022, 12/07/2022 and 12/08/2022.

Chromium and Manganese were detected in method blank MB 280-595222/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Several analytes were detected in method blank MB 280-595533/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Arsenic and Manganese failed the recovery criteria for the MS/MSD of sample MW-19CMS (280-169454-10) in batch 280-595811. The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY

Samples MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5), DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), MW-19C (280-169454-10), LP-LCD (280-169454-11), MW-39 (280-169454-12) and MW-32 (280-169454-13) were analyzed for Alkalinity in accordance with SM20 2320B. The samples were analyzed on 11/23/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS

Samples MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5), DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), MW-19C (280-169454-10), LP-LCD (280-169454-11), MW-39 (280-169454-12) and MW-32 (280-169454-13) were analyzed for total dissolved solids in accordance with SM20 2540C. The samples were analyzed on 11/22/2022.

Total Dissolved Solids (TDS) exceeded the RPD limit for the duplicate of sample MW-33ADU (280-169454-1). Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL SUSPENDED SOLIDS

Samples MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5), DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), MW-19C (280-169454-10), MW-39 (280-169454-12) and MW-32 (280-169454-13) were analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 11/23/2022 and 11/29/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS (28 DAYS)

Samples MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5), DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), MW-19C (280-169454-10), LP-LCD (280-169454-11), MW-39 (280-169454-12) and MW-32 (280-169454-13) were analyzed for anions (28 days) in accordance with EPA Method 300.0 (28 Days). The samples were analyzed on 12/08/2022 and 12/14/2022.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 280-596572 were outside control limits for Chloride and Sulfate. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA

Samples MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5),

Job ID: 280-169454-1 (Continued)

Laboratory: Eurofins Denver (Continued)

DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), MW-19C (280-169454-10), LP-LCD (280-169454-11), MW-39 (280-169454-12) and MW-32 (280-169454-13) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 12/08/2022 and 12/13/2022.

The matrix spike duplicate (MSD) recovery for analytical batch 280-596110 was outside control limits. Sample non-homogeneity is suspected because the associated matrix spike (MS), laboratory control sample (LCS), and laboratory control sample duplicate (LCSD) recoveries were within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AS NITROGEN
Sample LP-LCD (280-169454-11) was analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 12/09/2022.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 280-596249 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CHEMICAL OXYGEN DEMAND
Sample LP-LCD (280-169454-11) was analyzed for chemical oxygen demand in accordance with EPA Method 410.4. The samples were analyzed on 11/29/2022.

Chemical Oxygen Demand (COD) failed the recovery criteria for the MS/MSD of sample 280-169553-1 in batch 280-594928.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE
Samples MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5), DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), MW-19C (280-169454-10), LP-LCD (280-169454-11), MW-39 (280-169454-12) and MW-32 (280-169454-13) were analyzed for Nitrate in accordance with EPA Method 353.2. The samples were analyzed on 12/12/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

BIOCHEMICAL OXYGEN DEMAND
Sample LP-LCD (280-169454-11) was analyzed for Biochemical Oxygen Demand in accordance with SM20 5210B. The samples were analyzed on 11/23/2022.

The following sample was received outside of holding time: LP-LCD (280-169454-11).

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL ORGANIC CARBON
Samples MW-33A (280-169454-1), MW-33C (280-169454-2), DUP-1 (280-169454-3), MW-13A (280-169454-4), MW-13B (280-169454-5), DUP-2 (280-169454-6), MW-16 (280-169454-7), MW-36A (280-169454-8), MW-19C (280-169454-10), LP-LCD (280-169454-11), MW-39 (280-169454-12) and MW-32 (280-169454-13) were analyzed for total organic carbon in accordance with SM20 5310B. The samples were analyzed on 12/07/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FIELD SAMPLING
Samples MW-33A (280-169454-1), MW-33C (280-169454-2), MW-13A (280-169454-4), MW-13B (280-169454-5), MW-16 (280-169454-7), MW-36A (280-169454-8), MW-19C (280-169454-10), LP-LCD (280-169454-11), MW-39 (280-169454-12) and MW-32 (280-169454-13)

Job ID: 280-169454-1 (Continued)

Laboratory: Eurofins Denver (Continued)

were analyzed for Field Sampling in accordance with NA. The samples were analyzed on 11/17/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169454-1

Client Sample ID: MW-33A — Lab Sample ID: 280-169454-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Total	0.72	B	0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	14		0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.054	J B	0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	6.6		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.82	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	4.0		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.0017		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.00075	J B	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.011	B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0025		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.0054	B	0.0010	0.00031	mg/L	1		6020B	Dissolved
Ammonia (as N)	0.050		0.030	0.030	mg/L	1		350.1	Total/NA
Alkalinity, Total (As CaCO3)	68		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	68		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	79		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	5.10				ft	1		Field Sampling	Total/NA
Specific Conductivity	134				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	0.7				mg/L	1		Field Sampling	Total/NA
eH	1.2				millivolts	1		Field Sampling	Total/NA
Turbidity	13.1				NTU	1		Field Sampling	Total/NA
Temperature	10.0				Degrees C	1		Field Sampling	Total/NA
pH	6.72				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-33C — Lab Sample ID: 280-169454-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Total	0.084		0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	17		0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.039	J B	0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	6.7		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	1.2		1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	4.1		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.0038		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Beryllium, Total	0.000081	J	0.0010	0.000080	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0018	J B	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Copper, Total	0.0020		0.0020	0.00056	mg/L	1		6020B	Total Recoverable
Lead, Total	0.00041	J	0.0010	0.00018	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.96	B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0017	J	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0021		0.0020	0.0012	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-33C (Continued) — Lab Sample ID: 280-169454-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc, Total	0.0054		0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.13	B	0.0010	0.00031	mg/L	1		6020B	Dissolved
Sulfate	7.4		5.0	5.0	mg/L	1		300.0	Total/NA
Alkalinity, Total (As CaCO3)	73		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	73		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	97		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	12		4.0	4.0	mg/L	1		SM 2540D	Total/NA
Depth to water	2.64				ft	1		Field Sampling	Total/NA
Specific Conductivity	154				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	1.2				mg/L	1		Field Sampling	Total/NA
eH	31.3				millivolts	1		Field Sampling	Total/NA
Turbidity	3.3				NTU	1		Field Sampling	Total/NA
Temperature	9.1				Degrees C	1		Field Sampling	Total/NA
pH	6.62				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-1 — Lab Sample ID: 280-169454-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Total	0.021	J	0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	16		0.20	0.024	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	8.3		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.61	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	5.2		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.0038		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0035	B	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.00069	J B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0061		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.0039	J	0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.00038	J B	0.0010	0.00031	mg/L	1		6020B	Dissolved
Alkalinity, Total (As CaCO3)	88		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	88		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	84		5.0	5.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-13A — Lab Sample ID: 280-169454-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium, Dissolved	15		0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.043	J B	0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	8.9		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.56	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	5.4		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.0026		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0026	J B	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.020	B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-13A (Continued) — Lab Sample ID: 280-169454-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium, Total	0.0043		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.0020	J	0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Nitrate as N	0.48		0.050	0.050	mg/L	1		353.2	Total/NA
Alkalinity, Total (As CaCO3)	89		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	89		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	88		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	45.10				ft	1		Field Sampling	Total/NA
Specific Conductivity	166				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	23.2				mg/L	1		Field Sampling	Total/NA
eH	69.1				millivolts	1		Field Sampling	Total/NA
Turbidity	3.4				NTU	1		Field Sampling	Total/NA
Temperature	9.6				Degrees C	1		Field Sampling	Total/NA
pH	6.93				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-13B — Lab Sample ID: 280-169454-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium, Dissolved	17		0.20	0.024	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	8.6		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.57	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	5.4		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.0038		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0034	B	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.00068	J B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0058		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.0020	J	0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.00081	J B	0.0010	0.00031	mg/L	1		6020B	Dissolved
Nitrate as N	0.41		0.050	0.050	mg/L	1		353.2	Total/NA
Alkalinity, Total (As CaCO3)	89		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	89		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	93		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	62.16				ft	1		Field Sampling	Total/NA
Specific Conductivity	162				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	0.5				mg/L	1		Field Sampling	Total/NA
eH	65.3				millivolts	1		Field Sampling	Total/NA
Turbidity	3.8				NTU	1		Field Sampling	Total/NA
Temperature	9.9				Degrees C	1		Field Sampling	Total/NA
pH	7.36				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-2 — Lab Sample ID: 280-169454-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Total	0.035	J	0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	17		0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.040	J B	0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	6.9		0.050	0.0042	mg/L	1		6010D	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-2 (Continued)

Lab Sample ID: 280-169454-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium, Dissolved	1.3		1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	4.2		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.0064		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.00053	J B	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.31	B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.0053		0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.13	B	0.0010	0.00031	mg/L	1		6020B	Dissolved
Chloride	3.0		3.0	3.0	mg/L	1		300.0	Total/NA
Sulfate	8.6		5.0	5.0	mg/L	1		300.0	Total/NA
Alkalinity, Total (As CaCO3)	74		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	74		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	94		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	16		4.0	4.0	mg/L	1		SM 2540D	Total/NA

Client Sample ID: MW-16

Lab Sample ID: 280-169454-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Total	0.012	J	0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	10		0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.29	B	0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	5.6		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.75	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	5.2		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.0038		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0085	B	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.0016	B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0020	J	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0039		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.0028	J	0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.00034	J B	0.0010	0.00031	mg/L	1		6020B	Dissolved
Alkalinity, Total (As CaCO3)	67		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	67		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	82		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	60.92				ft	1		Field Sampling	Total/NA
Specific Conductivity	115				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	7.6				mg/L	1		Field Sampling	Total/NA
eH	28.28				millivolts	1		Field Sampling	Total/NA
Turbidity	2.8				NTU	1		Field Sampling	Total/NA
Temperature	9.2				Degrees C	1		Field Sampling	Total/NA
pH	6.64				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169454-1

Client Sample ID: MW-36A — Lab Sample ID: 280-169454-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium, Dissolved	9.2		0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.014	J B	0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	6.5		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.83	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	6.3		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.0023		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Beryllium, Total	0.000085	J	0.0010	0.000080	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0092	B	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.00062	J B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0012	J	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Selenium, Total	0.00052	J	0.0010	0.00037	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0026		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.0013	B	0.0010	0.00031	mg/L	1		6020B	Dissolved
Nitrate as N	0.26		0.050	0.050	mg/L	1		353.2	Total/NA
Alkalinity, Total (As CaCO3)	64		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	64		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	79		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	32.03				ft	1		Field Sampling	Total/NA
Specific Conductivity	122				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	3.1				mg/L	1		Field Sampling	Total/NA
eH	207.9				millivolts	1		Field Sampling	Total/NA
Turbidity	3.0				NTU	1		Field Sampling	Total/NA
Temperature	9.5				Degrees C	1		Field Sampling	Total/NA
pH	6.35				SU	1		Field Sampling	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 280-169454-9

No Detections.

Client Sample ID: MW-19C — Lab Sample ID: 280-169454-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.039		0.020	0.0040	ug/L	1		8260C SIM	Total/NA
Trichloroethene	0.82	J	1.0	0.46	ug/L	1		8260C	Total/NA
Iron, Total	0.39		0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	14		0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.12	B	0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	7.2		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	1.3		1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	6.0		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.0050		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.00096	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	1.1	B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-19C (Continued) — Lab Sample ID: 280-169454-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc, Total	0.0021	J	0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	1.1	B	0.0010	0.00031	mg/L	1		6020B	Dissolved
Ammonia (as N)	0.50		0.030	0.030	mg/L	1		350.1	Total/NA
Alkalinity, Total (As CaCO3)	80		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	80		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	88		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Depth to water	35.40				ft	1		Field Sampling	Total/NA
Specific Conductivity	159				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	0.7				mg/L	1		Field Sampling	Total/NA
eH	38.3				millivolts	1		Field Sampling	Total/NA
Turbidity	3.8				NTU	1		Field Sampling	Total/NA
Temperature	10.6				Degrees C	1		Field Sampling	Total/NA
pH	6.54				SU	1		Field Sampling	Total/NA

Client Sample ID: LP-LCD — Lab Sample ID: 280-169454-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.072	J	0.20	0.040	ug/L	10		8260C SIM	Total/NA
Cobalt, Total	0.0093		0.0030	0.00056	mg/L	1		6010D	Total Recoverable
Iron, Total	0.058	J	0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	61		0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.061		0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	37		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	75		1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	640		1.0	0.097	mg/L	1		6010D	Dissolved
Antimony, Total	0.0022		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Arsenic, Total	0.019	B	0.0050	0.00033	mg/L	1		6020B	Total Recoverable
Barium, Total	0.091		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Beryllium, Total	0.00021	J	0.0010	0.000080	mg/L	1		6020B	Total Recoverable
Cadmium, Total	0.00030	B	0.00030	0.00027	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0028	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Copper, Total	0.020	B	0.0020	0.00056	mg/L	1		6020B	Total Recoverable
Lead, Total	0.0019	B	0.0010	0.00018	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.47	B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.099		0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Selenium, Total	0.00075	J B	0.0010	0.00037	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0047		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.040		0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.45	B	0.0010	0.00031	mg/L	1		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: LP-LCD (Continued) — Lab Sample ID: 280-169454-11

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	640		30	30	mg/L	10		300.0	Total/NA
Sulfate	210		50	50	mg/L	10		300.0	Total/NA
Ammonia (as N)	5.2		0.060	0.060	mg/L	2		350.1	Total/NA
Nitrate as N	4.0		0.050	0.050	mg/L	1		353.2	Total/NA
Nitrate Nitrite as N	4.0		0.10	0.10	mg/L	1		353.2	Total/NA
Chemical Oxygen Demand (COD)	160		20	20	mg/L	2		410.4	Total/NA
Alkalinity, Total	910		10	10	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	910		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	2200		10	10	mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Average	49		2.0	2.0	mg/L	2		SM 5310B	Total/NA
Biochemical Oxygen Demand	7.1	H H3 b	5.0	5.0	mg/L	1		SM5210B	Total/NA
Specific Conductivity	3536				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	8.3				mg/L	1		Field Sampling	Total/NA
eH	78.5				millivolts	1		Field Sampling	Total/NA
Turbidity	0.9				NTU	1		Field Sampling	Total/NA
Temperature	9.1				Degrees C	1		Field Sampling	Total/NA
pH	7.26				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-39 — Lab Sample ID: 280-169454-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt, Total	0.0065		0.0030	0.00056	mg/L	1		6010D	Total Recoverable
Iron, Total	33		0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	13		0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	35		0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	7.9		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.28	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	9.0		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.014		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0010	J	0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Manganese, Total	0.46	J B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.0026	J	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.0012	J	0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	0.47	B	0.0010	0.00031	mg/L	1		6020B	Dissolved
Chloride	7.4		3.0	3.0	mg/L	1		300.0	Total/NA
Ammonia (as N)	0.57		0.030	0.030	mg/L	1		350.1	Total/NA
Alkalinity, Total (As CaCO3)	88		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	88		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	120		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	29		4.0	4.0	mg/L	1		SM 2540D	Total/NA
Total Organic Carbon - Average	2.5		1.0	1.0	mg/L	1		SM 5310B	Total/NA
Depth to water	22.27				ft	1		Field Sampling	Total/NA
Specific Conductivity	271				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	0.7				mg/L	1		Field Sampling	Total/NA
eH	-58.9				millivolts	1		Field Sampling	Total/NA
Turbidity	3.8				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-39 (Continued) — Lab Sample ID: 280-169454-12

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Temperature	11.4				Degrees C	1		Field Sampling	Total/NA
pH	6.31				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-32 — Lab Sample ID: 280-169454-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.28		0.020	0.0040	ug/L	1		8260C SIM	Total/NA
Iron, Total	0.67		0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	23		0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.50		0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	12		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	0.98	J	1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	11		1.0	0.097	mg/L	1		6010D	Dissolved
Barium, Total	0.0059		0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Copper, Total	0.0046	B	0.0020	0.00056	mg/L	1		6020B	Total Recoverable
Lead, Total	0.00021	J B	0.0010	0.00018	mg/L	1		6020B	Total Recoverable
Manganese, Total	2.0	B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.00087	J	0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.0022	J	0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	1.8	B	0.0010	0.00031	mg/L	1		6020B	Dissolved
Chloride	6.6	F1	3.0	3.0	mg/L	1		300.0	Total/NA
Sulfate	11	F1	5.0	5.0	mg/L	1		300.0	Total/NA
Ammonia (as N)	0.071		0.030	0.030	mg/L	1		350.1	Total/NA
Alkalinity, Total (As CaCO3)	130		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	130		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	170		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Average	1.4		1.0	1.0	mg/L	1		SM 5310B	Total/NA
Depth to water	2.06				ft	1		Field Sampling	Total/NA
Specific Conductivity	258				umhos/cm	1		Field Sampling	Total/NA
Dissolved Oxygen	0.7				mg/L	1		Field Sampling	Total/NA
eH	-22.8				millivolts	1		Field Sampling	Total/NA
Turbidity	3.6				NTU	1		Field Sampling	Total/NA
Temperature	11.6				Degrees C	1		Field Sampling	Total/NA
pH	6.90				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169454-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	EET BUF
6010D	Metals (ICP)	SW846	EET DEN
6020B	Metals (ICP/MS)	SW846	EET DEN
300.0	Anions, Ion Chromatography	MCAWW	EET DEN
350.1	Nitrogen, Ammonia	MCAWW	EET DEN
353.2	Nitrate	EPA	EET DEN
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	EET DEN
410.4	COD	MCAWW	EET DEN
SM 2320B	Alkalinity	SM	EET DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	EET DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	EET DEN
SM5210B	BOD, 5 Day	SM	EET DEN
Field Sampling	Field Sampling	EPA	EET DEN
Subcontract	Total Arsenic (ARI)	None	SC0056
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET DEN
5030C	Purge and Trap	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
None = None
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:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200

Sample Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169454-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-169454-1	MW-33A	Water	11/17/22 10:45	11/21/22 09:00
280-169454-2	MW-33C	Water	11/17/22 10:20	11/21/22 09:00
280-169454-3	DUP-1	Water	11/17/22 13:10	11/21/22 09:00
280-169454-4	MW-13A	Water	11/17/22 12:20	11/21/22 09:00
280-169454-5	MW-13B	Water	11/17/22 13:00	11/21/22 09:00
280-169454-6	DUP-2	Water	11/17/22 10:40	11/21/22 09:00
280-169454-7	MW-16	Water	11/17/22 10:30	11/21/22 09:00
280-169454-8	MW-36A	Water	11/17/22 14:10	11/21/22 09:00
280-169454-9	TRIP BLANK	Water	11/17/22 15:40	11/21/22 09:00
280-169454-10	MW-19C	Water	11/17/22 14:40	11/21/22 09:00
280-169454-11	LP-LCD	Water	11/17/22 13:40	11/21/22 09:00
280-169454-12	MW-39	Water	11/17/22 15:00	11/21/22 09:00
280-169454-13	MW-32	Water	11/17/22 13:00	11/21/22 09:00

Method: SW846 8260C SIM - Volatile Organic Compounds (GC/MS)

Client Sample ID: MW-33A
Date Collected: 11/17/22 10:45
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/29/22 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*156*	*S1+*	*50 - 150*		*11/29/22 01:36*	*1*
TBA-d9 (Surr)	*142*		*50 - 150*		*11/29/22 01:36*	*1*

Client Sample ID: MW-33C
Date Collected: 11/17/22 10:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/29/22 01:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*153*	*S1+*	*50 - 150*		*11/29/22 01:59*	*1*
TBA-d9 (Surr)	*143*		*50 - 150*		*11/29/22 01:59*	*1*

Client Sample ID: DUP-1
Date Collected: 11/17/22 13:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/29/22 02:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*155*	*S1+*	*50 - 150*		*11/29/22 02:23*	*1*
TBA-d9 (Surr)	*146*		*50 - 150*		*11/29/22 02:23*	*1*

Client Sample ID: MW-13A
Date Collected: 11/17/22 12:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/29/22 02:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*153*	*S1+*	*50 - 150*		*11/29/22 02:47*	*1*
TBA-d9 (Surr)	*150*		*50 - 150*		*11/29/22 02:47*	*1*

Client Sample ID: MW-13B
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/29/22 03:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*155*	*S1+*	*50 - 150*		*11/29/22 03:11*	*1*
TBA-d9 (Surr)	*147*		*50 - 150*		*11/29/22 03:11*	*1*

Client Sample ID: DUP-2
Date Collected: 11/17/22 10:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/29/22 03:34	1

Method: SW846 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*164*	*S1+*	*50 - 150*		*11/29/22 03:34*	*1*
TBA-d9 (Surr)	*157*	*S1+*	*50 - 150*		*11/29/22 03:34*	*1*

Client Sample ID: MW-16
Date Collected: 11/17/22 10:30
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/29/22 03:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*155*	*S1+*	*50 - 150*		*11/29/22 03:58*	*1*
TBA-d9 (Surr)	*150*		*50 - 150*		*11/29/22 03:58*	*1*

Client Sample ID: MW-36A
Date Collected: 11/17/22 14:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/29/22 04:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*157*	*S1+*	*50 - 150*		*11/29/22 04:22*	*1*
TBA-d9 (Surr)	*147*		*50 - 150*		*11/29/22 04:22*	*1*

Client Sample ID: TRIP BLANK
Date Collected: 11/17/22 15:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/29/22 04:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*155*	*S1+*	*50 - 150*		*11/29/22 04:45*	*1*
TBA-d9 (Surr)	*141*		*50 - 150*		*11/29/22 04:45*	*1*

Client Sample ID: MW-19C
Date Collected: 11/17/22 14:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**0.039**		0.020	0.0040	ug/L			11/29/22 22:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*146*		*50 - 150*		*11/29/22 22:39*	*1*
TBA-d9 (Surr)	*127*		*50 - 150*		*11/29/22 22:39*	*1*

Client Sample ID: LP-LCD
Date Collected: 11/17/22 13:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**0.072**	**J**	0.20	0.040	ug/L			11/29/22 23:02	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*149*		*50 - 150*		*11/29/22 23:02*	*10*
TBA-d9 (Surr)	*138*		*50 - 150*		*11/29/22 23:02*	*10*

Method: SW846 8260C SIM - Volatile Organic Compounds (GC/MS)

Client Sample ID: MW-39
Date Collected: 11/17/22 15:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/29/22 23:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*156*	*S1+*	*50 - 150*		*11/29/22 23:26*	*1*
TBA-d9 (Surr)	*141*		*50 - 150*		*11/29/22 23:26*	*1*

Client Sample ID: MW-32
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**0.28**		0.020	0.0040	ug/L			11/29/22 23:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*150*		*50 - 150*		*11/29/22 23:49*	*1*
TBA-d9 (Surr)	*132*		*50 - 150*		*11/29/22 23:49*	*1*

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: MW-33A
Date Collected: 11/17/22 10:45
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/29/22 11:03	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/29/22 11:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/29/22 11:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/29/22 11:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/29/22 11:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/29/22 11:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/29/22 11:03	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/29/22 11:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 11:03	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/29/22 11:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 11:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/29/22 11:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/29/22 11:03	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/29/22 11:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/29/22 11:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/29/22 11:03	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/29/22 11:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/29/22 11:03	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/29/22 11:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/29/22 11:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/29/22 11:03	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/29/22 11:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/29/22 11:03	1
1,4-Dioxane	ND		40	9.3	ug/L			11/29/22 11:03	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/29/22 11:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/29/22 11:03	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/29/22 11:03	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			11/29/22 11:03	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			11/29/22 11:03	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-33A
Date Collected: 11/17/22 10:45
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	3.0	ug/L			11/29/22 11:03	1
Acetonitrile	ND		15	4.9	ug/L			11/29/22 11:03	1
Acrolein	ND		20	0.91	ug/L			11/29/22 11:03	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/29/22 11:03	1
Benzene	ND		1.0	0.41	ug/L			11/29/22 11:03	1
Bromobenzene	ND		1.0	0.80	ug/L			11/29/22 11:03	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/29/22 11:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/29/22 11:03	1
Bromoform	ND		1.0	0.26	ug/L			11/29/22 11:03	1
Bromomethane	ND		1.0	0.69	ug/L			11/29/22 11:03	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/29/22 11:03	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/29/22 11:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/29/22 11:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/29/22 11:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/29/22 11:03	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/29/22 11:03	1
Chloroethane	ND		1.0	0.32	ug/L			11/29/22 11:03	1
Chloroform	ND		1.0	0.34	ug/L			11/29/22 11:03	1
Chloromethane	ND		1.0	0.35	ug/L			11/29/22 11:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/29/22 11:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/29/22 11:03	1
Cyclohexane	ND		1.0	0.18	ug/L			11/29/22 11:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/29/22 11:03	1
Dibromomethane	ND		1.0	0.41	ug/L			11/29/22 11:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/29/22 11:03	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/29/22 11:03	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/29/22 11:03	1
Ethyl ether	ND		1.0	0.72	ug/L			11/29/22 11:03	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/29/22 11:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/29/22 11:03	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/29/22 11:03	1
Hexane	ND		10	0.40	ug/L			11/29/22 11:03	1
Iodomethane	ND		1.0	0.30	ug/L			11/29/22 11:03	1
Isobutanol	ND		25	4.8	ug/L			11/29/22 11:03	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/29/22 11:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/29/22 11:03	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/29/22 11:03	1
Methyl acetate	ND		2.5	1.3	ug/L			11/29/22 11:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/29/22 11:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/29/22 11:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/29/22 11:03	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/29/22 11:03	1
Naphthalene	ND		1.0	0.43	ug/L			11/29/22 11:03	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/29/22 11:03	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/29/22 11:03	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/29/22 11:03	1
o-Xylene	ND		1.0	0.76	ug/L			11/29/22 11:03	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/29/22 11:03	1
p-Cymene	ND		1.0	0.31	ug/L			11/29/22 11:03	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-33A
Date Collected: 11/17/22 10:45
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/29/22 11:03	1
Styrene	ND		1.0	0.73	ug/L			11/29/22 11:03	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/29/22 11:03	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/29/22 11:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/29/22 11:03	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/29/22 11:03	1
Toluene	ND		1.0	0.51	ug/L			11/29/22 11:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/29/22 11:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/29/22 11:03	1
trans-1,4-Dichloro-2-butene	ND	*+	1.0	0.22	ug/L			11/29/22 11:03	1
Trichloroethene	ND		1.0	0.46	ug/L			11/29/22 11:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/29/22 11:03	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/29/22 11:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/29/22 11:03	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/29/22 11:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*11/29/22 11:03*	*1*
4-Bromofluorobenzene (Surr)	*86*		*73 - 120*		*11/29/22 11:03*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*11/29/22 11:03*	*1*

Client Sample ID: MW-33C
Date Collected: 11/17/22 10:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/29/22 11:24	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/29/22 11:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/29/22 11:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/29/22 11:24	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/29/22 11:24	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/29/22 11:24	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/29/22 11:24	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/29/22 11:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 11:24	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/29/22 11:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 11:24	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/29/22 11:24	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/29/22 11:24	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/29/22 11:24	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/29/22 11:24	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/29/22 11:24	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/29/22 11:24	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/29/22 11:24	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/29/22 11:24	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/29/22 11:24	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/29/22 11:24	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/29/22 11:24	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/29/22 11:24	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-33C
Date Collected: 11/17/22 10:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		40	9.3	ug/L			11/29/22 11:24	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/29/22 11:24	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/29/22 11:24	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/29/22 11:24	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			11/29/22 11:24	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			11/29/22 11:24	1
Acetone	ND		10	3.0	ug/L			11/29/22 11:24	1
Acetonitrile	ND		15	4.9	ug/L			11/29/22 11:24	1
Acrolein	ND		20	0.91	ug/L			11/29/22 11:24	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/29/22 11:24	1
Benzene	ND		1.0	0.41	ug/L			11/29/22 11:24	1
Bromobenzene	ND		1.0	0.80	ug/L			11/29/22 11:24	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/29/22 11:24	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/29/22 11:24	1
Bromoform	ND		1.0	0.26	ug/L			11/29/22 11:24	1
Bromomethane	ND		1.0	0.69	ug/L			11/29/22 11:24	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/29/22 11:24	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/29/22 11:24	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/29/22 11:24	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/29/22 11:24	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/29/22 11:24	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/29/22 11:24	1
Chloroethane	ND		1.0	0.32	ug/L			11/29/22 11:24	1
Chloroform	ND		1.0	0.34	ug/L			11/29/22 11:24	1
Chloromethane	ND		1.0	0.35	ug/L			11/29/22 11:24	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/29/22 11:24	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/29/22 11:24	1
Cyclohexane	ND		1.0	0.18	ug/L			11/29/22 11:24	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/29/22 11:24	1
Dibromomethane	ND		1.0	0.41	ug/L			11/29/22 11:24	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/29/22 11:24	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/29/22 11:24	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/29/22 11:24	1
Ethyl ether	ND		1.0	0.72	ug/L			11/29/22 11:24	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/29/22 11:24	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/29/22 11:24	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/29/22 11:24	1
Hexane	ND		10	0.40	ug/L			11/29/22 11:24	1
Iodomethane	ND		1.0	0.30	ug/L			11/29/22 11:24	1
Isobutanol	ND		25	4.8	ug/L			11/29/22 11:24	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/29/22 11:24	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/29/22 11:24	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/29/22 11:24	1
Methyl acetate	ND		2.5	1.3	ug/L			11/29/22 11:24	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/29/22 11:24	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/29/22 11:24	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/29/22 11:24	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/29/22 11:24	1
Naphthalene	ND		1.0	0.43	ug/L			11/29/22 11:24	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-33C
Date Collected: 11/17/22 10:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		1.0	0.64	ug/L			11/29/22 11:24	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/29/22 11:24	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/29/22 11:24	1
o-Xylene	ND		1.0	0.76	ug/L			11/29/22 11:24	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/29/22 11:24	1
p-Cymene	ND		1.0	0.31	ug/L			11/29/22 11:24	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/29/22 11:24	1
Styrene	ND		1.0	0.73	ug/L			11/29/22 11:24	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/29/22 11:24	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/29/22 11:24	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/29/22 11:24	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/29/22 11:24	1
Toluene	ND		1.0	0.51	ug/L			11/29/22 11:24	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/29/22 11:24	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/29/22 11:24	1
trans-1,4-Dichloro-2-butene	ND	*+	1.0	0.22	ug/L			11/29/22 11:24	1
Trichloroethene	ND		1.0	0.46	ug/L			11/29/22 11:24	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/29/22 11:24	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/29/22 11:24	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/29/22 11:24	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/29/22 11:24*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*11/29/22 11:24*	*1*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*		*11/29/22 11:24*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*11/29/22 11:24*	*1*

Client Sample ID: DUP-1
Date Collected: 11/17/22 13:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/29/22 11:47	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/29/22 11:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/29/22 11:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/29/22 11:47	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/29/22 11:47	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/29/22 11:47	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/29/22 11:47	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/29/22 11:47	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 11:47	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/29/22 11:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 11:47	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/29/22 11:47	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/29/22 11:47	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/29/22 11:47	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/29/22 11:47	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/29/22 11:47	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/29/22 11:47	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: DUP-1
Date Collected: 11/17/22 13:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/29/22 11:47	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/29/22 11:47	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/29/22 11:47	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/29/22 11:47	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/29/22 11:47	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/29/22 11:47	1
1,4-Dioxane	ND		40	9.3	ug/L			11/29/22 11:47	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/29/22 11:47	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/29/22 11:47	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/29/22 11:47	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			11/29/22 11:47	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			11/29/22 11:47	1
Acetone	ND		10	3.0	ug/L			11/29/22 11:47	1
Acetonitrile	ND		15	4.9	ug/L			11/29/22 11:47	1
Acrolein	ND		20	0.91	ug/L			11/29/22 11:47	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/29/22 11:47	1
Benzene	ND		1.0	0.41	ug/L			11/29/22 11:47	1
Bromobenzene	ND		1.0	0.80	ug/L			11/29/22 11:47	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/29/22 11:47	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/29/22 11:47	1
Bromoform	ND		1.0	0.26	ug/L			11/29/22 11:47	1
Bromomethane	ND		1.0	0.69	ug/L			11/29/22 11:47	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/29/22 11:47	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/29/22 11:47	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/29/22 11:47	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/29/22 11:47	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/29/22 11:47	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/29/22 11:47	1
Chloroethane	ND		1.0	0.32	ug/L			11/29/22 11:47	1
Chloroform	ND		1.0	0.34	ug/L			11/29/22 11:47	1
Chloromethane	ND		1.0	0.35	ug/L			11/29/22 11:47	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/29/22 11:47	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/29/22 11:47	1
Cyclohexane	ND		1.0	0.18	ug/L			11/29/22 11:47	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/29/22 11:47	1
Dibromomethane	ND		1.0	0.41	ug/L			11/29/22 11:47	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/29/22 11:47	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/29/22 11:47	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/29/22 11:47	1
Ethyl ether	ND		1.0	0.72	ug/L			11/29/22 11:47	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/29/22 11:47	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/29/22 11:47	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/29/22 11:47	1
Hexane	ND		10	0.40	ug/L			11/29/22 11:47	1
Iodomethane	ND		1.0	0.30	ug/L			11/29/22 11:47	1
Isobutanol	ND		25	4.8	ug/L			11/29/22 11:47	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/29/22 11:47	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/29/22 11:47	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/29/22 11:47	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: DUP-1
Date Collected: 11/17/22 13:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	ND		2.5	1.3	ug/L			11/29/22 11:47	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/29/22 11:47	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/29/22 11:47	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/29/22 11:47	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/29/22 11:47	1
Naphthalene	ND		1.0	0.43	ug/L			11/29/22 11:47	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/29/22 11:47	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/29/22 11:47	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/29/22 11:47	1
o-Xylene	ND		1.0	0.76	ug/L			11/29/22 11:47	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/29/22 11:47	1
p-Cymene	ND		1.0	0.31	ug/L			11/29/22 11:47	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/29/22 11:47	1
Styrene	ND		1.0	0.73	ug/L			11/29/22 11:47	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/29/22 11:47	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/29/22 11:47	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/29/22 11:47	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/29/22 11:47	1
Toluene	ND		1.0	0.51	ug/L			11/29/22 11:47	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/29/22 11:47	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/29/22 11:47	1
trans-1,4-Dichloro-2-butene	ND	*+	1.0	0.22	ug/L			11/29/22 11:47	1
Trichloroethene	ND		1.0	0.46	ug/L			11/29/22 11:47	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/29/22 11:47	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/29/22 11:47	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/29/22 11:47	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/29/22 11:47*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*11/29/22 11:47*	*1*
4-Bromofluorobenzene (Surr)	*85*		*73 - 120*		*11/29/22 11:47*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*11/29/22 11:47*	*1*

Client Sample ID: MW-13A
Date Collected: 11/17/22 12:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/29/22 12:09	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/29/22 12:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/29/22 12:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/29/22 12:09	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/29/22 12:09	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/29/22 12:09	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/29/22 12:09	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/29/22 12:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 12:09	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/29/22 12:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 12:09	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-13A
Date Collected: 11/17/22 12:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/29/22 12:09	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/29/22 12:09	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/29/22 12:09	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/29/22 12:09	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/29/22 12:09	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/29/22 12:09	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/29/22 12:09	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/29/22 12:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/29/22 12:09	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/29/22 12:09	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/29/22 12:09	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/29/22 12:09	1
1,4-Dioxane	ND		40	9.3	ug/L			11/29/22 12:09	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/29/22 12:09	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/29/22 12:09	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/29/22 12:09	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			11/29/22 12:09	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			11/29/22 12:09	1
Acetone	ND		10	3.0	ug/L			11/29/22 12:09	1
Acetonitrile	ND		15	4.9	ug/L			11/29/22 12:09	1
Acrolein	ND		20	0.91	ug/L			11/29/22 12:09	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/29/22 12:09	1
Benzene	ND		1.0	0.41	ug/L			11/29/22 12:09	1
Bromobenzene	ND		1.0	0.80	ug/L			11/29/22 12:09	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/29/22 12:09	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/29/22 12:09	1
Bromoform	ND		1.0	0.26	ug/L			11/29/22 12:09	1
Bromomethane	ND		1.0	0.69	ug/L			11/29/22 12:09	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/29/22 12:09	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/29/22 12:09	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/29/22 12:09	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/29/22 12:09	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/29/22 12:09	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/29/22 12:09	1
Chloroethane	ND		1.0	0.32	ug/L			11/29/22 12:09	1
Chloroform	ND		1.0	0.34	ug/L			11/29/22 12:09	1
Chloromethane	ND		1.0	0.35	ug/L			11/29/22 12:09	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/29/22 12:09	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/29/22 12:09	1
Cyclohexane	ND		1.0	0.18	ug/L			11/29/22 12:09	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/29/22 12:09	1
Dibromomethane	ND		1.0	0.41	ug/L			11/29/22 12:09	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/29/22 12:09	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/29/22 12:09	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/29/22 12:09	1
Ethyl ether	ND		1.0	0.72	ug/L			11/29/22 12:09	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/29/22 12:09	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/29/22 12:09	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/29/22 12:09	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-13A
Date Collected: 11/17/22 12:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexane	ND		10	0.40	ug/L			11/29/22 12:09	1
Iodomethane	ND		1.0	0.30	ug/L			11/29/22 12:09	1
Isobutanol	ND		25	4.8	ug/L			11/29/22 12:09	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/29/22 12:09	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/29/22 12:09	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/29/22 12:09	1
Methyl acetate	ND		2.5	1.3	ug/L			11/29/22 12:09	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/29/22 12:09	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/29/22 12:09	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/29/22 12:09	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/29/22 12:09	1
Naphthalene	ND		1.0	0.43	ug/L			11/29/22 12:09	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/29/22 12:09	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/29/22 12:09	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/29/22 12:09	1
o-Xylene	ND		1.0	0.76	ug/L			11/29/22 12:09	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/29/22 12:09	1
p-Cymene	ND		1.0	0.31	ug/L			11/29/22 12:09	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/29/22 12:09	1
Styrene	ND		1.0	0.73	ug/L			11/29/22 12:09	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/29/22 12:09	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/29/22 12:09	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/29/22 12:09	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/29/22 12:09	1
Toluene	ND		1.0	0.51	ug/L			11/29/22 12:09	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/29/22 12:09	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/29/22 12:09	1
trans-1,4-Dichloro-2-butene	ND	*+	1.0	0.22	ug/L			11/29/22 12:09	1
Trichloroethene	ND		1.0	0.46	ug/L			11/29/22 12:09	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/29/22 12:09	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/29/22 12:09	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/29/22 12:09	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/29/22 12:09*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*		*11/29/22 12:09*	*1*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*		*11/29/22 12:09*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*11/29/22 12:09*	*1*

Client Sample ID: MW-13B
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/29/22 12:30	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/29/22 12:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/29/22 12:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/29/22 12:30	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/29/22 12:30	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-13B
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/29/22 12:30	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/29/22 12:30	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/29/22 12:30	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 12:30	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/29/22 12:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 12:30	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/29/22 12:30	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/29/22 12:30	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/29/22 12:30	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/29/22 12:30	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/29/22 12:30	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/29/22 12:30	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/29/22 12:30	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/29/22 12:30	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/29/22 12:30	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/29/22 12:30	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/29/22 12:30	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/29/22 12:30	1
1,4-Dioxane	ND		40	9.3	ug/L			11/29/22 12:30	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/29/22 12:30	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/29/22 12:30	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/29/22 12:30	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			11/29/22 12:30	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			11/29/22 12:30	1
Acetone	ND		10	3.0	ug/L			11/29/22 12:30	1
Acetonitrile	ND		15	4.9	ug/L			11/29/22 12:30	1
Acrolein	ND		20	0.91	ug/L			11/29/22 12:30	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/29/22 12:30	1
Benzene	ND		1.0	0.41	ug/L			11/29/22 12:30	1
Bromobenzene	ND		1.0	0.80	ug/L			11/29/22 12:30	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/29/22 12:30	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/29/22 12:30	1
Bromoform	ND		1.0	0.26	ug/L			11/29/22 12:30	1
Bromomethane	ND		1.0	0.69	ug/L			11/29/22 12:30	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/29/22 12:30	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/29/22 12:30	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/29/22 12:30	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/29/22 12:30	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/29/22 12:30	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/29/22 12:30	1
Chloroethane	ND		1.0	0.32	ug/L			11/29/22 12:30	1
Chloroform	ND		1.0	0.34	ug/L			11/29/22 12:30	1
Chloromethane	ND		1.0	0.35	ug/L			11/29/22 12:30	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/29/22 12:30	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/29/22 12:30	1
Cyclohexane	ND		1.0	0.18	ug/L			11/29/22 12:30	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/29/22 12:30	1
Dibromomethane	ND		1.0	0.41	ug/L			11/29/22 12:30	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/29/22 12:30	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-13B
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/29/22 12:30	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/29/22 12:30	1
Ethyl ether	ND		1.0	0.72	ug/L			11/29/22 12:30	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/29/22 12:30	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/29/22 12:30	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/29/22 12:30	1
Hexane	ND		10	0.40	ug/L			11/29/22 12:30	1
Iodomethane	ND		1.0	0.30	ug/L			11/29/22 12:30	1
Isobutanol	ND		25	4.8	ug/L			11/29/22 12:30	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/29/22 12:30	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/29/22 12:30	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/29/22 12:30	1
Methyl acetate	ND		2.5	1.3	ug/L			11/29/22 12:30	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/29/22 12:30	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/29/22 12:30	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/29/22 12:30	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/29/22 12:30	1
Naphthalene	ND		1.0	0.43	ug/L			11/29/22 12:30	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/29/22 12:30	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/29/22 12:30	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/29/22 12:30	1
o-Xylene	ND		1.0	0.76	ug/L			11/29/22 12:30	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/29/22 12:30	1
p-Cymene	ND		1.0	0.31	ug/L			11/29/22 12:30	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/29/22 12:30	1
Styrene	ND		1.0	0.73	ug/L			11/29/22 12:30	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/29/22 12:30	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/29/22 12:30	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/29/22 12:30	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/29/22 12:30	1
Toluene	ND		1.0	0.51	ug/L			11/29/22 12:30	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/29/22 12:30	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/29/22 12:30	1
trans-1,4-Dichloro-2-butene	ND	*+	1.0	0.22	ug/L			11/29/22 12:30	1
Trichloroethene	ND		1.0	0.46	ug/L			11/29/22 12:30	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/29/22 12:30	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/29/22 12:30	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/29/22 12:30	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/29/22 12:30*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*11/29/22 12:30*	*1*
4-Bromofluorobenzene (Surr)	*84*		*73 - 120*		*11/29/22 12:30*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*11/29/22 12:30*	*1*

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: DUP-2
Date Collected: 11/17/22 10:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/29/22 12:52	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/29/22 12:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/29/22 12:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/29/22 12:52	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/29/22 12:52	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/29/22 12:52	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/29/22 12:52	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/29/22 12:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 12:52	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/29/22 12:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 12:52	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/29/22 12:52	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/29/22 12:52	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/29/22 12:52	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/29/22 12:52	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/29/22 12:52	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/29/22 12:52	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/29/22 12:52	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/29/22 12:52	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/29/22 12:52	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/29/22 12:52	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/29/22 12:52	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/29/22 12:52	1
1,4-Dioxane	ND		40	9.3	ug/L			11/29/22 12:52	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/29/22 12:52	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/29/22 12:52	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/29/22 12:52	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			11/29/22 12:52	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			11/29/22 12:52	1
Acetone	ND		10	3.0	ug/L			11/29/22 12:52	1
Acetonitrile	ND		15	4.9	ug/L			11/29/22 12:52	1
Acrolein	ND		20	0.91	ug/L			11/29/22 12:52	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/29/22 12:52	1
Benzene	ND		1.0	0.41	ug/L			11/29/22 12:52	1
Bromobenzene	ND		1.0	0.80	ug/L			11/29/22 12:52	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/29/22 12:52	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/29/22 12:52	1
Bromoform	ND		1.0	0.26	ug/L			11/29/22 12:52	1
Bromomethane	ND		1.0	0.69	ug/L			11/29/22 12:52	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/29/22 12:52	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/29/22 12:52	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/29/22 12:52	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/29/22 12:52	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/29/22 12:52	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/29/22 12:52	1
Chloroethane	ND		1.0	0.32	ug/L			11/29/22 12:52	1
Chloroform	ND		1.0	0.34	ug/L			11/29/22 12:52	1
Chloromethane	ND		1.0	0.35	ug/L			11/29/22 12:52	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/29/22 12:52	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: DUP-2
Date Collected: 11/17/22 10:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/29/22 12:52	1
Cyclohexane	ND		1.0	0.18	ug/L			11/29/22 12:52	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/29/22 12:52	1
Dibromomethane	ND		1.0	0.41	ug/L			11/29/22 12:52	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/29/22 12:52	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/29/22 12:52	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/29/22 12:52	1
Ethyl ether	ND		1.0	0.72	ug/L			11/29/22 12:52	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/29/22 12:52	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/29/22 12:52	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/29/22 12:52	1
Hexane	ND		10	0.40	ug/L			11/29/22 12:52	1
Iodomethane	ND		1.0	0.30	ug/L			11/29/22 12:52	1
Isobutanol	ND		25	4.8	ug/L			11/29/22 12:52	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/29/22 12:52	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/29/22 12:52	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/29/22 12:52	1
Methyl acetate	ND		2.5	1.3	ug/L			11/29/22 12:52	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/29/22 12:52	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/29/22 12:52	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/29/22 12:52	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/29/22 12:52	1
Naphthalene	ND		1.0	0.43	ug/L			11/29/22 12:52	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/29/22 12:52	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/29/22 12:52	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/29/22 12:52	1
o-Xylene	ND		1.0	0.76	ug/L			11/29/22 12:52	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/29/22 12:52	1
p-Cymene	ND		1.0	0.31	ug/L			11/29/22 12:52	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/29/22 12:52	1
Styrene	ND		1.0	0.73	ug/L			11/29/22 12:52	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/29/22 12:52	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/29/22 12:52	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/29/22 12:52	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/29/22 12:52	1
Toluene	ND		1.0	0.51	ug/L			11/29/22 12:52	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/29/22 12:52	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/29/22 12:52	1
trans-1,4-Dichloro-2-butene	ND	*+	1.0	0.22	ug/L			11/29/22 12:52	1
Trichloroethene	ND		1.0	0.46	ug/L			11/29/22 12:52	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/29/22 12:52	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/29/22 12:52	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/29/22 12:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/29/22 12:52*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*		*11/29/22 12:52*	*1*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*		*11/29/22 12:52*	*1*

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: DUP-2
Date Collected: 11/17/22 10:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-6
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*80 - 120*		*11/29/22 12:52*	*1*

Client Sample ID: MW-16
Date Collected: 11/17/22 10:30
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/29/22 13:14	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/29/22 13:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/29/22 13:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/29/22 13:14	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/29/22 13:14	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/29/22 13:14	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/29/22 13:14	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/29/22 13:14	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 13:14	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/29/22 13:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 13:14	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/29/22 13:14	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/29/22 13:14	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/29/22 13:14	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/29/22 13:14	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/29/22 13:14	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/29/22 13:14	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/29/22 13:14	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/29/22 13:14	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/29/22 13:14	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/29/22 13:14	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/29/22 13:14	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/29/22 13:14	1
1,4-Dioxane	ND		40	9.3	ug/L			11/29/22 13:14	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/29/22 13:14	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/29/22 13:14	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/29/22 13:14	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			11/29/22 13:14	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			11/29/22 13:14	1
Acetone	ND		10	3.0	ug/L			11/29/22 13:14	1
Acetonitrile	ND		15	4.9	ug/L			11/29/22 13:14	1
Acrolein	ND		20	0.91	ug/L			11/29/22 13:14	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/29/22 13:14	1
Benzene	ND		1.0	0.41	ug/L			11/29/22 13:14	1
Bromobenzene	ND		1.0	0.80	ug/L			11/29/22 13:14	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/29/22 13:14	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/29/22 13:14	1
Bromoform	ND		1.0	0.26	ug/L			11/29/22 13:14	1
Bromomethane	ND		1.0	0.69	ug/L			11/29/22 13:14	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/29/22 13:14	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/29/22 13:14	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/29/22 13:14	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/29/22 13:14	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-16
Date Collected: 11/17/22 10:30
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		1.0	0.75	ug/L			11/29/22 13:14	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/29/22 13:14	1
Chloroethane	ND		1.0	0.32	ug/L			11/29/22 13:14	1
Chloroform	ND		1.0	0.34	ug/L			11/29/22 13:14	1
Chloromethane	ND		1.0	0.35	ug/L			11/29/22 13:14	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/29/22 13:14	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/29/22 13:14	1
Cyclohexane	ND		1.0	0.18	ug/L			11/29/22 13:14	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/29/22 13:14	1
Dibromomethane	ND		1.0	0.41	ug/L			11/29/22 13:14	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/29/22 13:14	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/29/22 13:14	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/29/22 13:14	1
Ethyl ether	ND		1.0	0.72	ug/L			11/29/22 13:14	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/29/22 13:14	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/29/22 13:14	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/29/22 13:14	1
Hexane	ND		10	0.40	ug/L			11/29/22 13:14	1
Iodomethane	ND		1.0	0.30	ug/L			11/29/22 13:14	1
Isobutanol	ND		25	4.8	ug/L			11/29/22 13:14	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/29/22 13:14	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/29/22 13:14	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/29/22 13:14	1
Methyl acetate	ND		2.5	1.3	ug/L			11/29/22 13:14	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/29/22 13:14	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/29/22 13:14	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/29/22 13:14	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/29/22 13:14	1
Naphthalene	ND		1.0	0.43	ug/L			11/29/22 13:14	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/29/22 13:14	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/29/22 13:14	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/29/22 13:14	1
o-Xylene	ND		1.0	0.76	ug/L			11/29/22 13:14	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/29/22 13:14	1
p-Cymene	ND		1.0	0.31	ug/L			11/29/22 13:14	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/29/22 13:14	1
Styrene	ND		1.0	0.73	ug/L			11/29/22 13:14	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/29/22 13:14	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/29/22 13:14	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/29/22 13:14	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/29/22 13:14	1
Toluene	ND		1.0	0.51	ug/L			11/29/22 13:14	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/29/22 13:14	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/29/22 13:14	1
trans-1,4-Dichloro-2-butene	ND	*+	1.0	0.22	ug/L			11/29/22 13:14	1
Trichloroethene	ND		1.0	0.46	ug/L			11/29/22 13:14	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/29/22 13:14	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/29/22 13:14	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/29/22 13:14	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Hexachloroethane TIC	ND		ug/L			67-72-1		11/29/22 13:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		11/29/22 13:14	1
4-Bromofluorobenzene (Surr)	84		73 - 120		11/29/22 13:14	1
Toluene-d8 (Surr)	92		80 - 120		11/29/22 13:14	1

Client Sample ID: MW-36A
Date Collected: 11/17/22 14:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/29/22 13:36	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/29/22 13:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/29/22 13:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/29/22 13:36	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/29/22 13:36	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/29/22 13:36	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/29/22 13:36	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/29/22 13:36	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 13:36	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/29/22 13:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 13:36	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/29/22 13:36	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/29/22 13:36	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/29/22 13:36	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/29/22 13:36	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/29/22 13:36	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/29/22 13:36	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/29/22 13:36	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/29/22 13:36	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/29/22 13:36	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/29/22 13:36	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/29/22 13:36	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/29/22 13:36	1
1,4-Dioxane	ND		40	9.3	ug/L			11/29/22 13:36	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/29/22 13:36	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/29/22 13:36	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/29/22 13:36	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			11/29/22 13:36	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			11/29/22 13:36	1
Acetone	ND		10	3.0	ug/L			11/29/22 13:36	1
Acetonitrile	ND		15	4.9	ug/L			11/29/22 13:36	1
Acrolein	ND		20	0.91	ug/L			11/29/22 13:36	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/29/22 13:36	1
Benzene	ND		1.0	0.41	ug/L			11/29/22 13:36	1
Bromobenzene	ND		1.0	0.80	ug/L			11/29/22 13:36	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/29/22 13:36	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/29/22 13:36	1
Bromoform	ND		1.0	0.26	ug/L			11/29/22 13:36	1
Bromomethane	ND		1.0	0.69	ug/L			11/29/22 13:36	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/29/22 13:36	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/29/22 13:36	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-36A
Date Collected: 11/17/22 14:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		1.0	0.19	ug/L			11/29/22 13:36	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/29/22 13:36	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/29/22 13:36	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/29/22 13:36	1
Chloroethane	ND		1.0	0.32	ug/L			11/29/22 13:36	1
Chloroform	ND		1.0	0.34	ug/L			11/29/22 13:36	1
Chloromethane	ND		1.0	0.35	ug/L			11/29/22 13:36	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/29/22 13:36	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/29/22 13:36	1
Cyclohexane	ND		1.0	0.18	ug/L			11/29/22 13:36	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/29/22 13:36	1
Dibromomethane	ND		1.0	0.41	ug/L			11/29/22 13:36	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/29/22 13:36	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/29/22 13:36	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/29/22 13:36	1
Ethyl ether	ND		1.0	0.72	ug/L			11/29/22 13:36	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/29/22 13:36	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/29/22 13:36	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/29/22 13:36	1
Hexane	ND		10	0.40	ug/L			11/29/22 13:36	1
Iodomethane	ND		1.0	0.30	ug/L			11/29/22 13:36	1
Isobutanol	ND		25	4.8	ug/L			11/29/22 13:36	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/29/22 13:36	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/29/22 13:36	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/29/22 13:36	1
Methyl acetate	ND		2.5	1.3	ug/L			11/29/22 13:36	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/29/22 13:36	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/29/22 13:36	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/29/22 13:36	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/29/22 13:36	1
Naphthalene	ND		1.0	0.43	ug/L			11/29/22 13:36	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/29/22 13:36	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/29/22 13:36	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/29/22 13:36	1
o-Xylene	ND		1.0	0.76	ug/L			11/29/22 13:36	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/29/22 13:36	1
p-Cymene	ND		1.0	0.31	ug/L			11/29/22 13:36	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/29/22 13:36	1
Styrene	ND		1.0	0.73	ug/L			11/29/22 13:36	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/29/22 13:36	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/29/22 13:36	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/29/22 13:36	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/29/22 13:36	1
Toluene	ND		1.0	0.51	ug/L			11/29/22 13:36	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/29/22 13:36	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/29/22 13:36	1
trans-1,4-Dichloro-2-butene	ND	*+	1.0	0.22	ug/L			11/29/22 13:36	1
Trichloroethene	ND		1.0	0.46	ug/L			11/29/22 13:36	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/29/22 13:36	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-36A
Date Collected: 11/17/22 14:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl acetate	ND		5.0	0.85	ug/L			11/29/22 13:36	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/29/22 13:36	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/29/22 13:36*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*		*11/29/22 13:36*	*1*
4-Bromofluorobenzene (Surr)	*86*		*73 - 120*		*11/29/22 13:36*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*11/29/22 13:36*	*1*

Client Sample ID: TRIP BLANK
Date Collected: 11/17/22 15:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/29/22 13:58	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/29/22 13:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/29/22 13:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/29/22 13:58	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/29/22 13:58	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/29/22 13:58	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/29/22 13:58	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/29/22 13:58	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 13:58	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/29/22 13:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 13:58	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/29/22 13:58	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/29/22 13:58	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/29/22 13:58	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/29/22 13:58	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/29/22 13:58	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/29/22 13:58	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/29/22 13:58	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/29/22 13:58	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/29/22 13:58	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/29/22 13:58	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/29/22 13:58	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/29/22 13:58	1
1,4-Dioxane	ND		40	9.3	ug/L			11/29/22 13:58	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/29/22 13:58	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/29/22 13:58	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/29/22 13:58	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			11/29/22 13:58	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			11/29/22 13:58	1
Acetone	ND		10	3.0	ug/L			11/29/22 13:58	1
Acetonitrile	ND		15	4.9	ug/L			11/29/22 13:58	1
Acrolein	ND		20	0.91	ug/L			11/29/22 13:58	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/29/22 13:58	1
Benzene	ND		1.0	0.41	ug/L			11/29/22 13:58	1
Bromobenzene	ND		1.0	0.80	ug/L			11/29/22 13:58	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 11/17/22 15:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromochloromethane	ND		1.0	0.87	ug/L			11/29/22 13:58	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/29/22 13:58	1
Bromoform	ND		1.0	0.26	ug/L			11/29/22 13:58	1
Bromomethane	ND		1.0	0.69	ug/L			11/29/22 13:58	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/29/22 13:58	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/29/22 13:58	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/29/22 13:58	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/29/22 13:58	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/29/22 13:58	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/29/22 13:58	1
Chloroethane	ND		1.0	0.32	ug/L			11/29/22 13:58	1
Chloroform	ND		1.0	0.34	ug/L			11/29/22 13:58	1
Chloromethane	ND		1.0	0.35	ug/L			11/29/22 13:58	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/29/22 13:58	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/29/22 13:58	1
Cyclohexane	ND		1.0	0.18	ug/L			11/29/22 13:58	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/29/22 13:58	1
Dibromomethane	ND		1.0	0.41	ug/L			11/29/22 13:58	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/29/22 13:58	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/29/22 13:58	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/29/22 13:58	1
Ethyl ether	ND		1.0	0.72	ug/L			11/29/22 13:58	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/29/22 13:58	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/29/22 13:58	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/29/22 13:58	1
Hexane	ND		10	0.40	ug/L			11/29/22 13:58	1
Iodomethane	ND		1.0	0.30	ug/L			11/29/22 13:58	1
Isobutanol	ND		25	4.8	ug/L			11/29/22 13:58	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/29/22 13:58	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/29/22 13:58	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/29/22 13:58	1
Methyl acetate	ND		2.5	1.3	ug/L			11/29/22 13:58	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/29/22 13:58	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/29/22 13:58	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/29/22 13:58	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/29/22 13:58	1
Naphthalene	ND		1.0	0.43	ug/L			11/29/22 13:58	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/29/22 13:58	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/29/22 13:58	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/29/22 13:58	1
o-Xylene	ND		1.0	0.76	ug/L			11/29/22 13:58	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/29/22 13:58	1
p-Cymene	ND		1.0	0.31	ug/L			11/29/22 13:58	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/29/22 13:58	1
Styrene	ND		1.0	0.73	ug/L			11/29/22 13:58	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/29/22 13:58	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/29/22 13:58	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/29/22 13:58	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/29/22 13:58	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 11/17/22 15:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.51	ug/L			11/29/22 13:58	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/29/22 13:58	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/29/22 13:58	1
trans-1,4-Dichloro-2-butene	ND	*+	1.0	0.22	ug/L			11/29/22 13:58	1
Trichloroethene	ND		1.0	0.46	ug/L			11/29/22 13:58	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/29/22 13:58	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/29/22 13:58	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/29/22 13:58	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/29/22 13:58*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*		*11/29/22 13:58*	*1*
4-Bromofluorobenzene (Surr)	*86*		*73 - 120*		*11/29/22 13:58*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*11/29/22 13:58*	*1*

Client Sample ID: MW-19C
Date Collected: 11/17/22 14:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/29/22 14:20	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/29/22 14:20	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/29/22 14:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/29/22 14:20	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/29/22 14:20	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/29/22 14:20	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/29/22 14:20	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/29/22 14:20	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 14:20	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/29/22 14:20	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 14:20	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/29/22 14:20	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/29/22 14:20	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/29/22 14:20	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/29/22 14:20	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/29/22 14:20	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/29/22 14:20	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/29/22 14:20	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/29/22 14:20	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/29/22 14:20	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/29/22 14:20	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/29/22 14:20	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/29/22 14:20	1
1,4-Dioxane	ND		40	9.3	ug/L			11/29/22 14:20	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/29/22 14:20	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/29/22 14:20	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/29/22 14:20	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			11/29/22 14:20	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			11/29/22 14:20	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-19C
Date Collected: 11/17/22 14:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	3.0	ug/L			11/29/22 14:20	1
Acetonitrile	ND		15	4.9	ug/L			11/29/22 14:20	1
Acrolein	ND		20	0.91	ug/L			11/29/22 14:20	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/29/22 14:20	1
Benzene	ND		1.0	0.41	ug/L			11/29/22 14:20	1
Bromobenzene	ND		1.0	0.80	ug/L			11/29/22 14:20	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/29/22 14:20	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/29/22 14:20	1
Bromoform	ND		1.0	0.26	ug/L			11/29/22 14:20	1
Bromomethane	ND		1.0	0.69	ug/L			11/29/22 14:20	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/29/22 14:20	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/29/22 14:20	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/29/22 14:20	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/29/22 14:20	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/29/22 14:20	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/29/22 14:20	1
Chloroethane	ND		1.0	0.32	ug/L			11/29/22 14:20	1
Chloroform	ND		1.0	0.34	ug/L			11/29/22 14:20	1
Chloromethane	ND		1.0	0.35	ug/L			11/29/22 14:20	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/29/22 14:20	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/29/22 14:20	1
Cyclohexane	ND		1.0	0.18	ug/L			11/29/22 14:20	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/29/22 14:20	1
Dibromomethane	ND		1.0	0.41	ug/L			11/29/22 14:20	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/29/22 14:20	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/29/22 14:20	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/29/22 14:20	1
Ethyl ether	ND		1.0	0.72	ug/L			11/29/22 14:20	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/29/22 14:20	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/29/22 14:20	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/29/22 14:20	1
Hexane	ND		10	0.40	ug/L			11/29/22 14:20	1
Iodomethane	ND		1.0	0.30	ug/L			11/29/22 14:20	1
Isobutanol	ND		25	4.8	ug/L			11/29/22 14:20	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/29/22 14:20	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/29/22 14:20	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/29/22 14:20	1
Methyl acetate	ND		2.5	1.3	ug/L			11/29/22 14:20	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/29/22 14:20	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/29/22 14:20	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/29/22 14:20	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/29/22 14:20	1
Naphthalene	ND		1.0	0.43	ug/L			11/29/22 14:20	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/29/22 14:20	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/29/22 14:20	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/29/22 14:20	1
o-Xylene	ND		1.0	0.76	ug/L			11/29/22 14:20	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/29/22 14:20	1
p-Cymene	ND		1.0	0.31	ug/L			11/29/22 14:20	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-19C
Date Collected: 11/17/22 14:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/29/22 14:20	1
Styrene	ND		1.0	0.73	ug/L			11/29/22 14:20	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/29/22 14:20	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/29/22 14:20	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/29/22 14:20	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/29/22 14:20	1
Toluene	ND		1.0	0.51	ug/L			11/29/22 14:20	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/29/22 14:20	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/29/22 14:20	1
trans-1,4-Dichloro-2-butene	ND	*+	1.0	0.22	ug/L			11/29/22 14:20	1
Trichloroethene	**0.82**	**J**	1.0	0.46	ug/L			11/29/22 14:20	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/29/22 14:20	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/29/22 14:20	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/29/22 14:20	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/29/22 14:20*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*11/29/22 14:20*	*1*
4-Bromofluorobenzene (Surr)	*86*		*73 - 120*		*11/29/22 14:20*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*11/29/22 14:20*	*1*

Client Sample ID: LP-LCD
Date Collected: 11/17/22 13:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		8.0	2.8	ug/L			11/29/22 14:42	8
1,1,1-Trichloroethane	ND		8.0	6.6	ug/L			11/29/22 14:42	8
1,1,2,2-Tetrachloroethane	ND		8.0	1.7	ug/L			11/29/22 14:42	8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8.0	2.5	ug/L			11/29/22 14:42	8
1,1,2-Trichloroethane	ND		8.0	1.8	ug/L			11/29/22 14:42	8
1,1-Dichloroethane	ND		8.0	3.0	ug/L			11/29/22 14:42	8
1,1-Dichloroethene	ND		8.0	2.3	ug/L			11/29/22 14:42	8
1,1-Dichloropropene	ND		8.0	5.8	ug/L			11/29/22 14:42	8
1,2,3-Trichlorobenzene	ND		8.0	3.3	ug/L			11/29/22 14:42	8
1,2,3-Trichloropropane	ND		8.0	7.1	ug/L			11/29/22 14:42	8
1,2,4-Trichlorobenzene	ND		8.0	3.3	ug/L			11/29/22 14:42	8
1,2,4-Trimethylbenzene	ND		8.0	6.0	ug/L			11/29/22 14:42	8
1,2-Dibromo-3-Chloropropane	ND		8.0	3.1	ug/L			11/29/22 14:42	8
1,2-Dibromoethane (EDB)	ND		8.0	5.8	ug/L			11/29/22 14:42	8
1,2-Dichlorobenzene	ND		8.0	6.3	ug/L			11/29/22 14:42	8
1,2-Dichloroethane	ND		8.0	1.7	ug/L			11/29/22 14:42	8
1,2-Dichloroethene, Total	ND		16	6.5	ug/L			11/29/22 14:42	8
1,2-Dichloropropane	ND		8.0	5.8	ug/L			11/29/22 14:42	8
1,3,5-Trichlorobenzene	ND		8.0	1.8	ug/L			11/29/22 14:42	8
1,3,5-Trimethylbenzene	ND		8.0	6.2	ug/L			11/29/22 14:42	8
1,3-Dichlorobenzene	ND		8.0	6.2	ug/L			11/29/22 14:42	8
1,3-Dichloropropane	ND		8.0	6.0	ug/L			11/29/22 14:42	8
1,4-Dichlorobenzene	ND		8.0	6.7	ug/L			11/29/22 14:42	8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: LP-LCD
Date Collected: 11/17/22 13:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		320	75	ug/L			11/29/22 14:42	8
2,2-Dichloropropane	ND		8.0	3.2	ug/L			11/29/22 14:42	8
2-Butanone (MEK)	ND		80	11	ug/L			11/29/22 14:42	8
2-Chloroethyl vinyl ether	ND		40	7.7	ug/L			11/29/22 14:42	8
2-Hexanone	ND	*+	40	9.9	ug/L			11/29/22 14:42	8
4-Methyl-2-pentanone (MIBK)	ND	*+	40	17	ug/L			11/29/22 14:42	8
Acetone	ND		80	24	ug/L			11/29/22 14:42	8
Acetonitrile	ND		120	39	ug/L			11/29/22 14:42	8
Acrolein	ND		160	7.3	ug/L			11/29/22 14:42	8
Acrylonitrile	ND		40	6.6	ug/L			11/29/22 14:42	8
Benzene	ND		8.0	3.3	ug/L			11/29/22 14:42	8
Bromobenzene	ND		8.0	6.4	ug/L			11/29/22 14:42	8
Bromochloromethane	ND		8.0	7.0	ug/L			11/29/22 14:42	8
Bromodichloromethane	ND		8.0	3.1	ug/L			11/29/22 14:42	8
Bromoform	ND		8.0	2.1	ug/L			11/29/22 14:42	8
Bromomethane	ND		8.0	5.5	ug/L			11/29/22 14:42	8
Butyl alcohol, n-	ND		320	71	ug/L			11/29/22 14:42	8
Butyl alcohol, tert-	ND		80	26	ug/L			11/29/22 14:42	8
Carbon disulfide	ND		8.0	1.5	ug/L			11/29/22 14:42	8
Carbon tetrachloride	ND		8.0	2.2	ug/L			11/29/22 14:42	8
Chlorobenzene	ND		8.0	6.0	ug/L			11/29/22 14:42	8
Chlorodifluoromethane	ND		8.0	2.1	ug/L			11/29/22 14:42	8
Chloroethane	ND		8.0	2.6	ug/L			11/29/22 14:42	8
Chloroform	ND		8.0	2.7	ug/L			11/29/22 14:42	8
Chloromethane	ND		8.0	2.8	ug/L			11/29/22 14:42	8
cis-1,2-Dichloroethene	ND		8.0	6.5	ug/L			11/29/22 14:42	8
cis-1,3-Dichloropropene	ND		8.0	2.9	ug/L			11/29/22 14:42	8
Cyclohexane	ND		8.0	1.4	ug/L			11/29/22 14:42	8
Dibromochloromethane	ND		8.0	2.6	ug/L			11/29/22 14:42	8
Dibromomethane	ND		8.0	3.3	ug/L			11/29/22 14:42	8
Dichlorodifluoromethane	ND		8.0	5.4	ug/L			11/29/22 14:42	8
Dichlorofluoromethane	ND		8.0	2.7	ug/L			11/29/22 14:42	8
Ethyl acetate	ND		8.0	5.3	ug/L			11/29/22 14:42	8
Ethyl ether	ND		8.0	5.8	ug/L			11/29/22 14:42	8
Ethyl tert-butyl ether	ND		8.0	2.4	ug/L			11/29/22 14:42	8
Ethylbenzene	ND		8.0	5.9	ug/L			11/29/22 14:42	8
Hexachlorobutadiene	ND		16	2.2	ug/L			11/29/22 14:42	8
Hexane	ND		80	3.2	ug/L			11/29/22 14:42	8
Iodomethane	ND		8.0	2.4	ug/L			11/29/22 14:42	8
Isobutanol	ND		200	38	ug/L			11/29/22 14:42	8
Isopropyl ether	ND		8.0	4.7	ug/L			11/29/22 14:42	8
Isopropylbenzene	ND		8.0	6.3	ug/L			11/29/22 14:42	8
Methacrylonitrile	ND		40	5.5	ug/L			11/29/22 14:42	8
Methyl acetate	ND		20	10	ug/L			11/29/22 14:42	8
Methyl tert-butyl ether	ND		8.0	1.3	ug/L			11/29/22 14:42	8
Methylcyclohexane	ND		8.0	1.3	ug/L			11/29/22 14:42	8
Methylene Chloride	ND		8.0	3.5	ug/L			11/29/22 14:42	8
m-Xylene & p-Xylene	ND		16	5.3	ug/L			11/29/22 14:42	8
Naphthalene	ND		8.0	3.4	ug/L			11/29/22 14:42	8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: LP-LCD
Date Collected: 11/17/22 13:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		8.0	5.1	ug/L			11/29/22 14:42	8
N-Propylbenzene	ND		8.0	5.5	ug/L			11/29/22 14:42	8
o-Chlorotoluene	ND		8.0	6.9	ug/L			11/29/22 14:42	8
o-Xylene	ND		8.0	6.1	ug/L			11/29/22 14:42	8
p-Chlorotoluene	ND		8.0	6.7	ug/L			11/29/22 14:42	8
p-Cymene	ND		8.0	2.5	ug/L			11/29/22 14:42	8
sec-Butylbenzene	ND		8.0	6.0	ug/L			11/29/22 14:42	8
Styrene	ND		8.0	5.8	ug/L			11/29/22 14:42	8
Tert-amyl methyl ether	ND		8.0	2.2	ug/L			11/29/22 14:42	8
tert-Butylbenzene	ND		8.0	6.5	ug/L			11/29/22 14:42	8
Tetrachloroethene	ND		8.0	2.9	ug/L			11/29/22 14:42	8
Tetrahydrofuran	ND		40	10	ug/L			11/29/22 14:42	8
Toluene	ND		8.0	4.1	ug/L			11/29/22 14:42	8
trans-1,2-Dichloroethene	ND		8.0	7.2	ug/L			11/29/22 14:42	8
trans-1,3-Dichloropropene	ND		8.0	3.0	ug/L			11/29/22 14:42	8
trans-1,4-Dichloro-2-butene	ND	*+	8.0	1.8	ug/L			11/29/22 14:42	8
Trichloroethene	ND		8.0	3.7	ug/L			11/29/22 14:42	8
Trichlorofluoromethane	ND		8.0	7.0	ug/L			11/29/22 14:42	8
Vinyl acetate	ND		40	6.8	ug/L			11/29/22 14:42	8
Vinyl chloride	ND		8.0	7.2	ug/L			11/29/22 14:42	8

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/29/22 14:42*	*8*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*11/29/22 14:42*	*8*
4-Bromofluorobenzene (Surr)	*83*		*73 - 120*		*11/29/22 14:42*	*8*
Toluene-d8 (Surr)	*93*		*80 - 120*		*11/29/22 14:42*	*8*

Client Sample ID: MW-39
Date Collected: 11/17/22 15:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/29/22 15:04	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/29/22 15:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/29/22 15:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/29/22 15:04	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/29/22 15:04	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/29/22 15:04	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/29/22 15:04	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/29/22 15:04	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 15:04	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/29/22 15:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 15:04	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/29/22 15:04	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/29/22 15:04	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/29/22 15:04	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/29/22 15:04	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/29/22 15:04	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/29/22 15:04	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-39
Date Collected: 11/17/22 15:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/29/22 15:04	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/29/22 15:04	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/29/22 15:04	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/29/22 15:04	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/29/22 15:04	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/29/22 15:04	1
1,4-Dioxane	ND		40	9.3	ug/L			11/29/22 15:04	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/29/22 15:04	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/29/22 15:04	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/29/22 15:04	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			11/29/22 15:04	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			11/29/22 15:04	1
Acetone	ND		10	3.0	ug/L			11/29/22 15:04	1
Acetonitrile	ND		15	4.9	ug/L			11/29/22 15:04	1
Acrolein	ND		20	0.91	ug/L			11/29/22 15:04	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/29/22 15:04	1
Benzene	ND		1.0	0.41	ug/L			11/29/22 15:04	1
Bromobenzene	ND		1.0	0.80	ug/L			11/29/22 15:04	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/29/22 15:04	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/29/22 15:04	1
Bromoform	ND		1.0	0.26	ug/L			11/29/22 15:04	1
Bromomethane	ND		1.0	0.69	ug/L			11/29/22 15:04	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/29/22 15:04	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/29/22 15:04	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/29/22 15:04	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/29/22 15:04	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/29/22 15:04	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/29/22 15:04	1
Chloroethane	ND		1.0	0.32	ug/L			11/29/22 15:04	1
Chloroform	ND		1.0	0.34	ug/L			11/29/22 15:04	1
Chloromethane	ND		1.0	0.35	ug/L			11/29/22 15:04	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/29/22 15:04	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/29/22 15:04	1
Cyclohexane	ND		1.0	0.18	ug/L			11/29/22 15:04	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/29/22 15:04	1
Dibromomethane	ND		1.0	0.41	ug/L			11/29/22 15:04	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/29/22 15:04	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/29/22 15:04	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/29/22 15:04	1
Ethyl ether	ND		1.0	0.72	ug/L			11/29/22 15:04	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/29/22 15:04	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/29/22 15:04	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/29/22 15:04	1
Hexane	ND		10	0.40	ug/L			11/29/22 15:04	1
Iodomethane	ND		1.0	0.30	ug/L			11/29/22 15:04	1
Isobutanol	ND		25	4.8	ug/L			11/29/22 15:04	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/29/22 15:04	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/29/22 15:04	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/29/22 15:04	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-39
Date Collected: 11/17/22 15:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	ND		2.5	1.3	ug/L			11/29/22 15:04	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/29/22 15:04	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/29/22 15:04	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/29/22 15:04	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/29/22 15:04	1
Naphthalene	ND		1.0	0.43	ug/L			11/29/22 15:04	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/29/22 15:04	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/29/22 15:04	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/29/22 15:04	1
o-Xylene	ND		1.0	0.76	ug/L			11/29/22 15:04	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/29/22 15:04	1
p-Cymene	ND		1.0	0.31	ug/L			11/29/22 15:04	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/29/22 15:04	1
Styrene	ND		1.0	0.73	ug/L			11/29/22 15:04	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/29/22 15:04	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/29/22 15:04	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/29/22 15:04	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/29/22 15:04	1
Toluene	ND		1.0	0.51	ug/L			11/29/22 15:04	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/29/22 15:04	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/29/22 15:04	1
trans-1,4-Dichloro-2-butene	ND	*+	1.0	0.22	ug/L			11/29/22 15:04	1
Trichloroethene	ND		1.0	0.46	ug/L			11/29/22 15:04	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/29/22 15:04	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/29/22 15:04	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/29/22 15:04	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/29/22 15:04*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*		*11/29/22 15:04*	*1*
4-Bromofluorobenzene (Surr)	*85*		*73 - 120*		*11/29/22 15:04*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*11/29/22 15:04*	*1*

Client Sample ID: MW-32
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/29/22 15:26	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/29/22 15:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/29/22 15:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/29/22 15:26	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/29/22 15:26	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/29/22 15:26	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/29/22 15:26	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/29/22 15:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 15:26	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/29/22 15:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 15:26	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-32
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/29/22 15:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/29/22 15:26	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/29/22 15:26	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/29/22 15:26	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/29/22 15:26	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/29/22 15:26	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/29/22 15:26	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/29/22 15:26	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/29/22 15:26	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/29/22 15:26	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/29/22 15:26	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/29/22 15:26	1
1,4-Dioxane	ND		40	9.3	ug/L			11/29/22 15:26	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/29/22 15:26	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/29/22 15:26	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/29/22 15:26	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			11/29/22 15:26	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			11/29/22 15:26	1
Acetone	ND		10	3.0	ug/L			11/29/22 15:26	1
Acetonitrile	ND		15	4.9	ug/L			11/29/22 15:26	1
Acrolein	ND		20	0.91	ug/L			11/29/22 15:26	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/29/22 15:26	1
Benzene	ND		1.0	0.41	ug/L			11/29/22 15:26	1
Bromobenzene	ND		1.0	0.80	ug/L			11/29/22 15:26	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/29/22 15:26	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/29/22 15:26	1
Bromoform	ND		1.0	0.26	ug/L			11/29/22 15:26	1
Bromomethane	ND		1.0	0.69	ug/L			11/29/22 15:26	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/29/22 15:26	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/29/22 15:26	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/29/22 15:26	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/29/22 15:26	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/29/22 15:26	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/29/22 15:26	1
Chloroethane	ND		1.0	0.32	ug/L			11/29/22 15:26	1
Chloroform	ND		1.0	0.34	ug/L			11/29/22 15:26	1
Chloromethane	ND		1.0	0.35	ug/L			11/29/22 15:26	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/29/22 15:26	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/29/22 15:26	1
Cyclohexane	ND		1.0	0.18	ug/L			11/29/22 15:26	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/29/22 15:26	1
Dibromomethane	ND		1.0	0.41	ug/L			11/29/22 15:26	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/29/22 15:26	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/29/22 15:26	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/29/22 15:26	1
Ethyl ether	ND		1.0	0.72	ug/L			11/29/22 15:26	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/29/22 15:26	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/29/22 15:26	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/29/22 15:26	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: MW-32
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexane	ND		10	0.40	ug/L			11/29/22 15:26	1
Iodomethane	ND		1.0	0.30	ug/L			11/29/22 15:26	1
Isobutanol	ND		25	4.8	ug/L			11/29/22 15:26	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/29/22 15:26	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/29/22 15:26	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/29/22 15:26	1
Methyl acetate	ND		2.5	1.3	ug/L			11/29/22 15:26	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/29/22 15:26	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/29/22 15:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/29/22 15:26	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/29/22 15:26	1
Naphthalene	ND		1.0	0.43	ug/L			11/29/22 15:26	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/29/22 15:26	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/29/22 15:26	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/29/22 15:26	1
o-Xylene	ND		1.0	0.76	ug/L			11/29/22 15:26	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/29/22 15:26	1
p-Cymene	ND		1.0	0.31	ug/L			11/29/22 15:26	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/29/22 15:26	1
Styrene	ND		1.0	0.73	ug/L			11/29/22 15:26	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/29/22 15:26	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/29/22 15:26	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/29/22 15:26	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/29/22 15:26	1
Toluene	ND		1.0	0.51	ug/L			11/29/22 15:26	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/29/22 15:26	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/29/22 15:26	1
trans-1,4-Dichloro-2-butene	ND	*+	1.0	0.22	ug/L			11/29/22 15:26	1
Trichloroethene	ND		1.0	0.46	ug/L			11/29/22 15:26	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/29/22 15:26	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/29/22 15:26	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/29/22 15:26	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*11/29/22 15:26*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*11/29/22 15:26*	*1*
4-Bromofluorobenzene (Surr)	*85*		*73 - 120*		*11/29/22 15:26*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*11/29/22 15:26*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Client Sample ID: MW-33A
Date Collected: 11/17/22 10:45
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/02/22 19:26	12/05/22 21:27	1
Iron, Total	**0.72**	**B**	0.060	0.0091	mg/L		12/06/22 15:58	12/07/22 16:18	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Client Sample ID: MW-33C
Date Collected: 11/17/22 10:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/06/22 16:44	12/07/22 18:09	1
Iron, Total	**0.084**		0.060	0.0091	mg/L		12/06/22 16:44	12/07/22 18:09	1

Client Sample ID: DUP-1
Date Collected: 11/17/22 13:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/06/22 16:44	12/07/22 18:47	1
Iron, Total	**0.021**	**J**	0.060	0.0091	mg/L		12/06/22 16:44	12/07/22 18:47	1

Client Sample ID: MW-13A
Date Collected: 11/17/22 12:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/06/22 16:44	12/07/22 18:51	1
Iron, Total	ND		0.060	0.0091	mg/L		12/06/22 16:44	12/07/22 18:51	1

Client Sample ID: MW-13B
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/06/22 16:44	12/07/22 18:55	1
Iron, Total	ND		0.060	0.0091	mg/L		12/06/22 16:44	12/07/22 18:55	1

Client Sample ID: DUP-2
Date Collected: 11/17/22 10:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/06/22 16:44	12/07/22 18:59	1
Iron, Total	**0.035**	**J**	0.060	0.0091	mg/L		12/06/22 16:44	12/07/22 18:59	1

Client Sample ID: MW-16
Date Collected: 11/17/22 10:30
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/06/22 16:44	12/07/22 19:03	1
Iron, Total	**0.012**	**J**	0.060	0.0091	mg/L		12/06/22 16:44	12/07/22 19:03	1

Client Sample ID: MW-36A
Date Collected: 11/17/22 14:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/06/22 16:44	12/07/22 19:07	1
Iron, Total	ND		0.060	0.0091	mg/L		12/06/22 16:44	12/07/22 19:07	1

Client Sample ID: MW-19C
Date Collected: 11/17/22 14:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/06/22 16:44	12/07/22 19:11	1
Iron, Total	**0.39**		0.060	0.0091	mg/L		12/06/22 16:44	12/07/22 19:11	1

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Client Sample ID: LP-LCD
Date Collected: 11/17/22 13:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	0.0093		0.0030	0.00056	mg/L		12/06/22 16:44	12/07/22 19:16	1
Iron, Total	0.058	J	0.060	0.0091	mg/L		12/06/22 16:44	12/07/22 19:16	1

Client Sample ID: MW-39
Date Collected: 11/17/22 15:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	0.0065		0.0030	0.00056	mg/L		12/06/22 16:44	12/07/22 19:37	1
Iron, Total	33		0.060	0.0091	mg/L		12/06/22 16:44	12/07/22 19:37	1

Client Sample ID: MW-32
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/06/22 16:44	12/07/22 19:41	1
Iron, Total	0.67		0.060	0.0091	mg/L		12/06/22 16:44	12/07/22 19:41	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Client Sample ID: MW-33A
Date Collected: 11/17/22 10:45
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	14		0.20	0.024	mg/L		12/05/22 19:16	12/06/22 19:33	1
Iron, Dissolved	0.054	J B	0.060	0.0091	mg/L		12/05/22 19:16	12/06/22 19:33	1
Magnesium, Dissolved	6.6		0.050	0.0042	mg/L		12/05/22 19:16	12/06/22 19:33	1
Potassium, Dissolved	0.82	J	1.0	0.24	mg/L		12/05/22 19:16	12/06/22 19:33	1
Sodium, Dissolved	4.0		1.0	0.097	mg/L		12/05/22 19:16	12/06/22 19:33	1

Client Sample ID: MW-33C
Date Collected: 11/17/22 10:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	17		0.20	0.024	mg/L		12/05/22 19:16	12/06/22 19:37	1
Iron, Dissolved	0.039	J B	0.060	0.0091	mg/L		12/05/22 19:16	12/06/22 19:37	1
Magnesium, Dissolved	6.7		0.050	0.0042	mg/L		12/05/22 19:16	12/06/22 19:37	1
Potassium, Dissolved	1.2		1.0	0.24	mg/L		12/05/22 19:16	12/06/22 19:37	1
Sodium, Dissolved	4.1		1.0	0.097	mg/L		12/05/22 19:16	12/06/22 19:37	1

Client Sample ID: DUP-1
Date Collected: 11/17/22 13:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	16		0.20	0.024	mg/L		12/05/22 19:16	12/06/22 19:58	1
Iron, Dissolved	ND		0.060	0.0091	mg/L		12/05/22 19:16	12/06/22 19:58	1
Magnesium, Dissolved	8.3		0.050	0.0042	mg/L		12/05/22 19:16	12/06/22 19:58	1
Potassium, Dissolved	0.61	J	1.0	0.24	mg/L		12/05/22 19:16	12/06/22 19:58	1
Sodium, Dissolved	5.2		1.0	0.097	mg/L		12/05/22 19:16	12/06/22 19:58	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Client Sample ID: MW-13A
Date Collected: 11/17/22 12:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	15		0.20	0.024	mg/L		12/05/22 19:16	12/06/22 20:02	1
Iron, Dissolved	0.043	J B	0.060	0.0091	mg/L		12/05/22 19:16	12/06/22 20:02	1
Magnesium, Dissolved	8.9		0.050	0.0042	mg/L		12/05/22 19:16	12/06/22 20:02	1
Potassium, Dissolved	0.56	J	1.0	0.24	mg/L		12/05/22 19:16	12/06/22 20:02	1
Sodium, Dissolved	5.4		1.0	0.097	mg/L		12/05/22 19:16	12/06/22 20:02	1

Client Sample ID: MW-13B
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	17		0.20	0.024	mg/L		12/05/22 19:16	12/06/22 20:06	1
Iron, Dissolved	ND		0.060	0.0091	mg/L		12/05/22 19:16	12/06/22 20:06	1
Magnesium, Dissolved	8.6		0.050	0.0042	mg/L		12/05/22 19:16	12/06/22 20:06	1
Potassium, Dissolved	0.57	J	1.0	0.24	mg/L		12/05/22 19:16	12/06/22 20:06	1
Sodium, Dissolved	5.4		1.0	0.097	mg/L		12/05/22 19:16	12/06/22 20:06	1

Client Sample ID: DUP-2
Date Collected: 11/17/22 10:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	17		0.20	0.024	mg/L		12/05/22 19:16	12/06/22 20:10	1
Iron, Dissolved	0.040	J B	0.060	0.0091	mg/L		12/05/22 19:16	12/06/22 20:10	1
Magnesium, Dissolved	6.9		0.050	0.0042	mg/L		12/05/22 19:16	12/06/22 20:10	1
Potassium, Dissolved	1.3		1.0	0.24	mg/L		12/05/22 19:16	12/06/22 20:10	1
Sodium, Dissolved	4.2		1.0	0.097	mg/L		12/05/22 19:16	12/06/22 20:10	1

Client Sample ID: MW-16
Date Collected: 11/17/22 10:30
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	10		0.20	0.024	mg/L		12/05/22 19:16	12/06/22 20:14	1
Iron, Dissolved	0.29	B	0.060	0.0091	mg/L		12/05/22 19:16	12/06/22 20:14	1
Magnesium, Dissolved	5.6		0.050	0.0042	mg/L		12/05/22 19:16	12/06/22 20:14	1
Potassium, Dissolved	0.75	J	1.0	0.24	mg/L		12/05/22 19:16	12/06/22 20:14	1
Sodium, Dissolved	5.2		1.0	0.097	mg/L		12/05/22 19:16	12/06/22 20:14	1

Client Sample ID: MW-36A
Date Collected: 11/17/22 14:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	9.2		0.20	0.024	mg/L		12/05/22 19:16	12/06/22 20:18	1
Iron, Dissolved	0.014	J B	0.060	0.0091	mg/L		12/05/22 19:16	12/06/22 20:18	1
Magnesium, Dissolved	6.5		0.050	0.0042	mg/L		12/05/22 19:16	12/06/22 20:18	1
Potassium, Dissolved	0.83	J	1.0	0.24	mg/L		12/05/22 19:16	12/06/22 20:18	1
Sodium, Dissolved	6.3		1.0	0.097	mg/L		12/05/22 19:16	12/06/22 20:18	1

Client Sample ID: MW-19C
Date Collected: 11/17/22 14:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	14		0.20	0.024	mg/L		12/05/22 19:16	12/06/22 20:22	1

Method: SW846 6010D - Metals (ICP) - Dissolved (Continued)

Client Sample ID: MW-19C
Date Collected: 11/17/22 14:40
Date Received: 11/21/22 09:00
Lab Sample ID: 280-169454-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	0.12	B	0.060	0.0091	mg/L		12/05/22 19:16	12/06/22 20:22	1
Magnesium, Dissolved	7.2		0.050	0.0042	mg/L		12/05/22 19:16	12/06/22 20:22	1
Potassium, Dissolved	1.3		1.0	0.24	mg/L		12/05/22 19:16	12/06/22 20:22	1
Sodium, Dissolved	6.0		1.0	0.097	mg/L		12/05/22 19:16	12/06/22 20:22	1

Client Sample ID: LP-LCD
Date Collected: 11/17/22 13:40
Date Received: 11/21/22 09:00
Lab Sample ID: 280-169454-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	61		0.20	0.024	mg/L		12/06/22 07:58	12/06/22 22:26	1
Iron, Dissolved	0.061		0.060	0.0091	mg/L		12/06/22 07:58	12/06/22 22:26	1
Magnesium, Dissolved	37		0.050	0.0042	mg/L		12/06/22 07:58	12/06/22 22:26	1
Potassium, Dissolved	75		1.0	0.24	mg/L		12/06/22 07:58	12/06/22 22:26	1
Sodium, Dissolved	640		1.0	0.097	mg/L		12/06/22 07:58	12/06/22 22:26	1

Client Sample ID: MW-39
Date Collected: 11/17/22 15:00
Date Received: 11/21/22 09:00
Lab Sample ID: 280-169454-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	13		0.20	0.024	mg/L		12/06/22 07:58	12/06/22 22:49	1
Iron, Dissolved	35		0.060	0.0091	mg/L		12/06/22 07:58	12/06/22 22:49	1
Magnesium, Dissolved	7.9		0.050	0.0042	mg/L		12/06/22 07:58	12/06/22 22:49	1
Potassium, Dissolved	0.28	J	1.0	0.24	mg/L		12/06/22 07:58	12/06/22 22:49	1
Sodium, Dissolved	9.0		1.0	0.097	mg/L		12/06/22 07:58	12/06/22 22:49	1

Client Sample ID: MW-32
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00
Lab Sample ID: 280-169454-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	23		0.20	0.024	mg/L		12/06/22 07:58	12/06/22 22:53	1
Iron, Dissolved	0.50		0.060	0.0091	mg/L		12/06/22 07:58	12/06/22 22:53	1
Magnesium, Dissolved	12		0.050	0.0042	mg/L		12/06/22 07:58	12/06/22 22:53	1
Potassium, Dissolved	0.98	J	1.0	0.24	mg/L		12/06/22 07:58	12/06/22 22:53	1
Sodium, Dissolved	11		1.0	0.097	mg/L		12/06/22 07:58	12/06/22 22:53	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Client Sample ID: MW-33A
Date Collected: 11/17/22 10:45
Date Received: 11/21/22 09:00
Lab Sample ID: 280-169454-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/05/22 08:47	12/06/22 23:47	1
Barium, Total	0.0017		0.0010	0.00029	mg/L		12/05/22 08:47	12/06/22 00:07	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/05/22 08:47	12/06/22 23:47	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/05/22 08:47	12/06/22 23:47	1
Chromium, Total	0.00075	J B	0.0030	0.00050	mg/L		12/05/22 08:47	12/06/22 23:47	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/05/22 08:47	12/06/22 23:47	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/05/22 08:47	12/06/22 23:47	1
Manganese, Total	0.011	B	0.0010	0.00031	mg/L		12/05/22 08:47	12/06/22 23:47	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/05/22 08:47	12/06/22 23:47	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/05/22 08:47	12/06/22 23:47	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: MW-33A
Date Collected: 11/17/22 10:45
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver, Total	ND		0.0020	0.000033	mg/L		12/05/22 08:47	12/06/22 23:47	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/05/22 08:47	12/06/22 23:47	1
Vanadium, Total	**0.0025**		0.0020	0.0012	mg/L		12/05/22 08:47	12/06/22 23:47	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/05/22 08:47	12/06/22 23:47	1

Client Sample ID: MW-33C
Date Collected: 11/17/22 10:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/05/22 08:47	12/06/22 23:49	1
Barium, Total	**0.0038**		0.0010	0.00029	mg/L		12/05/22 08:47	12/06/22 00:10	1
Beryllium, Total	**0.000081**	**J**	0.0010	0.000080	mg/L		12/05/22 08:47	12/06/22 23:49	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/05/22 08:47	12/06/22 23:49	1
Chromium, Total	**0.0018**	**J B**	0.0030	0.00050	mg/L		12/05/22 08:47	12/06/22 23:49	1
Copper, Total	**0.0020**		0.0020	0.00056	mg/L		12/05/22 08:47	12/06/22 23:49	1
Lead, Total	**0.00041**	**J**	0.0010	0.00018	mg/L		12/05/22 08:47	12/06/22 23:49	1
Manganese, Total	**0.96**	**B**	0.0010	0.00031	mg/L		12/05/22 08:47	12/06/22 23:49	1
Nickel, Total	**0.0017**	**J**	0.0040	0.00030	mg/L		12/05/22 08:47	12/06/22 23:49	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/05/22 08:47	12/06/22 23:49	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/05/22 08:47	12/06/22 23:49	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/05/22 08:47	12/06/22 23:49	1
Vanadium, Total	**0.0021**		0.0020	0.0012	mg/L		12/05/22 08:47	12/06/22 23:49	1
Zinc, Total	**0.0054**		0.0050	0.0020	mg/L		12/05/22 08:47	12/06/22 23:49	1

Client Sample ID: DUP-1
Date Collected: 11/17/22 13:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/05/22 08:47	12/06/22 23:51	1
Barium, Total	**0.0038**		0.0010	0.00029	mg/L		12/05/22 08:47	12/06/22 00:10	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/05/22 08:47	12/06/22 23:51	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/05/22 08:47	12/06/22 23:51	1
Chromium, Total	**0.0035**	**B**	0.0030	0.00050	mg/L		12/05/22 08:47	12/06/22 23:51	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/05/22 08:47	12/06/22 23:51	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/05/22 08:47	12/06/22 23:51	1
Manganese, Total	**0.00069**	**J B**	0.0010	0.00031	mg/L		12/05/22 08:47	12/06/22 23:51	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/05/22 08:47	12/06/22 23:51	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/05/22 08:47	12/06/22 23:51	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/05/22 08:47	12/06/22 23:51	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/05/22 08:47	12/06/22 23:51	1
Vanadium, Total	**0.0061**		0.0020	0.0012	mg/L		12/05/22 08:47	12/06/22 23:51	1
Zinc, Total	**0.0039**	**J**	0.0050	0.0020	mg/L		12/05/22 08:47	12/06/22 23:51	1

Client Sample ID: MW-13A
Date Collected: 11/17/22 12:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/05/22 08:47	12/06/22 23:53	1
Barium, Total	**0.0026**		0.0010	0.00029	mg/L		12/05/22 08:47	12/06/22 00:16	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/05/22 08:47	12/06/22 23:53	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: MW-13A
Date Collected: 11/17/22 12:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/05/22 08:47	12/06/22 23:53	1
Chromium, Total	**0.0026**	**J B**	0.0030	0.00050	mg/L		12/05/22 08:47	12/06/22 23:53	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/05/22 08:47	12/06/22 23:53	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/05/22 08:47	12/06/22 23:53	1
Manganese, Total	**0.020**	**B**	0.0010	0.00031	mg/L		12/05/22 08:47	12/06/22 23:53	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/05/22 08:47	12/06/22 23:53	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/05/22 08:47	12/06/22 23:53	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/05/22 08:47	12/06/22 23:53	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/05/22 08:47	12/06/22 23:53	1
Vanadium, Total	**0.0043**		0.0020	0.0012	mg/L		12/05/22 08:47	12/06/22 23:53	1
Zinc, Total	**0.0020**	**J**	0.0050	0.0020	mg/L		12/05/22 08:47	12/06/22 23:53	1

Client Sample ID: MW-13B
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/05/22 08:47	12/06/22 23:54	1
Barium, Total	**0.0038**		0.0010	0.00029	mg/L		12/05/22 08:47	12/06/22 00:18	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/05/22 08:47	12/06/22 23:54	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/05/22 08:47	12/06/22 23:54	1
Chromium, Total	**0.0034**	**B**	0.0030	0.00050	mg/L		12/05/22 08:47	12/06/22 23:54	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/05/22 08:47	12/06/22 23:54	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/05/22 08:47	12/06/22 23:54	1
Manganese, Total	**0.00068**	**J B**	0.0010	0.00031	mg/L		12/05/22 08:47	12/06/22 23:54	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/05/22 08:47	12/06/22 23:54	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/05/22 08:47	12/06/22 23:54	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/05/22 08:47	12/06/22 23:54	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/05/22 08:47	12/06/22 23:54	1
Vanadium, Total	**0.0058**		0.0020	0.0012	mg/L		12/05/22 08:47	12/06/22 23:54	1
Zinc, Total	**0.0020**	**J**	0.0050	0.0020	mg/L		12/05/22 08:47	12/06/22 23:54	1

Client Sample ID: DUP-2
Date Collected: 11/17/22 10:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/05/22 08:47	12/06/22 23:56	1
Barium, Total	**0.0064**		0.0010	0.00029	mg/L		12/05/22 08:47	12/06/22 00:20	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/05/22 08:47	12/06/22 23:56	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/05/22 08:47	12/06/22 23:56	1
Chromium, Total	**0.00053**	**J B**	0.0030	0.00050	mg/L		12/05/22 08:47	12/06/22 23:56	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/05/22 08:47	12/06/22 23:56	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/05/22 08:47	12/06/22 23:56	1
Manganese, Total	**0.31**	**B**	0.0010	0.00031	mg/L		12/05/22 08:47	12/06/22 23:56	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/05/22 08:47	12/06/22 23:56	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/05/22 08:47	12/06/22 23:56	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/05/22 08:47	12/06/22 23:56	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/05/22 08:47	12/06/22 23:56	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/05/22 08:47	12/06/22 23:56	1
Zinc, Total	**0.0053**		0.0050	0.0020	mg/L		12/05/22 08:47	12/06/22 23:56	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Client Sample ID: MW-16
Date Collected: 11/17/22 10:30
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/05/22 08:47	12/06/22 23:58	1
Barium, Total	**0.0038**		0.0010	0.00029	mg/L		12/05/22 08:47	12/06/22 00:22	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/05/22 08:47	12/06/22 23:58	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/05/22 08:47	12/06/22 23:58	1
Chromium, Total	**0.0085**	**B**	0.0030	0.00050	mg/L		12/05/22 08:47	12/06/22 23:58	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/05/22 08:47	12/06/22 23:58	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/05/22 08:47	12/06/22 23:58	1
Manganese, Total	**0.0016**	**B**	0.0010	0.00031	mg/L		12/05/22 08:47	12/06/22 23:58	1
Nickel, Total	**0.0020**	**J**	0.0040	0.00030	mg/L		12/05/22 08:47	12/06/22 23:58	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/05/22 08:47	12/06/22 23:58	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/05/22 08:47	12/06/22 23:58	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/05/22 08:47	12/06/22 23:58	1
Vanadium, Total	**0.0039**		0.0020	0.0012	mg/L		12/05/22 08:47	12/06/22 23:58	1
Zinc, Total	**0.0028**	**J**	0.0050	0.0020	mg/L		12/05/22 08:47	12/06/22 23:58	1

Client Sample ID: MW-36A
Date Collected: 11/17/22 14:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/05/22 08:47	12/07/22 00:00	1
Barium, Total	**0.0023**		0.0010	0.00029	mg/L		12/05/22 08:47	12/06/22 00:23	1
Beryllium, Total	**0.000085**	**J**	0.0010	0.000080	mg/L		12/05/22 08:47	12/07/22 00:00	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/05/22 08:47	12/07/22 00:00	1
Chromium, Total	**0.0092**	**B**	0.0030	0.00050	mg/L		12/05/22 08:47	12/07/22 00:00	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/05/22 08:47	12/07/22 00:00	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/05/22 08:47	12/07/22 00:00	1
Manganese, Total	**0.00062**	**J B**	0.0010	0.00031	mg/L		12/05/22 08:47	12/07/22 00:00	1
Nickel, Total	**0.0012**	**J**	0.0040	0.00030	mg/L		12/05/22 08:47	12/07/22 00:00	1
Selenium, Total	**0.00052**	**J**	0.0010	0.00037	mg/L		12/05/22 08:47	12/07/22 00:00	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/05/22 08:47	12/07/22 00:00	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/05/22 08:47	12/07/22 00:00	1
Vanadium, Total	**0.0026**		0.0020	0.0012	mg/L		12/05/22 08:47	12/07/22 00:00	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/05/22 08:47	12/07/22 00:00	1

Client Sample ID: MW-19C
Date Collected: 11/17/22 14:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/06/22 07:58	12/07/22 01:10	1
Barium, Total	**0.0050**		0.0010	0.00029	mg/L		12/08/22 08:20	12/08/22 18:51	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/06/22 07:58	12/07/22 01:10	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/06/22 07:58	12/07/22 01:10	1
Chromium, Total	**0.00096**	**J**	0.0030	0.00050	mg/L		12/08/22 08:20	12/08/22 18:51	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/06/22 07:58	12/07/22 01:10	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/06/22 07:58	12/07/22 01:10	1
Manganese, Total	**1.1**	**B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 01:10	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/06/22 07:58	12/07/22 01:10	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/06/22 07:58	12/07/22 01:10	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/06/22 07:58	12/07/22 01:10	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/06/22 07:58	12/07/22 01:10	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: MW-19C
Date Collected: 11/17/22 14:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/06/22 07:58	12/07/22 01:10	1
Zinc, Total	**0.0021**	**J**	0.0050	0.0020	mg/L		12/06/22 07:58	12/07/22 01:10	1

Client Sample ID: LP-LCD
Date Collected: 11/17/22 13:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	**0.0022**		0.0010	0.00040	mg/L		12/06/22 07:58	12/07/22 01:19	1
Arsenic, Total	**0.019**	**B**	0.0050	0.00033	mg/L		12/06/22 07:58	12/07/22 01:19	1
Barium, Total	**0.091**		0.0010	0.00029	mg/L		12/08/22 08:20	12/08/22 18:54	1
Beryllium, Total	**0.00021**	**J**	0.0010	0.000080	mg/L		12/06/22 07:58	12/07/22 01:19	1
Cadmium, Total	**0.00030**	**B**	0.00030	0.00027	mg/L		12/06/22 07:58	12/07/22 01:19	1
Chromium, Total	**0.0028**	**J**	0.0030	0.00050	mg/L		12/08/22 08:20	12/08/22 18:54	1
Copper, Total	**0.020**	**B**	0.0020	0.00056	mg/L		12/06/22 07:58	12/07/22 01:19	1
Lead, Total	**0.0019**	**B**	0.0010	0.00018	mg/L		12/06/22 07:58	12/07/22 01:19	1
Manganese, Total	**0.47**	**B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 01:19	1
Nickel, Total	**0.099**		0.0040	0.00030	mg/L		12/06/22 07:58	12/07/22 01:19	1
Selenium, Total	**0.00075**	**J B**	0.0010	0.00037	mg/L		12/06/22 07:58	12/07/22 01:19	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/06/22 07:58	12/07/22 01:19	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/06/22 07:58	12/07/22 01:19	1
Vanadium, Total	**0.0047**		0.0020	0.0012	mg/L		12/06/22 07:58	12/07/22 01:19	1
Zinc, Total	**0.040**		0.0050	0.0020	mg/L		12/06/22 07:58	12/07/22 01:19	1

Client Sample ID: MW-39
Date Collected: 11/17/22 15:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND	J	0.0010	0.00040	mg/L		12/06/22 07:58	12/07/22 01:21	1
Barium, Total	**0.014**		0.0010	0.00029	mg/L		12/08/22 08:20	12/08/22 19:13	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/06/22 07:58	12/07/22 01:21	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/06/22 07:58	12/07/22 01:21	1
Chromium, Total	**0.0010**	**J**	0.0030	0.00050	mg/L		12/08/22 08:20	12/08/22 19:13	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/06/22 07:58	12/07/22 01:21	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/06/22 07:58	12/07/22 01:21	1
Manganese, Total	**0.46**	**J B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 01:21	1
Nickel, Total	**0.0026**	**J**	0.0040	0.00030	mg/L		12/06/22 07:58	12/07/22 01:21	1
Selenium, Total	ND	J	0.0010	0.00037	mg/L		12/06/22 07:58	12/07/22 01:21	1
Silver, Total	ND	J	0.0020	0.000033	mg/L		12/06/22 07:58	12/07/22 01:21	1
Thallium, Total	ND	J	0.0010	0.000089	mg/L		12/06/22 07:58	12/07/22 01:21	1
Vanadium, Total	**0.0012**	**J**	0.0020	0.0012	mg/L		12/06/22 07:58	12/07/22 01:21	1
Zinc, Total	ND	J	0.0050	0.0020	mg/L		12/06/22 07:58	12/07/22 01:21	1

Client Sample ID: MW-32
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/06/22 07:58	12/07/22 01:23	1
Barium, Total	**0.0059**		0.0010	0.00029	mg/L		12/08/22 08:20	12/08/22 19:17	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/06/22 07:58	12/07/22 01:23	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/06/22 07:58	12/07/22 01:23	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: MW-32
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00
Lab Sample ID: 280-169454-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, Total	ND		0.0030	0.00050	mg/L		12/08/22 08:20	12/08/22 19:17	1
Copper, Total	**0.0046**	**B**	0.0020	0.00056	mg/L		12/06/22 07:58	12/07/22 01:23	1
Lead, Total	**0.00021**	**J B**	0.0010	0.00018	mg/L		12/06/22 07:58	12/07/22 01:23	1
Manganese, Total	**2.0**	**B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 01:23	1
Nickel, Total	**0.00087**	**J**	0.0040	0.00030	mg/L		12/06/22 07:58	12/07/22 01:23	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/06/22 07:58	12/07/22 01:23	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/06/22 07:58	12/07/22 01:23	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/06/22 07:58	12/07/22 01:23	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/06/22 07:58	12/07/22 01:23	1
Zinc, Total	**0.0022**	**J**	0.0050	0.0020	mg/L		12/06/22 07:58	12/07/22 01:23	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Client Sample ID: MW-33A
Date Collected: 11/17/22 10:45
Date Received: 11/21/22 09:00
Lab Sample ID: 280-169454-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.0054**	**B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 02:26	1

Client Sample ID: MW-33C
Date Collected: 11/17/22 10:20
Date Received: 11/21/22 09:00
Lab Sample ID: 280-169454-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.13**	**B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 02:28	1

Client Sample ID: DUP-1
Date Collected: 11/17/22 13:10
Date Received: 11/21/22 09:00
Lab Sample ID: 280-169454-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.00038**	**J B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 02:30	1

Client Sample ID: MW-13A
Date Collected: 11/17/22 12:20
Date Received: 11/21/22 09:00
Lab Sample ID: 280-169454-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	ND		0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 02:32	1

Client Sample ID: MW-13B
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00
Lab Sample ID: 280-169454-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.00081**	**J B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 02:34	1

Client Sample ID: DUP-2
Date Collected: 11/17/22 10:40
Date Received: 11/21/22 09:00
Lab Sample ID: 280-169454-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.13**	**B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 02:36	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Client Sample ID: MW-16
Date Collected: 11/17/22 10:30
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.00034**	**J B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 02:38	1

Client Sample ID: MW-36A
Date Collected: 11/17/22 14:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.0013**	**B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 02:39	1

Client Sample ID: MW-19C
Date Collected: 11/17/22 14:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**1.1**	**B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 02:41	1

Client Sample ID: LP-LCD
Date Collected: 11/17/22 13:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.45**	**B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 02:43	1

Client Sample ID: MW-39
Date Collected: 11/17/22 15:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.47**	**B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 02:49	1

Client Sample ID: MW-32
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**1.8**	**B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 02:51	1

General Chemistry

Client Sample ID: MW-33A
Date Collected: 11/17/22 10:45
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-1
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	ND		3.0	3.0	mg/L			12/08/22 01:03	1
Sulfate (MCAWW 300.0)	ND		5.0	5.0	mg/L			12/08/22 01:03	1
Ammonia (as N) (MCAWW 350.1)	**0.050**		0.030	0.030	mg/L			12/08/22 13:10	1
Nitrate as N (EPA 353.2)	ND		0.050	0.050	mg/L			12/12/22 09:51	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**68**		10	10	mg/L			11/23/22 02:18	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**68**		10	10	mg/L			11/23/22 02:18	1
Total Dissolved Solids (TDS) (SM 2540C)	**79**		5.0	5.0	mg/L			11/22/22 13:14	1
Total Suspended Solids (SM 2540D)	ND		4.0	4.0	mg/L			11/23/22 12:15	1
Total Organic Carbon - Average (SM 5310B)	ND		1.0	1.0	mg/L			12/07/22 00:01	1

General Chemistry

Client Sample ID: MW-33C
Date Collected: 11/17/22 10:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-2
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	ND		3.0	3.0	mg/L			12/08/22 01:19	1
Sulfate (MCAWW 300.0)	**7.4**		5.0	5.0	mg/L			12/08/22 01:19	1
Ammonia (as N) (MCAWW 350.1)	ND		0.030	0.030	mg/L			12/08/22 13:13	1
Nitrate as N (EPA 353.2)	ND		0.050	0.050	mg/L			12/12/22 09:51	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**73**		10	10	mg/L			11/23/22 02:23	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**73**		10	10	mg/L			11/23/22 02:23	1
Total Dissolved Solids (TDS) (SM 2540C)	**97**		5.0	5.0	mg/L			11/22/22 13:14	1
Total Suspended Solids (SM 2540D)	**12**		4.0	4.0	mg/L			11/23/22 12:15	1
Total Organic Carbon - Average (SM 5310B)	ND		1.0	1.0	mg/L			12/07/22 00:17	1

Client Sample ID: DUP-1
Date Collected: 11/17/22 13:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-3
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	ND		3.0	3.0	mg/L			12/14/22 11:28	1
Sulfate (MCAWW 300.0)	ND		5.0	5.0	mg/L			12/14/22 11:28	1
Ammonia (as N) (MCAWW 350.1)	ND		0.030	0.030	mg/L			12/08/22 13:16	1
Nitrate as N (EPA 353.2)	ND		0.050	0.050	mg/L			12/12/22 09:51	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**88**		10	10	mg/L			11/23/22 02:29	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**88**		10	10	mg/L			11/23/22 02:29	1
Total Dissolved Solids (TDS) (SM 2540C)	**84**		5.0	5.0	mg/L			11/22/22 13:14	1
Total Suspended Solids (SM 2540D)	ND		4.0	4.0	mg/L			11/23/22 12:15	1
Total Organic Carbon - Average (SM 5310B)	ND		1.0	1.0	mg/L			12/07/22 00:32	1

Client Sample ID: MW-13A
Date Collected: 11/17/22 12:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-4
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	ND		3.0	3.0	mg/L			12/14/22 11:45	1
Sulfate (MCAWW 300.0)	ND		5.0	5.0	mg/L			12/14/22 11:45	1
Ammonia (as N) (MCAWW 350.1)	ND		0.030	0.030	mg/L			12/08/22 13:53	1
Nitrate as N (EPA 353.2)	**0.48**		0.050	0.050	mg/L			12/12/22 09:51	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**89**		10	10	mg/L			11/23/22 02:49	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**89**		10	10	mg/L			11/23/22 02:49	1
Total Dissolved Solids (TDS) (SM 2540C)	**88**		5.0	5.0	mg/L			11/22/22 13:14	1
Total Suspended Solids (SM 2540D)	ND		4.0	4.0	mg/L			11/23/22 12:15	1
Total Organic Carbon - Average (SM 5310B)	ND		1.0	1.0	mg/L			12/07/22 00:46	1

General Chemistry

Client Sample ID: MW-13B
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-5
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	ND	F1	3.0	3.0	mg/L			12/14/22 12:02	1
Sulfate (MCAWW 300.0)	ND	F1	5.0	5.0	mg/L			12/14/22 12:02	1
Ammonia (as N) (MCAWW 350.1)	ND		0.030	0.030	mg/L			12/13/22 09:54	1
Nitrate as N (EPA 353.2)	**0.41**		0.050	0.050	mg/L			12/12/22 09:51	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**89**		10	10	mg/L			11/23/22 02:55	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**89**		10	10	mg/L			11/23/22 02:55	1
Total Dissolved Solids (TDS) (SM 2540C)	**93**		5.0	5.0	mg/L			11/22/22 13:14	1
Total Suspended Solids (SM 2540D)	ND		4.0	4.0	mg/L			11/23/22 12:15	1
Total Organic Carbon - Average (SM 5310B)	ND		1.0	1.0	mg/L			12/07/22 01:00	1

Client Sample ID: DUP-2
Date Collected: 11/17/22 10:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-6
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	**3.0**		3.0	3.0	mg/L			12/14/22 13:44	1
Sulfate (MCAWW 300.0)	**8.6**		5.0	5.0	mg/L			12/14/22 13:44	1
Ammonia (as N) (MCAWW 350.1)	ND		0.030	0.030	mg/L			12/08/22 13:58	1
Nitrate as N (EPA 353.2)	ND		0.050	0.050	mg/L			12/12/22 09:51	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**74**		10	10	mg/L			11/23/22 03:00	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**74**		10	10	mg/L			11/23/22 03:00	1
Total Dissolved Solids (TDS) (SM 2540C)	**94**		5.0	5.0	mg/L			11/22/22 13:14	1
Total Suspended Solids (SM 2540D)	**16**		4.0	4.0	mg/L			11/23/22 12:15	1
Total Organic Carbon - Average (SM 5310B)	ND		1.0	1.0	mg/L			12/07/22 01:14	1

Client Sample ID: MW-16
Date Collected: 11/17/22 10:30
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-7
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	ND		3.0	3.0	mg/L			12/14/22 14:01	1
Sulfate (MCAWW 300.0)	ND		5.0	5.0	mg/L			12/14/22 14:01	1
Ammonia (as N) (MCAWW 350.1)	ND		0.030	0.030	mg/L			12/08/22 14:01	1
Nitrate as N (EPA 353.2)	ND		0.050	0.050	mg/L			12/12/22 09:54	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**67**		10	10	mg/L			11/23/22 03:06	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**67**		10	10	mg/L			11/23/22 03:06	1
Total Dissolved Solids (TDS) (SM 2540C)	**82**		5.0	5.0	mg/L			11/22/22 13:14	1
Total Suspended Solids (SM 2540D)	ND		4.0	4.0	mg/L			11/23/22 12:15	1
Total Organic Carbon - Average (SM 5310B)	ND		1.0	1.0	mg/L			12/07/22 02:27	1

General Chemistry

Client Sample ID: MW-36A
Date Collected: 11/17/22 14:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-8
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	ND		3.0	3.0	mg/L			12/14/22 14:18	1
Sulfate (MCAWW 300.0)	ND		5.0	5.0	mg/L			12/14/22 14:18	1
Ammonia (as N) (MCAWW 350.1)	ND		0.030	0.030	mg/L			12/08/22 14:04	1
Nitrate as N (EPA 353.2)	**0.26**		0.050	0.050	mg/L			12/12/22 09:54	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**64**		10	10	mg/L			11/23/22 03:12	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**64**		10	10	mg/L			11/23/22 03:12	1
Total Dissolved Solids (TDS) (SM 2540C)	**79**		5.0	5.0	mg/L			11/22/22 13:14	1
Total Suspended Solids (SM 2540D)	ND		4.0	4.0	mg/L			11/23/22 12:15	1
Total Organic Carbon - Average (SM 5310B)	ND		1.0	1.0	mg/L			12/07/22 02:41	1

Client Sample ID: MW-19C
Date Collected: 11/17/22 14:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-10
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	ND		3.0	3.0	mg/L			12/14/22 14:35	1
Sulfate (MCAWW 300.0)	ND		5.0	5.0	mg/L			12/14/22 14:35	1
Ammonia (as N) (MCAWW 350.1)	**0.50**		0.030	0.030	mg/L			12/08/22 14:06	1
Nitrate as N (EPA 353.2)	ND		0.050	0.050	mg/L			12/12/22 09:54	1
Alkalinity, Total (As CaCO3) (SM 2320B)	**80**		10	10	mg/L			11/23/22 03:17	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**80**		10	10	mg/L			11/23/22 03:17	1
Total Dissolved Solids (TDS) (SM 2540C)	**88**		5.0	5.0	mg/L			11/22/22 13:14	1
Total Suspended Solids (SM 2540D)	ND		4.0	4.0	mg/L			11/23/22 12:15	1
Total Organic Carbon - Average (SM 5310B)	ND		1.0	1.0	mg/L			12/07/22 02:55	1

Client Sample ID: LP-LCD
Date Collected: 11/17/22 13:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-11
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	**640**		30	30	mg/L			12/14/22 15:10	10
Sulfate (MCAWW 300.0)	**210**		50	50	mg/L			12/14/22 15:10	10
Ammonia (as N) (MCAWW 350.1)	**5.2**		0.060	0.060	mg/L			12/08/22 14:09	2
Nitrate as N (EPA 353.2)	**4.0**		0.050	0.050	mg/L			12/12/22 09:54	1
Nitrate Nitrite as N (MCAWW 353.2	**4.0**		0.10	0.10	mg/L			12/09/22 17:12	1
Chemical Oxygen Demand (COD) (MCAWW 410.4)	**160**		20	20	mg/L			11/29/22 12:38	2
Alkalinity, Total (SM 2320B)	**910**		10	10	mg/L			11/23/22 03:29	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**910**		10	10	mg/L			11/23/22 03:29	1
Total Dissolved Solids (TDS) (SM 2540C)	**2200**		10	10	mg/L			11/22/22 13:14	1
Total Organic Carbon - Average (SM 5310B)	**49**		2.0	2.0	mg/L			12/07/22 03:09	2
Biochemical Oxygen Demand (SM5210B)	**7.1**	**H H3 b**	5.0	5.0	mg/L			11/23/22 11:54	1

General Chemistry

Client Sample ID: MW-39
Date Collected: 11/17/22 15:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-12
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	7.4		3.0	3.0	mg/L			12/14/22 15:27	1
Sulfate (MCAWW 300.0)	ND		5.0	5.0	mg/L			12/14/22 15:27	1
Ammonia (as N) (MCAWW 350.1)	0.57		0.030	0.030	mg/L			12/08/22 14:12	1
Nitrate as N (EPA 353.2)	ND		0.050	0.050	mg/L			12/12/22 09:54	1
Alkalinity, Total (As CaCO3) (SM 2320B)	88		10	10	mg/L			11/23/22 03:35	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	88		10	10	mg/L			11/23/22 03:35	1
Total Dissolved Solids (TDS) (SM 2540C)	120		5.0	5.0	mg/L			11/22/22 13:14	1
Total Suspended Solids (SM 2540D)	29		4.0	4.0	mg/L			11/23/22 12:15	1
Total Organic Carbon - Average (SM 5310B)	2.5		1.0	1.0	mg/L			12/07/22 03:26	1

Client Sample ID: MW-32
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-13
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	6.6	F1	3.0	3.0	mg/L			12/14/22 15:44	1
Sulfate (MCAWW 300.0)	11	F1	5.0	5.0	mg/L			12/14/22 15:44	1
Ammonia (as N) (MCAWW 350.1)	0.071		0.030	0.030	mg/L			12/08/22 14:38	1
Nitrate as N (EPA 353.2)	ND		0.050	0.050	mg/L			12/12/22 09:54	1
Alkalinity, Total (As CaCO3) (SM 2320B)	130		10	10	mg/L			11/23/22 03:41	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	130		10	10	mg/L			11/23/22 03:41	1
Total Dissolved Solids (TDS) (SM 2540C)	170		5.0	5.0	mg/L			11/22/22 13:14	1
Total Suspended Solids (SM 2540D)	ND		4.0	4.0	mg/L			11/23/22 12:15	1
Total Organic Carbon - Average (SM 5310B)	1.4		1.0	1.0	mg/L			12/07/22 03:40	1

Method: EPA Field Sampling - Field Sampling

Client Sample ID: MW-33A
Date Collected: 11/17/22 10:45
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-1
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	5.10				ft			11/17/22 11:45	1
Specific Conductivity	134				umhos/cm			11/17/22 11:45	1
Dissolved Oxygen	0.7				mg/L			11/17/22 11:45	1
eH	1.2				millivolts			11/17/22 11:45	1
Turbidity	13.1				NTU			11/17/22 11:45	1
Temperature	10.0				Degrees C			11/17/22 11:45	1
pH	6.72				SU			11/17/22 11:45	1

Client Sample ID: MW-33C
Date Collected: 11/17/22 10:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-2
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	2.64				ft			11/17/22 11:20	1
Specific Conductivity	154				umhos/cm			11/17/22 11:20	1

Method: EPA Field Sampling - Field Sampling (Continued)

Client Sample ID: MW-33C
Date Collected: 11/17/22 10:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-2
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Oxygen	1.2				mg/L			11/17/22 11:20	1
eH	31.3				millivolts			11/17/22 11:20	1
Turbidity	3.3				NTU			11/17/22 11:20	1
Temperature	9.1				Degrees C			11/17/22 11:20	1
pH	6.62				SU			11/17/22 11:20	1

Client Sample ID: MW-13A
Date Collected: 11/17/22 12:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-4
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	45.10				ft			11/17/22 13:20	1
Specific Conductivity	166				umhos/cm			11/17/22 13:20	1
Dissolved Oxygen	23.2				mg/L			11/17/22 13:20	1
eH	69.1				millivolts			11/17/22 13:20	1
Turbidity	3.4				NTU			11/17/22 13:20	1
Temperature	9.6				Degrees C			11/17/22 13:20	1
pH	6.93				SU			11/17/22 13:20	1

Client Sample ID: MW-13B
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-5
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	62.16				ft			11/17/22 14:00	1
Specific Conductivity	162				umhos/cm			11/17/22 14:00	1
Dissolved Oxygen	0.5				mg/L			11/17/22 14:00	1
eH	65.3				millivolts			11/17/22 14:00	1
Turbidity	3.8				NTU			11/17/22 14:00	1
Temperature	9.9				Degrees C			11/17/22 14:00	1
pH	7.36				SU			11/17/22 14:00	1

Client Sample ID: MW-16
Date Collected: 11/17/22 10:30
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-7
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	60.92				ft			11/17/22 11:30	1
Specific Conductivity	115				umhos/cm			11/17/22 11:30	1
Dissolved Oxygen	7.6				mg/L			11/17/22 11:30	1
eH	28.28				millivolts			11/17/22 11:30	1
Turbidity	2.8				NTU			11/17/22 11:30	1
Temperature	9.2				Degrees C			11/17/22 11:30	1
pH	6.64				SU			11/17/22 11:30	1

Client Sample ID: MW-36A
Date Collected: 11/17/22 14:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-8
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	32.03				ft			11/17/22 15:10	1
Specific Conductivity	122				umhos/cm			11/17/22 15:10	1
Dissolved Oxygen	3.1				mg/L			11/17/22 15:10	1
eH	207.9				millivolts			11/17/22 15:10	1

Method: EPA Field Sampling - Field Sampling (Continued)

Client Sample ID: MW-36A
Date Collected: 11/17/22 14:10
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-8
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	3.0				NTU			11/17/22 15:10	1
Temperature	9.5				Degrees C			11/17/22 15:10	1
pH	6.35				SU			11/17/22 15:10	1

Client Sample ID: MW-19C
Date Collected: 11/17/22 14:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-10
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	35.40				ft			11/17/22 15:40	1
Specific Conductivity	159				umhos/cm			11/17/22 15:40	1
Dissolved Oxygen	0.7				mg/L			11/17/22 15:40	1
eH	38.3				millivolts			11/17/22 15:40	1
Turbidity	3.8				NTU			11/17/22 15:40	1
Temperature	10.6				Degrees C			11/17/22 15:40	1
pH	6.54				SU			11/17/22 15:40	1

Client Sample ID: LP-LCD
Date Collected: 11/17/22 13:40
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-11
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductivity	3536				umhos/cm			11/17/22 14:40	1
Dissolved Oxygen	8.3				mg/L			11/17/22 14:40	1
eH	78.5				millivolts			11/17/22 14:40	1
Turbidity	0.9				NTU			11/17/22 14:40	1
Temperature	9.1				Degrees C			11/17/22 14:40	1
pH	7.26				SU			11/17/22 14:40	1

Client Sample ID: MW-39
Date Collected: 11/17/22 15:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-12
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	22.27				ft			11/17/22 16:00	1
Specific Conductivity	271				umhos/cm			11/17/22 16:00	1
Dissolved Oxygen	0.7				mg/L			11/17/22 16:00	1
eH	-58.9				millivolts			11/17/22 16:00	1
Turbidity	3.8				NTU			11/17/22 16:00	1
Temperature	11.4				Degrees C			11/17/22 16:00	1
pH	6.31				SU			11/17/22 16:00	1

Client Sample ID: MW-32
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-13
Matrix: Water

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water	2.06				ft			11/17/22 14:00	1
Specific Conductivity	258				umhos/cm			11/17/22 14:00	1
Dissolved Oxygen	0.7				mg/L			11/17/22 14:00	1
eH	-22.8				millivolts			11/17/22 14:00	1
Turbidity	3.6				NTU			11/17/22 14:00	1
Temperature	11.6				Degrees C			11/17/22 14:00	1
pH	6.90				SU			11/17/22 14:00	1

Surrogate Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169454-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)
280-169454-1	MW-33A	109	86	94
280-169454-2	MW-33C	107	87	93
280-169454-3	DUP-1	107	85	94
280-169454-4	MW-13A	108	87	93
280-169454-5	MW-13B	107	84	92
280-169454-6	DUP-2	108	87	94
280-169454-7	MW-16	108	84	92
280-169454-8	MW-36A	108	86	93
280-169454-9	TRIP BLANK	108	86	94
280-169454-10	MW-19C	107	86	93
280-169454-11	LP-LCD	107	83	93
280-169454-12	MW-39	108	85	92
280-169454-13	MW-32	107	85	94
480-204118-Q-1 MS	Matrix Spike	107	84	98
480-204118-Q-1 MSD	Matrix Spike Duplicate	105	87	96
LCS 480-651418/5	Lab Control Sample	105	87	98
MB 480-651418/7	Method Blank	106	86	95

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		DBFM	TBA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)
280-169454-1	MW-33A	156 S1+	142
280-169454-2	MW-33C	153 S1+	143
280-169454-3	DUP-1	155 S1+	146
280-169454-4	MW-13A	153 S1+	150
280-169454-5	MW-13B	155 S1+	147
280-169454-6	DUP-2	164 S1+	157 S1+
280-169454-7	MW-16	155 S1+	150
280-169454-8	MW-36A	157 S1+	147
280-169454-9	TRIP BLANK	155 S1+	141
280-169454-10	MW-19C	146	127
280-169454-11	LP-LCD	149	138
280-169454-12	MW-39	156 S1+	141
280-169454-13	MW-32	150	132
LCS 480-651411/6	Lab Control Sample	103	104
LCS 480-651554/6	Lab Control Sample	102	109
LCSD 480-651411/7	Lab Control Sample Dup	98	109
LCSD 480-651554/7	Lab Control Sample Dup	104	104
MB 480-651411/9	Method Blank	140	136
MB 480-651554/9	Method Blank	145	142

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

Surrogate Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169454-1

TBA = TBA-d9 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-651418/7
Matrix: Water
Analysis Batch: 651418

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			11/29/22 10:41	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/29/22 10:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/29/22 10:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/29/22 10:41	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/29/22 10:41	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/29/22 10:41	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/29/22 10:41	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			11/29/22 10:41	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 10:41	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			11/29/22 10:41	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/29/22 10:41	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/29/22 10:41	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/29/22 10:41	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			11/29/22 10:41	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/29/22 10:41	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/29/22 10:41	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/29/22 10:41	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/29/22 10:41	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			11/29/22 10:41	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/29/22 10:41	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/29/22 10:41	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			11/29/22 10:41	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/29/22 10:41	1
1,4-Dioxane	ND		40	9.3	ug/L			11/29/22 10:41	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/29/22 10:41	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/29/22 10:41	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			11/29/22 10:41	1
2-Hexanone	ND		5.0	1.2	ug/L			11/29/22 10:41	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/29/22 10:41	1
Acetone	ND		10	3.0	ug/L			11/29/22 10:41	1
Acetonitrile	ND		15	4.9	ug/L			11/29/22 10:41	1
Acrolein	ND		20	0.91	ug/L			11/29/22 10:41	1
Acrylonitrile	ND		5.0	0.83	ug/L			11/29/22 10:41	1
Benzene	ND		1.0	0.41	ug/L			11/29/22 10:41	1
Bromobenzene	ND		1.0	0.80	ug/L			11/29/22 10:41	1
Bromochloromethane	ND		1.0	0.87	ug/L			11/29/22 10:41	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/29/22 10:41	1
Bromoform	ND		1.0	0.26	ug/L			11/29/22 10:41	1
Bromomethane	ND		1.0	0.69	ug/L			11/29/22 10:41	1
Butyl alcohol, n-	ND		40	8.9	ug/L			11/29/22 10:41	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			11/29/22 10:41	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/29/22 10:41	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/29/22 10:41	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/29/22 10:41	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			11/29/22 10:41	1
Chloroethane	ND		1.0	0.32	ug/L			11/29/22 10:41	1
Chloroform	ND		1.0	0.34	ug/L			11/29/22 10:41	1
Chloromethane	ND		1.0	0.35	ug/L			11/29/22 10:41	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-651418/7
Matrix: Water
Analysis Batch: 651418

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/29/22 10:41	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/29/22 10:41	1
Cyclohexane	ND		1.0	0.18	ug/L			11/29/22 10:41	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/29/22 10:41	1
Dibromomethane	ND		1.0	0.41	ug/L			11/29/22 10:41	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/29/22 10:41	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			11/29/22 10:41	1
Ethyl acetate	ND		1.0	0.66	ug/L			11/29/22 10:41	1
Ethyl ether	ND		1.0	0.72	ug/L			11/29/22 10:41	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			11/29/22 10:41	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/29/22 10:41	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			11/29/22 10:41	1
Hexane	ND		10	0.40	ug/L			11/29/22 10:41	1
Iodomethane	ND		1.0	0.30	ug/L			11/29/22 10:41	1
Isobutanol	ND		25	4.8	ug/L			11/29/22 10:41	1
Isopropyl ether	ND		1.0	0.59	ug/L			11/29/22 10:41	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/29/22 10:41	1
Methacrylonitrile	ND		5.0	0.69	ug/L			11/29/22 10:41	1
Methyl acetate	ND		2.5	1.3	ug/L			11/29/22 10:41	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/29/22 10:41	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/29/22 10:41	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/29/22 10:41	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/29/22 10:41	1
Naphthalene	ND		1.0	0.43	ug/L			11/29/22 10:41	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/29/22 10:41	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/29/22 10:41	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			11/29/22 10:41	1
o-Xylene	ND		1.0	0.76	ug/L			11/29/22 10:41	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			11/29/22 10:41	1
p-Cymene	ND		1.0	0.31	ug/L			11/29/22 10:41	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/29/22 10:41	1
Styrene	ND		1.0	0.73	ug/L			11/29/22 10:41	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			11/29/22 10:41	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/29/22 10:41	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/29/22 10:41	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			11/29/22 10:41	1
Toluene	ND		1.0	0.51	ug/L			11/29/22 10:41	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/29/22 10:41	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/29/22 10:41	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			11/29/22 10:41	1
Trichloroethene	ND		1.0	0.46	ug/L			11/29/22 10:41	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/29/22 10:41	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/29/22 10:41	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/29/22 10:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*11/29/22 10:41*	*1*
4-Bromofluorobenzene (Surr)	*86*		*73 - 120*		*11/29/22 10:41*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-651418/7
Matrix: Water
Analysis Batch: 651418

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		80 - 120		11/29/22 10:41	1

Lab Sample ID: LCS 480-651418/5
Matrix: Water
Analysis Batch: 651418

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	25.0	23.6		ug/L		94	80 - 120
1,1,1-Trichloroethane	25.0	23.6		ug/L		95	73 - 126
1,1,2,2-Tetrachloroethane	25.0	27.3		ug/L		109	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.4		ug/L		90	61 - 148
1,1,2-Trichloroethane	25.0	24.4		ug/L		98	76 - 122
1,1-Dichloroethane	25.0	22.8		ug/L		91	77 - 120
1,1-Dichloroethene	25.0	20.7		ug/L		83	66 - 127
1,1-Dichloropropene	25.0	21.9		ug/L		88	72 - 122
1,2,3-Trichlorobenzene	25.0	24.6		ug/L		98	75 - 123
1,2,3-Trichloropropane	25.0	27.0		ug/L		108	68 - 122
1,2,4-Trichlorobenzene	25.0	24.5		ug/L		98	79 - 122
1,2,4-Trimethylbenzene	25.0	25.6		ug/L		102	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	31.4		ug/L		126	56 - 134
1,2-Dibromoethane (EDB)	25.0	24.3		ug/L		97	77 - 120
1,2-Dichlorobenzene	25.0	24.6		ug/L		98	80 - 124
1,2-Dichloroethane	25.0	24.8		ug/L		99	75 - 120
1,2-Dichloropropane	25.0	23.0		ug/L		92	76 - 120
1,3,5-Trimethylbenzene	25.0	25.1		ug/L		101	77 - 121
1,3-Dichlorobenzene	25.0	23.8		ug/L		95	77 - 120
1,3-Dichloropropane	25.0	24.2		ug/L		97	75 - 120
1,4-Dichlorobenzene	25.0	23.5		ug/L		94	80 - 120
1,4-Dioxane	500	475		ug/L		95	50 - 150
2,2-Dichloropropane	25.0	23.4		ug/L		94	63 - 136
2-Butanone (MEK)	125	151		ug/L		121	57 - 140
2-Chloroethyl vinyl ether	25.0	24.4		ug/L		98	70 - 129
2-Hexanone	125	167	*+	ug/L		133	65 - 127
4-Methyl-2-pentanone (MIBK)	125	164	*+	ug/L		131	71 - 125
Acetone	125	161		ug/L		129	56 - 142
Acrolein	125	114		ug/L		91	52 - 143
Acrylonitrile	250	282		ug/L		113	63 - 125
Benzene	25.0	21.5		ug/L		86	71 - 124
Bromobenzene	25.0	22.9		ug/L		92	78 - 120
Bromochloromethane	25.0	21.0		ug/L		84	72 - 130
Bromodichloromethane	25.0	24.2		ug/L		97	80 - 122
Bromoform	25.0	25.8		ug/L		103	61 - 132
Bromomethane	25.0	21.7		ug/L		87	55 - 144
Butyl alcohol, tert-	250	237		ug/L		95	75 - 125
Carbon disulfide	25.0	21.8		ug/L		87	59 - 134
Carbon tetrachloride	25.0	23.8		ug/L		95	72 - 134
Chlorobenzene	25.0	21.9		ug/L		87	80 - 120
Chloroethane	25.0	21.7		ug/L		87	69 - 136

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-651418/5
Matrix: Water
Analysis Batch: 651418

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	25.0	22.4		ug/L		90	73 - 127
Chloromethane	25.0	27.8		ug/L		111	68 - 124
cis-1,2-Dichloroethene	25.0	21.4		ug/L		86	74 - 124
cis-1,3-Dichloropropene	25.0	23.8		ug/L		95	74 - 124
Cyclohexane	25.0	24.8		ug/L		99	59 - 135
Dibromochloromethane	25.0	25.4		ug/L		102	75 - 125
Dibromomethane	25.0	23.5		ug/L		94	76 - 127
Dichlorodifluoromethane	25.0	27.4		ug/L		110	59 - 135
Dichlorofluoromethane	25.0	23.7		ug/L		95	76 - 127
Ethyl ether	25.0	24.7		ug/L		99	76 - 123
Ethylbenzene	25.0	22.8		ug/L		91	77 - 123
Hexachlorobutadiene	25.0	23.8		ug/L		95	68 - 131
Iodomethane	25.0	20.2		ug/L		81	78 - 123
Isobutanol	625	657		ug/L		105	51 - 150
Isopropylbenzene	25.0	24.6		ug/L		98	77 - 122
Methyl acetate	50.0	58.8		ug/L		118	74 - 133
Methyl tert-butyl ether	25.0	23.5		ug/L		94	77 - 120
Methylcyclohexane	25.0	22.1		ug/L		89	68 - 134
Methylene Chloride	25.0	23.0		ug/L		92	75 - 124
m-Xylene & p-Xylene	25.0	22.5		ug/L		90	76 - 122
Naphthalene	25.0	27.2		ug/L		109	66 - 125
n-Butylbenzene	25.0	26.9		ug/L		107	71 - 128
N-Propylbenzene	25.0	25.4		ug/L		102	75 - 127
o-Chlorotoluene	25.0	24.0		ug/L		96	76 - 121
o-Xylene	25.0	22.9		ug/L		91	76 - 122
p-Chlorotoluene	25.0	24.0		ug/L		96	77 - 121
p-Cymene	25.0	25.3		ug/L		101	73 - 120
sec-Butylbenzene	25.0	25.4		ug/L		102	74 - 127
Styrene	25.0	23.2		ug/L		93	80 - 120
tert-Butylbenzene	25.0	24.1		ug/L		96	75 - 123
Tetrachloroethene	25.0	21.5		ug/L		86	74 - 122
Tetrahydrofuran	50.0	57.1		ug/L		114	62 - 132
Toluene	25.0	22.3		ug/L		89	80 - 122
trans-1,2-Dichloroethene	25.0	20.9		ug/L		84	73 - 127
trans-1,3-Dichloropropene	25.0	25.9		ug/L		104	80 - 120
trans-1,4-Dichloro-2-butene	25.0	35.2	*+	ug/L		141	41 - 131
Trichloroethene	25.0	21.8		ug/L		87	74 - 123
Trichlorofluoromethane	25.0	26.8		ug/L		107	62 - 150
Vinyl acetate	50.0	59.7		ug/L		119	50 - 144
Vinyl chloride	25.0	23.8		ug/L		95	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-204118-Q-1 MS
Matrix: Water
Analysis Batch: 651418

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dichloroethane	ND		1000	1080		ug/L		108	75 - 120		
1,4-Dichlorobenzene	ND		1000	1010		ug/L		101	78 - 124		
2-Butanone (MEK)	6400		5000	12500		ug/L		123	57 - 140		
Benzene	ND		1000	959		ug/L		96	71 - 124		
Carbon tetrachloride	ND		1000	1050		ug/L		105	72 - 134		
Chlorobenzene	ND		1000	944		ug/L		94	80 - 120		
Chloroform	ND		1000	999		ug/L		100	73 - 127		
cis-1,2-Dichloroethene	ND		1000	956		ug/L		96	74 - 124		
Hexachlorobutadiene	ND		1000	1050		ug/L		105	68 - 131		
Tetrachloroethene	ND		1000	931		ug/L		93	74 - 122		
trans-1,2-Dichloroethene	ND		1000	944		ug/L		94	73 - 127		
Trichloroethene	ND		1000	972		ug/L		97	74 - 123		
Vinyl chloride	ND		1000	1050		ug/L		105	65 - 133		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*
4-Bromofluorobenzene (Surr)	*84*		*73 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*

Lab Sample ID: 480-204118-Q-1 MSD
Matrix: Water
Analysis Batch: 651418

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichloroethane	ND		1000	1030		ug/L		103	75 - 120	5	20
1,4-Dichlorobenzene	ND		1000	988		ug/L		99	78 - 124	2	20
2-Butanone (MEK)	6400		5000	12100		ug/L		115	57 - 140	3	20
Benzene	ND		1000	921		ug/L		92	71 - 124	4	13
Carbon tetrachloride	ND		1000	1010		ug/L		101	72 - 134	4	15
Chlorobenzene	ND		1000	921		ug/L		92	80 - 120	2	25
Chloroform	ND		1000	951		ug/L		95	73 - 127	5	20
cis-1,2-Dichloroethene	ND		1000	910		ug/L		91	74 - 124	5	15
Hexachlorobutadiene	ND		1000	989		ug/L		99	68 - 131	6	20
Tetrachloroethene	ND		1000	894		ug/L		89	74 - 122	4	20
trans-1,2-Dichloroethene	ND		1000	900		ug/L		90	73 - 127	5	20
Trichloroethene	ND		1000	931		ug/L		93	74 - 123	4	16
Vinyl chloride	ND		1000	1000		ug/L		100	65 - 133	5	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*
Toluene-d8 (Surr)	*96*		*80 - 120*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-651411/9
Matrix: Water
Analysis Batch: 651411

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/28/22 21:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*140*		*50 - 150*		*11/28/22 21:39*	*1*
TBA-d9 (Surr)	*136*		*50 - 150*		*11/28/22 21:39*	*1*

Lab Sample ID: LCS 480-651411/6
Matrix: Water
Analysis Batch: 651411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Vinyl chloride			0.200	0.190		ug/L		95	50 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*103*		*50 - 150*
TBA-d9 (Surr)	*104*		*50 - 150*

Lab Sample ID: LCSD 480-651411/7
Matrix: Water
Analysis Batch: 651411

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Vinyl chloride			0.200	0.184		ug/L		92	50 - 150	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*98*		*50 - 150*
TBA-d9 (Surr)	*109*		*50 - 150*

Lab Sample ID: MB 480-651554/9
Matrix: Water
Analysis Batch: 651554

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			11/29/22 21:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*145*		*50 - 150*		*11/29/22 21:24*	*1*
TBA-d9 (Surr)	*142*		*50 - 150*		*11/29/22 21:24*	*1*

Lab Sample ID: LCS 480-651554/6
Matrix: Water
Analysis Batch: 651554

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Vinyl chloride			0.200	0.198		ug/L		99	50 - 150		

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-651554/6
Matrix: Water
Analysis Batch: 651554

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*102*		*50 - 150*
TBA-d9 (Surr)	*109*		*50 - 150*

Lab Sample ID: LCSD 480-651554/7
Matrix: Water
Analysis Batch: 651554

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Vinyl chloride			0.200	0.212		ug/L		106	50 - 150	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*104*		*50 - 150*
TBA-d9 (Surr)	*104*		*50 - 150*

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 280-595224/1-A
Matrix: Water
Analysis Batch: 595656

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595224

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/02/22 19:26	12/05/22 20:14	1

Lab Sample ID: LCS 280-595224/2-A
Matrix: Water
Analysis Batch: 595656

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595224

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt, Total			1.00	0.968		mg/L		97	89 - 111

Lab Sample ID: LCSD 280-595224/3-A
Matrix: Water
Analysis Batch: 595656

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 595224

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt, Total			1.00	0.977		mg/L		98	89 - 111	1	20

Lab Sample ID: 280-168996-A-5-C MS
Matrix: Water
Analysis Batch: 595656

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 595224

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt, Total	ND		1.00	0.957		mg/L		96	82 - 119

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 280-168996-A-5-D MSD
Matrix: Water
Analysis Batch: 595656

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 595224

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt, Total	ND		1.00	0.939		mg/L		94	82 - 119	2	20

Lab Sample ID: MB 280-595470/1-A
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595470

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	ND		0.20	0.024	mg/L		12/05/22 19:16	12/06/22 17:30	1
Iron, Dissolved	0.0138	J	0.060	0.0091	mg/L		12/05/22 19:16	12/06/22 17:30	1
Magnesium, Dissolved	ND		0.050	0.0042	mg/L		12/05/22 19:16	12/06/22 17:30	1
Potassium, Dissolved	ND		1.0	0.24	mg/L		12/05/22 19:16	12/06/22 17:30	1
Sodium, Dissolved	ND		1.0	0.097	mg/L		12/05/22 19:16	12/06/22 17:30	1

Lab Sample ID: LCS 280-595470/2-A
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595470

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium, Dissolved	50.0	49.1		mg/L		98	90 - 111
Iron, Dissolved	10.0	9.91		mg/L		99	89 - 115
Magnesium, Dissolved	50.0	49.8		mg/L		100	90 - 113
Potassium, Dissolved	50.0	48.9		mg/L		98	89 - 114
Sodium, Dissolved	50.0	49.3		mg/L		99	90 - 115

Lab Sample ID: LCSD 280-595470/3-A
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 595470

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium, Dissolved	50.0	48.7		mg/L		97	90 - 111	1	20
Iron, Dissolved	10.0	9.83		mg/L		98	89 - 115	1	20
Magnesium, Dissolved	50.0	49.5		mg/L		99	90 - 113	0	20
Potassium, Dissolved	50.0	48.8		mg/L		98	89 - 114	0	20
Sodium, Dissolved	50.0	49.0		mg/L		98	90 - 115	1	20

Lab Sample ID: MB 280-595532/1-A
Matrix: Water
Analysis Batch: 595984

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595532

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/06/22 16:44	12/07/22 18:00	1
Iron, Total	ND		0.060	0.0091	mg/L		12/06/22 16:44	12/07/22 18:00	1

Lab Sample ID: LCS 280-595532/2-A
Matrix: Water
Analysis Batch: 595984

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595532

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt, Total	1.00	0.939		mg/L		94	89 - 111
Iron, Total	10.0	10.2		mg/L		102	89 - 115

Method: 6010D - Metals (ICP)

Lab Sample ID: 280-169454-2 MS
Matrix: Water
Analysis Batch: 595984

Client Sample ID: MW-33C
Prep Type: Total Recoverable
Prep Batch: 595532

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt, Total	ND		1.00	0.858		mg/L		86	82 - 119
Iron, Total	0.084		10.0	8.90		mg/L		88	75 - 125

Lab Sample ID: 280-169454-2 MSD
Matrix: Water
Analysis Batch: 595984

Client Sample ID: MW-33C
Prep Type: Total Recoverable
Prep Batch: 595532

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt, Total	ND		1.00	0.938		mg/L		94	82 - 119	9	20
Iron, Total	0.084		10.0	9.84		mg/L		98	75 - 125	10	20

Lab Sample ID: MB 280-595557/1-A
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595557

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	ND		0.20	0.024	mg/L		12/06/22 07:58	12/06/22 22:17	1
Iron, Dissolved	ND		0.060	0.0091	mg/L		12/06/22 07:58	12/06/22 22:17	1
Magnesium, Dissolved	ND		0.050	0.0042	mg/L		12/06/22 07:58	12/06/22 22:17	1
Potassium, Dissolved	ND		1.0	0.24	mg/L		12/06/22 07:58	12/06/22 22:17	1
Sodium, Dissolved	ND		1.0	0.097	mg/L		12/06/22 07:58	12/06/22 22:17	1

Lab Sample ID: LCS 280-595557/2-A
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595557

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium, Dissolved	50.0	47.2		mg/L		94	90 - 111
Iron, Dissolved	10.0	9.54		mg/L		95	89 - 115
Magnesium, Dissolved	50.0	48.2		mg/L		96	90 - 113
Potassium, Dissolved	50.0	47.6		mg/L		95	89 - 114
Sodium, Dissolved	50.0	48.1		mg/L		96	90 - 115

Lab Sample ID: MB 280-595768/1-A
Matrix: Water
Analysis Batch: 595984

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595768

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Total	0.0121	J	0.060	0.0091	mg/L		12/06/22 15:58	12/07/22 15:06	1

Lab Sample ID: LCS 280-595768/2-A
Matrix: Water
Analysis Batch: 595984

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595768

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron, Total	10.0	10.0		mg/L		100	89 - 115

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCSD 280-595768/3-A
Matrix: Water
Analysis Batch: 595984

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 595768

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron, Total			10.0	10.0		mg/L		100	89 - 115	0	20

Lab Sample ID: 280-168996-A-10-E MS
Matrix: Water
Analysis Batch: 595984

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 595768

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron, Total	0.21	B	10.0	10.4		mg/L		102	75 - 125

Lab Sample ID: 280-168996-A-10-F MSD
Matrix: Water
Analysis Batch: 595984

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 595768

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron, Total	0.21	B	10.0	10.4		mg/L		102	75 - 125	0	20

Lab Sample ID: 280-168996-A-4-C MS
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 595470

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium, Dissolved	83		50.0	130		mg/L		94	75 - 125
Iron, Dissolved	0.041	J B	10.0	9.88		mg/L		98	75 - 125
Magnesium, Dissolved	20		50.0	68.9		mg/L		98	75 - 125
Potassium, Dissolved	8.2		50.0	57.5		mg/L		99	76 - 125
Sodium, Dissolved	21		50.0	71.2		mg/L		101	75 - 125

Lab Sample ID: 280-168996-A-4-D MSD
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 595470

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium, Dissolved	83		50.0	126		mg/L		87	75 - 125	3	20
Iron, Dissolved	0.041	J B	10.0	9.70		mg/L		97	75 - 125	2	20
Magnesium, Dissolved	20		50.0	67.7		mg/L		96	75 - 125	2	20
Potassium, Dissolved	8.2		50.0	56.9		mg/L		97	76 - 125	1	20
Sodium, Dissolved	21		50.0	70.4		mg/L		99	75 - 125	1	20

Lab Sample ID: 280-169454-11 MS
Matrix: Water
Analysis Batch: 595900

Client Sample ID: LP-LCD
Prep Type: Dissolved
Prep Batch: 595557

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium, Dissolved	61		50.0	106		mg/L		90	75 - 125
Iron, Dissolved	0.061		10.0	9.40		mg/L		93	75 - 125
Magnesium, Dissolved	37		50.0	84.1		mg/L		94	75 - 125
Potassium, Dissolved	75		50.0	122		mg/L		94	76 - 125
Sodium, Dissolved	640		50.0	677	4	mg/L		76	75 - 125

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 280-169454-11 MSD
Matrix: Water
Analysis Batch: 595900

Client Sample ID: LP-LCD
Prep Type: Dissolved
Prep Batch: 595557

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium, Dissolved	61		50.0	108		mg/L		94	75 - 125	2	20
Iron, Dissolved	0.061		10.0	9.53		mg/L		95	75 - 125	1	20
Magnesium, Dissolved	37		50.0	85.8		mg/L		97	75 - 125	2	20
Potassium, Dissolved	75		50.0	124		mg/L		98	76 - 125	2	20
Sodium, Dissolved	640		50.0	695	4	mg/L		111	75 - 125	3	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 280-595222/1-A
Matrix: Water
Analysis Batch: 595693

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595222

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Total	ND		0.0010	0.00029	mg/L		12/05/22 08:47	12/05/22 23:29	1
Barium, Total	ND		0.0010	0.00029	mg/L		12/05/22 08:47	12/05/22 23:29	1

Lab Sample ID: MB 280-595222/1-A
Matrix: Water
Analysis Batch: 595811

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595222

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/05/22 08:47	12/06/22 23:05	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/05/22 08:47	12/06/22 23:05	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/05/22 08:47	12/06/22 23:05	1
Chromium, Total	0.000539	J	0.0030	0.00050	mg/L		12/05/22 08:47	12/06/22 23:05	1
Copper, Total	ND		0.0020	0.00056	mg/L		12/05/22 08:47	12/06/22 23:05	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/05/22 08:47	12/06/22 23:05	1
Manganese, Total	0.000311	J	0.0010	0.00031	mg/L		12/05/22 08:47	12/06/22 23:05	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/05/22 08:47	12/06/22 23:05	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/05/22 08:47	12/06/22 23:05	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/05/22 08:47	12/06/22 23:05	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/05/22 08:47	12/06/22 23:05	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/05/22 08:47	12/06/22 23:05	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/05/22 08:47	12/06/22 23:05	1

Lab Sample ID: LCS 280-595222/2-A
Matrix: Water
Analysis Batch: 595693

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595222

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium, Total	0.0400	0.0427		mg/L		107	85 - 118
Barium, Total	0.0400	0.0427		mg/L		107	85 - 118

Lab Sample ID: LCS 280-595222/2-A
Matrix: Water
Analysis Batch: 595811

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595222

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony, Total	0.0400	0.0401		mg/L		100	85 - 115
Beryllium, Total	0.0400	0.0398		mg/L		100	80 - 125

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-595222/2-A
Matrix: Water
Analysis Batch: 595811

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595222

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium, Total	0.0400	0.0380		mg/L		95	85 - 115
Chromium, Total	0.0400	0.0401		mg/L		100	84 - 121
Copper, Total	0.0400	0.0394		mg/L		99	85 - 119
Lead, Total	0.0400	0.0403		mg/L		101	85 - 118
Manganese, Total	0.0400	0.0416		mg/L		104	85 - 117
Nickel, Total	0.0400	0.0413		mg/L		103	85 - 119
Selenium, Total	0.0400	0.0417		mg/L		104	77 - 122
Silver, Total	0.0400	0.0403		mg/L		101	85 - 115
Thallium, Total	0.0400	0.0402		mg/L		100	85 - 118
Vanadium, Total	0.0400	0.0404		mg/L		101	85 - 120
Zinc, Total	0.0400	0.0417		mg/L		104	83 - 122

Lab Sample ID: 280-169397-C-2-C MS
Matrix: Water
Analysis Batch: 595693

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 595222

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium, Total	0.00042	J	0.0400	0.0429		mg/L		106	92 - 117
Barium, Total	0.00042	J	0.0400	0.0429		mg/L		106	92 - 117

Lab Sample ID: 280-169397-C-2-C MS
Matrix: Water
Analysis Batch: 595811

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 595222

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony, Total	ND		0.0400	0.0393		mg/L		98	80 - 111
Beryllium, Total	ND		0.0400	0.0377		mg/L		94	87 - 118
Cadmium, Total	ND		0.0400	0.0394		mg/L		99	91 - 114
Chromium, Total	ND		0.0400	0.0399		mg/L		100	91 - 114
Copper, Total	ND		0.0400	0.0397		mg/L		99	89 - 116
Lead, Total	ND		0.0400	0.0398		mg/L		99	95 - 116
Manganese, Total	0.00050	J B	0.0400	0.0408		mg/L		101	89 - 119
Nickel, Total	ND		0.0400	0.0404		mg/L		101	92 - 116
Selenium, Total	ND		0.0400	0.0392		mg/L		98	90 - 115
Silver, Total	0.000035	J	0.0400	0.0399		mg/L		100	93 - 118
Thallium, Total	ND		0.0400	0.0399		mg/L		100	94 - 115
Vanadium, Total	ND		0.0400	0.0399		mg/L		100	91 - 114
Zinc, Total	0.0039	J	0.0400	0.0409		mg/L		92	86 - 120

Lab Sample ID: 280-169397-C-2-D MSD
Matrix: Water
Analysis Batch: 595693

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 595222

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium, Total	0.00042	J	0.0400	0.0427		mg/L		106	92 - 117	0	20
Barium, Total	0.00042	J	0.0400	0.0427		mg/L		106	92 - 117	0	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-169397-C-2-D MSD
Matrix: Water
Analysis Batch: 595811

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 595222

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony, Total	ND		0.0400	0.0398		mg/L		99	80 - 111	1	20
Beryllium, Total	ND		0.0400	0.0395		mg/L		99	87 - 118	5	20
Cadmium, Total	ND		0.0400	0.0387		mg/L		97	91 - 114	2	20
Chromium, Total	ND		0.0400	0.0403		mg/L		101	91 - 114	1	20
Copper, Total	ND		0.0400	0.0408		mg/L		102	89 - 116	3	20
Lead, Total	ND		0.0400	0.0400		mg/L		100	95 - 116	1	20
Manganese, Total	0.00050	J B	0.0400	0.0411		mg/L		102	89 - 119	1	20
Nickel, Total	ND		0.0400	0.0414		mg/L		104	92 - 116	2	20
Selenium, Total	ND		0.0400	0.0405		mg/L		101	90 - 115	3	20
Silver, Total	0.000035	J	0.0400	0.0400		mg/L		100	93 - 118	0	20
Thallium, Total	ND		0.0400	0.0400		mg/L		100	94 - 115	0	20
Vanadium, Total	ND		0.0400	0.0402		mg/L		101	91 - 114	1	20
Zinc, Total	0.0039	J	0.0400	0.0426		mg/L		97	86 - 120	4	20

Lab Sample ID: MB 280-595289/1-A
Matrix: Water
Analysis Batch: 595811

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595289

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.000408	J	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 02:04	1

Lab Sample ID: LCS 280-595289/2-A
Matrix: Water
Analysis Batch: 595811

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595289

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese, Dissolved	0.0400	0.0412		mg/L		103	85 - 117

Lab Sample ID: MB 280-595533/1-A
Matrix: Water
Analysis Batch: 595811

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595533

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/06/22 07:58	12/07/22 01:06	1
Arsenic, Total	0.000790	J	0.0010	0.00033	mg/L		12/06/22 07:58	12/07/22 01:06	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/06/22 07:58	12/07/22 01:06	1
Cadmium, Total	0.000283	J	0.00030	0.00027	mg/L		12/06/22 07:58	12/07/22 01:06	1
Copper, Total	0.000736	J	0.0020	0.00056	mg/L		12/06/22 07:58	12/07/22 01:06	1
Lead, Total	0.000945	J	0.0010	0.00018	mg/L		12/06/22 07:58	12/07/22 01:06	1
Manganese, Total	0.000463	J	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 01:06	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/06/22 07:58	12/07/22 01:06	1
Selenium, Total	0.000510	J	0.0010	0.00037	mg/L		12/06/22 07:58	12/07/22 01:06	1
Silver, Total	0.000159	J	0.0020	0.000033	mg/L		12/06/22 07:58	12/07/22 01:06	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/06/22 07:58	12/07/22 01:06	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/06/22 07:58	12/07/22 01:06	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/06/22 07:58	12/07/22 01:06	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-595533/2-A
Matrix: Water
Analysis Batch: 595811

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595533

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony, Total			0.0400	0.0404		mg/L		101	85 - 115		
Arsenic, Total			0.0400	0.0395		mg/L		99	85 - 117		
Beryllium, Total			0.0400	0.0381		mg/L		95	80 - 125		
Cadmium, Total			0.0400	0.0397		mg/L		99	85 - 115		
Copper, Total			0.0400	0.0396		mg/L		99	85 - 119		
Lead, Total			0.0400	0.0413		mg/L		103	85 - 118		
Manganese, Total			0.0400	0.0416		mg/L		104	85 - 117		
Nickel, Total			0.0400	0.0409		mg/L		102	85 - 119		
Selenium, Total			0.0400	0.0399		mg/L		100	77 - 122		
Silver, Total			0.0400	0.0400		mg/L		100	85 - 115		
Thallium, Total			0.0400	0.0416		mg/L		104	85 - 118		
Vanadium, Total			0.0400	0.0408		mg/L		102	85 - 120		
Zinc, Total			0.0400	0.0417		mg/L		104	83 - 122		

Lab Sample ID: 280-169454-10 MS
Matrix: Water
Analysis Batch: 595811

Client Sample ID: MW-19C
Prep Type: Total Recoverable
Prep Batch: 595533

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony, Total	ND		0.0400	0.0405		mg/L		101	80 - 111		
Arsenic, Total	3.5	B	0.0400	0.0425	4	mg/L		-8584	92 - 112		
Beryllium, Total	ND		0.0400	0.0401		mg/L		100	87 - 118		
Cadmium, Total	ND		0.0400	0.0388		mg/L		97	91 - 114		
Copper, Total	ND		0.0400	0.0391		mg/L		98	89 - 116		
Lead, Total	ND		0.0400	0.0401		mg/L		100	95 - 116		
Manganese, Total	1.1	B	0.0400	1.18	4	mg/L		74	89 - 119		
Nickel, Total	ND		0.0400	0.0394		mg/L		98	92 - 116		
Selenium, Total	ND		0.0400	0.0420		mg/L		105	90 - 115		
Silver, Total	ND		0.0400	0.0399		mg/L		100	93 - 118		
Thallium, Total	ND		0.0400	0.0399		mg/L		100	94 - 115		
Vanadium, Total	ND		0.0400	0.0403		mg/L		101	91 - 114		
Zinc, Total	0.0021	J	0.0400	0.0406		mg/L		96	86 - 120		

Lab Sample ID: 280-169454-10 MSD
Matrix: Water
Analysis Batch: 595811

Client Sample ID: MW-19C
Prep Type: Total Recoverable
Prep Batch: 595533

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony, Total	ND		0.0400	0.0404		mg/L		101	80 - 111	0	20
Arsenic, Total	3.5	B	0.0400	0.0443	4	mg/L		-8579	92 - 112	4	20
Beryllium, Total	ND		0.0400	0.0387		mg/L		97	87 - 118	3	20
Cadmium, Total	ND		0.0400	0.0392		mg/L		98	91 - 114	1	20
Chromium, Total	0.00053	J B	0.0400	0.0394		mg/L		97	91 - 114	2	20
Copper, Total	ND		0.0400	0.0394		mg/L		98	89 - 116	1	20
Lead, Total	ND		0.0400	0.0416		mg/L		104	95 - 116	4	20
Manganese, Total	1.1	B	0.0400	1.22	4	mg/L		181	89 - 119	4	20
Nickel, Total	ND		0.0400	0.0411		mg/L		103	92 - 116	4	20
Selenium, Total	ND		0.0400	0.0405		mg/L		101	90 - 115	4	20
Silver, Total	ND		0.0400	0.0413		mg/L		103	93 - 118	3	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-169454-10 MSD
Matrix: Water
Analysis Batch: 595811

Client Sample ID: MW-19C
Prep Type: Total Recoverable
Prep Batch: 595533

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thallium, Total	ND		0.0400	0.0417		mg/L		104	94 - 115	4	20
Vanadium, Total	ND		0.0400	0.0406		mg/L		101	91 - 114	1	20
Zinc, Total	0.0021	J	0.0400	0.0427		mg/L		101	86 - 120	5	20

Lab Sample ID: MB 280-595907/1-A
Matrix: Water
Analysis Batch: 596138

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595907

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Total	ND		0.0010	0.00029	mg/L		12/08/22 08:20	12/08/22 18:43	1
Chromium, Total	ND		0.0030	0.00050	mg/L		12/08/22 08:20	12/08/22 18:43	1

Lab Sample ID: LCS 280-595907/2-A
Matrix: Water
Analysis Batch: 596138

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595907

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium, Total	0.0400	0.0383		mg/L		96	85 - 118
Chromium, Total	0.0400	0.0391		mg/L		98	84 - 121

Lab Sample ID: 280-169454-11 MS
Matrix: Water
Analysis Batch: 596138

Client Sample ID: LP-LCD
Prep Type: Total Recoverable
Prep Batch: 595907

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium, Total	0.091		0.0400	0.138		mg/L		117	92 - 117
Chromium, Total	0.0028	J	0.0400	0.0444		mg/L		104	91 - 114

Lab Sample ID: 280-169454-11 MSD
Matrix: Water
Analysis Batch: 596138

Client Sample ID: LP-LCD
Prep Type: Total Recoverable
Prep Batch: 595907

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium, Total	0.091		0.0400	0.136		mg/L		113	92 - 117	1	20
Chromium, Total	0.0028	J	0.0400	0.0423		mg/L		99	91 - 114	5	20

Lab Sample ID: 280-168996-A-11-D MS
Matrix: Water
Analysis Batch: 595811

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 595289

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese, Dissolved	0.00049	J B	0.0400	0.0411		mg/L		102	89 - 119

Lab Sample ID: 280-168996-A-11-E MSD
Matrix: Water
Analysis Batch: 595811

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 595289

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese, Dissolved	0.00049	J B	0.0400	0.0398		mg/L		98	89 - 119	3	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-595867/6
Matrix: Water
Analysis Batch: 595867

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/07/22 13:59	1
Sulfate	ND		5.0	5.0	mg/L			12/07/22 13:59	1

Lab Sample ID: LCS 280-595867/4
Matrix: Water
Analysis Batch: 595867

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	48.8		mg/L		98	90 - 110		
Sulfate			50.0	50.4		mg/L		101	90 - 110		

Lab Sample ID: LCSD 280-595867/5
Matrix: Water
Analysis Batch: 595867

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			50.0	48.8		mg/L		98	90 - 110	0	10
Sulfate			50.0	50.2		mg/L		100	90 - 110	0	10

Lab Sample ID: MRL 280-595867/3
Matrix: Water
Analysis Batch: 595867

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			2.50	ND		mg/L		83	50 - 150		
Sulfate			2.50	ND		mg/L		91	50 - 150		

Lab Sample ID: 280-169552-A-10 MS
Matrix: Water
Analysis Batch: 595867

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	11		50.0	62.1		mg/L		103	80 - 120		
Sulfate	ND		50.0	47.6		mg/L		95	80 - 120		

Lab Sample ID: 280-169552-A-10 MSD
Matrix: Water
Analysis Batch: 595867

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	11		50.0	62.1		mg/L		103	80 - 120	0	20
Sulfate	ND		50.0	47.6		mg/L		95	80 - 120	0	20

Lab Sample ID: 280-169552-A-10 DU
Matrix: Water
Analysis Batch: 595867

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chloride	11			10.7		mg/L				0.1	15
Sulfate	ND			ND		mg/L				NC	15

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-596572/46
Matrix: Water
Analysis Batch: 596572

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/14/22 07:13	1
Sulfate	ND		5.0	5.0	mg/L			12/14/22 07:13	1

Lab Sample ID: LCS 280-596572/44
Matrix: Water
Analysis Batch: 596572

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	50.7		mg/L		101	90 - 110		
Sulfate			50.0	48.9		mg/L		98	90 - 110		

Lab Sample ID: LCSD 280-596572/45
Matrix: Water
Analysis Batch: 596572

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			50.0	50.7		mg/L		101	90 - 110	0	10
Sulfate			50.0	49.3		mg/L		99	90 - 110	1	10

Lab Sample ID: MRL 280-596572/3
Matrix: Water
Analysis Batch: 596572

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			2.50	ND		mg/L		84	50 - 150		
Sulfate			2.50	ND		mg/L		79	50 - 150		

Lab Sample ID: 280-169454-5 MS
Matrix: Water
Analysis Batch: 596572

Client Sample ID: MW-13B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND	F1	50.0	61.4	F1	mg/L		123	80 - 120		
Sulfate	ND	F1	50.0	64.4	F1	mg/L		129	80 - 120		

Lab Sample ID: 280-169454-5 MSD
Matrix: Water
Analysis Batch: 596572

Client Sample ID: MW-13B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND	F1	50.0	62.5	F1	mg/L		125	80 - 120	2	20
Sulfate	ND	F1	50.0	65.6	F1	mg/L		131	80 - 120	2	20

Lab Sample ID: 280-169454-13 MS
Matrix: Water
Analysis Batch: 596572

Client Sample ID: MW-32
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	6.6	F1	50.0	66.0		mg/L		119	80 - 120		
Sulfate	11	F1	50.0	73.3	F1	mg/L		125	80 - 120		

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 280-169454-13 MSD
Matrix: Water
Analysis Batch: 596572

Client Sample ID: MW-32
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	6.6	F1	50.0	69.9	F1	mg/L		127	80 - 120	6	20
Sulfate	11	F1	50.0	77.4	F1	mg/L		133	80 - 120	6	20

Lab Sample ID: 280-169454-5 DU
Matrix: Water
Analysis Batch: 596572

Client Sample ID: MW-13B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	ND	F1	ND		mg/L		NC	15
Sulfate	ND	F1	ND		mg/L		NC	15

Lab Sample ID: 280-169454-13 DU
Matrix: Water
Analysis Batch: 596572

Client Sample ID: MW-32
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	6.6	F1	6.54		mg/L		1	15
Sulfate	11	F1	10.6		mg/L		1	15

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-596110/56
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.030	0.030	mg/L			12/08/22 11:34	1

Lab Sample ID: MB 280-596110/97
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.030	0.030	mg/L			12/08/22 13:24	1

Lab Sample ID: LCS 280-596110/54
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia (as N)	2.50	2.57		mg/L		103	90 - 110

Lab Sample ID: LCS 280-596110/95
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia (as N)	2.50	2.57		mg/L		103	90 - 110

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCSD 280-596110/55
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)			2.50	2.58		mg/L		103	90 - 110	0	10

Lab Sample ID: LCSD 280-596110/96
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)			2.50	2.59		mg/L		103	90 - 110	0	10

Lab Sample ID: 280-169300-A-3 MS
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia (as N)	3.3		1.00	4.38		mg/L		108	90 - 110		

Lab Sample ID: 280-169300-A-3 MSD
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)	3.3		1.00	4.38		mg/L		108	90 - 110	0	10

Lab Sample ID: 280-169321-A-3 MS
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia (as N)	0.21		1.00	1.31		mg/L		109	90 - 110		

Lab Sample ID: 280-169321-A-3 MSD
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)	0.21		1.00	1.32		mg/L		110	90 - 110	1	10

Lab Sample ID: 280-169378-A-3 MS
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia (as N)	2.9	F1	1.00	4.00		mg/L		105	90 - 110		

Lab Sample ID: 280-169378-A-3 MSD
Matrix: Water
Analysis Batch: 596110

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)	2.9	F1	1.00	4.06	F1	mg/L		112	90 - 110	2	10

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-596566/19
Matrix: Water
Analysis Batch: 596566

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.030	0.030	mg/L			12/13/22 09:41	1

Lab Sample ID: LCS 280-596566/17
Matrix: Water
Analysis Batch: 596566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia (as N)			2.50	2.51		mg/L		101	90 - 110		

Lab Sample ID: LCSD 280-596566/18
Matrix: Water
Analysis Batch: 596566

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)			2.50	2.52		mg/L		101	90 - 110	0	10

Lab Sample ID: 280-169558-A-3 MS
Matrix: Water
Analysis Batch: 596566

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia (as N)	3.1		1.00	4.10		mg/L		103	90 - 110		

Lab Sample ID: 280-169558-A-3 MSD
Matrix: Water
Analysis Batch: 596566

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)	3.1		1.00	4.10		mg/L		104	90 - 110	0	10

Method: 353.2 - Nitrate

Lab Sample ID: MB 280-596348/1
Matrix: Water
Analysis Batch: 596348

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050	0.050	mg/L			12/12/22 09:51	1

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-596249/60
Matrix: Water
Analysis Batch: 596249

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.10	0.10	mg/L			12/09/22 16:04	1

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: LCS 280-596249/59
Matrix: Water
Analysis Batch: 596249

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			5.00	4.98		mg/L		100	90 - 110		

Lab Sample ID: 280-169454-C-3 MS
Matrix: Water
Analysis Batch: 596249

Client Sample ID: 280-169454-C-3 MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	ND	F1	4.00	4.88	F1	mg/L		122	90 - 110		

Lab Sample ID: 280-169454-C-3 MSD
Matrix: Water
Analysis Batch: 596249

Client Sample ID: 280-169454-C-3 MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	ND	F1	4.00	4.86	F1	mg/L		121	90 - 110	1	10

Method: 410.4 - COD

Lab Sample ID: MB 280-594928/5
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	ND		10	10	mg/L			11/29/22 12:38	1

Lab Sample ID: LCS 280-594928/3
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chemical Oxygen Demand (COD)			100	97.0		mg/L		97	90 - 110		

Lab Sample ID: LCSD 280-594928/4
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)			100	104		mg/L		104	90 - 110	7	11

Lab Sample ID: 280-169553-B-1 MS
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chemical Oxygen Demand (COD)	16	F1	50.0	57.3	F1	mg/L		82	90 - 110		

Method: 410.4 - COD (Continued)

Lab Sample ID: 280-169553-B-1 MSD
Matrix: Water
Analysis Batch: 594928

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	16	F1	50.0	59.3	F1	mg/L		86	90 - 110	3	11

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-594522/110
Matrix: Water
Analysis Batch: 594522

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10	10	mg/L			11/23/22 00:43	1
Alkalinity, Total (As CaCO3)	ND		10	10	mg/L			11/23/22 00:43	1
Alkalinity, Bicarbonate (As CaCO3)	ND		10	10	mg/L			11/23/22 00:43	1
Bicarbonate Alkalinity as CaCO3	ND		10	10	mg/L			11/23/22 00:43	1

Lab Sample ID: LCS 280-594522/109
Matrix: Water
Analysis Batch: 594522

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	200	211		mg/L		105	89 - 109
Alkalinity, Total (As CaCO3)	200	211		mg/L		105	89 - 109

Lab Sample ID: 280-169432-A-7 DU
Matrix: Water
Analysis Batch: 594522

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total	540		556		mg/L		2	10
Alkalinity, Total (As CaCO3)	540		556		mg/L		2	10
Alkalinity, Bicarbonate (As CaCO3)	540		556		mg/L		2	20
Bicarbonate Alkalinity as CaCO3	540		556		mg/L		2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-594435/1
Matrix: Water
Analysis Batch: 594435

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		5.0	5.0	mg/L			11/22/22 13:14	1

Lab Sample ID: LCS 280-594435/2
Matrix: Water
Analysis Batch: 594435

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids (TDS)	501	478		mg/L		95	88 - 114

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 280-169454-1 DU
Matrix: Water
Analysis Batch: 594435

Client Sample ID: MW-33A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids (TDS)	79			101	F3	mg/L				24	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-594581/2
Matrix: Water
Analysis Batch: 594581

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			11/23/22 12:14	1

Lab Sample ID: LCS 280-594581/1
Matrix: Water
Analysis Batch: 594581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			501	456		mg/L		91	79 - 114		

Lab Sample ID: 280-169454-1 DU
Matrix: Water
Analysis Batch: 594581

Client Sample ID: MW-33A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	ND			ND		mg/L				NC	10

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-595848/21
Matrix: Water
Analysis Batch: 595848

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/06/22 21:16	1

Lab Sample ID: MB 280-595848/4
Matrix: Water
Analysis Batch: 595848

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/06/22 17:00	1

Lab Sample ID: LCS 280-595848/19
Matrix: Water
Analysis Batch: 595848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Average			25.0	23.8		mg/L		95	88 - 112		

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCSD 280-595848/20
Matrix: Water
Analysis Batch: 595848

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Average			25.0	23.7		mg/L		95	88 - 112	0	15

Lab Sample ID: 280-169454-6 MS
Matrix: Water
Analysis Batch: 595848

Client Sample ID: DUP-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Average	ND		25.0	24.1		mg/L		96	88 - 112		

Lab Sample ID: 280-169454-6 MSD
Matrix: Water
Analysis Batch: 595848

Client Sample ID: DUP-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Average	ND		25.0	24.0		mg/L		96	88 - 112	0	15

Method: SM5210B - BOD, 5 Day

Lab Sample ID: MB 280-594568/4
Matrix: Water
Analysis Batch: 594568

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			11/23/22 11:54	1

Lab Sample ID: SCB 280-594568/1
Matrix: Water
Analysis Batch: 594568

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	SCB Result	SCB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			11/23/22 11:54	1

Lab Sample ID: USB 280-594568/2
Matrix: Water
Analysis Batch: 594568

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			11/23/22 11:54	1

Lab Sample ID: LCS 280-594568/3
Matrix: Water
Analysis Batch: 594568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Biochemical Oxygen Demand			198	193		mg/L		97	85 - 115		

Method: SM5210B - BOD, 5 Day (Continued)

Lab Sample ID: 280-169471-A-2 DU
Matrix: Water
Analysis Batch: 594568

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Biochemical Oxygen Demand	76	b		77.2		mg/L				1	20

GC/MS VOA

Analysis Batch: 651411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total/NA	Water	8260C SIM	
280-169454-2	MW-33C	Total/NA	Water	8260C SIM	
280-169454-3	DUP-1	Total/NA	Water	8260C SIM	
280-169454-4	MW-13A	Total/NA	Water	8260C SIM	
280-169454-5	MW-13B	Total/NA	Water	8260C SIM	
280-169454-6	DUP-2	Total/NA	Water	8260C SIM	
280-169454-7	MW-16	Total/NA	Water	8260C SIM	
280-169454-8	MW-36A	Total/NA	Water	8260C SIM	
280-169454-9	TRIP BLANK	Total/NA	Water	8260C SIM	
MB 480-651411/9	Method Blank	Total/NA	Water	8260C SIM	
LCS 480-651411/6	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 480-651411/7	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 651418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total/NA	Water	8260C	
280-169454-2	MW-33C	Total/NA	Water	8260C	
280-169454-3	DUP-1	Total/NA	Water	8260C	
280-169454-4	MW-13A	Total/NA	Water	8260C	
280-169454-5	MW-13B	Total/NA	Water	8260C	
280-169454-6	DUP-2	Total/NA	Water	8260C	
280-169454-7	MW-16	Total/NA	Water	8260C	
280-169454-8	MW-36A	Total/NA	Water	8260C	
280-169454-9	TRIP BLANK	Total/NA	Water	8260C	
280-169454-10	MW-19C	Total/NA	Water	8260C	
280-169454-11	LP-LCD	Total/NA	Water	8260C	
280-169454-12	MW-39	Total/NA	Water	8260C	
280-169454-13	MW-32	Total/NA	Water	8260C	
MB 480-651418/7	Method Blank	Total/NA	Water	8260C	
LCS 480-651418/5	Lab Control Sample	Total/NA	Water	8260C	
480-204118-Q-1 MS	Matrix Spike	Total/NA	Water	8260C	
480-204118-Q-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

Analysis Batch: 651554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-10	MW-19C	Total/NA	Water	8260C SIM	
280-169454-11	LP-LCD	Total/NA	Water	8260C SIM	
280-169454-12	MW-39	Total/NA	Water	8260C SIM	
280-169454-13	MW-32	Total/NA	Water	8260C SIM	
MB 480-651554/9	Method Blank	Total/NA	Water	8260C SIM	
LCS 480-651554/6	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 480-651554/7	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Metals

Prep Batch: 595222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total Recoverable	Water	3005A	
280-169454-2	MW-33C	Total Recoverable	Water	3005A	
280-169454-3	DUP-1	Total Recoverable	Water	3005A	
280-169454-4	MW-13A	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 595222 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-5	MW-13B	Total Recoverable	Water	3005A	
280-169454-6	DUP-2	Total Recoverable	Water	3005A	
280-169454-7	MW-16	Total Recoverable	Water	3005A	
280-169454-8	MW-36A	Total Recoverable	Water	3005A	
MB 280-595222/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595222/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-169397-C-2-C MS	Matrix Spike	Total Recoverable	Water	3005A	
280-169397-C-2-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 595224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total Recoverable	Water	3005A	
MB 280-595224/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595224/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 280-595224/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
280-168996-A-5-C MS	Matrix Spike	Total Recoverable	Water	3005A	
280-168996-A-5-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 595289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Dissolved	Water	3005A	
280-169454-2	MW-33C	Dissolved	Water	3005A	
280-169454-3	DUP-1	Dissolved	Water	3005A	
280-169454-4	MW-13A	Dissolved	Water	3005A	
280-169454-5	MW-13B	Dissolved	Water	3005A	
280-169454-6	DUP-2	Dissolved	Water	3005A	
280-169454-7	MW-16	Dissolved	Water	3005A	
280-169454-8	MW-36A	Dissolved	Water	3005A	
280-169454-10	MW-19C	Dissolved	Water	3005A	
280-169454-11	LP-LCD	Dissolved	Water	3005A	
280-169454-12	MW-39	Dissolved	Water	3005A	
280-169454-13	MW-32	Dissolved	Water	3005A	
MB 280-595289/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595289/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-168996-A-11-D MS	Matrix Spike	Dissolved	Water	3005A	
280-168996-A-11-E MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Prep Batch: 595470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Dissolved	Water	3005A	
280-169454-2	MW-33C	Dissolved	Water	3005A	
280-169454-3	DUP-1	Dissolved	Water	3005A	
280-169454-4	MW-13A	Dissolved	Water	3005A	
280-169454-5	MW-13B	Dissolved	Water	3005A	
280-169454-6	DUP-2	Dissolved	Water	3005A	
280-169454-7	MW-16	Dissolved	Water	3005A	
280-169454-8	MW-36A	Dissolved	Water	3005A	
280-169454-10	MW-19C	Dissolved	Water	3005A	
MB 280-595470/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595470/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 280-595470/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 595470 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168996-A-4-C MS	Matrix Spike	Dissolved	Water	3005A	
280-168996-A-4-D MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Prep Batch: 595532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-2	MW-33C	Total Recoverable	Water	3005A	
280-169454-3	DUP-1	Total Recoverable	Water	3005A	
280-169454-4	MW-13A	Total Recoverable	Water	3005A	
280-169454-5	MW-13B	Total Recoverable	Water	3005A	
280-169454-6	DUP-2	Total Recoverable	Water	3005A	
280-169454-7	MW-16	Total Recoverable	Water	3005A	
280-169454-8	MW-36A	Total Recoverable	Water	3005A	
280-169454-10	MW-19C	Total Recoverable	Water	3005A	
280-169454-11	LP-LCD	Total Recoverable	Water	3005A	
280-169454-12	MW-39	Total Recoverable	Water	3005A	
280-169454-13	MW-32	Total Recoverable	Water	3005A	
MB 280-595532/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595532/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-169454-2 MS	MW-33C	Total Recoverable	Water	3005A	
280-169454-2 MSD	MW-33C	Total Recoverable	Water	3005A	

Prep Batch: 595533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-10	MW-19C	Total Recoverable	Water	3005A	
280-169454-11	LP-LCD	Total Recoverable	Water	3005A	
280-169454-12	MW-39	Total Recoverable	Water	3005A	
280-169454-13	MW-32	Total Recoverable	Water	3005A	
MB 280-595533/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595533/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-169454-10 MS	MW-19C	Total Recoverable	Water	3005A	
280-169454-10 MSD	MW-19C	Total Recoverable	Water	3005A	

Prep Batch: 595557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-11	LP-LCD	Dissolved	Water	3005A	
280-169454-12	MW-39	Dissolved	Water	3005A	
280-169454-13	MW-32	Dissolved	Water	3005A	
MB 280-595557/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595557/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-169454-11 MS	LP-LCD	Dissolved	Water	3005A	
280-169454-11 MSD	LP-LCD	Dissolved	Water	3005A	

Analysis Batch: 595656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total Recoverable	Water	6010D	595224
MB 280-595224/1-A	Method Blank	Total Recoverable	Water	6010D	595224
LCS 280-595224/2-A	Lab Control Sample	Total Recoverable	Water	6010D	595224
LCSD 280-595224/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010D	595224
280-168996-A-5-C MS	Matrix Spike	Total Recoverable	Water	6010D	595224
280-168996-A-5-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010D	595224

Metals

Analysis Batch: 595693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-2	MW-33C	Total Recoverable	Water	6020B	595222
MB 280-595222/1-A	Method Blank	Total Recoverable	Water	6020B	595222
LCS 280-595222/2-A	Lab Control Sample	Total Recoverable	Water	6020B	595222
280-169397-C-2-C MS	Matrix Spike	Total Recoverable	Water	6020B	595222
280-169397-C-2-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	595222

Prep Batch: 595768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total Recoverable	Water	3005A	
MB 280-595768/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595768/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 280-595768/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
280-168996-A-10-E MS	Matrix Spike	Total Recoverable	Water	3005A	
280-168996-A-10-F MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 595811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Dissolved	Water	6020B	595289
280-169454-1	MW-33A	Total Recoverable	Water	6020B	595222
280-169454-2	MW-33C	Dissolved	Water	6020B	595289
280-169454-2	MW-33C	Total Recoverable	Water	6020B	595222
280-169454-3	DUP-1	Dissolved	Water	6020B	595289
280-169454-3	DUP-1	Total Recoverable	Water	6020B	595222
280-169454-4	MW-13A	Dissolved	Water	6020B	595289
280-169454-4	MW-13A	Total Recoverable	Water	6020B	595222
280-169454-5	MW-13B	Dissolved	Water	6020B	595289
280-169454-5	MW-13B	Total Recoverable	Water	6020B	595222
280-169454-6	DUP-2	Dissolved	Water	6020B	595289
280-169454-6	DUP-2	Total Recoverable	Water	6020B	595222
280-169454-7	MW-16	Dissolved	Water	6020B	595289
280-169454-7	MW-16	Total Recoverable	Water	6020B	595222
280-169454-8	MW-36A	Dissolved	Water	6020B	595289
280-169454-8	MW-36A	Total Recoverable	Water	6020B	595222
280-169454-10	MW-19C	Dissolved	Water	6020B	595289
280-169454-10	MW-19C	Total Recoverable	Water	6020B	595533
280-169454-11	LP-LCD	Dissolved	Water	6020B	595289
280-169454-11	LP-LCD	Total Recoverable	Water	6020B	595533
280-169454-12	MW-39	Dissolved	Water	6020B	595289
280-169454-12	MW-39	Total Recoverable	Water	6020B	595533
280-169454-13	MW-32	Dissolved	Water	6020B	595289
280-169454-13	MW-32	Total Recoverable	Water	6020B	595533
MB 280-595222/1-A	Method Blank	Total Recoverable	Water	6020B	595222
MB 280-595289/1-A	Method Blank	Total Recoverable	Water	6020B	595289
MB 280-595533/1-A	Method Blank	Total Recoverable	Water	6020B	595533
LCS 280-595222/2-A	Lab Control Sample	Total Recoverable	Water	6020B	595222
LCS 280-595289/2-A	Lab Control Sample	Total Recoverable	Water	6020B	595289
LCS 280-595533/2-A	Lab Control Sample	Total Recoverable	Water	6020B	595533
280-168996-A-11-D MS	Matrix Spike	Dissolved	Water	6020B	595289
280-168996-A-11-E MSD	Matrix Spike Duplicate	Dissolved	Water	6020B	595289
280-169397-C-2-C MS	Matrix Spike	Total Recoverable	Water	6020B	595222
280-169397-C-2-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	595222

Metals (Continued)

Analysis Batch: 595811 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-10 MS	MW-19C	Total Recoverable	Water	6020B	595533
280-169454-10 MSD	MW-19C	Total Recoverable	Water	6020B	595533

Analysis Batch: 595840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total Recoverable	Water	6020B	595222
280-169454-3	DUP-1	Total Recoverable	Water	6020B	595222
280-169454-4	MW-13A	Total Recoverable	Water	6020B	595222
280-169454-5	MW-13B	Total Recoverable	Water	6020B	595222
280-169454-6	DUP-2	Total Recoverable	Water	6020B	595222
280-169454-7	MW-16	Total Recoverable	Water	6020B	595222
280-169454-8	MW-36A	Total Recoverable	Water	6020B	595222
MB 280-595222/1-A	Method Blank	Total Recoverable	Water	6020B	595222
LCS 280-595222/2-A	Lab Control Sample	Total Recoverable	Water	6020B	595222
280-169397-C-2-C MS	Matrix Spike	Total Recoverable	Water	6020B	595222
280-169397-C-2-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	595222

Analysis Batch: 595900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Dissolved	Water	6010D	595470
280-169454-2	MW-33C	Dissolved	Water	6010D	595470
280-169454-3	DUP-1	Dissolved	Water	6010D	595470
280-169454-4	MW-13A	Dissolved	Water	6010D	595470
280-169454-5	MW-13B	Dissolved	Water	6010D	595470
280-169454-6	DUP-2	Dissolved	Water	6010D	595470
280-169454-7	MW-16	Dissolved	Water	6010D	595470
280-169454-8	MW-36A	Dissolved	Water	6010D	595470
280-169454-10	MW-19C	Dissolved	Water	6010D	595470
280-169454-11	LP-LCD	Dissolved	Water	6010D	595557
280-169454-12	MW-39	Dissolved	Water	6010D	595557
280-169454-13	MW-32	Dissolved	Water	6010D	595557
MB 280-595470/1-A	Method Blank	Total Recoverable	Water	6010D	595470
MB 280-595557/1-A	Method Blank	Total Recoverable	Water	6010D	595557
LCS 280-595470/2-A	Lab Control Sample	Total Recoverable	Water	6010D	595470
LCS 280-595557/2-A	Lab Control Sample	Total Recoverable	Water	6010D	595557
LCSD 280-595470/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010D	595470
280-168996-A-4-C MS	Matrix Spike	Dissolved	Water	6010D	595470
280-168996-A-4-D MSD	Matrix Spike Duplicate	Dissolved	Water	6010D	595470
280-169454-11 MS	LP-LCD	Dissolved	Water	6010D	595557
280-169454-11 MSD	LP-LCD	Dissolved	Water	6010D	595557

Prep Batch: 595907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-10	MW-19C	Total Recoverable	Water	3005A	
280-169454-11	LP-LCD	Total Recoverable	Water	3005A	
280-169454-12	MW-39	Total Recoverable	Water	3005A	
280-169454-13	MW-32	Total Recoverable	Water	3005A	
MB 280-595907/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595907/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-169454-11 MS	LP-LCD	Total Recoverable	Water	3005A	
280-169454-11 MSD	LP-LCD	Total Recoverable	Water	3005A	

Metals

Analysis Batch: 595984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total Recoverable	Water	6010D	595768
280-169454-2	MW-33C	Total Recoverable	Water	6010D	595532
280-169454-3	DUP-1	Total Recoverable	Water	6010D	595532
280-169454-4	MW-13A	Total Recoverable	Water	6010D	595532
280-169454-5	MW-13B	Total Recoverable	Water	6010D	595532
280-169454-6	DUP-2	Total Recoverable	Water	6010D	595532
280-169454-7	MW-16	Total Recoverable	Water	6010D	595532
280-169454-8	MW-36A	Total Recoverable	Water	6010D	595532
280-169454-10	MW-19C	Total Recoverable	Water	6010D	595532
280-169454-11	LP-LCD	Total Recoverable	Water	6010D	595532
280-169454-12	MW-39	Total Recoverable	Water	6010D	595532
280-169454-13	MW-32	Total Recoverable	Water	6010D	595532
MB 280-595532/1-A	Method Blank	Total Recoverable	Water	6010D	595532
MB 280-595768/1-A	Method Blank	Total Recoverable	Water	6010D	595768
LCS 280-595532/2-A	Lab Control Sample	Total Recoverable	Water	6010D	595532
LCS 280-595768/2-A	Lab Control Sample	Total Recoverable	Water	6010D	595768
LCSD 280-595768/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010D	595768
280-168996-A-10-E MS	Matrix Spike	Total Recoverable	Water	6010D	595768
280-168996-A-10-F MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010D	595768
280-169454-2 MS	MW-33C	Total Recoverable	Water	6010D	595532
280-169454-2 MSD	MW-33C	Total Recoverable	Water	6010D	595532

Analysis Batch: 596138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-10	MW-19C	Total Recoverable	Water	6020B	595907
280-169454-11	LP-LCD	Total Recoverable	Water	6020B	595907
280-169454-12	MW-39	Total Recoverable	Water	6020B	595907
280-169454-13	MW-32	Total Recoverable	Water	6020B	595907
MB 280-595907/1-A	Method Blank	Total Recoverable	Water	6020B	595907
LCS 280-595907/2-A	Lab Control Sample	Total Recoverable	Water	6020B	595907
280-169454-11 MS	LP-LCD	Total Recoverable	Water	6020B	595907
280-169454-11 MSD	LP-LCD	Total Recoverable	Water	6020B	595907

General Chemistry

Analysis Batch: 594435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total/NA	Water	SM 2540C	
280-169454-2	MW-33C	Total/NA	Water	SM 2540C	
280-169454-3	DUP-1	Total/NA	Water	SM 2540C	
280-169454-4	MW-13A	Total/NA	Water	SM 2540C	
280-169454-5	MW-13B	Total/NA	Water	SM 2540C	
280-169454-6	DUP-2	Total/NA	Water	SM 2540C	
280-169454-7	MW-16	Total/NA	Water	SM 2540C	
280-169454-8	MW-36A	Total/NA	Water	SM 2540C	
280-169454-10	MW-19C	Total/NA	Water	SM 2540C	
280-169454-11	LP-LCD	Total/NA	Water	SM 2540C	
280-169454-12	MW-39	Total/NA	Water	SM 2540C	
280-169454-13	MW-32	Total/NA	Water	SM 2540C	
MB 280-594435/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-594435/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 594435 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1 DU	MW-33A	Total/NA	Water	SM 2540C	

Analysis Batch: 594522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total/NA	Water	SM 2320B	
280-169454-2	MW-33C	Total/NA	Water	SM 2320B	
280-169454-3	DUP-1	Total/NA	Water	SM 2320B	
280-169454-4	MW-13A	Total/NA	Water	SM 2320B	
280-169454-5	MW-13B	Total/NA	Water	SM 2320B	
280-169454-6	DUP-2	Total/NA	Water	SM 2320B	
280-169454-7	MW-16	Total/NA	Water	SM 2320B	
280-169454-8	MW-36A	Total/NA	Water	SM 2320B	
280-169454-10	MW-19C	Total/NA	Water	SM 2320B	
280-169454-11	LP-LCD	Total/NA	Water	SM 2320B	
280-169454-12	MW-39	Total/NA	Water	SM 2320B	
280-169454-13	MW-32	Total/NA	Water	SM 2320B	
MB 280-594522/110	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-594522/109	Lab Control Sample	Total/NA	Water	SM 2320B	
280-169432-A-7 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 594568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-11	LP-LCD	Total/NA	Water	SM5210B	
MB 280-594568/4	Method Blank	Total/NA	Water	SM5210B	
SCB 280-594568/1	Method Blank	Total/NA	Water	SM5210B	
USB 280-594568/2	Method Blank	Total/NA	Water	SM5210B	
LCS 280-594568/3	Lab Control Sample	Total/NA	Water	SM5210B	
280-169471-A-2 DU	Duplicate	Total/NA	Water	SM5210B	

Analysis Batch: 594581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total/NA	Water	SM 2540D	
280-169454-2	MW-33C	Total/NA	Water	SM 2540D	
280-169454-3	DUP-1	Total/NA	Water	SM 2540D	
280-169454-4	MW-13A	Total/NA	Water	SM 2540D	
280-169454-5	MW-13B	Total/NA	Water	SM 2540D	
280-169454-6	DUP-2	Total/NA	Water	SM 2540D	
280-169454-7	MW-16	Total/NA	Water	SM 2540D	
280-169454-8	MW-36A	Total/NA	Water	SM 2540D	
280-169454-10	MW-19C	Total/NA	Water	SM 2540D	
280-169454-12	MW-39	Total/NA	Water	SM 2540D	
280-169454-13	MW-32	Total/NA	Water	SM 2540D	
MB 280-594581/2	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-594581/1	Lab Control Sample	Total/NA	Water	SM 2540D	
280-169454-1 DU	MW-33A	Total/NA	Water	SM 2540D	

Analysis Batch: 594928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-11	LP-LCD	Total/NA	Water	410.4	
MB 280-594928/5	Method Blank	Total/NA	Water	410.4	
LCS 280-594928/3	Lab Control Sample	Total/NA	Water	410.4	

General Chemistry (Continued)

Analysis Batch: 594928 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 280-594928/4	Lab Control Sample Dup	Total/NA	Water	410.4	
280-169553-B-1 MS	Matrix Spike	Total/NA	Water	410.4	
280-169553-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	

Analysis Batch: 595848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total/NA	Water	SM 5310B	
280-169454-2	MW-33C	Total/NA	Water	SM 5310B	
280-169454-3	DUP-1	Total/NA	Water	SM 5310B	
280-169454-4	MW-13A	Total/NA	Water	SM 5310B	
280-169454-5	MW-13B	Total/NA	Water	SM 5310B	
280-169454-6	DUP-2	Total/NA	Water	SM 5310B	
280-169454-7	MW-16	Total/NA	Water	SM 5310B	
280-169454-8	MW-36A	Total/NA	Water	SM 5310B	
280-169454-10	MW-19C	Total/NA	Water	SM 5310B	
280-169454-11	LP-LCD	Total/NA	Water	SM 5310B	
280-169454-12	MW-39	Total/NA	Water	SM 5310B	
280-169454-13	MW-32	Total/NA	Water	SM 5310B	
MB 280-595848/21	Method Blank	Total/NA	Water	SM 5310B	
MB 280-595848/4	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-595848/19	Lab Control Sample	Total/NA	Water	SM 5310B	
LCSD 280-595848/20	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
280-169454-6 MS	DUP-2	Total/NA	Water	SM 5310B	
280-169454-6 MSD	DUP-2	Total/NA	Water	SM 5310B	

Analysis Batch: 595867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total/NA	Water	300.0	
280-169454-2	MW-33C	Total/NA	Water	300.0	
MB 280-595867/6	Method Blank	Total/NA	Water	300.0	
LCS 280-595867/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-595867/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-595867/3	Lab Control Sample	Total/NA	Water	300.0	
280-169552-A-10 MS	Matrix Spike	Total/NA	Water	300.0	
280-169552-A-10 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-169552-A-10 DU	Duplicate	Total/NA	Water	300.0	

Analysis Batch: 596110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total/NA	Water	350.1	
280-169454-2	MW-33C	Total/NA	Water	350.1	
280-169454-3	DUP-1	Total/NA	Water	350.1	
280-169454-4	MW-13A	Total/NA	Water	350.1	
280-169454-6	DUP-2	Total/NA	Water	350.1	
280-169454-7	MW-16	Total/NA	Water	350.1	
280-169454-8	MW-36A	Total/NA	Water	350.1	
280-169454-10	MW-19C	Total/NA	Water	350.1	
280-169454-11	LP-LCD	Total/NA	Water	350.1	
280-169454-12	MW-39	Total/NA	Water	350.1	
280-169454-13	MW-32	Total/NA	Water	350.1	
MB 280-596110/56	Method Blank	Total/NA	Water	350.1	

General Chemistry (Continued)

Analysis Batch: 596110 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-596110/97	Method Blank	Total/NA	Water	350.1	
LCS 280-596110/54	Lab Control Sample	Total/NA	Water	350.1	
LCS 280-596110/95	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-596110/55	Lab Control Sample Dup	Total/NA	Water	350.1	
LCSD 280-596110/96	Lab Control Sample Dup	Total/NA	Water	350.1	
280-169300-A-3 MS	Matrix Spike	Total/NA	Water	350.1	
280-169300-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
280-169321-A-3 MS	Matrix Spike	Total/NA	Water	350.1	
280-169321-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
280-169378-A-3 MS	Matrix Spike	Total/NA	Water	350.1	
280-169378-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 596249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-11	LP-LCD	Total/NA	Water	353.2	
MB 280-596249/60	Method Blank	Total/NA	Water	353.2	
LCS 280-596249/59	Lab Control Sample	Total/NA	Water	353.2	
280-169454-C-3 MS	280-169454-C-3 MS	Total/NA	Water	353.2	
280-169454-C-3 MSD	280-169454-C-3 MSD	Total/NA	Water	353.2	

Analysis Batch: 596348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total/NA	Water	353.2	
280-169454-2	MW-33C	Total/NA	Water	353.2	
280-169454-3	DUP-1	Total/NA	Water	353.2	
280-169454-4	MW-13A	Total/NA	Water	353.2	
280-169454-5	MW-13B	Total/NA	Water	353.2	
280-169454-6	DUP-2	Total/NA	Water	353.2	
280-169454-7	MW-16	Total/NA	Water	353.2	
280-169454-8	MW-36A	Total/NA	Water	353.2	
280-169454-10	MW-19C	Total/NA	Water	353.2	
280-169454-11	LP-LCD	Total/NA	Water	353.2	
280-169454-12	MW-39	Total/NA	Water	353.2	
280-169454-13	MW-32	Total/NA	Water	353.2	
MB 280-596348/1	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 596566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-5	MW-13B	Total/NA	Water	350.1	
MB 280-596566/19	Method Blank	Total/NA	Water	350.1	
LCS 280-596566/17	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-596566/18	Lab Control Sample Dup	Total/NA	Water	350.1	
280-169558-A-3 MS	Matrix Spike	Total/NA	Water	350.1	
280-169558-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 596572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-3	DUP-1	Total/NA	Water	300.0	
280-169454-4	MW-13A	Total/NA	Water	300.0	
280-169454-5	MW-13B	Total/NA	Water	300.0	
280-169454-6	DUP-2	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 596572 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-7	MW-16	Total/NA	Water	300.0	
280-169454-8	MW-36A	Total/NA	Water	300.0	
280-169454-10	MW-19C	Total/NA	Water	300.0	
280-169454-11	LP-LCD	Total/NA	Water	300.0	
280-169454-12	MW-39	Total/NA	Water	300.0	
280-169454-13	MW-32	Total/NA	Water	300.0	
MB 280-596572/46	Method Blank	Total/NA	Water	300.0	
LCS 280-596572/44	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-596572/45	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-596572/3	Lab Control Sample	Total/NA	Water	300.0	
280-169454-5 MS	MW-13B	Total/NA	Water	300.0	
280-169454-5 MSD	MW-13B	Total/NA	Water	300.0	
280-169454-13 MS	MW-32	Total/NA	Water	300.0	
280-169454-13 MSD	MW-32	Total/NA	Water	300.0	
280-169454-5 DU	MW-13B	Total/NA	Water	300.0	
280-169454-13 DU	MW-32	Total/NA	Water	300.0	

Field Service / Mobile Lab

Analysis Batch: 595019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169454-1	MW-33A	Total/NA	Water	Field Sampling	
280-169454-2	MW-33C	Total/NA	Water	Field Sampling	
280-169454-4	MW-13A	Total/NA	Water	Field Sampling	
280-169454-5	MW-13B	Total/NA	Water	Field Sampling	
280-169454-7	MW-16	Total/NA	Water	Field Sampling	
280-169454-8	MW-36A	Total/NA	Water	Field Sampling	
280-169454-10	MW-19C	Total/NA	Water	Field Sampling	
280-169454-11	LP-LCD	Total/NA	Water	Field Sampling	
280-169454-12	MW-39	Total/NA	Water	Field Sampling	
280-169454-13	MW-32	Total/NA	Water	Field Sampling	

Client Sample ID: MW-33A

Lab Sample ID: 280-169454-1

Date Collected: 11/17/22 10:45

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651418	11/29/22 11:03	AXK	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/29/22 01:36	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	595470	12/05/22 19:16	LJS	EET DEN
Dissolved	Analysis	6010D		1			595900	12/06/22 19:33	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595224	12/02/22 19:26	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595656	12/05/22 21:27	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595768	12/06/22 15:58	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595984	12/07/22 16:18	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	595289	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6020B		1			595811	12/07/22 02:26	LRD	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595840	12/06/22 00:07	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595811	12/06/22 23:47	LRD	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	595867	12/08/22 01:03	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596110	12/08/22 13:10	MMP	EET DEN
Total/NA	Analysis	353.2		1			596348	12/12/22 09:51	SAH	EET DEN
Total/NA	Analysis	SM 2320B		1			594522	11/23/22 02:18	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594435	11/22/22 13:14	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594581	11/23/22 12:15	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595848	12/07/22 00:01	ABW	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/17/22 11:45	S1S	EET DEN

Client Sample ID: MW-33C

Lab Sample ID: 280-169454-2

Date Collected: 11/17/22 10:20

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651418	11/29/22 11:24	AXK	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/29/22 01:59	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	595470	12/05/22 19:16	LJS	EET DEN
Dissolved	Analysis	6010D		1			595900	12/06/22 19:37	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595532	12/06/22 16:44	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595984	12/07/22 18:09	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	595289	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6020B		1			595811	12/07/22 02:28	LRD	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595693	12/06/22 00:10	LRD	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595811	12/06/22 23:49	LRD	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	595867	12/08/22 01:19	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596110	12/08/22 13:13	MMP	EET DEN
Total/NA	Analysis	353.2		1			596348	12/12/22 09:51	SAH	EET DEN

Lab Chronicle

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169454-1

Client Sample ID: MW-33C

Lab Sample ID: 280-169454-2

Date Collected: 11/17/22 10:20

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2320B		1			594522	11/23/22 02:23	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594435	11/22/22 13:14	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594581	11/23/22 12:15	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595848	12/07/22 00:17	ABW	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/17/22 11:20	S1S	EET DEN

Client Sample ID: DUP-1

Lab Sample ID: 280-169454-3

Date Collected: 11/17/22 13:10

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651418	11/29/22 11:47	AXK	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/29/22 02:23	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	595470	12/05/22 19:16	LJS	EET DEN
Dissolved	Analysis	6010D		1			595900	12/06/22 19:58	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595532	12/06/22 16:44	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595984	12/07/22 18:47	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	595289	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6020B		1			595811	12/07/22 02:30	LRD	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595840	12/06/22 00:10	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595811	12/06/22 23:51	LRD	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	596572	12/14/22 11:28	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596110	12/08/22 13:16	MMP	EET DEN
Total/NA	Analysis	353.2		1			596348	12/12/22 09:51	SAH	EET DEN
Total/NA	Analysis	SM 2320B		1			594522	11/23/22 02:29	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594435	11/22/22 13:14	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594581	11/23/22 12:15	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595848	12/07/22 00:32	ABW	EET DEN

Client Sample ID: MW-13A

Lab Sample ID: 280-169454-4

Date Collected: 11/17/22 12:20

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651418	11/29/22 12:09	AXK	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/29/22 02:47	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	595470	12/05/22 19:16	LJS	EET DEN
Dissolved	Analysis	6010D		1			595900	12/06/22 20:02	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595532	12/06/22 16:44	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595984	12/07/22 18:51	KRP	EET DEN

Lab Chronicle

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169454-1

Client Sample ID: MW-13A

Date Collected: 11/17/22 12:20
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	595289	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6020B		1			595811	12/07/22 02:32	LRD	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595840	12/06/22 00:16	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595811	12/06/22 23:53	LRD	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	596572	12/14/22 11:45	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596110	12/08/22 13:53	MMP	EET DEN
Total/NA	Analysis	353.2		1			596348	12/12/22 09:51	SAH	EET DEN
Total/NA	Analysis	SM 2320B		1			594522	11/23/22 02:49	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594435	11/22/22 13:14	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594581	11/23/22 12:15	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595848	12/07/22 00:46	ABW	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/17/22 13:20	S1S	EET DEN

Client Sample ID: MW-13B

Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651418	11/29/22 12:30	AXK	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/29/22 03:11	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	595470	12/05/22 19:16	LJS	EET DEN
Dissolved	Analysis	6010D		1			595900	12/06/22 20:06	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595532	12/06/22 16:44	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595984	12/07/22 18:55	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	595289	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6020B		1			595811	12/07/22 02:34	LRD	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595840	12/06/22 00:18	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595811	12/06/22 23:54	LRD	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	596572	12/14/22 12:02	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596566	12/13/22 09:54	MMP	EET DEN
Total/NA	Analysis	353.2		1			596348	12/12/22 09:51	SAH	EET DEN
Total/NA	Analysis	SM 2320B		1			594522	11/23/22 02:55	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594435	11/22/22 13:14	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594581	11/23/22 12:15	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595848	12/07/22 01:00	ABW	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/17/22 14:00	S1S	EET DEN

Client Sample ID: DUP-2

Lab Sample ID: 280-169454-6

Date Collected: 11/17/22 10:40

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651418	11/29/22 12:52	AXK	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/29/22 03:34	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	595470	12/05/22 19:16	LJS	EET DEN
Dissolved	Analysis	6010D		1			595900	12/06/22 20:10	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595532	12/06/22 16:44	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595984	12/07/22 18:59	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	595289	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6020B		1			595811	12/07/22 02:36	LRD	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595840	12/06/22 00:20	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595811	12/06/22 23:56	LRD	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	596572	12/14/22 13:44	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596110	12/08/22 13:58	MMP	EET DEN
Total/NA	Analysis	353.2		1			596348	12/12/22 09:51	SAH	EET DEN
Total/NA	Analysis	SM 2320B		1			594522	11/23/22 03:00	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594435	11/22/22 13:14	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594581	11/23/22 12:15	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595848	12/07/22 01:14	ABW	EET DEN

Client Sample ID: MW-16

Lab Sample ID: 280-169454-7

Date Collected: 11/17/22 10:30

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651418	11/29/22 13:14	AXK	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/29/22 03:58	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	595470	12/05/22 19:16	LJS	EET DEN
Dissolved	Analysis	6010D		1			595900	12/06/22 20:14	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595532	12/06/22 16:44	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595984	12/07/22 19:03	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	595289	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6020B		1			595811	12/07/22 02:38	LRD	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595840	12/06/22 00:22	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595811	12/06/22 23:58	LRD	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	596572	12/14/22 14:01	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596110	12/08/22 14:01	MMP	EET DEN
Total/NA	Analysis	353.2		1			596348	12/12/22 09:54	SAH	EET DEN
Total/NA	Analysis	SM 2320B		1			594522	11/23/22 03:06	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594435	11/22/22 13:14	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594581	11/23/22 12:15	ASP	EET DEN

Client Sample ID: MW-16

Lab Sample ID: 280-169454-7

Date Collected: 11/17/22 10:30

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595848	12/07/22 02:27	ABW	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/17/22 11:30	S1S	EET DEN

Client Sample ID: MW-36A

Lab Sample ID: 280-169454-8

Date Collected: 11/17/22 14:10

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651418	11/29/22 13:36	AXK	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/29/22 04:22	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	595470	12/05/22 19:16	LJS	EET DEN
Dissolved	Analysis	6010D		1			595900	12/06/22 20:18	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595532	12/06/22 16:44	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595984	12/07/22 19:07	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	595289	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6020B		1			595811	12/07/22 02:39	LRD	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595840	12/06/22 00:23	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595222	12/05/22 08:47	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595811	12/07/22 00:00	LRD	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	596572	12/14/22 14:18	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596110	12/08/22 14:04	MMP	EET DEN
Total/NA	Analysis	353.2		1			596348	12/12/22 09:54	SAH	EET DEN
Total/NA	Analysis	SM 2320B		1			594522	11/23/22 03:12	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594435	11/22/22 13:14	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594581	11/23/22 12:15	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595848	12/07/22 02:41	ABW	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/17/22 15:10	S1S	EET DEN

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-169454-9

Date Collected: 11/17/22 15:40

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651418	11/29/22 13:58	AXK	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651411	11/29/22 04:45	CDC	EET BUF

Client Sample ID: MW-19C

Lab Sample ID: 280-169454-10

Date Collected: 11/17/22 14:40

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651418	11/29/22 14:20	AXK	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651554	11/29/22 22:39	CDC	EET BUF

Client Sample ID: MW-19C

Lab Sample ID: 280-169454-10

Date Collected: 11/17/22 14:40

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	595470	12/05/22 19:16	LJS	EET DEN
Dissolved	Analysis	6010D		1			595900	12/06/22 20:22	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595532	12/06/22 16:44	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595984	12/07/22 19:11	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	595289	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6020B		1			595811	12/07/22 02:41	LRD	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595907	12/08/22 08:20	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			596138	12/08/22 18:51	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595533	12/06/22 07:58	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595811	12/07/22 01:10	LRD	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	596572	12/14/22 14:35	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596110	12/08/22 14:06	MMP	EET DEN
Total/NA	Analysis	353.2		1			596348	12/12/22 09:54	SAH	EET DEN
Total/NA	Analysis	SM 2320B		1			594522	11/23/22 03:17	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594435	11/22/22 13:14	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594581	11/23/22 12:15	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595848	12/07/22 02:55	ABW	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/17/22 15:40	S1S	EET DEN

Client Sample ID: LP-LCD

Lab Sample ID: 280-169454-11

Date Collected: 11/17/22 13:40

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		8	5 mL	5 mL	651418	11/29/22 14:42	AXK	EET BUF
Total/NA	Analysis	8260C SIM		10	25 mL	25 mL	651554	11/29/22 23:02	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	595557	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6010D		1			595900	12/06/22 22:26	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595532	12/06/22 16:44	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595984	12/07/22 19:16	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	595289	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6020B		1			595811	12/07/22 02:43	LRD	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595907	12/08/22 08:20	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			596138	12/08/22 18:54	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595533	12/06/22 07:58	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595811	12/07/22 01:19	LRD	EET DEN
Total/NA	Analysis	300.0		10	5 mL	5 mL	596572	12/14/22 15:10	EJS	EET DEN
Total/NA	Analysis	350.1		2	10 mL	10 mL	596110	12/08/22 14:09	MMP	EET DEN
Total/NA	Analysis	353.2		1			596348	12/12/22 09:54	SAH	EET DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	596249	12/09/22 17:12	ZPM	EET DEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	594928	11/29/22 12:38	BCR	EET DEN
Total/NA	Analysis	SM 2320B		1			594522	11/23/22 03:29	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	594435	11/22/22 13:14	ASP	EET DEN

Client Sample ID: LP-LCD

Lab Sample ID: 280-169454-11

Date Collected: 11/17/22 13:40

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5310B		2	20 mL	20 mL	595848	12/07/22 03:09	ABW	EET DEN
Total/NA	Analysis	SM5210B		1	120 mL	300 mL	594568	11/23/22 11:54	BCR	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/17/22 14:40	S1S	EET DEN

Client Sample ID: MW-39

Lab Sample ID: 280-169454-12

Date Collected: 11/17/22 15:00

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651418	11/29/22 15:04	AXK	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651554	11/29/22 23:26	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	595557	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6010D		1			595900	12/06/22 22:49	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595532	12/06/22 16:44	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595984	12/07/22 19:37	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	595289	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6020B		1			595811	12/07/22 02:49	LRD	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595907	12/08/22 08:20	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			596138	12/08/22 19:13	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595533	12/06/22 07:58	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595811	12/07/22 01:21	LRD	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	596572	12/14/22 15:27	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596110	12/08/22 14:12	MMP	EET DEN
Total/NA	Analysis	353.2		1			596348	12/12/22 09:54	SAH	EET DEN
Total/NA	Analysis	SM 2320B		1			594522	11/23/22 03:35	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594435	11/22/22 13:14	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594581	11/23/22 12:15	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595848	12/07/22 03:26	ABW	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/17/22 16:00	S1S	EET DEN

Client Sample ID: MW-32

Lab Sample ID: 280-169454-13

Date Collected: 11/17/22 13:00

Matrix: Water

Date Received: 11/21/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651418	11/29/22 15:26	AXK	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	651554	11/29/22 23:49	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	595557	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6010D		1			595900	12/06/22 22:53	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595532	12/06/22 16:44	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595984	12/07/22 19:41	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	595289	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6020B		1			595811	12/07/22 02:51	LRD	EET DEN

Lab Chronicle

Client: Waste Management
Job ID: 280-169454-1
Project/Site: WA02|Olympic View Sanitary LF

Client Sample ID: MW-32
Date Collected: 11/17/22 13:00
Date Received: 11/21/22 09:00

Lab Sample ID: 280-169454-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	595907	12/08/22 08:20	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			596138	12/08/22 19:17	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595533	12/06/22 07:58	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595811	12/07/22 01:23	LRD	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	596572	12/14/22 15:44	EJS	EET DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	596110	12/08/22 14:38	MMP	EET DEN
Total/NA	Analysis	353.2		1			596348	12/12/22 09:54	SAH	EET DEN
Total/NA	Analysis	SM 2320B		1			594522	11/23/22 03:41	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594435	11/22/22 13:14	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594581	11/23/22 12:15	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	595848	12/07/22 03:40	ABW	EET DEN
Total/NA	Analysis	Field Sampling		1			595019	11/17/22 14:00	S1S	EET DEN

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200

Analytical Resources, LLC
Analytical Chemists and Consultants

15 December 2022

Janice Collins
Eurofins - Test America - Denver
4955 Yarrow Street
Arvada, CO 80002

RE: Olympic View Sanitary LF (OVSL) w/SCS Engineers (04204027.25)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
22K0381	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Shelly Fishel, Project Manager

Cert# 100006-012

4611 S. 134th Place, Suite 100 • Tukwila, WA 98168 • Ph: (206) 695-6200 • Fax: (206) 695-6202

Chain of Custody Record & Laboratory Analysis Request

AR Assigned Number: 22K0381	Turn-around Requested: Standard	Date: 11/17/2022	
AR Client Company: SCS Engineers	Phone: 425-289-5455	Page: 1 of 2	
Client Contact: Dan Venchiarutti		No. of Coolers:	Cooler Temps:
Client Project Name: OVSL			
Client Project #: 04204027.25	Samplers: JE and RM		

Analytical Resources, LLC
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6202 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: Low level Total Arsenic	Notes/Comments
MW-36A	11/17/22	14:10	groundwater	1	X	
Dup-2	11/17/22	10:40				
MW-15R	11/16/22	11:35				
MW-19C	11/17/22	14:40				
MW-39	11/17/22	15:00				
MW-42	11/16/22	13:20				
MW-34C	11/16/22	13:55				
MW-34A	11/16/22	13:40				
MW-43	11/16/22	14:20				
MW-35	11/17/22	16:05				

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: Dan Venchiarutti	Printed Name: Matt Smith	Printed Name:	Printed Name:
	Company: SCS Engineers	Company: AOI LLC	Company:	Company:
	Date & Time: 11/21/22	Date & Time: 11/21/22 12:04	Date & Time:	Date & Time:

Limits of Liability: *Analytical Resources, LLC (AR) will perform all requested services in accordance with appropriate methodology following AR Standard Operating Procedures and the AR Quality Assurance Program. This program meets standards for the industry. The total liability of AR, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by AR release AR from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between AR and the Client.*

Sample Retention Policy: Unless specified by work order or contract, all water/soil samples submitted to AR will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hard copy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

Chain of Custody Record & Laboratory Analysis Request

AR Assigned Number: 22K0361	Turn-around Requested: Standard	Date: 11/17/2022	
AR Client Company: SCS Engineers	Phone: 425-289-5455	Page: 2 of 2	
Client Contact: Dan Venchiarutti		No. of Coolers:	Cooler Temps:
Client Project Name: OVSL			
Client Project #: 04204027.25	Samplers: JE and RM		

Analytical Resources, LLC
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6202 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: Low level total Arsenic	Notes/Comments
MW-32	11/17/22	13:00	groundwater	1	X	
MW-16	11/17/22	10:30				
Dup-1	11/17/22	13:10				
LP-LCD	11/17/22	13:40				
MW-29A	11/16/22	14:10				
MW-13B	11/17/22	13:00				
MW-33C	11/17/22	10:20				
MW-33A	11/17/22	10:45				
MW-13A	11/17/22	12:20				

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: Dan Venchiarutti	Printed Name: Trent Smith	Printed Name:	Printed Name:
	Company: SCS Engineers	Company: ARI LLC	Company:	Company:
	Date & Time: 11/21/22	Date & Time: 11/21/22 12:04	Date & Time:	Date & Time:

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Sample Retention Policy: Unless specified by work order or contract, all water/soil samples submitted to AR will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hard copy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-36A	22K0381-01	Water	17-Nov-2022 14:10	21-Nov-2022 12:04
Dup-2	22K0381-02	Water	17-Nov-2022 10:40	21-Nov-2022 12:04
MW-15R	22K0381-03	Water	17-Nov-2022 11:35	21-Nov-2022 12:04
MW-19C	22K0381-04	Water	17-Nov-2022 14:40	21-Nov-2022 12:04
MW-39	22K0381-05	Water	17-Nov-2022 15:00	21-Nov-2022 12:04
MW-42	22K0381-06	Water	16-Nov-2022 13:20	21-Nov-2022 12:04
MW-34C	22K0381-07	Water	16-Nov-2022 13:55	21-Nov-2022 12:04
MW-34A	22K0381-08	Water	16-Nov-2022 13:10	21-Nov-2022 12:04
MW-43	22K0381-09	Water	16-Nov-2022 14:20	21-Nov-2022 12:04
MW-35	22K0381-10	Water	17-Nov-2022 16:05	21-Nov-2022 12:04
MW-32	22K0381-11	Water	17-Nov-2022 13:00	21-Nov-2022 12:04
MW-16	22K0381-12	Water	17-Nov-2022 10:30	21-Nov-2022 12:04
Dup-1	22K0381-13	Water	17-Nov-2022 13:10	21-Nov-2022 12:04
LP-LCD	22K0381-14	Water	17-Nov-2022 13:40	21-Nov-2022 12:04
MW-29A	22K0381-15	Water	16-Nov-2022 14:10	21-Nov-2022 12:04
MW-13B	22K0381-16	Water	17-Nov-2022 13:00	21-Nov-2022 12:04
MW-33C	22K0381-17	Water	17-Nov-2022 10:20	21-Nov-2022 12:04
MW-33A	22K0381-18	Water	17-Nov-2022 10:45	21-Nov-2022 12:04
MW-13A	22K0381-19	Water	17-Nov-2022 12:20	21-Nov-2022 12:04

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Work Order Case Narrative

Client: Eurofins - Test America - Denver
Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers
Project Number: 04204027.25
Work Order: 22K0381

Sample receipt

Sample(s) as listed on the preceding page were received 21-Nov-2022 12:04 under ARI work order 22K0381. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Total Metals - EPA Method 6020B

The sample(s) were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

WORK ORDER

22K0381

Samples will be discarded 90 days after submission of a final report unless other instructions are received

Client: Eurofins - Test America - Denver **Project Manager:** Shelly Fishel

Project: Olympic View Sanitary LF (OVSL) w/SCS Engine **Project Number:** 04204027.25

Preservation Confirmation

Container ID	Container Type	pH
22K0381-01 A	HDPE NM, 250mL HNO3	L2 P
22K0381-02 A	HDPE NM, 250mL HNO3	L2 P
22K0381-03 A	HDPE NM, 250mL HNO3	L2 P
22K0381-04 A	HDPE NM, 250mL HNO3	L2 P
22K0381-05 A	HDPE NM, 250mL HNO3	L2 P
22K0381-06 A	HDPE NM, 250mL HNO3	L2 P
22K0381-07 A	HDPE NM, 250mL HNO3	L2 P
22K0381-08 A	HDPE NM, 250mL HNO3	L2 P
22K0381-09 A	HDPE NM, 250mL HNO3	L2 P
22K0381-10 A	HDPE NM, 250mL HNO3	L2 P
22K0381-11 A	HDPE NM, 250mL HNO3	L2 P
22K0381-12 A	HDPE NM, 250mL HNO3	L2 P
22K0381-13 A	HDPE NM, 250mL HNO3	L2 P
22K0381-14 A	HDPE NM, 250mL HNO3	L2 P
22K0381-15 A	HDPE NM, 250mL HNO3	L2 P
22K0381-16 A	HDPE NM, 250mL HNO3	L2 P
22K0381-17 A	HDPE NM, 250mL HNO3	L2 P
22K0381-18 A	HDPE NM, 250mL HNO3	L2 P
22K0381-19 A	HDPE NM, 250mL HNO3	L2 P

Preservation Confirmed By

11/21/22
Date

Reviewed By

Date

Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: SCS Engineers Project Name: OVSL

COC No(s): _____ (NA) Delivered by: Fed-Ex UPS Courier Hand Delivered Other:_____

Assigned ARI Job No: 22K0381 Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 12:47 1.7 ____ ____ ____ ____ ____ ____

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: D209208

Cooler Accepted by: [signature] Date: 11/21/22 Time: 12:04

Complete custody forms and attach all shipping documents

Log-In Phase:

J. S.

Was a temperature blank included in the cooler?		(YES)	NO
What kind of packing material was used? ... Bubble Wrap (Wet Ice) Gel Packs (Baggies) Foam Block Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
How were bottles sealed in plastic bags?	Individually	(Grouped)	Not
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ...	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		_____

Were the sample(s) split by ARI? (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: [signature] Date: 11/21/22 Time: 13:07 Labels checked by: JS

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

MW-43 Sampled at 14:20 CoC, Bottle label says 14:40

By: Date:

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-36A

22K0381-01 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 14:10

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:38

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-01 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000492	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Dup-2

22K0381-02 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 10:40
Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:28

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-02 A 01
Preparation Batch: BKL0170 — Sample Size: 100 mL
Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.0000373	0.000200	0.00330	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-15R

22K0381-03 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 11:35

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:42

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-03 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000186	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-19C

22K0381-04 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 14:40
Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:33

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-04 A 01
Preparation Batch: BKL0170 — Sample Size: 100 mL
Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.0000373	0.000200	0.00306	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-39

22K0381-05 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 15:00

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 07:56

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-05 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.0000149	0.0000800	0.00198	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-42

22K0381-06 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/16/2022 13:20

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 06:52

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-06 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.0000149	0.0000800	0.00218	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-34C

22K0381-07 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/16/2022 13:55
Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 06:55

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-07 A 01
Preparation Batch: BKL0170 — Sample Size: 100 mL
Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.0000373	0.000200	0.0219	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-34A

22K0381-08 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/16/2022 13:10

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:52

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-08 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000456	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-43

22K0381-09 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/16/2022 14:20

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:56

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-09 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000157	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-35

22K0381-10 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 16:05

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 09:02

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-10 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000114	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-32

22K0381-11 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 13:00

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:23

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-11 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	10	0.0000746	0.000400	0.0108	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-16

22K0381-12 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 10:30

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 07:03

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-12 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000369	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Dup-1

22K0381-13 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 13:10
Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 07:06

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-13 A 01
Preparation Batch: BKL0170 — Sample Size: 100 mL
Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000332	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

LP-LCD

22K0381-14 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 13:40

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 05:26

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-14 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	20	0.000149	0.000800	0.0171	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-29A

22K0381-15 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/16/2022 14:10

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/13/2022 08:02

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-15 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.0000149	0.0000800	0.00175	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-13B

22K0381-16 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 13:00
Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 07:13

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-16 A 01
Preparation Batch: BKL0170 — Sample Size: 100 mL
Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000338	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-33C

22K0381-17 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 10:20

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 06:59

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-17 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	5	0.0000373	0.000200	0.00431	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-33A

22K0381-18 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 10:45

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 07:17

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-18 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000325	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

MW-13A

22K0381-19 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/17/2022 12:20

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/10/2022 07:21

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0381-19 A 01

Preparation Batch: BKL0170 — Sample Size: 100 mL

Prepared: 12/07/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	1	0.00000746	0.0000400	0.000206	mg/L	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds - Quality Control

Batch BKL0170 - EPA 6020B UCT-KED

Instrument: ICPMS1 Analyst: MCB

QC Sample/Analyte	Isotope	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BKL0170-BLK1)					Prepared: 07-Dec-2022 Analyzed: 09-Dec-2022 20:32							
Arsenic	75a	ND	0.00000746	0.0000400	mg/L							U
LCS (BKL0170-BS1)					Prepared: 07-Dec-2022 Analyzed: 09-Dec-2022 20:36							
Arsenic	75a	0.00495	0.00000746	0.0000400	mg/L	0.00500		99.1	80-120			
LCS Dup (BKL0170-BSD1)					Prepared: 07-Dec-2022 Analyzed: 09-Dec-2022 20:40							
Arsenic	75a	0.00420	0.00000746	0.0000400	mg/L	0.00500		83.9	80-120	16.60	20	

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Certified Analyses included in this Report

Analyte	Certifications
EPA 6020B UCT-KED in Water	
Arsenic-75a	WADOE,WA-DW,DoD-ELAP,ADEC,NELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2023
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	02/28/2023
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2023
WADOE	WA Dept of Ecology	C558	06/30/2023
WA-DW	Ecology - Drinking Water	C558	06/30/2023

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 04204027.25	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	15-Dec-2022 13:40

Notes and Definitions

*	Flagged value is not within established control limits.
D	The reported value is from a dilution
J	Estimated concentration value detected below the reporting limit.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.

Eurofins TestAmerica, Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

eurofins | Environment Testing America

8172 5305 2806
8172 5305 2791

Client Information	Sampler: RMB + JE	Lab PM: Collins, Janice S	Carrier Tracking No(s): 8172 5305 2770 / 8172 5305 2750	COC No: 280-17318-3224.1
Client Contact: Mr. Patrick Madej	Phone: 206.406.3241	E-Mail: Janice.Collins@ET.EurofinsUS.com		Page: 1 of 2
Company: Waste Management				Job #: 04204027.25
Address: 2615 Davis Street	Due Date Requested:			
City: San Leandro	TAT Requested (days): Standard			
State, Zip: CA, 94577				
Phone: 206.406.3241	PO #:			
Email: rmartinez@scsengineers.com	WO #:			
Project Name: WA02|Olympic View Sanitary LF	Project #: 28002692			
Site: Washington	SSOW#:			

Analysis Requested

280-169454 Chain of Custody

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	TDS/Alks/Cl/SO4/NO3(cad)	Dissolved Metals	Ammonia/TOC	8260B - long list (TA Buffalo)	8260B SIM (TA Buffalo)	Total Metals	TSS	Total Arsenic (direct sub to ARI)	BOD	Total Number of containers	Special Instructions/Note:
			Preservation Code:			N	D	S	A	A	D	N	D			
MW-33A	11-17-22	1045	G	W	Y	N	X	X	X	X	X	X	X	X		Short Hold: NO3(cad)
MW-33C		1020														Arsenic - Direct sub to ARI
Dup-1		1310														
MW-13A		1220														LP-LCD gets
MW-13B		1300														BOD, Not TSS
Dup-2		1040														
MW-16		1030														
MW-19C		1440														
LP-LCD		1340												X		
MW-39		1500														
MW-36A		1410														

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: R. Martinez	Date/Time: 11-17-22 1600	Company: SCS	Received by:	Date/Time: 11.21.22 0900	Company: ETA DEN
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: △ Yes △ No | Custody Seal No.: 2061984, 2061985, 2061983, 2061982

Cooler Temperature(s) °C and Other Remarks: 1.2, 0.8, 0.3 IR12 CF0.0

12/19/2022

Eurofins TestAmerica, Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: RMB + JF	Lab PM: Collins, Janice S	Carrier Tracking No(s):	COC No: 280-17318-3224.1
Client Contact: Mr. Patrick Madej	Phone:	E-Mail: Janice.Collins@ET.EurofinsUS.com		Page: 202
Company: Waste Management				Job #: 04204027.25
Address: 2615 Davis Street	Due Date Requested:			
City: San Leandro	TAT Requested (days): Standard			
State, Zip: CA, 94577				
Phone:	PO #:			
Email:	WO #:			
Project Name: WA02|Olympic View Sanitary LF Event Desc: SemiAnnual GW Appl/II - May Nov	Project #: 28002692			
Site: Washington	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	TSP	Ice	TDS/Alks/Cl/SO4/NO3(cad)	Dissolved Metals	Ammonia/TOC	8260B - long list (TA Buffalo)	8260B SIM (TA Buffalo)	Total Metals	TSS	Total Arsenic (direct sub to ARI)	Total Number of containers	Special Instructions/Note:
			Preservation Code:					N	D	S	A	A	D	N	D		
MW-32	11-17-22	1300	G	W	X	N		X	X	X	X	X	X	X	X		Short Hold: NO3(cad)
Trip Blank	11-17-22	1540	G	—							X	X					Arsenic - Direct sub to ARI

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	R. Hawkins II	11-17-22 1600	SCS		11-21-22 0900	ETA DEN
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

12/19/2022

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.: ____ Sample Point: MW-33A (Sample ID)

This Waste Management Field Information Form is Required. This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory)

Laboratory Use Only/Lab ID: ____

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	09:25	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N — Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other: ____

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other ____

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other: ____

WELL DATA

Well Elevation (at TOC): ____ (ft/msl) — Depth to Water (DTW) (from TOC): 5.10 (ft) — Groundwater Elevation (site datum, from TOC): ____ (ft/msl)

Total Well Depth (from TOC): ____ (ft) — Stick Up (from ground elevation): ____ (ft) — Casing ID: 02 (in) — Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
09:25	1st	5.22	132	10.2		17.0	98.0	5.1
09:30	2nd	6.84	131	10.2	24.8	3.1	45.5	
09:33	3rd	6.85	133	10.1		2.1	45.1	
09:36	4th	6.82	133	10.1		1.7	39.3	
09:39		6.72	134	10.1	15.2	1.3	24.0	
10:42		6.72	134	9.9		1.1	-5.9	
10:45		6.72	134	10.0	13.1	0.7	1.2	12.0
:								
:								
:								
Suggested range for 3 consec. readings or note Permit State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: ____ Units ____
11/17/22	6.72	134	10.0	13.1	0.7	1.2	5.1

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State Permit/Site)

Sample Appearance: See below — Odor: — Color: — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: (Y) or (N)

Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

9/6 15 psi

orange color @ start of purge, cleared up after purge

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Ruben Martinez		SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL
Site No.:
Sample Point: MW-33C
Sample ID

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	1020	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment Dedicated: (Y) or N
Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Purging Device: C
Sampling Device: C
X-Other:

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other
Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC): (ft/msl)
Depth to Water (DTW) (from TOC): 26.4 (ft)
Groundwater Elevation (site datum, from TOC): (ft/msl)
Total Well Depth (from TOC): (ft)
Stick Up (from ground elevation): (ft)
Casing ID: 02 (in)
Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1020	350	1st 7.68	1st 142	7.9		8.8	393	2.6
1025	1	2nd 6.97	2nd 153	8.7	4.2	3.2	493	
1028	1	3rd 6.37	3rd 155	8.7		2.1	571	
1031	1	4th 6.25	4th 153	9.0		1.8	553	
1034	1	6.34	154	9.0	3.4	1.7	500	
1037	1	6.61	154	9.1		1.4	397	
1040	↓	6.62	154	9.1	3.3	1.2	313	
								2.6
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: Units
11/17/22	6.62	154	9.1	3.3	1.2	313	2.60

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

Sample Appearance: Clear — Odor: — Color: — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

9/6 15 psi
Dup-2 collected @ 1040
MW33B DTW= 2.66 ft

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Ruben Martinez		SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample. YELLOW - Returned to Client. PINK - Field Copy

TAL-8029WM (1013)

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL
Site No.:
Sample Point: MW-13A (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	1400	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: (Y) or N

Purging Device: C
Sampling Device: C
X-Other:

A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)
Filter Type: A (A-In-line Disposable, B-Pressure, C-Vacuum, X-Other)
Sample Tube Type: D (A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:)

WELL DATA

Well Elevation (at TOC): ____ (ft/msl)
Depth to Water (DTW) (from TOC): 45.10 (ft)
Groundwater Elevation (site datum, from TOC): ____ (ft/msl)
Total Well Depth (from TOC): ____ (ft)
Stick Up (from ground elevation): ____ (ft)
Casing ID: 02 (in)
Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
12:00	500	1st 6.82	1st 167	10.0	3.2	29.0	73.0	45.1
12:05	↓	2nd 6.88	2nd 167	9.9		27.2	74.2	
12:08		3rd 6.90	3rd 167	9.6		26.3	72.1	
12:11		4th 6.90	4th 168	9.6	3.3	25.9	71.2	
12:14		6.91	167	9.6		23.2	69.8	
12:17		6.92	167	9.6		23.1.5	69.7	
12:20	V	6.93	166	9.6	3.4	23.2.5	69.1	45.2
:								
:								
:								
Suggested range for 3 consec readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State) These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: ____ Units ____
11/17/22	6.93	166	9.6	3.4	23.2	69.1	45.1

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

FIELD COMMENTS

Sample Appearance: Clear
Odor: —
Color: —
Other: —

Weather Conditions (required daily, or as conditions change):
Direction/Speed: —
Outlook: —
Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

10/5 45 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Ruben Martinez		SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OUSL

Site No.:

Sample Point: MW-13B (Sample ID)

This Waste Management Field Information Form is Required This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory)

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	1240	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment... Dedicated: (Y) or N

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other ____

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other: ____

WELL DATA

Well Elevation (at TOC): ____ (ft msl)

Depth to Water (DTW) (from TOC): 62.16 (ft)

Groundwater Elevation (site datum, from TOC): ____ (ft msl)

Total Well Depth (from TOC): ____ (ft)

Stick Up (from ground elevation): ____ (ft)

Casing ID: ____ (in)

Casing Material: ____

Note: Total Well Depth, Stick Up, Casing Id, etc are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1240	500	1st 6.22	1st 165	10.0	7.6	10.1	66.2	62.2
1245	2nd	2nd 6.72	164	9.9		419.0	66.9	
1248	3rd	3rd 7.20	3rd 162	9.9	6.5	9.5	66.3	
1251	4th	4th 7.34	4th 162	9.9		4.89	65.3	
1254		7.35	162	9.9	4.2	4.99	65.6	
1257		7.35	162	9.9		493.1	65.6	
1300	V	7.36	162	9.9	3.8	490.2	65.3	62.2
:								
:								
:								
Suggested range for 3 consec readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: ____ Units ____
11/17/22	7.36	162	9.9	3.8	0.5	65.3	62.20

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling) for all field parameters required by State/Permit/Site.

Sample Appearance: Clear — Odor: — Color: — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

10/5 / 45psi

Dup1 taken @ 1310

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Ruben Martinez	[signature]	SCI

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-16 (Sample ID)

This Waste Management Field Information Form is Required. This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Form that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	1010	20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment: Dedicated: (Y) or N

Purging Device: C

Sampling Device: C

A-Submersible Pump; B-Peristaltic Pump; C-QED Bladder Pump; D-Bailer; E-Piston Pump; F-Dipper/Bottle

X-Other:

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Filter Type: A — A-In-line Disposable; B-Pressure; C-Vacuum; X-Other

Sample Tube Type: D — A-Teflon; B-Stainless Steel; C-PVC; D-Polypropylene; X-Other:

WELL DATA

Well Elevation (at TOC): (ft msl)

Depth to Water (DTW) (from TOC): 69.72 (ft)

Groundwater Elevation (site datum, from TOC): (ft msl)

Total Well Depth (from TOC): (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 02 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1010	350 ml/min	1st 6.57	1st 108	9.1	2.9	8.7	279.0	
1015		2nd 6.33	2nd 114	9.2	2.7	7.7	280.7	
1018		3rd 6.35	3rd 115	9.2	2.7	7.7	281.1	
1021		4th 6.38	4th 115	9.2	2.8	7.7	281.5	
1024		6.39	115	9.2	2.8	7.7	282.1	
1027		6.39	115	9.2	2.8	7.6	282.5	
1030		6.40	115	9.2	2.8	7.6	282.8	609
:								
:								
:								
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	-	-	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: / Units
11/17/22	6.4	115	9.2	2.8	7.6	282.8	

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit Site.

Sample Appearance: Clear — Odor: — Color: — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

9/6/50 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Jovani Estrada	JE	SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-36A (Sample ID)

This Waste Management Field Information Form is Required. This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	1350	120			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment Dedicated: (Y) or N

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC): (ft/msl)

Depth to Water (DTW) (from TOC): 32.03 (ft)

Groundwater Elevation (site datum, from TOC): (ft/msl)

Total Well Depth (from TOC): (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 02 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit ml/min	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
13:50	350	6.68	126	9.5	3.3	4.2	161.1	
13:55		6.38	122	9.5	3.0	2.9	1748	
13:58		6.36	121	9.5	2.9	3.0	1951	
14:01		6.36	122	9.5	2.9	3.0	1978	
14:04		6.36	122	9.5	2.9	3.1	1990	
14:07		6.35	122	9.5	2.9	3.1	2054	
14:10	↓	6.35	122	9.5	3.0	3.1	2079	32.0
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:								
:								
Suggested range for 3 consec. readings or more Permit/State requirements		+/- 0.2	+/- 3%	—	—	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: ____ Units ____
11/17/22	6.35	122	9.5	3.0	3.1	2079	

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.

FIELD COMMENTS

Sample Appearance: ____ Odor: ____ Color: ____ Other: ____

Weather Conditions (required daily, or as conditions change): Direction/Speed: ____ Outlook: ____ Precipitation: Y or N

Specific Comments (including purge/well volume calculations if required):

9/6/25 PSI

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Jovany Estrada	JE	SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample. YELLOW - Returned to Client. PINK - Field Copy

TAL-8029WM (1013)

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL
Site No.:
Sample Point: MW-19C (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory)

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	14:20	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment ... Dedicated: (Y) or N
Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Purging Device: C
Sampling Device: C
A-Submersible Pump; B-Peristaltic Pump; C-QED Bladder Pump; D-Bailer; E-Piston Pump; F-Dipper/Bottle
X-Other:

Filter Type: A
A-In-line Disposable; B-Pressure; C-Vacuum; X-Other:

Sample Tube Type: D
A-Teflon; B-Stainless Steel; C-PVC; D-Polypropylene; X-Other:

WELL DATA

Well Elevation (at TOC): (ft/msl)
Depth to Water (DTW) (from TOC): 35.40 (ft)
Groundwater Elevation (site datum, from TOC): (ft/msl)
Total Well Depth (from TOC): (ft)
Stick Up (from ground elevation): (in)
Casing ID: 02 (in)
Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id. etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit		pH (std)		Conductance (SC/EC) (µmhos/cm@25°C)		Temp (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
14:20	500	1st	7.82	1st	206	1st	11.5	3.9	577.0	52.7	35.4
14:25	1	2nd	6.49	2nd	201	2nd	11.0	3.9	688	50.6	
14:28		3rd	6.48	3rd	159	3rd	10.8	3.9	654	45.1	
14:31		4th	6.49	4th	159	4th	10.7	3.9	649	40.0	
14:34			6.46		159		10.7		647	39.5	
14:37			6.53		159		10.6		669	38.5	
14:40	V		6.54		159		10.6	3.8	667	38.3	35.4
:											
:											
:											
Suggested range for 3 consec. readings or note Permit/State requirements:			+/- 0.2		+/- 3%		--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: Units
11/17/22	6.54	159	10.6	3.8	0.7	383	35.4

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site

FIELD COMMENTS

Sample Appearance: Clear
Odor: —
Color:
Other: —

Weather Conditions (required daily, or as conditions change):
Direction/Speed: —
Outlook: —
Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

9/6 60 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Ruben Martinez		SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample. YELLOW - Returned to Client. PINK - Field Copy

TAL-8029WM (1013)

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.: | | | | |

Sample Point: LP-LCD (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	13:40				

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment Dedicated: Y or (N)

Filter Device: (Y) or N — 0.45 µ or _____ µ (circle or fill in)

Purging Device: B — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: B

X-Other: _____

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other _____

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other: _____

WELL DATA

Well Elevation (at TOC)	Depth to Water (DTW) (from TOC)	Groundwater Elevation (site datum, from TOC)
(ft-msl)	(ft)	(ft-msl)

Total Well Depth (from TOC)	Stick Up (from ground elevation)	Casing ID	Casing Material
(ft)	(ft)	(in)	

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
13:40	1st	7.26	1st 3536	9.1	0.9	8.3	78.5	
:	2nd		2nd					
:	3rd		3rd					
:	4th		4th					
:								
:								
:								
:								
:								
:								
Suggested range for 3 consec. readings or note Permit/State requirements		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: _____ Units _____
11/17/22	7.26	3536	9.1	0.9	8.3	78.5	

Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site

FIELD COMMENTS

Sample Appearance: yellow tint — Odor: — — Color: yellow tint — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

Ran pump for 2 min before sampling from storage tank

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Ruben Martinez	[signature]	SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name: OVSL

Site No.:

Sample Point: MW-39 (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/17/22	1440	1:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . Dedicated (Y) or N

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Device: (Y) or N — 0.45 µ or ____ µ (circle or fill in)

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC): (ft msl)

Depth to Water (DTW) (from TOC): 22.27 (ft)

Groundwater Elevation (site datum, from TOC): (ft msl)

Total Well Depth (from TOC): (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 02 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit ml/min	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1440	350	6.27	219.	11.0	13.2	3.2	-57	
1445		6.29	273	11.3	7.1	0.8	-415	
1448		6.30	271	11.4	12.1	0.8	-458	
1451		6.30	270	11.4	6.3	0.8	-483	
1454		6.30	270	11.5	4.4	0.7	-515	
1457		6.30	271	11.4	4.1	0.7	-569	
1500	↓	6.31	271	11.4	3.8	0.7	-589	23.8
:								
:								
:								
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.*

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: Units
11/17/22	6.31	271	11.4	3.8	0.7	-589	

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site)*

Sample Appearance: clear — Odor: — Color: — Other: —

Weather Conditions (required daily, or as conditions change): Direction/Speed: — Outlook: — Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

11/4/35 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Jovany Estrada	JE	SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)

FIELD INFORMATION FORM

WASTE MANAGEMENT

Site Name:

Site No.:

Sample Point: MW-32 (Sample ID)

This Waste Management Field Information Form is Required
This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO

PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED
11/7/22	1240	:20			

Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.

PURGE/SAMPLE EQUIPMENT

Purging and Sampling Equipment . . . Dedicated: [ ] Y or [ ] N

Filter Device: [ ] Y or [ ] N [ ] 0.45 µ or [ ] µ (circle or fill in)

Purging Device: C — A-Submersible Pump, B-Peristaltic Pump, C-QED Bladder Pump, D-Bailer, E-Piston Pump, F-Dipper/Bottle

Sampling Device: C

X-Other:

Filter Type: A — A-In-line Disposable, B-Pressure, C-Vacuum, X-Other

Sample Tube Type: D — A-Teflon, B-Stainless Steel, C-PVC, D-Polypropylene, X-Other:

WELL DATA

Well Elevation (at TOC): (ft msl)

Depth to Water (DTW) (from TOC): 206 (ft)

Groundwater Elevation (site datum, from TOC): (ft msl)

Total Well Depth (from TOC): (ft)

Stick Up (from ground elevation): (ft)

Casing ID: 02 (in)

Casing Material: PVC

Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.

STABILIZATION DATA (Optional)

Sample Time (2400 Hr Clock)	Rate/Unit ml/min	pH (std)	Conductance (SC/EC) (µmhos/cm@25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
1240	350	1st 6.19	1st 234	11.4	47	3.0	104.2	
1245	↓	2nd 6.82	2nd 256	11.6	7.3	0.8	13.0	
1248		3rd 6.87	3rd 257	11.6	4.7	0.8	-5.3	
1251		4th 6.89	4th 258	11.6	4.0	0.7	-12.8	
1254		6.89	258	11.6	3.8	0.7	-17.1	
1257		6.90	258	11.6	3.6	0.7	-20.5	
1300		6.90	258	11.6	3.6	0.7	-22.8	20
:								
:								
:								
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	--	--	+/- 10%	+/- 25 mV	Stabilize

Stabilization Data Fields are Optional *(i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site.* ***If more fields above are needed, use separate sheet or form.***

FIELD DATA

SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: Units
11/7/22							

Final Field Readings are required *(i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site.*

Sample Appearance: clear

Odor: –

Color: –

Other: –

Weather Conditions (required daily, or as conditions change):

Direction/Speed: –

Outlook: –

Precipitation: Y or (N)

Specific Comments (including purge/well volume calculations if required):

FIELD COMMENTS

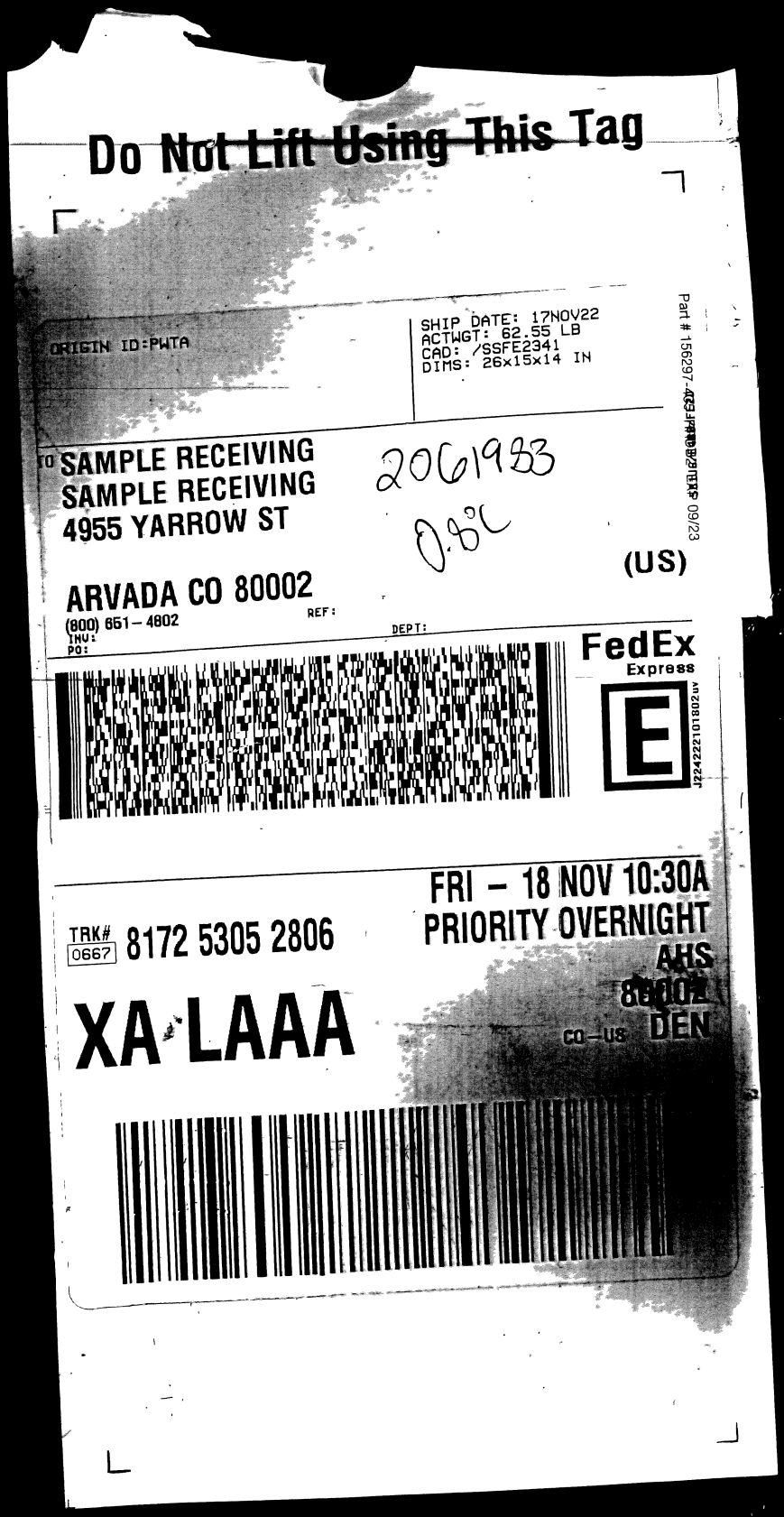
9/6/15 psi

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

Date	Name	Signature	Company
11/17/22	Jovany Estrada	JE	SCS

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy

TAL-8029WM (1013)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SAMPLE RECEIVING
4955 YARROW ST
ARVADA CO 80002
(800) 651-4802
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PO:
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(US)
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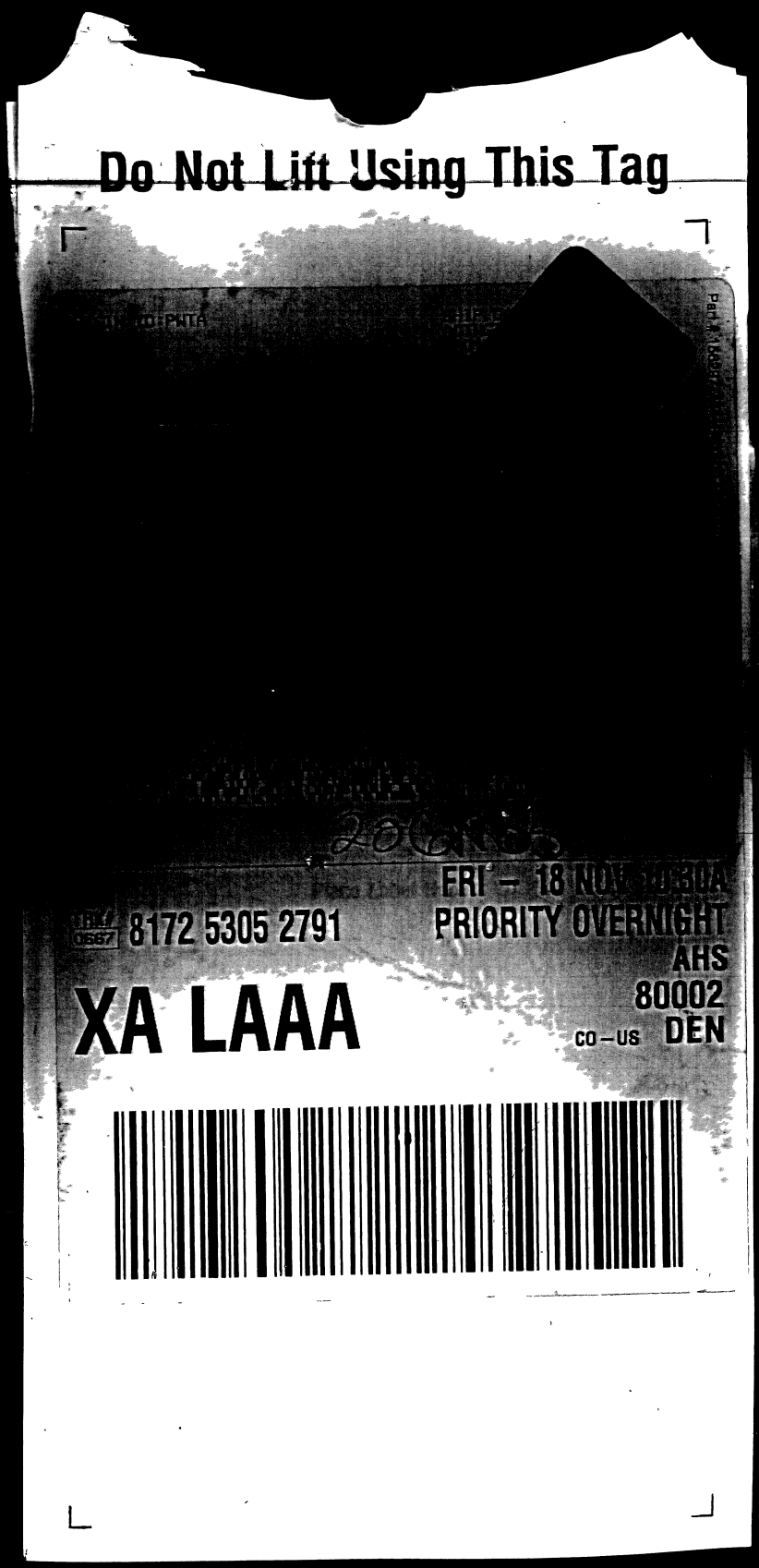
PRIORITY OVERNIGHT
AHS
DEN
CO-US
XA LAAA
280-169454 Waybill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PRIORITY OVERNIGHT
8172 5305 2791
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80002
XA LAAA
CO – US
DEN

FedEx Express

Expanded Billable Stamp

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FedEx Priority Overnight®

Next business morning by 10:30 a.m. Not available to all locations. Please consult the current FedEx Service Guide for specific commitments.

NONREDEEMABLE

Please see back for declared value information and important terms and conditions.

SATURDAY DELIVERY

Shipments tendered on Friday are delivered on Saturday to most locations.

1 From *See optional release signature below.*

ORDER: 00863049

1.2°C

DECLARED VALUE $100

PACKAGE WEIGHT

2061172

0.8 11-21-22

2 To *Shipment will not be accepted if address below is altered.*

SAMPLE RECEIVING
EUROFINS TESTAMERICA
4955 YARROW ST
ARVADA, CO 80002
(303) 736-0100

FedEx

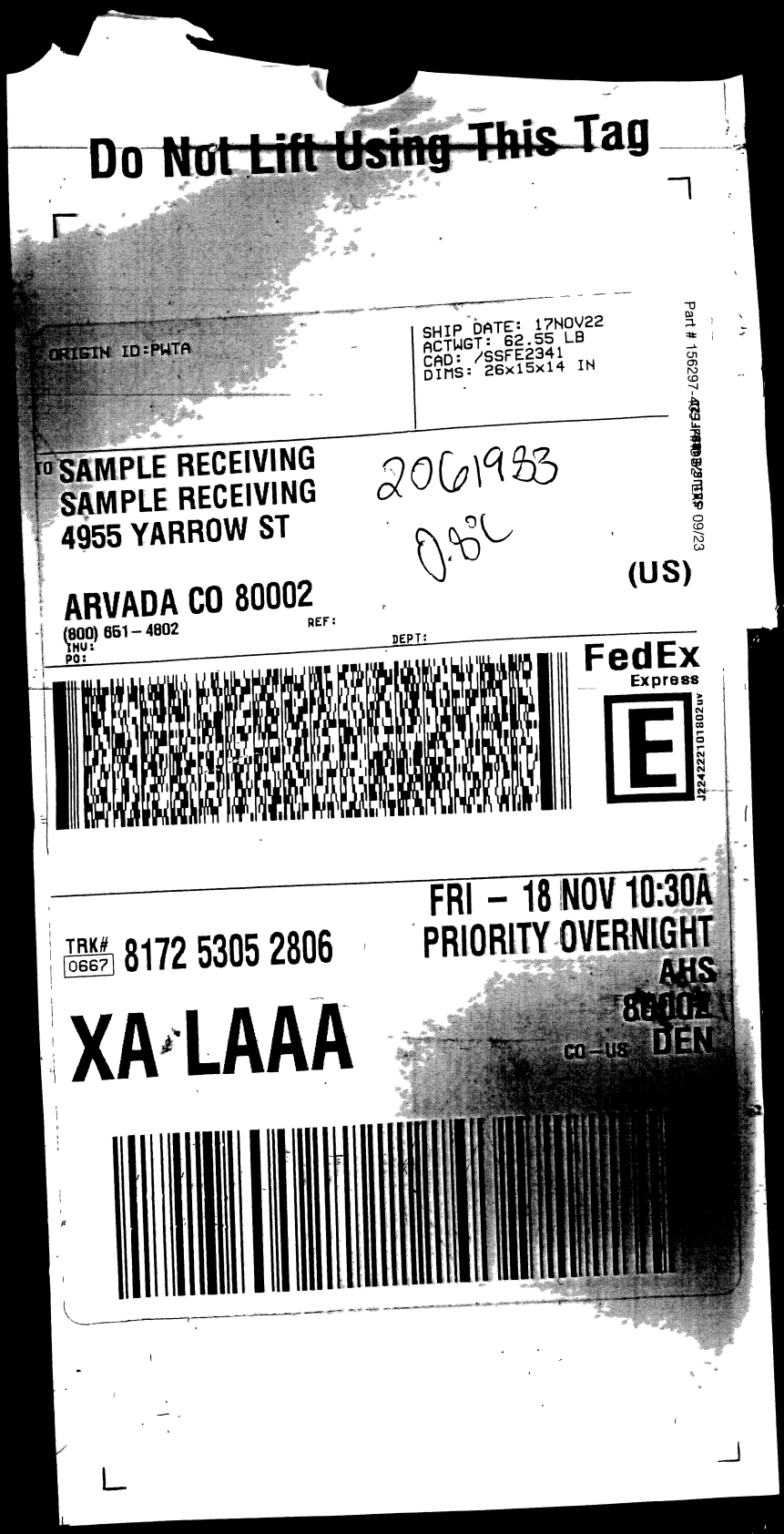
TRK# 0667 8172 5305 2530

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO LAAA

80002
CO-US
DEN

321115 18Nov2022 MMRA 581G6/E4B8/C0B8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ACTWGT: 62.55 LB
CAD: /SSFE2341
DIMS: 26x15x14 IN
Part # 156297-
09/23
TO SAMPLE RECEIVING
SAMPLE RECEIVING
4955 YARROW ST
ARVADA CO 80002
(800) 661-4802
REF:
INV:
PO:
DEPT:
2061933
0.8C
(US)
FedEx
Express
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PRIORITY OVERNIGHT
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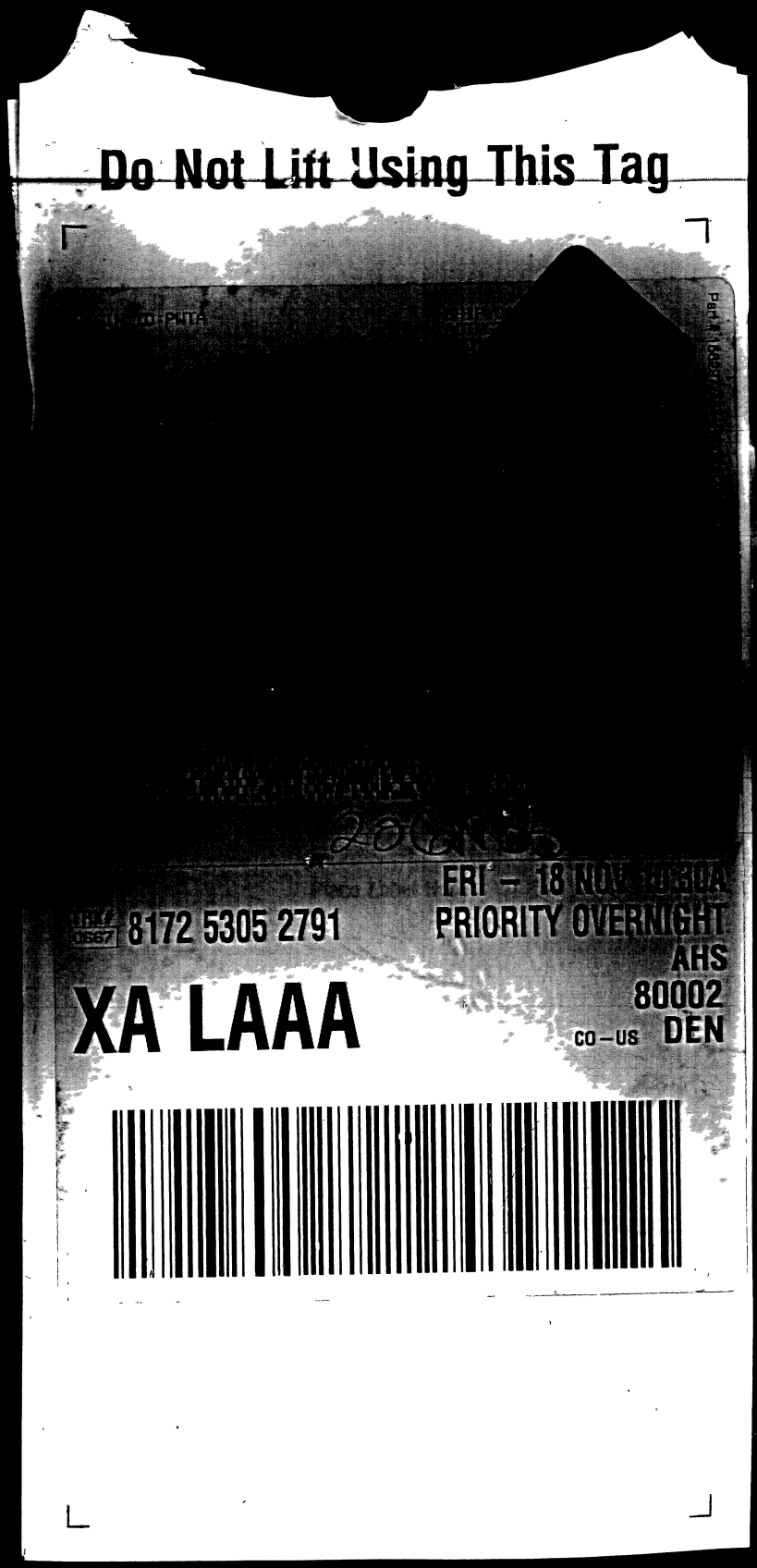
DEN
CO-US
XA LAAA
280-169454 Waybill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8172 5305 2791
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AHS
80002
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CO–US DEN

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ORDER: 00863049

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PACKAGE WEIGHT

( ) ___.___

206172 11-21-22

2 To *Shipment will not be accepted if address below is altered.*

SAMPLE RECEIVING
EUROFINS TESTAMERICA
4955 YARROW ST
ARVADA, CO 80002
(303) 736-0100

FedEx Priority Overnight®

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SATURDAY DELIVERY

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FedEx.

TRK# 0667 8172 5305 2530

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO LAAA

80002
CO-US
DEN

321115 18Nov2022 MMRA 581G6/E488/C0B8

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0100 Fax: 303-431-7171

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Collins, Janice S	Carrier Tracking No(s):	COC No: 280-637263.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Janice.Collins@et.eurofinsus.com	State of Origin: Washington	Page: Page 1 of 2
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State - Washington		Job #: 280-169454-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 12/13/2022			
City: Amherst	TAT Requested (days):			
State, Zip: NY, 14228-2298				
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:			
Email:	WO #:			
Project Name: WA02|Olympic View Sanitary LF	Project #: 28002692			
Site: WA02|Olympic View Sanitary LF	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA

M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/5030C (MOD) Appendix II Volatiles	8260C_SIM/5030C (MOD) Local Method	8260C/5030C Long List 8260C (TA Buffalo)	8260C_SIM/5030C 8260C SIM (TA Buffalo)	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
MW-33A (280-169454-1)	11/17/22	10:45 Pacific		Water			X	X			6	
MW-33C (280-169454-2)	11/17/22	10:20 Pacific		Water			X	X			6	
DUP-1 (280-169454-3)	11/17/22	13:10 Pacific		Water			X	X			6	
MW-13A (280-169454-4)	11/17/22	12:20 Pacific		Water			X	X			6	
MW-13B (280-169454-5)	11/17/22	13:00 Pacific		Water			X	X			6	
DUP-2 (280-169454-6)	11/17/22	10:40 Pacific		Water			X	X			6	
MW-16 (280-169454-7)	11/17/22	10:30 Pacific		Water			X	X			6	
MW-36A (280-169454-8)	11/17/22	14:10 Pacific		Water			X	X			6	
TRIP BLANK (280-169454-9)	11/17/22	15:40 Pacific		Water			X	X			3	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	11/22/22 15:05	ETADEN	[signature]	11-23-22 1000	TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.3 ICE

Ver: 06/08/2021

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0100 Fax: 303-431-7171

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Collins, Janice S	Carrier Tracking No(s):	COC No: 280-637263.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Janice.Collins@et.eurofinsus.com	State of Origin: Washington	Page: Page 2 of 2
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State - Washington		Job #: 280-169454-1
Address: 10 Hazelwood Drive,	Due Date Requested: 12/13/2022			
City: Amherst	TAT Requested (days):			
State, Zip: NY, 14228-2298				
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:			
Email:	WO #:			
Project Name: WA02|Olympic View Sanitary LF	Project #: 28002692			
Site: WA02|Olympic View Sanitary LF	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/5030C (MOD) Appendix II Volatiles	8260C_SIM/5030C (MOD) Local Method	8260C/5030C Long List 8260C (TA Buffalo)	8260C_SIM/5030C 8260C SIM (TA Buffalo)	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
MW-19C (280-169454-10)	11/17/22	14:40 Pacific		Water			X	X			6	
LP-LCD (280-169454-11)	11/17/22	13:40 Pacific		Water					X	X	6	
MW-39 (280-169454-12)	11/17/22	15:00 Pacific		Water			X	X			6	
MW-32 (280-169454-13)	11/17/22	13:00 Pacific		Water			X	X			6	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		11/22/22 15:05	ETADEN	PJ		
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-169454-1

Login Number: 169454
List Number: 1
Creator: Held, Wesley

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Containers received broken. Sufficient sample in containers for sample analysis
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	False	No: Headspace larger than ¼” in 1 or more vial; at least one vial w/o headspace.
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-169454-1

Login Number: 169454
List Number: 2
Creator: Yeager, Brian A

List Source: Eurofins Buffalo
List Creation: 11/28/22 09:25 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3 ice
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Patrick Madej
Waste Management
2615 Davis Street
San Leandro, California 94577

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JOB DESCRIPTION

WA02|Olympic View Sanitary LF
Annual OBW-TB/L-INF App I/II -Dec

JOB NUMBER

280-169551-1

Eurofins Denver
4955 Yarrow Street
Arvada CO 80002

See page two for job notes and contact information.

my EOL

Job Notes

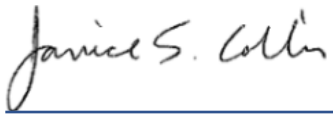
The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization



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Authorized for release by
Janice Collins, Project Manager
Janice.Collins@et.eurofinsus.com
(303)736-0100

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
^-	Continuing Calibration Verification (CCV) is outside acceptance limits, low biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
b	Result Detected in the Unseeded Control blank (USB).
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Job ID: 280-169551-1

Laboratory: Eurofins Denver

Narrative

CASE NARRATIVE

Client: Waste Management

Project: WA02|Olympic View Sanitary LF

Report Number: 280-169551-1

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.

This report may include reporting limits (RLs) less than Eurofins TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

RECEIPT

The samples were received on 11/23/2022 9:25 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.8º C.

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC). The Trip Blank was logged per the information on the container labels.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples L-INF-112122 (280-169551-1), OBWL-TD-112122 (280-169551-2) and TRIP BLANK (280-169551-3) were analyzed for volatile organic compounds (GC/MS) in accordance with 8260C. The samples were analyzed on 12/01/2022 and 12/02/2022.

2-Hexanone and 4-Methyl-2-pentanone (MIBK) failed the recovery criteria high for LCS 480-651808/6. 2-Hexanone and 4-Methyl-2-pentanone (MIBK) failed the recovery criteria high for the MS of sample L-INF-112122MS (280-169551-1) in batch 480-651808. 2-Hexanone and 4-Methyl-2-pentanone (MIBK) failed the recovery criteria high for the MSD of sample L-INF-112122MSD (280-169551-1) in batch 480-651808.

Sample L-INF-112122 (280-169551-1)[5X] required dilution prior to analysis, due to foaming at the time of purging during the original sample analysis: L-INF-112122 (280-169551-1), (280-169551-H-1 MS) and (280-169551-H-1 MSD). The reporting limits have been adjusted accordingly. Elevated reporting limits (RLs) are provided.

The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: OBWL-TD-112122 (280-169551-2) and TRIP BLANK (280-169551-3). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed outside the 7-day holding time specified for unpreserved samples but within the 14-day holding time specified for preserved samples: L-INF-112122 (280-169551-1). pH is 7.

The continuing calibration verification (CCV) associated with batch 480-651808 recovered above the upper control limit for 2-Hexanone and 4-Methyl-2-pentanone. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: L-INF-112122 (280-169551-1), OBWL-TD-112122 (280-169551-2) and TRIP BLANK (280-169551-3).

Job ID: 280-169551-1 (Continued)

Laboratory: Eurofins Denver (Continued)

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 480-651808 recovered outside control limits for the following analytes: 2-Hexanone and 4-Methyl-2-pentanone. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The associated samples are impacted: L-INF-112122 (280-169551-1), OBWL-TD-112122 (280-169551-2) and TRIP BLANK (280-169551-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANICS (GC-MS)

Samples L-INF-112122 (280-169551-1), OBWL-TD-112122 (280-169551-2) and TRIP BLANK (280-169551-3) were analyzed for volatile organics (GC-MS) in accordance with 8260C_SIM. The samples were analyzed on 12/05/2022.

Vinyl chloride exceeded the RPD limit for LCSD 480-652151/7. The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 480-652151 recovered outside control limits for the following analytes: Vinyl chloride.

The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: L-INF-112122 (280-169551-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICP)

Samples L-INF-112122 (280-169551-1) and OBWL-TD-112122 (280-169551-2) were analyzed for Dissolved Metals (ICP) in accordance with EPA SW846 6010D. The samples were prepared and analyzed on 12/06/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP)

Samples L-INF-112122 (280-169551-1) and OBWL-TD-112122 (280-169551-2) were analyzed for Total Recoverable Metals (ICP) in accordance with EPA SW846 6010D. The samples were prepared on 12/06/2022 and analyzed on 12/07/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICP/MS)

Samples L-INF-112122 (280-169551-1) and OBWL-TD-112122 (280-169551-2) were analyzed for Dissolved Metals (ICP/MS) in accordance with SW846 6020B. The samples were prepared and analyzed on 12/08/2022.

Manganese failed the recovery criteria for the MSD of sample L-INF-112122MSD (280-169551-1) in batch 280-596157. The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP/MS)

Samples L-INF-112122 (280-169551-1) and OBWL-TD-112122 (280-169551-2) were analyzed for Total Recoverable Metals (ICP/MS) in accordance with SW846 6020B. The samples were prepared on 12/06/2022 and 12/08/2022 and analyzed on 12/07/2022 and 12/08/2022.

Several analytes were detected in method blank MB 280-595533/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The method blank for preparation batch 280-595533 and analytical batch 280-595882 contained 1.1 ppb Barium which is above the reporting limit (RL) of 1 ppb. Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Manganese failed the recovery criteria for the MS/MSD of sample 280-169454-10 in batch 280-595811. The presence of the '4' qualifier

Job ID: 280-169551-1 (Continued)

Laboratory: Eurofins Denver (Continued)

indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY
Samples L-INF-112122 (280-169551-1) and OBWL-TD-112122 (280-169551-2) were analyzed for Alkalinity in accordance with SM20 2320B. The samples were analyzed on 11/28/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS
Samples L-INF-112122 (280-169551-1) and OBWL-TD-112122 (280-169551-2) were analyzed for total dissolved solids in accordance with SM20 2540C. The samples were analyzed on 11/28/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL SUSPENDED SOLIDS
Samples L-INF-112122 (280-169551-1) and OBWL-TD-112122 (280-169551-2) were analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 11/28/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS (28 DAYS)
Samples L-INF-112122 (280-169551-1) and OBWL-TD-112122 (280-169551-2) were analyzed for anions (28 days) in accordance with EPA Method 300.0 (28 Days). The samples were analyzed on 12/15/2022 and 12/16/2022.

Sulfate failed the recovery criteria low for the MS/MSD of sample 280-169569-2 in batch 280-596701. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA
Samples L-INF-112122 (280-169551-1) and OBWL-TD-112122 (280-169551-2) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 12/13/2022.

Ammonia (as N) failed the recovery criteria high for the MS of sample 280-169582-9 in batch 280-596566. Sample matrix interference and/or non-homogeneity is suspected because the associated matrix spike duplicate (MSD), laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) recoveries were within acceptance limits.

Samples L-INF-112122 (280-169551-1)[80X] and OBWL-TD-112122 (280-169551-2)[25X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE-NITRITE AS NITROGEN
Samples L-INF-112122 (280-169551-1) and OBWL-TD-112122 (280-169551-2) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 12/12/2022 and 12/13/2022.

Nitrate/Nitrite failed the recovery criteria low for the MS of sample 280-169565-3 in batch 280-596562. The matrix spike (MS) recoveries for analytical batch 280-596562 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

The continuing calibration verification (CCV) associated with batch 280-596418 recovered upper control limit for Nitrate Nitrite as N. There are no samples bracketed with this CCV were therefore, the data have been reported.

Job ID: 280-169551-1 (Continued)

Laboratory: Eurofins Denver (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CHEMICAL OXYGEN DEMAND

Samples L-INF-112122 (280-169551-1) and OBWL-TD-112122 (280-169551-2) were analyzed for chemical oxygen demand in accordance with EPA Method 410.4. The samples were analyzed on 12/01/2022.

Chemical Oxygen Demand (COD) failed the recovery criteria for the MS/MSD of sample 280-169701-1 in batch 280-595233.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITRATE

Samples L-INF-112122 (280-169551-1) and OBWL-TD-112122 (280-169551-2) were analyzed for Nitrate in accordance with EPA Method 353.2. The samples were analyzed on 12/13/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

BIOCHEMICAL OXYGEN DEMAND

Samples L-INF-112122 (280-169551-1) and OBWL-TD-112122 (280-169551-2) were analyzed for Biochemical Oxygen Demand in accordance with SM20 5210B. The samples were analyzed on 11/23/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL ORGANIC CARBON

Samples L-INF-112122 (280-169551-1) and OBWL-TD-112122 (280-169551-2) were analyzed for total organic carbon in accordance with SM20 5310B. The samples were analyzed on 12/07/2022 and 12/09/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169551-1

Client Sample ID: L-INF-112122 — Lab Sample ID: 280-169551-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Butyl alcohol, tert-	160		50	17	ug/L	5		8260C	Total/NA
Tetrahydrofuran	96		25	6.3	ug/L	5		8260C	Total/NA
Cobalt, Total	0.014		0.0030	0.00056	mg/L	1		6010D	Total Recoverable
Iron, Total	3.3		0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	120		0.20	0.024	mg/L	1		6010D	Dissolved
Iron, Dissolved	0.56		0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	89		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	130		1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	920		1.0	0.097	mg/L	1		6010D	Dissolved
Antimony, Total	0.00063	J	0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Arsenic, Total	0.0050	B	0.0050	0.00033	mg/L	1		6020B	Total Recoverable
Barium, Total	0.23	B	0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.0087		0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Copper, Total	0.0018	J B	0.0020	0.00056	mg/L	1		6020B	Total Recoverable
Lead, Total	0.00018	J	0.0010	0.00018	mg/L	1		6020B	Total Recoverable
Manganese, Total	2.1	B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.091		0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Selenium, Total	0.00057	J B	0.0010	0.00037	mg/L	1		6020B	Total Recoverable
Vanadium, Total	0.012		0.0020	0.0012	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.040		0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	2.1		0.0010	0.00031	mg/L	1		6020B	Dissolved
Chloride	2500		150	150	mg/L	50		300.0	Total/NA
Sulfate	2600		250	250	mg/L	50		300.0	Total/NA
Ammonia (as N)	270		2.4	2.4	mg/L	80		350.1	Total/NA
Nitrate as N	0.11		0.050	0.050	mg/L	1		353.2	Total/NA
Nitrate/Nitrite	0.81		0.050	0.050	mg/L	1		353.2	Total/NA
Chemical Oxygen Demand (COD)	500		50	50	mg/L	5		410.4	Total/NA
Alkalinity, Total (As CaCO3)	2100		10	10	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate (As CaCO3)	2100		10	10	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids (TDS)	3300		50	50	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	5.2		4.0	4.0	mg/L	1		SM 2540D	Total/NA
Total Organic Carbon - Average	180		10	10	mg/L	10		SM 5310B	Total/NA
Biochemical Oxygen Demand	30	b	25	25	mg/L	5		SM5210B	Total/NA

Client Sample ID: OBWL-TD-112122 — Lab Sample ID: 280-169551-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt, Total	0.058		0.0030	0.00056	mg/L	1		6010D	Total Recoverable
Iron, Total	19		0.060	0.0091	mg/L	1		6010D	Total Recoverable
Calcium, Dissolved	64		0.20	0.024	mg/L	1		6010D	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins Denver

Client Sample ID: OBWL-TD-112122 (Continued) — Lab Sample ID: 280-169551-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron, Dissolved	0.90		0.060	0.0091	mg/L	1		6010D	Dissolved
Magnesium, Dissolved	15		0.050	0.0042	mg/L	1		6010D	Dissolved
Potassium, Dissolved	3.4		1.0	0.24	mg/L	1		6010D	Dissolved
Sodium, Dissolved	7.8		1.0	0.097	mg/L	1		6010D	Dissolved
Antimony, Total	0.0024		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Arsenic, Total	0.0068	B	0.0050	0.00033	mg/L	1		6020B	Total Recoverable
Barium, Total	0.064	B	0.0010	0.00029	mg/L	1		6020B	Total Recoverable
Beryllium, Total	0.000085	J	0.0010	0.000080	mg/L	1		6020B	Total Recoverable
Cadmium, Total	0.00053	B	0.00030	0.00027	mg/L	1		6020B	Total Recoverable
Chromium, Total	0.034		0.0030	0.00050	mg/L	1		6020B	Total Recoverable
Copper, Total	0.012	B	0.0020	0.00056	mg/L	1		6020B	Total Recoverable
Lead, Total	0.0013		0.0010	0.00018	mg/L	1		6020B	Total Recoverable
Manganese, Total	6.0	B	0.0010	0.00031	mg/L	1		6020B	Total Recoverable
Nickel, Total	0.46		0.0040	0.00030	mg/L	1		6020B	Total Recoverable
Zinc, Total	0.31		0.0050	0.0020	mg/L	1		6020B	Total Recoverable
Manganese, Dissolved	6.0		0.0010	0.00031	mg/L	1		6020B	Dissolved
Chloride	3.1		3.0	3.0	mg/L	1		300.0	Total/NA
Sulfate	550		50	50	mg/L	10		300.0	Total/NA
Ammonia (as N)	13		0.75	0.75	mg/L	25		350.1	Total/NA
Nitrate as N	0.77		0.050	0.050	mg/L	1		353.2	Total/NA
Nitrate/Nitrite	0.79		0.050	0.050	mg/L	1		353.2	Total/NA
Total Dissolved Solids (TDS)	520		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	36		4.0	4.0	mg/L	1		SM 2540D	Total/NA
Total Organic Carbon - Average	3.1		1.0	1.0	mg/L	1		SM 5310B	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 280-169551-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrahydrofuran	5.1		5.0	1.3	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169551-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	EET BUF
6010D	Metals (ICP)	SW846	EET DEN
6020B	Metals (ICP/MS)	SW846	EET DEN
300.0	Anions, Ion Chromatography	MCAWW	EET DEN
350.1	Nitrogen, Ammonia	MCAWW	EET DEN
353.2	Nitrate	EPA	EET DEN
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	EET DEN
410.4	COD	MCAWW	EET DEN
SM 2320B	Alkalinity	SM	EET DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	EET DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	EET DEN
SM5210B	BOD, 5 Day	SM	EET DEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET DEN
5030C	Purge and Trap	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169551-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-169551-1	L-INF-112122	Water	11/21/22 12:40	11/23/22 09:25
280-169551-2	OBWL-TD-112122	Water	11/21/22 11:55	11/23/22 09:25
280-169551-3	TRIP BLANK	Water	11/21/22 11:55	11/23/22 09:25

Method: SW846 8260C SIM - Volatile Organic Compounds (GC/MS)

Client Sample ID: L-INF-112122
Date Collected: 11/21/22 12:40
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND	*1	0.40	0.080	ug/L			12/05/22 18:06	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*50 - 150*		*12/05/22 18:06*	*20*
TBA-d9 (Surr)	*91*		*50 - 150*		*12/05/22 18:06*	*20*

Client Sample ID: OBWL-TD-112122
Date Collected: 11/21/22 11:55
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND	*1	0.020	0.0040	ug/L			12/05/22 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*101*		*50 - 150*		*12/05/22 18:30*	*1*
TBA-d9 (Surr)	*73*		*50 - 150*		*12/05/22 18:30*	*1*

Client Sample ID: TRIP BLANK
Date Collected: 11/21/22 11:55
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND	*1	0.020	0.0040	ug/L			12/05/22 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*50 - 150*		*12/05/22 18:53*	*1*
TBA-d9 (Surr)	*81*		*50 - 150*		*12/05/22 18:53*	*1*

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Client Sample ID: L-INF-112122
Date Collected: 11/21/22 12:40
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	1.8	ug/L			12/01/22 23:22	5
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			12/01/22 23:22	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			12/01/22 23:22	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			12/01/22 23:22	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			12/01/22 23:22	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			12/01/22 23:22	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			12/01/22 23:22	5
1,1-Dichloropropene	ND		5.0	3.6	ug/L			12/01/22 23:22	5
1,2,3-Trichlorobenzene	ND		5.0	2.1	ug/L			12/01/22 23:22	5
1,2,3-Trichloropropane	ND		5.0	4.5	ug/L			12/01/22 23:22	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			12/01/22 23:22	5
1,2,4-Trimethylbenzene	ND		5.0	3.8	ug/L			12/01/22 23:22	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			12/01/22 23:22	5
1,2-Dibromoethane (EDB)	ND		5.0	3.7	ug/L			12/01/22 23:22	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			12/01/22 23:22	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			12/01/22 23:22	5
1,2-Dichloroethene, Total	ND		10	4.1	ug/L			12/01/22 23:22	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			12/01/22 23:22	5
1,3,5-Trichlorobenzene	ND		5.0	1.2	ug/L			12/01/22 23:22	5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: L-INF-112122
Date Collected: 11/21/22 12:40
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		5.0	3.9	ug/L			12/01/22 23:22	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			12/01/22 23:22	5
1,3-Dichloropropane	ND		5.0	3.8	ug/L			12/01/22 23:22	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			12/01/22 23:22	5
1,4-Dioxane	ND		200	47	ug/L			12/01/22 23:22	5
2,2-Dichloropropane	ND		5.0	2.0	ug/L			12/01/22 23:22	5
2-Butanone (MEK)	ND		50	6.6	ug/L			12/01/22 23:22	5
2-Chloroethyl vinyl ether	ND		25	4.8	ug/L			12/01/22 23:22	5
2-Hexanone	ND	*+ F1	25	6.2	ug/L			12/01/22 23:22	5
4-Methyl-2-pentanone (MIBK)	ND	*+ F1	25	11	ug/L			12/01/22 23:22	5
Acetone	ND		50	15	ug/L			12/01/22 23:22	5
Acetonitrile	ND		75	25	ug/L			12/01/22 23:22	5
Acrolein	ND		100	4.6	ug/L			12/01/22 23:22	5
Acrylonitrile	ND		25	4.2	ug/L			12/01/22 23:22	5
Benzene	ND		5.0	2.1	ug/L			12/01/22 23:22	5
Bromobenzene	ND		5.0	4.0	ug/L			12/01/22 23:22	5
Bromochloromethane	ND		5.0	4.4	ug/L			12/01/22 23:22	5
Bromodichloromethane	ND		5.0	2.0	ug/L			12/01/22 23:22	5
Bromoform	ND		5.0	1.3	ug/L			12/01/22 23:22	5
Bromomethane	ND		5.0	3.5	ug/L			12/01/22 23:22	5
Butyl alcohol, n-	ND		200	44	ug/L			12/01/22 23:22	5
Butyl alcohol, tert-	**160**		50	17	ug/L			12/01/22 23:22	5
Carbon disulfide	ND		5.0	0.95	ug/L			12/01/22 23:22	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			12/01/22 23:22	5
Chlorobenzene	ND		5.0	3.8	ug/L			12/01/22 23:22	5
Chlorodifluoromethane	ND		5.0	1.3	ug/L			12/01/22 23:22	5
Chloroethane	ND		5.0	1.6	ug/L			12/01/22 23:22	5
Chloroform	ND		5.0	1.7	ug/L			12/01/22 23:22	5
Chloromethane	ND		5.0	1.8	ug/L			12/01/22 23:22	5
cis-1,2-Dichloroethene	ND		5.0	4.1	ug/L			12/01/22 23:22	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			12/01/22 23:22	5
Cyclohexane	ND		5.0	0.90	ug/L			12/01/22 23:22	5
Dibromochloromethane	ND		5.0	1.6	ug/L			12/01/22 23:22	5
Dibromomethane	ND		5.0	2.1	ug/L			12/01/22 23:22	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			12/01/22 23:22	5
Dichlorofluoromethane	ND		5.0	1.7	ug/L			12/01/22 23:22	5
Ethyl acetate	ND		5.0	3.3	ug/L			12/01/22 23:22	5
Ethyl ether	ND		5.0	3.6	ug/L			12/01/22 23:22	5
Ethyl tert-butyl ether	ND		5.0	1.5	ug/L			12/01/22 23:22	5
Ethylbenzene	ND		5.0	3.7	ug/L			12/01/22 23:22	5
Hexachlorobutadiene	ND		10	1.4	ug/L			12/01/22 23:22	5
Hexane	ND		50	2.0	ug/L			12/01/22 23:22	5
Iodomethane	ND		5.0	1.5	ug/L			12/01/22 23:22	5
Isobutanol	ND		130	24	ug/L			12/01/22 23:22	5
Isopropyl ether	ND		5.0	3.0	ug/L			12/01/22 23:22	5
Isopropylbenzene	ND		5.0	4.0	ug/L			12/01/22 23:22	5
Methacrylonitrile	ND		25	3.5	ug/L			12/01/22 23:22	5
Methyl acetate	ND		13	6.5	ug/L			12/01/22 23:22	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			12/01/22 23:22	5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: L-INF-112122
Date Collected: 11/21/22 12:40
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	ND		5.0	0.80	ug/L			12/01/22 23:22	5
Methylene Chloride	ND		5.0	2.2	ug/L			12/01/22 23:22	5
m-Xylene & p-Xylene	ND		10	3.3	ug/L			12/01/22 23:22	5
Naphthalene	ND		5.0	2.2	ug/L			12/01/22 23:22	5
n-Butylbenzene	ND		5.0	3.2	ug/L			12/01/22 23:22	5
N-Propylbenzene	ND		5.0	3.5	ug/L			12/01/22 23:22	5
o-Chlorotoluene	ND		5.0	4.3	ug/L			12/01/22 23:22	5
o-Xylene	ND		5.0	3.8	ug/L			12/01/22 23:22	5
p-Chlorotoluene	ND		5.0	4.2	ug/L			12/01/22 23:22	5
p-Cymene	ND		5.0	1.6	ug/L			12/01/22 23:22	5
sec-Butylbenzene	ND		5.0	3.8	ug/L			12/01/22 23:22	5
Styrene	ND		5.0	3.7	ug/L			12/01/22 23:22	5
Tert-amyl methyl ether	ND		5.0	1.4	ug/L			12/01/22 23:22	5
tert-Butylbenzene	ND		5.0	4.1	ug/L			12/01/22 23:22	5
Tetrachloroethene	ND		5.0	1.8	ug/L			12/01/22 23:22	5
Tetrahydrofuran	**96**		25	6.3	ug/L			12/01/22 23:22	5
Toluene	ND		5.0	2.6	ug/L			12/01/22 23:22	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			12/01/22 23:22	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			12/01/22 23:22	5
trans-1,4-Dichloro-2-butene	ND		5.0	1.1	ug/L			12/01/22 23:22	5
Trichloroethene	ND		5.0	2.3	ug/L			12/01/22 23:22	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			12/01/22 23:22	5
Vinyl acetate	ND		25	4.3	ug/L			12/01/22 23:22	5
Vinyl chloride	ND		5.0	4.5	ug/L			12/01/22 23:22	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*12/01/22 23:22*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*12/01/22 23:22*	*5*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*		*12/01/22 23:22*	*5*
Toluene-d8 (Surr)	*94*		*80 - 120*		*12/01/22 23:22*	*5*

Client Sample ID: OBWL-TD-112122
Date Collected: 11/21/22 11:55
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			12/01/22 23:44	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/01/22 23:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/01/22 23:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/01/22 23:44	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/01/22 23:44	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/01/22 23:44	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/01/22 23:44	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			12/01/22 23:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			12/01/22 23:44	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			12/01/22 23:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/01/22 23:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/01/22 23:44	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/01/22 23:44	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: OBWL-TD-112122
Date Collected: 11/21/22 11:55
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			12/01/22 23:44	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/01/22 23:44	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/01/22 23:44	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			12/01/22 23:44	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/01/22 23:44	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			12/01/22 23:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/01/22 23:44	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/01/22 23:44	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			12/01/22 23:44	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/01/22 23:44	1
1,4-Dioxane	ND		40	9.3	ug/L			12/01/22 23:44	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/01/22 23:44	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/01/22 23:44	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			12/01/22 23:44	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			12/01/22 23:44	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			12/01/22 23:44	1
Acetone	ND		10	3.0	ug/L			12/01/22 23:44	1
Acetonitrile	ND		15	4.9	ug/L			12/01/22 23:44	1
Acrolein	ND		20	0.91	ug/L			12/01/22 23:44	1
Acrylonitrile	ND		5.0	0.83	ug/L			12/01/22 23:44	1
Benzene	ND		1.0	0.41	ug/L			12/01/22 23:44	1
Bromobenzene	ND		1.0	0.80	ug/L			12/01/22 23:44	1
Bromochloromethane	ND		1.0	0.87	ug/L			12/01/22 23:44	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/01/22 23:44	1
Bromoform	ND		1.0	0.26	ug/L			12/01/22 23:44	1
Bromomethane	ND		1.0	0.69	ug/L			12/01/22 23:44	1
Butyl alcohol, n-	ND		40	8.9	ug/L			12/01/22 23:44	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			12/01/22 23:44	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/01/22 23:44	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/01/22 23:44	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/01/22 23:44	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			12/01/22 23:44	1
Chloroethane	ND		1.0	0.32	ug/L			12/01/22 23:44	1
Chloroform	ND		1.0	0.34	ug/L			12/01/22 23:44	1
Chloromethane	ND		1.0	0.35	ug/L			12/01/22 23:44	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/01/22 23:44	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/01/22 23:44	1
Cyclohexane	ND		1.0	0.18	ug/L			12/01/22 23:44	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/01/22 23:44	1
Dibromomethane	ND		1.0	0.41	ug/L			12/01/22 23:44	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/01/22 23:44	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			12/01/22 23:44	1
Ethyl acetate	ND		1.0	0.66	ug/L			12/01/22 23:44	1
Ethyl ether	ND		1.0	0.72	ug/L			12/01/22 23:44	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			12/01/22 23:44	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/01/22 23:44	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			12/01/22 23:44	1
Hexane	ND		10	0.40	ug/L			12/01/22 23:44	1
Iodomethane	ND		1.0	0.30	ug/L			12/01/22 23:44	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: OBWL-TD-112122
Date Collected: 11/21/22 11:55
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isobutanol	ND		25	4.8	ug/L			12/01/22 23:44	1
Isopropyl ether	ND		1.0	0.59	ug/L			12/01/22 23:44	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/01/22 23:44	1
Methacrylonitrile	ND		5.0	0.69	ug/L			12/01/22 23:44	1
Methyl acetate	ND		2.5	1.3	ug/L			12/01/22 23:44	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/01/22 23:44	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/01/22 23:44	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/01/22 23:44	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			12/01/22 23:44	1
Naphthalene	ND		1.0	0.43	ug/L			12/01/22 23:44	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/01/22 23:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/01/22 23:44	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			12/01/22 23:44	1
o-Xylene	ND		1.0	0.76	ug/L			12/01/22 23:44	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			12/01/22 23:44	1
p-Cymene	ND		1.0	0.31	ug/L			12/01/22 23:44	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/01/22 23:44	1
Styrene	ND		1.0	0.73	ug/L			12/01/22 23:44	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			12/01/22 23:44	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/01/22 23:44	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/01/22 23:44	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			12/01/22 23:44	1
Toluene	ND		1.0	0.51	ug/L			12/01/22 23:44	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/01/22 23:44	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/01/22 23:44	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			12/01/22 23:44	1
Trichloroethene	ND		1.0	0.46	ug/L			12/01/22 23:44	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/01/22 23:44	1
Vinyl acetate	ND		5.0	0.85	ug/L			12/01/22 23:44	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/01/22 23:44	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*12/01/22 23:44*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*12/01/22 23:44*	*1*
4-Bromofluorobenzene (Surr)	*89*		*73 - 120*		*12/01/22 23:44*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*12/01/22 23:44*	*1*

Client Sample ID: TRIP BLANK
Date Collected: 11/21/22 11:55
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			12/02/22 00:06	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/02/22 00:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/02/22 00:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/02/22 00:06	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/02/22 00:06	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/02/22 00:06	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/02/22 00:06	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 11/21/22 11:55
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	ND		1.0	0.72	ug/L			12/02/22 00:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			12/02/22 00:06	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			12/02/22 00:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/02/22 00:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/02/22 00:06	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/02/22 00:06	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			12/02/22 00:06	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/02/22 00:06	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/02/22 00:06	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			12/02/22 00:06	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/02/22 00:06	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			12/02/22 00:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/02/22 00:06	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/02/22 00:06	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			12/02/22 00:06	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/02/22 00:06	1
1,4-Dioxane	ND		40	9.3	ug/L			12/02/22 00:06	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/02/22 00:06	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/02/22 00:06	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			12/02/22 00:06	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			12/02/22 00:06	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			12/02/22 00:06	1
Acetone	ND		10	3.0	ug/L			12/02/22 00:06	1
Acetonitrile	ND		15	4.9	ug/L			12/02/22 00:06	1
Acrolein	ND		20	0.91	ug/L			12/02/22 00:06	1
Acrylonitrile	ND		5.0	0.83	ug/L			12/02/22 00:06	1
Benzene	ND		1.0	0.41	ug/L			12/02/22 00:06	1
Bromobenzene	ND		1.0	0.80	ug/L			12/02/22 00:06	1
Bromochloromethane	ND		1.0	0.87	ug/L			12/02/22 00:06	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/02/22 00:06	1
Bromoform	ND		1.0	0.26	ug/L			12/02/22 00:06	1
Bromomethane	ND		1.0	0.69	ug/L			12/02/22 00:06	1
Butyl alcohol, n-	ND		40	8.9	ug/L			12/02/22 00:06	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			12/02/22 00:06	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/02/22 00:06	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/02/22 00:06	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/02/22 00:06	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			12/02/22 00:06	1
Chloroethane	ND		1.0	0.32	ug/L			12/02/22 00:06	1
Chloroform	ND		1.0	0.34	ug/L			12/02/22 00:06	1
Chloromethane	ND		1.0	0.35	ug/L			12/02/22 00:06	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/02/22 00:06	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/02/22 00:06	1
Cyclohexane	ND		1.0	0.18	ug/L			12/02/22 00:06	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/02/22 00:06	1
Dibromomethane	ND		1.0	0.41	ug/L			12/02/22 00:06	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/02/22 00:06	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			12/02/22 00:06	1
Ethyl acetate	ND		1.0	0.66	ug/L			12/02/22 00:06	1

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 11/21/22 11:55
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl ether	ND		1.0	0.72	ug/L			12/02/22 00:06	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			12/02/22 00:06	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/02/22 00:06	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			12/02/22 00:06	1
Hexane	ND		10	0.40	ug/L			12/02/22 00:06	1
Iodomethane	ND		1.0	0.30	ug/L			12/02/22 00:06	1
Isobutanol	ND		25	4.8	ug/L			12/02/22 00:06	1
Isopropyl ether	ND		1.0	0.59	ug/L			12/02/22 00:06	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/02/22 00:06	1
Methacrylonitrile	ND		5.0	0.69	ug/L			12/02/22 00:06	1
Methyl acetate	ND		2.5	1.3	ug/L			12/02/22 00:06	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/02/22 00:06	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/02/22 00:06	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/02/22 00:06	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			12/02/22 00:06	1
Naphthalene	ND		1.0	0.43	ug/L			12/02/22 00:06	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/02/22 00:06	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/02/22 00:06	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			12/02/22 00:06	1
o-Xylene	ND		1.0	0.76	ug/L			12/02/22 00:06	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			12/02/22 00:06	1
p-Cymene	ND		1.0	0.31	ug/L			12/02/22 00:06	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/02/22 00:06	1
Styrene	ND		1.0	0.73	ug/L			12/02/22 00:06	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			12/02/22 00:06	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/02/22 00:06	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/02/22 00:06	1
Tetrahydrofuran	**5.1**		5.0	1.3	ug/L			12/02/22 00:06	1
Toluene	ND		1.0	0.51	ug/L			12/02/22 00:06	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/02/22 00:06	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/02/22 00:06	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			12/02/22 00:06	1
Trichloroethene	ND		1.0	0.46	ug/L			12/02/22 00:06	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/02/22 00:06	1
Vinyl acetate	ND		5.0	0.85	ug/L			12/02/22 00:06	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/02/22 00:06	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Hexachloroethane TIC	*ND*		*ug/L*			*67-72-1*		*12/02/22 00:06*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*12/02/22 00:06*	*1*
4-Bromofluorobenzene (Surr)	*86*		*73 - 120*		*12/02/22 00:06*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*12/02/22 00:06*	*1*

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Client Sample ID: L-INF-112122
Date Collected: 11/21/22 12:40
Date Received: 11/23/22 09:25
Lab Sample ID: 280-169551-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	**0.014**		0.0030	0.00056	mg/L		12/06/22 16:44	12/07/22 19:58	1
Iron, Total	**3.3**		0.060	0.0091	mg/L		12/06/22 16:44	12/07/22 19:58	1

Client Sample ID: OBWL-TD-112122
Date Collected: 11/21/22 11:55
Date Received: 11/23/22 09:25
Lab Sample ID: 280-169551-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	**0.058**		0.0030	0.00056	mg/L		12/06/22 16:44	12/07/22 20:03	1
Iron, Total	**19**		0.060	0.0091	mg/L		12/06/22 16:44	12/07/22 20:03	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Client Sample ID: L-INF-112122
Date Collected: 11/21/22 12:40
Date Received: 11/23/22 09:25
Lab Sample ID: 280-169551-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	**120**		0.20	0.024	mg/L		12/06/22 07:58	12/06/22 22:58	1
Iron, Dissolved	**0.56**		0.060	0.0091	mg/L		12/06/22 07:58	12/06/22 22:58	1
Magnesium, Dissolved	**89**		0.050	0.0042	mg/L		12/06/22 07:58	12/06/22 22:58	1
Potassium, Dissolved	**130**		1.0	0.24	mg/L		12/06/22 07:58	12/06/22 22:58	1
Sodium, Dissolved	**920**		1.0	0.097	mg/L		12/06/22 07:58	12/06/22 22:58	1

Client Sample ID: OBWL-TD-112122
Date Collected: 11/21/22 11:55
Date Received: 11/23/22 09:25
Lab Sample ID: 280-169551-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	**64**		0.20	0.024	mg/L		12/06/22 07:58	12/06/22 23:19	1
Iron, Dissolved	**0.90**		0.060	0.0091	mg/L		12/06/22 07:58	12/06/22 23:19	1
Magnesium, Dissolved	**15**		0.050	0.0042	mg/L		12/06/22 07:58	12/06/22 23:19	1
Potassium, Dissolved	**3.4**		1.0	0.24	mg/L		12/06/22 07:58	12/06/22 23:19	1
Sodium, Dissolved	**7.8**		1.0	0.097	mg/L		12/06/22 07:58	12/06/22 23:19	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Client Sample ID: L-INF-112122
Date Collected: 11/21/22 12:40
Date Received: 11/23/22 09:25
Lab Sample ID: 280-169551-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	**0.00063**	**J**	0.0010	0.00040	mg/L		12/06/22 07:58	12/07/22 01:30	1
Arsenic, Total	**0.0050**	**B**	0.0050	0.00033	mg/L		12/06/22 07:58	12/07/22 01:30	1
Barium, Total	**0.23**	**B**	0.0010	0.00029	mg/L		12/06/22 07:58	12/07/22 11:11	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/06/22 07:58	12/07/22 01:30	1
Cadmium, Total	ND		0.00030	0.00027	mg/L		12/06/22 07:58	12/07/22 01:30	1
Chromium, Total	**0.0087**		0.0030	0.00050	mg/L		12/08/22 08:20	12/08/22 19:28	1
Copper, Total	**0.0018**	**J B**	0.0020	0.00056	mg/L		12/06/22 07:58	12/07/22 01:30	1
Lead, Total	**0.00018**	**J**	0.0010	0.00018	mg/L		12/08/22 08:20	12/08/22 19:28	1
Manganese, Total	**2.1**	**B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 01:30	1
Nickel, Total	**0.091**		0.0040	0.00030	mg/L		12/06/22 07:58	12/07/22 01:30	1
Selenium, Total	**0.00057**	**J B**	0.0010	0.00037	mg/L		12/06/22 07:58	12/07/22 01:30	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/06/22 07:58	12/07/22 01:30	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/06/22 07:58	12/07/22 01:30	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

Client Sample ID: L-INF-112122
Date Collected: 11/21/22 12:40
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium, Total	**0.012**		0.0020	0.0012	mg/L		12/06/22 07:58	12/07/22 01:30	1
Zinc, Total	**0.040**		0.0050	0.0020	mg/L		12/06/22 07:58	12/07/22 01:30	1

Client Sample ID: OBWL-TD-112122
Date Collected: 11/21/22 11:55
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	**0.0024**		0.0010	0.00040	mg/L		12/06/22 07:58	12/07/22 01:32	1
Arsenic, Total	**0.0068**	**B**	0.0050	0.00033	mg/L		12/06/22 07:58	12/07/22 01:32	1
Barium, Total	**0.064**	**B**	0.0010	0.00029	mg/L		12/06/22 07:58	12/07/22 11:13	1
Beryllium, Total	**0.000085**	**J**	0.0010	0.000080	mg/L		12/06/22 07:58	12/07/22 01:32	1
Cadmium, Total	**0.00053**	**B**	0.00030	0.00027	mg/L		12/06/22 07:58	12/07/22 01:32	1
Chromium, Total	**0.034**		0.0030	0.00050	mg/L		12/08/22 08:20	12/08/22 19:32	1
Copper, Total	**0.012**	**B**	0.0020	0.00056	mg/L		12/06/22 07:58	12/07/22 01:32	1
Lead, Total	**0.0013**		0.0010	0.00018	mg/L		12/08/22 08:20	12/08/22 19:32	1
Manganese, Total	**6.0**	**B**	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 01:32	1
Nickel, Total	**0.46**		0.0040	0.00030	mg/L		12/06/22 07:58	12/07/22 01:32	1
Selenium, Total	ND		0.0010	0.00037	mg/L		12/06/22 07:58	12/07/22 01:32	1
Silver, Total	ND		0.0020	0.000033	mg/L		12/06/22 07:58	12/07/22 01:32	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/06/22 07:58	12/07/22 01:32	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/06/22 07:58	12/07/22 01:32	1
Zinc, Total	**0.31**		0.0050	0.0020	mg/L		12/06/22 07:58	12/07/22 01:32	1

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Client Sample ID: L-INF-112122
Date Collected: 11/21/22 12:40
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**2.1**		0.0010	0.00031	mg/L		12/08/22 08:20	12/08/22 19:21	1

Client Sample ID: OBWL-TD-112122
Date Collected: 11/21/22 11:55
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**6.0**		0.0010	0.00031	mg/L		12/08/22 08:20	12/08/22 19:30	1

General Chemistry

Client Sample ID: L-INF-112122
Date Collected: 11/21/22 12:40
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-1
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	**2500**		150	150	mg/L			12/15/22 01:40	50
Sulfate (MCAWW 300.0)	**2600**		250	250	mg/L			12/15/22 01:40	50
Ammonia (as N) (MCAWW 350.1)	**270**		2.4	2.4	mg/L			12/13/22 13:04	80
Nitrate as N (EPA 353.2)	**0.11**		0.050	0.050	mg/L			12/13/22 17:18	1
Nitrate/Nitrite (MCAWW 353.2)	**0.81**		0.050	0.050	mg/L			12/13/22 13:10	1
Chemical Oxygen Demand (COD) (MCAWW 410.4)	**500**		50	50	mg/L			12/01/22 12:25	5

General Chemistry (Continued)

Client Sample ID: L-INF-112122
Date Collected: 11/21/22 12:40
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-1
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3) (SM 2320B)	**2100**		10	10	mg/L			11/28/22 21:19	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	**2100**		10	10	mg/L			11/28/22 21:19	1
Total Dissolved Solids (TDS) (SM 2540C)	**3300**		50	50	mg/L			11/28/22 13:07	1
Total Suspended Solids (SM 2540D)	**5.2**		4.0	4.0	mg/L			11/28/22 12:21	1
Total Organic Carbon - Average (SM 5310B)	**180**		10	10	mg/L			12/09/22 08:10	10
Biochemical Oxygen Demand (SM5210B)	**30**	**b**	25	25	mg/L			11/23/22 11:54	5

Client Sample ID: OBWL-TD-112122
Date Collected: 11/21/22 11:55
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-2
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (MCAWW 300.0)	**3.1**		3.0	3.0	mg/L			12/16/22 03:28	1
Sulfate (MCAWW 300.0)	**550**		50	50	mg/L			12/16/22 23:12	10
Ammonia (as N) (MCAWW 350.1)	**13**		0.75	0.75	mg/L			12/13/22 13:06	25
Nitrate as N (EPA 353.2)	**0.77**		0.050	0.050	mg/L			12/13/22 17:18	1
Nitrate/Nitrite (MCAWW 353.2)	**0.79**		0.050	0.050	mg/L			12/12/22 14:07	1
Chemical Oxygen Demand (COD) (MCAWW 410.4)	ND		10	10	mg/L			12/01/22 12:25	1
Alkalinity, Total (As CaCO3) (SM 2320B)	ND		10	10	mg/L			11/28/22 21:23	1
Alkalinity, Bicarbonate (As CaCO3) (SM 2320B)	ND		10	10	mg/L			11/28/22 21:23	1
Total Dissolved Solids (TDS) (SM 2540C)	**520**		5.0	5.0	mg/L			11/28/22 13:07	1
Total Suspended Solids (SM 2540D)	**36**		4.0	4.0	mg/L			11/28/22 12:21	1
Total Organic Carbon - Average (SM 5310B)	**3.1**		1.0	1.0	mg/L			12/07/22 23:13	1
Biochemical Oxygen Demand (SM5210B)	ND		24	24	mg/L			11/23/22 11:54	1

Surrogate Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169551-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)
280-169551-1	L-INF-112122	109	87	94
280-169551-1 MS	L-INF-112122	106	88	98
280-169551-1 MSD	L-INF-112122	106	87	97
280-169551-2	OBWL-TD-112122	107	89	94
280-169551-3	TRIP BLANK	106	86	94
LCS 480-651808/6	Lab Control Sample	105	87	99
MB 480-651808/8	Method Blank	106	86	93

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DBFM	TBA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)
280-169551-1	L-INF-112122	100	91
280-169551-2	OBWL-TD-112122	101	73
280-169551-3	TRIP BLANK	99	81
LCS 480-652151/6	Lab Control Sample	100	73
LCSD 480-652151/7	Lab Control Sample Dup	103	77
MB 480-652151/9	Method Blank	98	88

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TBA = TBA-d9 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-651808/8
Matrix: Water
Analysis Batch: 651808

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			12/01/22 23:00	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/01/22 23:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/01/22 23:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/01/22 23:00	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/01/22 23:00	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/01/22 23:00	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/01/22 23:00	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			12/01/22 23:00	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			12/01/22 23:00	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			12/01/22 23:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/01/22 23:00	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/01/22 23:00	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/01/22 23:00	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			12/01/22 23:00	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/01/22 23:00	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/01/22 23:00	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			12/01/22 23:00	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/01/22 23:00	1
1,3,5-Trichlorobenzene	ND		1.0	0.23	ug/L			12/01/22 23:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/01/22 23:00	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/01/22 23:00	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			12/01/22 23:00	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/01/22 23:00	1
1,4-Dioxane	ND		40	9.3	ug/L			12/01/22 23:00	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/01/22 23:00	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/01/22 23:00	1
2-Chloroethyl vinyl ether	ND		5.0	0.96	ug/L			12/01/22 23:00	1
2-Hexanone	ND		5.0	1.2	ug/L			12/01/22 23:00	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/01/22 23:00	1
Acetone	ND		10	3.0	ug/L			12/01/22 23:00	1
Acetonitrile	ND		15	4.9	ug/L			12/01/22 23:00	1
Acrolein	ND		20	0.91	ug/L			12/01/22 23:00	1
Acrylonitrile	ND		5.0	0.83	ug/L			12/01/22 23:00	1
Benzene	ND		1.0	0.41	ug/L			12/01/22 23:00	1
Bromobenzene	ND		1.0	0.80	ug/L			12/01/22 23:00	1
Bromochloromethane	ND		1.0	0.87	ug/L			12/01/22 23:00	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/01/22 23:00	1
Bromoform	ND		1.0	0.26	ug/L			12/01/22 23:00	1
Bromomethane	ND		1.0	0.69	ug/L			12/01/22 23:00	1
Butyl alcohol, n-	ND		40	8.9	ug/L			12/01/22 23:00	1
Butyl alcohol, tert-	ND		10	3.3	ug/L			12/01/22 23:00	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/01/22 23:00	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/01/22 23:00	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/01/22 23:00	1
Chlorodifluoromethane	ND		1.0	0.26	ug/L			12/01/22 23:00	1
Chloroethane	ND		1.0	0.32	ug/L			12/01/22 23:00	1
Chloroform	ND		1.0	0.34	ug/L			12/01/22 23:00	1
Chloromethane	ND		1.0	0.35	ug/L			12/01/22 23:00	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-651808/8
Matrix: Water
Analysis Batch: 651808

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/01/22 23:00	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/01/22 23:00	1
Cyclohexane	ND		1.0	0.18	ug/L			12/01/22 23:00	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/01/22 23:00	1
Dibromomethane	ND		1.0	0.41	ug/L			12/01/22 23:00	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/01/22 23:00	1
Dichlorofluoromethane	ND		1.0	0.34	ug/L			12/01/22 23:00	1
Ethyl acetate	ND		1.0	0.66	ug/L			12/01/22 23:00	1
Ethyl ether	ND		1.0	0.72	ug/L			12/01/22 23:00	1
Ethyl tert-butyl ether	ND		1.0	0.29	ug/L			12/01/22 23:00	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/01/22 23:00	1
Hexachlorobutadiene	ND		2.0	0.28	ug/L			12/01/22 23:00	1
Hexane	ND		10	0.40	ug/L			12/01/22 23:00	1
Iodomethane	ND		1.0	0.30	ug/L			12/01/22 23:00	1
Isobutanol	ND		25	4.8	ug/L			12/01/22 23:00	1
Isopropyl ether	ND		1.0	0.59	ug/L			12/01/22 23:00	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/01/22 23:00	1
Methacrylonitrile	ND		5.0	0.69	ug/L			12/01/22 23:00	1
Methyl acetate	ND		2.5	1.3	ug/L			12/01/22 23:00	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/01/22 23:00	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/01/22 23:00	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/01/22 23:00	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			12/01/22 23:00	1
Naphthalene	ND		1.0	0.43	ug/L			12/01/22 23:00	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/01/22 23:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/01/22 23:00	1
o-Chlorotoluene	ND		1.0	0.86	ug/L			12/01/22 23:00	1
o-Xylene	ND		1.0	0.76	ug/L			12/01/22 23:00	1
p-Chlorotoluene	ND		1.0	0.84	ug/L			12/01/22 23:00	1
p-Cymene	ND		1.0	0.31	ug/L			12/01/22 23:00	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/01/22 23:00	1
Styrene	ND		1.0	0.73	ug/L			12/01/22 23:00	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			12/01/22 23:00	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/01/22 23:00	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/01/22 23:00	1
Tetrahydrofuran	ND		5.0	1.3	ug/L			12/01/22 23:00	1
Toluene	ND		1.0	0.51	ug/L			12/01/22 23:00	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/01/22 23:00	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/01/22 23:00	1
trans-1,4-Dichloro-2-butene	ND		1.0	0.22	ug/L			12/01/22 23:00	1
Trichloroethene	ND		1.0	0.46	ug/L			12/01/22 23:00	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/01/22 23:00	1
Vinyl acetate	ND		5.0	0.85	ug/L			12/01/22 23:00	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/01/22 23:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*12/01/22 23:00*	*1*
4-Bromofluorobenzene (Surr)	*86*		*73 - 120*		*12/01/22 23:00*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-651808/8
Matrix: Water
Analysis Batch: 651808

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	93		80 - 120		12/01/22 23:00	1

Lab Sample ID: LCS 480-651808/6
Matrix: Water
Analysis Batch: 651808

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	25.0	24.5		ug/L		98	80 - 120
1,1,1-Trichloroethane	25.0	24.0		ug/L		96	73 - 126
1,1,2,2-Tetrachloroethane	25.0	27.6		ug/L		110	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	21.6		ug/L		87	61 - 148
1,1,2-Trichloroethane	25.0	24.5		ug/L		98	76 - 122
1,1-Dichloroethane	25.0	23.1		ug/L		92	77 - 120
1,1-Dichloroethene	25.0	20.6		ug/L		83	66 - 127
1,1-Dichloropropene	25.0	22.1		ug/L		88	72 - 122
1,2,3-Trichlorobenzene	25.0	25.5		ug/L		102	75 - 123
1,2,3-Trichloropropane	25.0	27.5		ug/L		110	68 - 122
1,2,4-Trichlorobenzene	25.0	25.1		ug/L		101	79 - 122
1,2,4-Trimethylbenzene	25.0	26.4		ug/L		106	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	31.0		ug/L		124	56 - 134
1,2-Dibromoethane (EDB)	25.0	24.5		ug/L		98	77 - 120
1,2-Dichlorobenzene	25.0	24.9		ug/L		99	80 - 124
1,2-Dichloroethane	25.0	24.8		ug/L		99	75 - 120
1,2-Dichloropropane	25.0	23.2		ug/L		93	76 - 120
1,3,5-Trimethylbenzene	25.0	25.8		ug/L		103	77 - 121
1,3-Dichlorobenzene	25.0	24.0		ug/L		96	77 - 120
1,3-Dichloropropane	25.0	24.5		ug/L		98	75 - 120
1,4-Dichlorobenzene	25.0	24.1		ug/L		96	80 - 120
1,4-Dioxane	500	388		ug/L		78	50 - 150
2,2-Dichloropropane	25.0	21.7		ug/L		87	63 - 136
2-Butanone (MEK)	125	146		ug/L		117	57 - 140
2-Chloroethyl vinyl ether	25.0	24.6		ug/L		98	70 - 129
2-Hexanone	125	164	*+	ug/L		131	65 - 127
4-Methyl-2-pentanone (MIBK)	125	164	*+	ug/L		131	71 - 125
Acetone	125	146		ug/L		116	56 - 142
Acrolein	125	110		ug/L		88	52 - 143
Acrylonitrile	250	280		ug/L		112	63 - 125
Benzene	25.0	21.9		ug/L		87	71 - 124
Bromobenzene	25.0	23.8		ug/L		95	78 - 120
Bromochloromethane	25.0	21.7		ug/L		87	72 - 130
Bromodichloromethane	25.0	24.7		ug/L		99	80 - 122
Bromoform	25.0	24.8		ug/L		99	61 - 132
Bromomethane	25.0	23.2		ug/L		93	55 - 144
Butyl alcohol, tert-	250	244		ug/L		98	75 - 125
Carbon disulfide	25.0	20.7		ug/L		83	59 - 134
Carbon tetrachloride	25.0	23.8		ug/L		95	72 - 134
Chlorobenzene	25.0	22.5		ug/L		90	80 - 120
Chloroethane	25.0	22.4		ug/L		90	69 - 136

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-651808/6
Matrix: Water
Analysis Batch: 651808

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	25.0	23.1		ug/L		92	73 - 127
Chloromethane	25.0	26.9		ug/L		108	68 - 124
cis-1,2-Dichloroethene	25.0	22.1		ug/L		88	74 - 124
cis-1,3-Dichloropropene	25.0	23.1		ug/L		92	74 - 124
Cyclohexane	25.0	23.8		ug/L		95	59 - 135
Dibromochloromethane	25.0	25.5		ug/L		102	75 - 125
Dibromomethane	25.0	24.0		ug/L		96	76 - 127
Dichlorodifluoromethane	25.0	28.0		ug/L		112	59 - 135
Dichlorofluoromethane	25.0	24.2		ug/L		97	76 - 127
Ethyl ether	25.0	24.3		ug/L		97	76 - 123
Ethylbenzene	25.0	23.3		ug/L		93	77 - 123
Hexachlorobutadiene	25.0	23.8		ug/L		95	68 - 131
Iodomethane	25.0	20.3		ug/L		81	78 - 123
Isobutanol	625	636		ug/L		102	51 - 150
Isopropylbenzene	25.0	25.2		ug/L		101	77 - 122
Methyl acetate	50.0	58.8		ug/L		118	74 - 133
Methyl tert-butyl ether	25.0	24.1		ug/L		97	77 - 120
Methylcyclohexane	25.0	21.5		ug/L		86	68 - 134
Methylene Chloride	25.0	23.0		ug/L		92	75 - 124
m-Xylene & p-Xylene	25.0	23.0		ug/L		92	76 - 122
Naphthalene	25.0	28.0		ug/L		112	66 - 125
n-Butylbenzene	25.0	26.7		ug/L		107	71 - 128
N-Propylbenzene	25.0	25.5		ug/L		102	75 - 127
o-Chlorotoluene	25.0	24.9		ug/L		100	76 - 121
o-Xylene	25.0	23.4		ug/L		94	76 - 122
p-Chlorotoluene	25.0	24.7		ug/L		99	77 - 121
p-Cymene	25.0	25.9		ug/L		103	73 - 120
sec-Butylbenzene	25.0	25.9		ug/L		104	74 - 127
Styrene	25.0	23.4		ug/L		94	80 - 120
tert-Butylbenzene	25.0	25.1		ug/L		101	75 - 123
Tetrachloroethene	25.0	21.7		ug/L		87	74 - 122
Tetrahydrofuran	50.0	54.1		ug/L		108	62 - 132
Toluene	25.0	23.2		ug/L		93	80 - 122
trans-1,2-Dichloroethene	25.0	21.7		ug/L		87	73 - 127
trans-1,3-Dichloropropene	25.0	25.3		ug/L		101	80 - 120
trans-1,4-Dichloro-2-butene	25.0	27.4		ug/L		109	41 - 131
Trichloroethene	25.0	22.4		ug/L		90	74 - 123
Trichlorofluoromethane	25.0	27.4		ug/L		110	62 - 150
Vinyl acetate	50.0	56.8		ug/L		114	50 - 144
Vinyl chloride	25.0	24.0		ug/L		96	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 280-169551-1 MS
Matrix: Water
Analysis Batch: 651808

Client Sample ID: L-INF-112122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	ND		125	132		ug/L		106	80 - 120
1,1,1-Trichloroethane	ND		125	133		ug/L		107	73 - 126
1,1,2,2-Tetrachloroethane	ND		125	145		ug/L		116	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		125	125		ug/L		100	61 - 148
1,1,2-Trichloroethane	ND		125	129		ug/L		103	76 - 122
1,1-Dichloroethane	ND		125	124		ug/L		100	77 - 120
1,1-Dichloroethene	ND		125	117		ug/L		94	66 - 127
1,1-Dichloropropene	ND		125	121		ug/L		97	72 - 122
1,2,3-Trichlorobenzene	ND		125	141		ug/L		113	75 - 123
1,2,3-Trichloropropane	ND		125	145		ug/L		116	68 - 122
1,2,4-Trichlorobenzene	ND		125	138		ug/L		110	79 - 122
1,2,4-Trimethylbenzene	ND		125	140		ug/L		112	76 - 121
1,2-Dibromo-3-Chloropropane	ND		125	165		ug/L		132	56 - 134
1,2-Dibromoethane (EDB)	ND		125	129		ug/L		103	77 - 120
1,2-Dichlorobenzene	ND		125	134		ug/L		107	80 - 124
1,2-Dichloroethane	ND		125	132		ug/L		106	75 - 120
1,2-Dichloropropane	ND		125	123		ug/L		98	76 - 120
1,3,5-Trimethylbenzene	ND		125	138		ug/L		111	77 - 121
1,3-Dichlorobenzene	ND		125	128		ug/L		103	77 - 120
1,3-Dichloropropane	ND		125	127		ug/L		102	75 - 120
1,4-Dichlorobenzene	ND		125	128		ug/L		103	78 - 124
1,4-Dioxane	ND		2500	2660		ug/L		106	50 - 150
2,2-Dichloropropane	ND		125	114		ug/L		91	63 - 136
2-Butanone (MEK)	ND		625	743		ug/L		119	57 - 140
2-Chloroethyl vinyl ether	ND		125	125		ug/L		100	70 - 129
2-Hexanone	ND	*+ F1	625	854	F1	ug/L		137	65 - 127
4-Methyl-2-pentanone (MIBK)	ND	*+ F1	625	855	F1	ug/L		137	71 - 125
Acetone	ND		625	677		ug/L		108	56 - 142
Acrolein	ND		625	483		ug/L		77	52 - 143
Acrylonitrile	ND		1250	1380		ug/L		110	63 - 125
Benzene	ND		125	118		ug/L		94	71 - 124
Bromobenzene	ND		125	126		ug/L		101	78 - 120
Bromochloromethane	ND		125	115		ug/L		92	72 - 130
Bromodichloromethane	ND		125	130		ug/L		104	80 - 122
Bromoform	ND		125	133		ug/L		106	61 - 132
Bromomethane	ND		125	123		ug/L		99	55 - 144
Butyl alcohol, tert-	160		1250	1560		ug/L		112	75 - 125
Carbon disulfide	ND		125	115		ug/L		92	59 - 134
Carbon tetrachloride	ND		125	132		ug/L		106	72 - 134
Chlorobenzene	ND		125	121		ug/L		97	80 - 120
Chloroethane	ND		125	118		ug/L		95	69 - 136
Chloroform	ND		125	124		ug/L		100	73 - 127
Chloromethane	ND		125	148		ug/L		119	68 - 124
cis-1,2-Dichloroethene	ND		125	117		ug/L		94	74 - 124
cis-1,3-Dichloropropene	ND		125	118		ug/L		94	74 - 124
Cyclohexane	ND		125	133		ug/L		106	59 - 135
Dibromochloromethane	ND		125	135		ug/L		108	75 - 125
Dibromomethane	ND		125	127		ug/L		101	76 - 127

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 280-169551-1 MS
Matrix: Water
Analysis Batch: 651808

Client Sample ID: L-INF-112122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorodifluoromethane	ND		125	154		ug/L		123	59 - 135
Dichlorofluoromethane	ND		125	133		ug/L		106	76 - 127
Ethyl ether	ND		125	126		ug/L		101	76 - 123
Ethylbenzene	ND		125	127		ug/L		101	77 - 123
Hexachlorobutadiene	ND		125	130		ug/L		104	68 - 131
Iodomethane	ND		125	110		ug/L		88	78 - 123
Isobutanol	ND		3130	3410		ug/L		109	51 - 150
Isopropylbenzene	ND		125	136		ug/L		108	77 - 122
Methyl acetate	ND		250	310		ug/L		124	74 - 133
Methyl tert-butyl ether	ND		125	123		ug/L		98	77 - 120
Methylcyclohexane	ND		125	116		ug/L		93	68 - 134
Methylene Chloride	ND		125	124		ug/L		99	75 - 124
m-Xylene & p-Xylene	ND		125	123		ug/L		99	76 - 122
Naphthalene	ND		125	154		ug/L		123	66 - 125
n-Butylbenzene	ND		125	144		ug/L		115	71 - 128
N-Propylbenzene	ND		125	136		ug/L		109	75 - 127
o-Chlorotoluene	ND		125	132		ug/L		106	76 - 121
o-Xylene	ND		125	125		ug/L		100	76 - 122
p-Chlorotoluene	ND		125	130		ug/L		104	77 - 121
p-Cymene	ND		125	138		ug/L		111	73 - 120
sec-Butylbenzene	ND		125	139		ug/L		111	74 - 127
Styrene	ND		125	125		ug/L		100	80 - 120
tert-Butylbenzene	ND		125	134		ug/L		107	75 - 123
Tetrachloroethene	ND		125	119		ug/L		95	74 - 122
Tetrahydrofuran	96		250	376		ug/L		112	62 - 132
Toluene	ND		125	123		ug/L		99	80 - 122
trans-1,2-Dichloroethene	ND		125	117		ug/L		93	73 - 127
trans-1,3-Dichloropropene	ND		125	128		ug/L		103	80 - 120
trans-1,4-Dichloro-2-butene	ND		125	131		ug/L		105	41 - 131
Trichloroethene	ND		125	122		ug/L		98	74 - 123
Trichlorofluoromethane	ND		125	152		ug/L		121	62 - 150
Vinyl acetate	ND		250	293		ug/L		117	50 - 144
Vinyl chloride	ND		125	131		ug/L		105	65 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*
4-Bromofluorobenzene (Surr)	*88*		*73 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*

Lab Sample ID: 280-169551-1 MSD
Matrix: Water
Analysis Batch: 651808

Client Sample ID: L-INF-112122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		125	128		ug/L		103	80 - 120	3	20
1,1,1-Trichloroethane	ND		125	129		ug/L		103	73 - 126	3	15
1,1,2,2-Tetrachloroethane	ND		125	146		ug/L		117	76 - 120	0	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		125	119		ug/L		95	61 - 148	5	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 280-169551-1 MSD
Matrix: Water
Analysis Batch: 651808

Client Sample ID: L-INF-112122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloroethane	ND		125	129		ug/L		103	76 - 122	0	15
1,1-Dichloroethane	ND		125	121		ug/L		97	77 - 120	3	20
1,1-Dichloroethene	ND		125	113		ug/L		91	66 - 127	3	16
1,1-Dichloropropene	ND		125	120		ug/L		96	72 - 122	1	20
1,2,3-Trichlorobenzene	ND		125	131		ug/L		104	75 - 123	8	20
1,2,3-Trichloropropane	ND		125	146		ug/L		117	68 - 122	1	14
1,2,4-Trichlorobenzene	ND		125	127		ug/L		102	79 - 122	8	20
1,2,4-Trimethylbenzene	ND		125	135		ug/L		108	76 - 121	3	20
1,2-Dibromo-3-Chloropropane	ND		125	159		ug/L		127	56 - 134	3	15
1,2-Dibromoethane (EDB)	ND		125	128		ug/L		103	77 - 120	1	15
1,2-Dichlorobenzene	ND		125	130		ug/L		104	80 - 124	2	20
1,2-Dichloroethane	ND		125	130		ug/L		104	75 - 120	1	20
1,2-Dichloropropane	ND		125	121		ug/L		97	76 - 120	2	20
1,3,5-Trimethylbenzene	ND		125	136		ug/L		109	77 - 121	2	20
1,3-Dichlorobenzene	ND		125	126		ug/L		101	77 - 120	2	20
1,3-Dichloropropane	ND		125	128		ug/L		102	75 - 120	1	20
1,4-Dichlorobenzene	ND		125	126		ug/L		101	78 - 124	2	20
1,4-Dioxane	ND		2500	2500		ug/L		100	50 - 150	6	20
2,2-Dichloropropane	ND		125	104		ug/L		83	63 - 136	9	20
2-Butanone (MEK)	ND		625	741		ug/L		119	57 - 140	0	20
2-Chloroethyl vinyl ether	ND		125	127		ug/L		101	70 - 129	1	20
2-Hexanone	ND	*+ F1	625	853	F1	ug/L		137	65 - 127	0	15
4-Methyl-2-pentanone (MIBK)	ND	*+ F1	625	848	F1	ug/L		136	71 - 125	1	35
Acetone	ND		625	667		ug/L		107	56 - 142	2	15
Acrolein	ND		625	486		ug/L		78	52 - 143	1	20
Acrylonitrile	ND		1250	1380		ug/L		110	63 - 125	0	20
Benzene	ND		125	115		ug/L		92	71 - 124	2	13
Bromobenzene	ND		125	127		ug/L		101	78 - 120	0	15
Bromochloromethane	ND		125	114		ug/L		91	72 - 130	0	15
Bromodichloromethane	ND		125	129		ug/L		103	80 - 122	1	15
Bromoform	ND		125	130		ug/L		104	61 - 132	2	15
Bromomethane	ND		125	114		ug/L		91	55 - 144	8	15
Butyl alcohol, tert-	160		1250	1610		ug/L		116	75 - 125	3	15
Carbon disulfide	ND		125	110		ug/L		88	59 - 134	4	15
Carbon tetrachloride	ND		125	130		ug/L		104	72 - 134	2	15
Chlorobenzene	ND		125	118		ug/L		94	80 - 120	3	25
Chloroethane	ND		125	120		ug/L		96	69 - 136	1	15
Chloroform	ND		125	121		ug/L		97	73 - 127	2	20
Chloromethane	ND		125	143		ug/L		115	68 - 124	3	15
cis-1,2-Dichloroethene	ND		125	116		ug/L		93	74 - 124	1	15
cis-1,3-Dichloropropene	ND		125	117		ug/L		93	74 - 124	1	15
Cyclohexane	ND		125	129		ug/L		103	59 - 135	3	20
Dibromochloromethane	ND		125	134		ug/L		107	75 - 125	1	15
Dibromomethane	ND		125	126		ug/L		101	76 - 127	1	15
Dichlorodifluoromethane	ND		125	148		ug/L		119	59 - 135	4	20
Dichlorofluoromethane	ND		125	129		ug/L		103	76 - 127	3	20
Ethyl ether	ND		125	127		ug/L		102	76 - 123	1	20
Ethylbenzene	ND		125	122		ug/L		98	77 - 123	3	15
Hexachlorobutadiene	ND		125	121		ug/L		97	68 - 131	8	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 280-169551-1 MSD
Matrix: Water
Analysis Batch: 651808

Client Sample ID: L-INF-112122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iodomethane	ND		125	107		ug/L		86	78 - 123	2	20
Isobutanol	ND		3130	3590		ug/L		115	51 - 150	5	20
Isopropylbenzene	ND		125	132		ug/L		105	77 - 122	3	20
Methyl acetate	ND		250	298		ug/L		119	74 - 133	4	20
Methyl tert-butyl ether	ND		125	123		ug/L		98	77 - 120	0	37
Methylcyclohexane	ND		125	114		ug/L		91	68 - 134	2	20
Methylene Chloride	ND		125	119		ug/L		95	75 - 124	4	15
m-Xylene & p-Xylene	ND		125	118		ug/L		94	76 - 122	4	16
Naphthalene	ND		125	145		ug/L		116	66 - 125	6	20
n-Butylbenzene	ND		125	139		ug/L		111	71 - 128	3	15
N-Propylbenzene	ND		125	133		ug/L		107	75 - 127	2	15
o-Chlorotoluene	ND		125	129		ug/L		103	76 - 121	3	20
o-Xylene	ND		125	123		ug/L		98	76 - 122	2	16
p-Chlorotoluene	ND		125	128		ug/L		102	77 - 121	2	15
p-Cymene	ND		125	134		ug/L		107	73 - 120	3	20
sec-Butylbenzene	ND		125	133		ug/L		106	74 - 127	4	15
Styrene	ND		125	122		ug/L		98	80 - 120	3	20
tert-Butylbenzene	ND		125	128		ug/L		103	75 - 123	5	15
Tetrachloroethene	ND		125	115		ug/L		92	74 - 122	3	20
Tetrahydrofuran	96		250	378		ug/L		113	62 - 132	1	25
Toluene	ND		125	119		ug/L		95	80 - 122	3	15
trans-1,2-Dichloroethene	ND		125	114		ug/L		91	73 - 127	3	20
trans-1,3-Dichloropropene	ND		125	127		ug/L		102	80 - 120	1	15
trans-1,4-Dichloro-2-butene	ND		125	128		ug/L		102	41 - 131	3	20
Trichloroethene	ND		125	119		ug/L		95	74 - 123	3	16
Trichlorofluoromethane	ND		125	146		ug/L		117	62 - 150	4	20
Vinyl acetate	ND		250	289		ug/L		116	50 - 144	1	23
Vinyl chloride	ND		125	127		ug/L		102	65 - 133	3	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-652151/9
Matrix: Water
Analysis Batch: 652151

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020	0.0040	ug/L			12/05/22 17:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*50 - 150*		*12/05/22 17:42*	*1*
TBA-d9 (Surr)	*88*		*50 - 150*		*12/05/22 17:42*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-652151/6
Matrix: Water
Analysis Batch: 652151

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Vinyl chloride			0.200	0.157		ug/L		78	50 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*50 - 150*
TBA-d9 (Surr)	*73*		*50 - 150*

Lab Sample ID: LCSD 480-652151/7
Matrix: Water
Analysis Batch: 652151

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Vinyl chloride			0.200	0.201	*1	ug/L		101	50 - 150	25	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*103*		*50 - 150*
TBA-d9 (Surr)	*77*		*50 - 150*

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 280-595532/1-A
Matrix: Water
Analysis Batch: 595984

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595532

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt, Total	ND		0.0030	0.00056	mg/L		12/06/22 16:44	12/07/22 18:00	1
Iron, Total	ND		0.060	0.0091	mg/L		12/06/22 16:44	12/07/22 18:00	1

Lab Sample ID: LCS 280-595532/2-A
Matrix: Water
Analysis Batch: 595984

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595532

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cobalt, Total			1.00	0.939		mg/L		94	89 - 111		
Iron, Total			10.0	10.2		mg/L		102	89 - 115		

Lab Sample ID: 280-169454-D-2-C MS
Matrix: Water
Analysis Batch: 595984

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 595532

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cobalt, Total	ND		1.00	0.858		mg/L		86	82 - 119		
Iron, Total	0.084		10.0	8.90		mg/L		88	75 - 125		

Lab Sample ID: 280-169454-D-2-D MSD
Matrix: Water
Analysis Batch: 595984

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 595532

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cobalt, Total	ND		1.00	0.938		mg/L		94	82 - 119	9	20

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 280-169454-D-2-D MSD
Matrix: Water
Analysis Batch: 595984

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 595532

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron, Total	0.084		10.0	9.84		mg/L		98	75 - 125	10	20

Lab Sample ID: MB 280-595557/1-A
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595557

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	ND		0.20	0.024	mg/L		12/06/22 07:58	12/06/22 22:17	1
Iron, Dissolved	ND		0.060	0.0091	mg/L		12/06/22 07:58	12/06/22 22:17	1
Magnesium, Dissolved	ND		0.050	0.0042	mg/L		12/06/22 07:58	12/06/22 22:17	1
Potassium, Dissolved	ND		1.0	0.24	mg/L		12/06/22 07:58	12/06/22 22:17	1
Sodium, Dissolved	ND		1.0	0.097	mg/L		12/06/22 07:58	12/06/22 22:17	1

Lab Sample ID: LCS 280-595557/2-A
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595557

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium, Dissolved	50.0	47.2		mg/L		94	90 - 111
Iron, Dissolved	10.0	9.54		mg/L		95	89 - 115
Magnesium, Dissolved	50.0	48.2		mg/L		96	90 - 113
Potassium, Dissolved	50.0	47.6		mg/L		95	89 - 114
Sodium, Dissolved	50.0	48.1		mg/L		96	90 - 115

Lab Sample ID: 280-169454-D-11-D MS
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 595557

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium, Dissolved	61		50.0	106		mg/L		90	75 - 125
Iron, Dissolved	0.061		10.0	9.40		mg/L		93	75 - 125
Magnesium, Dissolved	37		50.0	84.1		mg/L		94	75 - 125
Potassium, Dissolved	75		50.0	122		mg/L		94	76 - 125
Sodium, Dissolved	640		50.0	677	4	mg/L		76	75 - 125

Lab Sample ID: 280-169454-D-11-E MSD
Matrix: Water
Analysis Batch: 595900

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 595557

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium, Dissolved	61		50.0	108		mg/L		94	75 - 125	2	20
Iron, Dissolved	0.061		10.0	9.53		mg/L		95	75 - 125	1	20
Magnesium, Dissolved	37		50.0	85.8		mg/L		97	75 - 125	2	20
Potassium, Dissolved	75		50.0	124		mg/L		98	76 - 125	2	20
Sodium, Dissolved	640		50.0	695	4	mg/L		111	75 - 125	3	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 280-595533/1-A
Matrix: Water
Analysis Batch: 595811

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595533

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Total	ND		0.0010	0.00040	mg/L		12/06/22 07:58	12/07/22 01:06	1
Arsenic, Total	0.000790	J	0.0050	0.00033	mg/L		12/06/22 07:58	12/07/22 01:06	1
Beryllium, Total	ND		0.0010	0.000080	mg/L		12/06/22 07:58	12/07/22 01:06	1
Cadmium, Total	0.000283	J	0.00030	0.00027	mg/L		12/06/22 07:58	12/07/22 01:06	1
Copper, Total	0.000736	J	0.0020	0.00056	mg/L		12/06/22 07:58	12/07/22 01:06	1
Manganese, Total	0.000463	J	0.0010	0.00031	mg/L		12/06/22 07:58	12/07/22 01:06	1
Nickel, Total	ND		0.0040	0.00030	mg/L		12/06/22 07:58	12/07/22 01:06	1
Selenium, Total	0.000510	J	0.0010	0.00037	mg/L		12/06/22 07:58	12/07/22 01:06	1
Silver, Total	0.000159	J	0.0020	0.000033	mg/L		12/06/22 07:58	12/07/22 01:06	1
Thallium, Total	ND		0.0010	0.000089	mg/L		12/06/22 07:58	12/07/22 01:06	1
Vanadium, Total	ND		0.0020	0.0012	mg/L		12/06/22 07:58	12/07/22 01:06	1
Zinc, Total	ND		0.0050	0.0020	mg/L		12/06/22 07:58	12/07/22 01:06	1

Lab Sample ID: MB 280-595533/1-A
Matrix: Water
Analysis Batch: 595882

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595533

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Total	0.00114		0.0010	0.00029	mg/L		12/06/22 07:58	12/07/22 11:09	1

Lab Sample ID: LCS 280-595533/2-A
Matrix: Water
Analysis Batch: 595811

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595533

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony, Total	0.0400	0.0404		mg/L		101	85 - 115
Arsenic, Total	0.0400	0.0395		mg/L		99	85 - 117
Beryllium, Total	0.0400	0.0381		mg/L		95	80 - 125
Cadmium, Total	0.0400	0.0397		mg/L		99	85 - 115
Copper, Total	0.0400	0.0396		mg/L		99	85 - 119
Manganese, Total	0.0400	0.0416		mg/L		104	85 - 117
Nickel, Total	0.0400	0.0409		mg/L		102	85 - 119
Selenium, Total	0.0400	0.0399		mg/L		100	77 - 122
Silver, Total	0.0400	0.0400		mg/L		100	85 - 115
Thallium, Total	0.0400	0.0416		mg/L		104	85 - 118
Vanadium, Total	0.0400	0.0408		mg/L		102	85 - 120
Zinc, Total	0.0400	0.0417		mg/L		104	83 - 122

Lab Sample ID: LCS 280-595533/2-A
Matrix: Water
Analysis Batch: 595882

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595533

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium, Total	0.0400	0.0406		mg/L		102	85 - 118

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-169454-D-10-C MS
Matrix: Water
Analysis Batch: 595811

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 595533

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony, Total	ND		0.0400	0.0405		mg/L		101	80 - 111
Arsenic, Total	0.0035	J B	0.0400	0.0425		mg/L		97	92 - 112
Beryllium, Total	ND		0.0400	0.0401		mg/L		100	87 - 118
Cadmium, Total	ND		0.0400	0.0388		mg/L		97	91 - 114
Copper, Total	ND		0.0400	0.0391		mg/L		98	89 - 116
Manganese, Total	1.1	B	0.0400	1.18	4	mg/L		74	89 - 119
Nickel, Total	ND		0.0400	0.0394		mg/L		98	92 - 116
Selenium, Total	ND		0.0400	0.0420		mg/L		105	90 - 115
Silver, Total	ND		0.0400	0.0399		mg/L		100	93 - 118
Thallium, Total	ND		0.0400	0.0399		mg/L		100	94 - 115
Vanadium, Total	ND		0.0400	0.0403		mg/L		101	91 - 114
Zinc, Total	0.0021	J	0.0400	0.0406		mg/L		96	86 - 120

Lab Sample ID: 280-169454-D-10-C MS
Matrix: Water
Analysis Batch: 595882

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 595533

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium, Total	0.0048	B	0.0400	0.0454		mg/L		101	92 - 117

Lab Sample ID: 280-169454-D-10-D MSD
Matrix: Water
Analysis Batch: 595811

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 595533

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony, Total	ND		0.0400	0.0404		mg/L		101	80 - 111	0	20
Arsenic, Total	0.0035	J B	0.0400	0.0443		mg/L		102	92 - 112	4	20
Beryllium, Total	ND		0.0400	0.0387		mg/L		97	87 - 118	3	20
Cadmium, Total	ND		0.0400	0.0392		mg/L		98	91 - 114	1	20
Copper, Total	ND		0.0400	0.0394		mg/L		98	89 - 116	1	20
Manganese, Total	1.1	B	0.0400	1.22	4	mg/L		181	89 - 119	4	20
Nickel, Total	ND		0.0400	0.0411		mg/L		103	92 - 116	4	20
Selenium, Total	ND		0.0400	0.0405		mg/L		101	90 - 115	4	20
Silver, Total	ND		0.0400	0.0413		mg/L		103	93 - 118	3	20
Thallium, Total	ND		0.0400	0.0417		mg/L		104	94 - 115	4	20
Vanadium, Total	ND		0.0400	0.0406		mg/L		101	91 - 114	1	20
Zinc, Total	0.0021	J	0.0400	0.0427		mg/L		101	86 - 120	5	20

Lab Sample ID: 280-169454-D-10-D MSD
Matrix: Water
Analysis Batch: 595882

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 595533

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium, Total	0.0048	B	0.0400	0.0455		mg/L		102	92 - 117	0	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-595852/1-A
Matrix: Water
Analysis Batch: 596157

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595852

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	ND		0.0010	0.00031	mg/L		12/08/22 08:20	12/08/22 19:17	1

Lab Sample ID: LCS 280-595852/2-A
Matrix: Water
Analysis Batch: 596157

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595852

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese, Dissolved	0.0400	0.0399		mg/L		100	85 - 117

Lab Sample ID: MB 280-595907/1-A
Matrix: Water
Analysis Batch: 596138

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 595907

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, Total	ND		0.0030	0.00050	mg/L		12/08/22 08:20	12/08/22 18:43	1
Lead, Total	ND		0.0010	0.00018	mg/L		12/08/22 08:20	12/08/22 18:43	1

Lab Sample ID: LCS 280-595907/2-A
Matrix: Water
Analysis Batch: 596138

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 595907

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, Total	0.0400	0.0391		mg/L		98	84 - 121
Lead, Total	0.0400	0.0389		mg/L		97	85 - 118

Lab Sample ID: 280-169454-D-11-G MS
Matrix: Water
Analysis Batch: 596138

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 595907

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, Total	0.0028	J	0.0400	0.0444		mg/L		104	91 - 114
Lead, Total	0.0017		0.0400	0.0418		mg/L		100	95 - 116

Lab Sample ID: 280-169454-D-11-H MSD
Matrix: Water
Analysis Batch: 596138

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 595907

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, Total	0.0028	J	0.0400	0.0423		mg/L		99	91 - 114	5	20
Lead, Total	0.0017		0.0400	0.0405		mg/L		97	95 - 116	3	20

Lab Sample ID: 280-169551-1 MS
Matrix: Water
Analysis Batch: 596157

Client Sample ID: L-INF-112122
Prep Type: Dissolved
Prep Batch: 595852

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese, Dissolved	2.1		0.0400	2.14	4	mg/L		117	89 - 119

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-169551-1 MSD
Matrix: Water
Analysis Batch: 596157

Client Sample ID: L-INF-112122
Prep Type: Dissolved
Prep Batch: 595852

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese, Dissolved	2.1		0.0400	2.16	4	mg/L		165	89 - 119	1	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-596701/40
Matrix: Water
Analysis Batch: 596701

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	^-	3.0	3.0	mg/L			12/14/22 20:55	1
Sulfate	ND	^+	5.0	5.0	mg/L			12/14/22 20:55	1

Lab Sample ID: MB 280-596701/6
Matrix: Water
Analysis Batch: 596701

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/14/22 14:18	1
Sulfate	ND		5.0	5.0	mg/L			12/14/22 14:18	1

Lab Sample ID: LCS 280-596701/38
Matrix: Water
Analysis Batch: 596701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.2	^-	mg/L		100	90 - 110
Sulfate	50.0	46.0	^+	mg/L		92	90 - 110

Lab Sample ID: LCSD 280-596701/39
Matrix: Water
Analysis Batch: 596701

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	50.0	50.2	^-	mg/L		100	90 - 110	0	10
Sulfate	50.0	46.1	^+	mg/L		92	90 - 110	0	10

Lab Sample ID: MRL 280-596701/3
Matrix: Water
Analysis Batch: 596701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2.50	ND		mg/L		93	50 - 150
Sulfate	2.50	ND		mg/L		108	50 - 150

Lab Sample ID: 280-169569-A-2 MS
Matrix: Water
Analysis Batch: 596701

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	3500	F1	5000	5730	F1	mg/L		45	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-169569-A-2 MSD
Matrix: Water
Analysis Batch: 596701

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	3500	F1	5000	5250	F1	mg/L		35	80 - 120	9	20

Lab Sample ID: 280-170099-A-5 MS
Matrix: Water
Analysis Batch: 596701

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	41		50.0	86.3		mg/L		91	80 - 120		

Lab Sample ID: 280-170099-A-5 MSD
Matrix: Water
Analysis Batch: 596701

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	41		50.0	87.2		mg/L		93	80 - 120	1	20

Lab Sample ID: 280-169569-A-2 DU
Matrix: Water
Analysis Batch: 596701

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	3500	F1		3060		mg/L				13	15

Lab Sample ID: 280-170099-A-5 DU
Matrix: Water
Analysis Batch: 596701

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chloride	41			38.4		mg/L				6	15

Lab Sample ID: MB 280-596878/6
Matrix: Water
Analysis Batch: 596878

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/15/22 17:21	1

Lab Sample ID: LCS 280-596878/4
Matrix: Water
Analysis Batch: 596878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	50.2		mg/L		100	90 - 110		

Lab Sample ID: LCSD 280-596878/5
Matrix: Water
Analysis Batch: 596878

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			50.0	50.3		mg/L		101	90 - 110	0	10

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MRL 280-596878/3
Matrix: Water
Analysis Batch: 596878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			2.50	ND		mg/L		105	50 - 150		

Lab Sample ID: 280-169656-A-14 MS
Matrix: Water
Analysis Batch: 596878

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	130		100	223	E	mg/L		90	80 - 120		

Lab Sample ID: 280-169656-A-14 MSD
Matrix: Water
Analysis Batch: 596878

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	130		100	229	E	mg/L		96	80 - 120	2	20

Lab Sample ID: 280-169656-A-14 DU
Matrix: Water
Analysis Batch: 596878

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chloride	130			130		mg/L				2	15

Lab Sample ID: MB 280-596985/6
Matrix: Water
Analysis Batch: 596985

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	3.0	mg/L			12/16/22 20:22	1
Sulfate	ND		5.0	5.0	mg/L			12/16/22 20:22	1

Lab Sample ID: LCS 280-596985/4
Matrix: Water
Analysis Batch: 596985

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	48.7		mg/L		97	90 - 110		
Sulfate			50.0	50.0		mg/L		100	90 - 110		

Lab Sample ID: LCSD 280-596985/5
Matrix: Water
Analysis Batch: 596985

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			50.0	48.8		mg/L		98	90 - 110	0	10
Sulfate			50.0	50.1		mg/L		100	90 - 110	0	10

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 280-596985/3
Matrix: Water
Analysis Batch: 596985

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2.50	ND		mg/L		93	50 - 150
Sulfate	2.50	ND		mg/L		91	50 - 150

Lab Sample ID: 280-169732-A-3 MS
Matrix: Water
Analysis Batch: 596985

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	590	F1	500	1000	E	mg/L		82	80 - 120
Sulfate	ND		500	544		mg/L		109	80 - 120

Lab Sample ID: 280-169732-A-3 MSD
Matrix: Water
Analysis Batch: 596985

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	590	F1	500	966	F1	mg/L		74	80 - 120	4	20
Sulfate	ND		500	508		mg/L		102	80 - 120	7	20

Lab Sample ID: 280-169732-A-3 DU
Matrix: Water
Analysis Batch: 596985

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	590	F1	582		mg/L		2	15
Sulfate	ND		ND		mg/L		NC	15

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-596566/56
Matrix: Water
Analysis Batch: 596566

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.030	0.030	mg/L			12/13/22 11:20	1

Lab Sample ID: LCS 280-596566/54
Matrix: Water
Analysis Batch: 596566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia (as N)	2.50	2.58		mg/L		103	90 - 110

Lab Sample ID: LCSD 280-596566/55
Matrix: Water
Analysis Batch: 596566

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)	2.50	2.58		mg/L		103	90 - 110	0	10

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 280-169582-B-9 MS
Matrix: Water
Analysis Batch: 596566

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia (as N)	ND	F1	1.00	1.11	F1	mg/L		111	90 - 110

Lab Sample ID: 280-169582-B-9 MSD
Matrix: Water
Analysis Batch: 596566

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia (as N)	ND	F1	1.00	1.07		mg/L		107	90 - 110	4	10

Method: 353.2 - Nitrate

Lab Sample ID: MB 280-596587/1
Matrix: Water
Analysis Batch: 596587

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050	0.050	mg/L			12/13/22 17:18	1

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-596418/60
Matrix: Water
Analysis Batch: 596418

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate/Nitrite	ND		0.050	0.050	mg/L			12/12/22 13:41	1

Lab Sample ID: LCS 280-596418/59
Matrix: Water
Analysis Batch: 596418

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate/Nitrite	5.00	5.25		mg/L		105	90 - 110

Lab Sample ID: 580-120712-E-3 MS
Matrix: Water
Analysis Batch: 596418

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate/Nitrite	0.78	^+	4.00	5.01	^+	mg/L		106	90 - 110

Lab Sample ID: 580-120712-E-3 MSD
Matrix: Water
Analysis Batch: 596418

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate/Nitrite	0.78	^+	4.00	4.71	^+	mg/L		98	90 - 110	6	10

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: MB 280-596562/23
Matrix: Water
Analysis Batch: 596562

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate/Nitrite	ND		0.050	0.050	mg/L			12/13/22 12:04	1

Lab Sample ID: LCS 280-596562/21
Matrix: Water
Analysis Batch: 596562

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate/Nitrite			5.00	4.90		mg/L		98	90 - 110		

Lab Sample ID: LCSD 280-596562/22
Matrix: Water
Analysis Batch: 596562

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate/Nitrite			5.00	5.19		mg/L		104	90 - 110	6	10

Lab Sample ID: 280-169565-A-3 MS
Matrix: Water
Analysis Batch: 596562

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate/Nitrite	0.56	F1	4.00	4.01	F1	mg/L		86	90 - 110		

Lab Sample ID: 280-169565-A-3 MSD
Matrix: Water
Analysis Batch: 596562

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate/Nitrite	0.56	F1	4.00	4.36		mg/L		95	90 - 110	8	10

Method: 410.4 - COD

Lab Sample ID: MB 280-595233/5
Matrix: Water
Analysis Batch: 595233

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	ND		10	10	mg/L			12/01/22 12:25	1

Lab Sample ID: LCS 280-595233/3
Matrix: Water
Analysis Batch: 595233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chemical Oxygen Demand (COD)			100	97.0		mg/L		97	90 - 110		

Method: 410.4 - COD (Continued)

Lab Sample ID: LCSD 280-595233/4
Matrix: Water
Analysis Batch: 595233

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)			100	100		mg/L		100	90 - 110	4	11

Lab Sample ID: 280-169701-E-1 MS
Matrix: Water
Analysis Batch: 595233

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chemical Oxygen Demand (COD)	ND	F1	50.0	41.7	F1	mg/L		83	90 - 110		

Lab Sample ID: 280-169701-E-1 MSD
Matrix: Water
Analysis Batch: 595233

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand (COD)	ND	F1	50.0	39.1	F1	mg/L		78	90 - 110	6	11

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-594859/32
Matrix: Water
Analysis Batch: 594859

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		10	10	mg/L			11/28/22 15:19	1
Alkalinity, Bicarbonate (As CaCO3)	ND		10	10	mg/L			11/28/22 15:19	1

Lab Sample ID: MB 280-594859/58
Matrix: Water
Analysis Batch: 594859

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		10	10	mg/L			11/28/22 18:51	1
Alkalinity, Bicarbonate (As CaCO3)	ND		10	10	mg/L			11/28/22 18:51	1

Lab Sample ID: MB 280-594859/6
Matrix: Water
Analysis Batch: 594859

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total (As CaCO3)	ND		10	10	mg/L			11/28/22 12:09	1
Alkalinity, Bicarbonate (As CaCO3)	ND		10	10	mg/L			11/28/22 12:09	1

Lab Sample ID: LCS 280-594859/57
Matrix: Water
Analysis Batch: 594859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity, Total (As CaCO3)			200	205		mg/L		102	89 - 109		

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 280-594859/5
Matrix: Water
Analysis Batch: 594859

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity, Total (As CaCO3)			200	202		mg/L		101	89 - 109	1	10

Lab Sample ID: 280-169528-A-1 DU
Matrix: Water
Analysis Batch: 594859

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity, Total (As CaCO3)	530			536		mg/L				1	10
Alkalinity, Bicarbonate (As CaCO3)	530			536		mg/L				1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-594775/1
Matrix: Water
Analysis Batch: 594775

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		5.0	5.0	mg/L			11/28/22 13:07	1

Lab Sample ID: LCS 280-594775/2
Matrix: Water
Analysis Batch: 594775

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids (TDS)			502	472		mg/L		94	88 - 114		

Lab Sample ID: 280-169603-C-1 DU
Matrix: Water
Analysis Batch: 594775

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids (TDS)	270			261		mg/L				3	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-594769/2
Matrix: Water
Analysis Batch: 594769

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			11/28/22 12:21	1

Lab Sample ID: LCS 280-594769/1
Matrix: Water
Analysis Batch: 594769

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			501	458		mg/L		91	79 - 114		

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: 280-169457-B-2 DU
Matrix: Water
Analysis Batch: 594769

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	ND			ND		mg/L				NC	10

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-596033/21
Matrix: Water
Analysis Batch: 596033

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/07/22 20:43	1

Lab Sample ID: LCS 280-596033/20
Matrix: Water
Analysis Batch: 596033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Average			25.0	22.8		mg/L		91	88 - 112		

Lab Sample ID: 280-169548-I-1 MS
Matrix: Water
Analysis Batch: 596033

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Average	1.1		25.0	23.8		mg/L		91	88 - 112		

Lab Sample ID: 280-169548-I-1 MSD
Matrix: Water
Analysis Batch: 596033

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Average	1.1		25.0	23.9		mg/L		91	88 - 112	0	15

Lab Sample ID: MB 280-596219/4
Matrix: Water
Analysis Batch: 596219

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/08/22 20:03	1

Lab Sample ID: MB 280-596219/46
Matrix: Water
Analysis Batch: 596219

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND		1.0	1.0	mg/L			12/09/22 06:13	1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 280-596219/3
Matrix: Water
Analysis Batch: 596219

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Average			25.0	26.4		mg/L		105	88 - 112		

Lab Sample ID: LCS 280-596219/45
Matrix: Water
Analysis Batch: 596219

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Average			25.0	24.7		mg/L		99	88 - 112		

Lab Sample ID: 280-169273-A-6 MSD
Matrix: Water
Analysis Batch: 596219

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Average	220		250	485		mg/L		106	88 - 112	0	15

Lab Sample ID: 280-169273-B-6 MS
Matrix: Water
Analysis Batch: 596219

Client Sample ID: Matrix Spike
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon - Average	210		250	480		mg/L		106	88 - 112		

Lab Sample ID: 280-169273-B-6 MSD
Matrix: Water
Analysis Batch: 596219

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Average	210		250	479		mg/L		106	88 - 112	0	15

Method: SM5210B - BOD, 5 Day

Lab Sample ID: MB 280-594568/4
Matrix: Water
Analysis Batch: 594568

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			11/23/22 11:54	1

Lab Sample ID: SCB 280-594568/1
Matrix: Water
Analysis Batch: 594568

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	SCB Result	SCB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			11/23/22 11:54	1

Method: SM5210B - BOD, 5 Day (Continued)

Lab Sample ID: USB 280-594568/2
Matrix: Water
Analysis Batch: 594568

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			11/23/22 11:54	1

Lab Sample ID: LCS 280-594568/3
Matrix: Water
Analysis Batch: 594568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Biochemical Oxygen Demand			198	193		mg/L		97	85 - 115		

Lab Sample ID: 280-169471-A-2 DU
Matrix: Water
Analysis Batch: 594568

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Biochemical Oxygen Demand	76	b		77.2		mg/L				1	20

GC/MS VOA

Analysis Batch: 651808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total/NA	Water	8260C	
280-169551-2	OBWL-TD-112122	Total/NA	Water	8260C	
280-169551-3	TRIP BLANK	Total/NA	Water	8260C	
MB 480-651808/8	Method Blank	Total/NA	Water	8260C	
LCS 480-651808/6	Lab Control Sample	Total/NA	Water	8260C	
280-169551-1 MS	L-INF-112122	Total/NA	Water	8260C	
280-169551-1 MSD	L-INF-112122	Total/NA	Water	8260C	

Analysis Batch: 652151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total/NA	Water	8260C SIM	
280-169551-2	OBWL-TD-112122	Total/NA	Water	8260C SIM	
280-169551-3	TRIP BLANK	Total/NA	Water	8260C SIM	
MB 480-652151/9	Method Blank	Total/NA	Water	8260C SIM	
LCS 480-652151/6	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 480-652151/7	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Metals

Prep Batch: 595532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total Recoverable	Water	3005A	
280-169551-2	OBWL-TD-112122	Total Recoverable	Water	3005A	
MB 280-595532/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595532/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-169454-D-2-C MS	Matrix Spike	Total Recoverable	Water	3005A	
280-169454-D-2-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 595533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total Recoverable	Water	3005A	
280-169551-2	OBWL-TD-112122	Total Recoverable	Water	3005A	
MB 280-595533/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595533/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-169454-D-10-C MS	Matrix Spike	Total Recoverable	Water	3005A	
280-169454-D-10-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 595557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Dissolved	Water	3005A	
280-169551-2	OBWL-TD-112122	Dissolved	Water	3005A	
MB 280-595557/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595557/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-169454-D-11-D MS	Matrix Spike	Dissolved	Water	3005A	
280-169454-D-11-E MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Analysis Batch: 595811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total Recoverable	Water	6020B	595533
280-169551-2	OBWL-TD-112122	Total Recoverable	Water	6020B	595533
MB 280-595533/1-A	Method Blank	Total Recoverable	Water	6020B	595533

Metals (Continued)

Analysis Batch: 595811 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-595533/2-A	Lab Control Sample	Total Recoverable	Water	6020B	595533
280-169454-D-10-C MS	Matrix Spike	Total Recoverable	Water	6020B	595533
280-169454-D-10-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	595533

Prep Batch: 595852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Dissolved	Water	3005A	
280-169551-2	OBWL-TD-112122	Dissolved	Water	3005A	
MB 280-595852/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595852/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-169551-1 MS	L-INF-112122	Dissolved	Water	3005A	
280-169551-1 MSD	L-INF-112122	Dissolved	Water	3005A	

Analysis Batch: 595882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total Recoverable	Water	6020B	595533
280-169551-2	OBWL-TD-112122	Total Recoverable	Water	6020B	595533
MB 280-595533/1-A	Method Blank	Total Recoverable	Water	6020B	595533
LCS 280-595533/2-A	Lab Control Sample	Total Recoverable	Water	6020B	595533
280-169454-D-10-C MS	Matrix Spike	Total Recoverable	Water	6020B	595533
280-169454-D-10-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	595533

Analysis Batch: 595900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Dissolved	Water	6010D	595557
280-169551-2	OBWL-TD-112122	Dissolved	Water	6010D	595557
MB 280-595557/1-A	Method Blank	Total Recoverable	Water	6010D	595557
LCS 280-595557/2-A	Lab Control Sample	Total Recoverable	Water	6010D	595557
280-169454-D-11-D MS	Matrix Spike	Dissolved	Water	6010D	595557
280-169454-D-11-E MSD	Matrix Spike Duplicate	Dissolved	Water	6010D	595557

Prep Batch: 595907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total Recoverable	Water	3005A	
280-169551-2	OBWL-TD-112122	Total Recoverable	Water	3005A	
MB 280-595907/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-595907/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-169454-D-11-G MS	Matrix Spike	Total Recoverable	Water	3005A	
280-169454-D-11-H MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 595984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total Recoverable	Water	6010D	595532
280-169551-2	OBWL-TD-112122	Total Recoverable	Water	6010D	595532
MB 280-595532/1-A	Method Blank	Total Recoverable	Water	6010D	595532
LCS 280-595532/2-A	Lab Control Sample	Total Recoverable	Water	6010D	595532
280-169454-D-2-C MS	Matrix Spike	Total Recoverable	Water	6010D	595532
280-169454-D-2-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010D	595532

Metals

Analysis Batch: 596138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total Recoverable	Water	6020B	595907
280-169551-2	OBWL-TD-112122	Total Recoverable	Water	6020B	595907
MB 280-595907/1-A	Method Blank	Total Recoverable	Water	6020B	595907
LCS 280-595907/2-A	Lab Control Sample	Total Recoverable	Water	6020B	595907
280-169454-D-11-G MS	Matrix Spike	Total Recoverable	Water	6020B	595907
280-169454-D-11-H MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020B	595907

Analysis Batch: 596157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Dissolved	Water	6020B	595852
280-169551-2	OBWL-TD-112122	Dissolved	Water	6020B	595852
MB 280-595852/1-A	Method Blank	Total Recoverable	Water	6020B	595852
LCS 280-595852/2-A	Lab Control Sample	Total Recoverable	Water	6020B	595852
280-169551-1 MS	L-INF-112122	Dissolved	Water	6020B	595852
280-169551-1 MSD	L-INF-112122	Dissolved	Water	6020B	595852

General Chemistry

Analysis Batch: 594568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total/NA	Water	SM5210B	
280-169551-2	OBWL-TD-112122	Total/NA	Water	SM5210B	
MB 280-594568/4	Method Blank	Total/NA	Water	SM5210B	
SCB 280-594568/1	Method Blank	Total/NA	Water	SM5210B	
USB 280-594568/2	Method Blank	Total/NA	Water	SM5210B	
LCS 280-594568/3	Lab Control Sample	Total/NA	Water	SM5210B	
280-169471-A-2 DU	Duplicate	Total/NA	Water	SM5210B	

Analysis Batch: 594769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total/NA	Water	SM 2540D	
280-169551-2	OBWL-TD-112122	Total/NA	Water	SM 2540D	
MB 280-594769/2	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-594769/1	Lab Control Sample	Total/NA	Water	SM 2540D	
280-169457-B-2 DU	Duplicate	Total/NA	Water	SM 2540D	

Analysis Batch: 594775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total/NA	Water	SM 2540C	
280-169551-2	OBWL-TD-112122	Total/NA	Water	SM 2540C	
MB 280-594775/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-594775/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-169603-C-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 594859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total/NA	Water	SM 2320B	
280-169551-2	OBWL-TD-112122	Total/NA	Water	SM 2320B	
MB 280-594859/32	Method Blank	Total/NA	Water	SM 2320B	
MB 280-594859/58	Method Blank	Total/NA	Water	SM 2320B	
MB 280-594859/6	Method Blank	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 594859 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-594859/57	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 280-594859/5	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
280-169528-A-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 595233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total/NA	Water	410.4	
280-169551-2	OBWL-TD-112122	Total/NA	Water	410.4	
MB 280-595233/5	Method Blank	Total/NA	Water	410.4	
LCS 280-595233/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-595233/4	Lab Control Sample Dup	Total/NA	Water	410.4	
280-169701-E-1 MS	Matrix Spike	Total/NA	Water	410.4	
280-169701-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	

Analysis Batch: 596033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-2	OBWL-TD-112122	Total/NA	Water	SM 5310B	
MB 280-596033/21	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-596033/20	Lab Control Sample	Total/NA	Water	SM 5310B	
280-169548-I-1 MS	Matrix Spike	Total/NA	Water	SM 5310B	
280-169548-I-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

Analysis Batch: 596219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total/NA	Water	SM 5310B	
MB 280-596219/4	Method Blank	Total/NA	Water	SM 5310B	
MB 280-596219/46	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-596219/3	Lab Control Sample	Total/NA	Water	SM 5310B	
LCS 280-596219/45	Lab Control Sample	Total/NA	Water	SM 5310B	
280-169273-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	
280-169273-B-6 MS	Matrix Spike	Dissolved	Water	SM 5310B	
280-169273-B-6 MSD	Matrix Spike Duplicate	Dissolved	Water	SM 5310B	

Analysis Batch: 596418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-2	OBWL-TD-112122	Total/NA	Water	353.2	
MB 280-596418/60	Method Blank	Total/NA	Water	353.2	
LCS 280-596418/59	Lab Control Sample	Total/NA	Water	353.2	
580-120712-E-3 MS	Matrix Spike	Total/NA	Water	353.2	
580-120712-E-3 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	

Analysis Batch: 596562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total/NA	Water	353.2	
MB 280-596562/23	Method Blank	Total/NA	Water	353.2	
LCS 280-596562/21	Lab Control Sample	Total/NA	Water	353.2	
LCSD 280-596562/22	Lab Control Sample Dup	Total/NA	Water	353.2	
280-169565-A-3 MS	Matrix Spike	Total/NA	Water	353.2	
280-169565-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	

General Chemistry

Analysis Batch: 596566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total/NA	Water	350.1	
280-169551-2	OBWL-TD-112122	Total/NA	Water	350.1	
MB 280-596566/56	Method Blank	Total/NA	Water	350.1	
LCS 280-596566/54	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-596566/55	Lab Control Sample Dup	Total/NA	Water	350.1	
280-169582-B-9 MS	Matrix Spike	Total/NA	Water	350.1	
280-169582-B-9 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 596587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total/NA	Water	353.2	
280-169551-2	OBWL-TD-112122	Total/NA	Water	353.2	
MB 280-596587/1	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 596701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-1	L-INF-112122	Total/NA	Water	300.0	
MB 280-596701/40	Method Blank	Total/NA	Water	300.0	
MB 280-596701/6	Method Blank	Total/NA	Water	300.0	
LCS 280-596701/38	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-596701/39	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-596701/3	Lab Control Sample	Total/NA	Water	300.0	
280-169569-A-2 MS	Matrix Spike	Total/NA	Water	300.0	
280-169569-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-170099-A-5 MS	Matrix Spike	Total/NA	Water	300.0	
280-170099-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-169569-A-2 DU	Duplicate	Total/NA	Water	300.0	
280-170099-A-5 DU	Duplicate	Total/NA	Water	300.0	

Analysis Batch: 596878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-2	OBWL-TD-112122	Total/NA	Water	300.0	
MB 280-596878/6	Method Blank	Total/NA	Water	300.0	
LCS 280-596878/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-596878/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-596878/3	Lab Control Sample	Total/NA	Water	300.0	
280-169656-A-14 MS	Matrix Spike	Total/NA	Water	300.0	
280-169656-A-14 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-169656-A-14 DU	Duplicate	Total/NA	Water	300.0	

Analysis Batch: 596985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-169551-2	OBWL-TD-112122	Total/NA	Water	300.0	
MB 280-596985/6	Method Blank	Total/NA	Water	300.0	
LCS 280-596985/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-596985/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-596985/3	Lab Control Sample	Total/NA	Water	300.0	
280-169732-A-3 MS	Matrix Spike	Total/NA	Water	300.0	
280-169732-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-169732-A-3 DU	Duplicate	Total/NA	Water	300.0	

Lab Chronicle

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169551-1

Client Sample ID: L-INF-112122

Date Collected: 11/21/22 12:40
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	5 mL	5 mL	651808	12/01/22 23:22	AXK	EET BUF
Total/NA	Analysis	8260C SIM		20	25 mL	25 mL	652151	12/05/22 18:06	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	595557	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6010D		1			595900	12/06/22 22:58	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595532	12/06/22 16:44	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595984	12/07/22 19:58	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	595852	12/08/22 08:20	LJS	EET DEN
Dissolved	Analysis	6020B		1			596157	12/08/22 19:21	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595907	12/08/22 08:20	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			596138	12/08/22 19:28	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595533	12/06/22 07:58	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595811	12/07/22 01:30	LRD	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595533	12/06/22 07:58	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595882	12/07/22 11:11	LMT	EET DEN
Total/NA	Analysis	300.0		50	5 mL	5 mL	596701	12/15/22 01:40	MEC	EET DEN
Total/NA	Analysis	350.1		80	10 mL	10 mL	596566	12/13/22 13:04	MMP	EET DEN
Total/NA	Analysis	353.2		1			596587	12/13/22 17:18	ZPM	EET DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	596562	12/13/22 13:10	ZPM	EET DEN
Total/NA	Analysis	410.4		5	2 mL	2 mL	595233	12/01/22 12:25	BCR	EET DEN
Total/NA	Analysis	SM 2320B		1			594859	11/28/22 21:19	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	594775	11/28/22 13:07	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594769	11/28/22 12:21	ASP	EET DEN
Total/NA	Analysis	SM 5310B		10	20 mL	20 mL	596219	12/09/22 08:10	ABW	EET DEN
Total/NA	Analysis	SM5210B		5	120 mL	300 mL	594568	11/23/22 11:54	BCR	EET DEN

Client Sample ID: OBWL-TD-112122

Date Collected: 11/21/22 11:55
Date Received: 11/23/22 09:25

Lab Sample ID: 280-169551-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651808	12/01/22 23:44	AXK	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	652151	12/05/22 18:30	CDC	EET BUF
Dissolved	Prep	3005A			50 mL	50 mL	595557	12/06/22 07:58	LJS	EET DEN
Dissolved	Analysis	6010D		1			595900	12/06/22 23:19	KRP	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595532	12/06/22 16:44	LJS	EET DEN
Total Recoverable	Analysis	6010D		1			595984	12/07/22 20:03	KRP	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	595852	12/08/22 08:20	LJS	EET DEN
Dissolved	Analysis	6020B		1			596157	12/08/22 19:30	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595907	12/08/22 08:20	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			596138	12/08/22 19:32	LMT	EET DEN
Total Recoverable	Prep	3005A			50 mL	50 mL	595533	12/06/22 07:58	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595811	12/07/22 01:32	LRD	EET DEN

Lab Chronicle

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169551-1

Client Sample ID: OBWL-TD-112122

Lab Sample ID: 280-169551-2

Date Collected: 11/21/22 11:55
Matrix: Water
Date Received: 11/23/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	595533	12/06/22 07:58	LJS	EET DEN
Total Recoverable	Analysis	6020B		1			595882	12/07/22 11:13	LMT	EET DEN
Total/NA	Analysis	300.0		1	5 mL	5 mL	596878	12/16/22 03:28	EJS	EET DEN
Total/NA	Analysis	300.0		10	5 mL	5 mL	596985	12/16/22 23:12	EJS	EET DEN
Total/NA	Analysis	350.1		25	10 mL	10 mL	596566	12/13/22 13:06	MMP	EET DEN
Total/NA	Analysis	353.2		1			596587	12/13/22 17:18	ZPM	EET DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	596418	12/12/22 14:07	ZPM	EET DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	595233	12/01/22 12:25	BCR	EET DEN
Total/NA	Analysis	SM 2320B		1			594859	11/28/22 21:23	KEG	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	594775	11/28/22 13:07	ASP	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	594769	11/28/22 12:21	ASP	EET DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	596033	12/07/22 23:13	ABW	EET DEN
Total/NA	Analysis	SM5210B		1	25 mL	300 mL	594568	11/23/22 11:54	BCR	EET DEN

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-169551-3

Date Collected: 11/21/22 11:55
Matrix: Water
Date Received: 11/23/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	651808	12/02/22 00:06	AXK	EET BUF
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	652151	12/05/22 18:53	CDC	EET BUF

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Phone (303) 431-7171

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: CMT	Lab PM: Collins, Janice S	Carrier Tracking No(s):	COC No: 280-124595-4071.1
Client Contact: Matt Frame	Phone:	E-Mail: Janice.Collins@et.eurofinsus.com	State of Origin:	Page:
Company: Olympic View Transfer Station	PWSID:			Job #:
Address: 9300 Southwest Barney White Road	Due Date Requested:			
City: Bremerton	TAT Requested (days):			
State, Zip: WA, 98312	Compliance Project: Δ Yes Δ No			
Phone:	PO #:			
Email:	WO #:			
Project Name: WA02|Olympic View Sanitary LF	Project #: 28002692-Annual OBW-TB/L-INF App I/II -Dec			
Site: Washington	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, Other:
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - VOCs (Buffalo)	8260C_SIM - Vinyl chloride (Buffalo)	Cl/SO4/Alks/TDS/NO3 (353.2-cad)	6010D/6020B- Dissolved Metals (FF)	Ammonia/NOXT/TOC/COD	SM2540D- Total Suspended Solids	SM5210B- Biochemical Oxygen Demand (BOD)	6010D/6020B- Total Metals	LL Total Arsenic (direct sub to ARI)					Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	A	N	D	S	N	N	D	D						
L-INF-112122	11/21/22	1240	G	W			X	X	X	X	X	X	X	X							
OBWL-TD-112122	11/21/22	1155	G	W			X	X	X	X	X	X	X	X							

280-169551 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Connor Tague	11/21/22 1320	Aspect	MA	11.23.22 0925	ETA DEN
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 2061248

Cooler Temperature(s) °C and Other Remarks: 1.8 2 IR12 CF

Ver: 01/16/2019

12/20/2022

FedEx Express

Expanded Billable Stamp

Use only for shipments within the U.S. Saturday delivery available.

FedEx Priority Overnight

1 From — See optional release signature below.

ORDER: 00863049

DECLARED VALUE $100

PACKAGE WEIGHT

1.8°C

2 To — Shipment will not be accepted if address below is altered.

SAMPLE RECEIVING
EUROFINS TESTAMERICA
4955 YARROW ST
ARVADA, CO 80002
(303) 736-0100

2061248

NONREDEEMABLE

SATURDAY DEL

Shipments tendered on Fr... are delivered on Saturday... most locations.

REF:

8172 5305 2335

Release Signature
For nonresidential deliveries.

Sign within this area. Please do not remove.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

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Employee Number	Base Charges
Other	Total Charges

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280-169551 Waybill

Do not lift using this tag.

eurofins | Environment Testing TestAmerica

ORIGIN ID:PWTA

SHIP DATE: 21NOV22
ACTWGT: 58.30 LB
CAD: /SSFE2341
DIMS: 25x13x14 IN

TO SAMPLE RECEIVING
EUROFINS TESTAMERICA
4955 YARROW ST

1.8°C

2061248

ARVADA CO 80002 (US)

(303) 736-0100 REF:
INV:
PO: DEPT:

FedEx Express E

TRK# 0667 8172 5305 2335

TUE - 22 NOV 10:30
PRIORITY OVERNIGHT

AHS
80002
CO-US DEN

XA LAAA

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0100 Fax: 303-431-7171

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Collins, Janice S	Carrier Tracking No(s):	COC No: 280-637602.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Janice.Collins@et.eurofinsus.com	State of Origin: Washington	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): State - Washington		Job #: 280-169551-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 12/15/2022			
City: Amherst	TAT Requested (days):			
State, Zip: NY, 14228-2298				
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:			
Email:	WO #:			
Project Name: WA02|Olympic View Sanitary LF	Project #: 28002692			
Site: WA02|Olympic View Sanitary LF	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C_SIM/5030C (MOD) Local Method	8260C/5030C (MOD) Appendix II Volatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
L-INF-112122 (280-169551-1)	11/21/22	12:40 Pacific		Water			X	X	6	
OBWL-TD-112122 (280-169551-2)	11/21/22	11:55 Pacific		Water			X	X	6	
TRIP BLANK (280-169551-3)	11/21/22	11:55 Pacific		Water			X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 11/28/22 14:33	Company: ETAUEN	Received by:	Date/Time: 11-30-22 1100	Company: TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.3 ICE

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-169551-1

Login Number: 169551

List Source: Eurofins Denver

List Number: 1

Creator: Roehsner, Karen P

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	No: Received Trip Blank(s) not listed on COC.
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-169551-1

Login Number: 169551
List Number: 2
Creator: Yeager, Brian A

List Source: Eurofins Buffalo
List Creation: 12/01/22 10:39 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Patrick Madej
Waste Management
2615 Davis Street
San Leandro, California 94577

Generated 12/30/2022 3:31:50 PM

JOB DESCRIPTION

WA02|Olympic View Sanitary LF

JOB NUMBER

280-169566-1

Eurofins Denver
4955 Yarrow Street
Arvada CO 80002

See page two for job notes and contact information.

my EOL

Job Notes

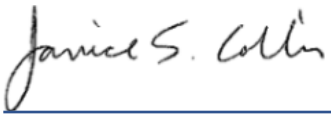
The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization



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12/30/2022 3:31:50 PM

Authorized for release by
Janice Collins, Project Manager
Janice.Collins@et.eurofinsus.com
(303)736-0100

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Definitions/Glossary

Client: Waste Management
Job ID: 280-169566-1
Project/Site: WA02|Olympic View Sanitary LF

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Job ID: 280-169566-1

Laboratory: Eurofins Denver

Narrative

Job Narrative
280-169566-1

Receipt
The samples were received on 11/23/2022 9:25 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.8°C

SUBCONTRACTING

The following analysis was subcontracted to Analytical Resources, Inc:
Total Arsenic (ARI)

Subcontract Lab non-Sister Lab
See attached subcontract report.

Detection Summary

Client: Waste Management
Job ID: 280-169566-1
Project/Site: WA02|Olympic View Sanitary LF

Client Sample ID: L-INF
Lab Sample ID: 280-169566-1

No Detections.

Client Sample ID: OBWL-TD
Lab Sample ID: 280-169566-2

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169566-1

Method	Method Description	Protocol	Laboratory
Subcontract	Total Arsenic (ARI)	None	SC0056

Protocol References:

None = None

Laboratory References:

SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200

Sample Summary

Client: Waste Management
Project/Site: WA02|Olympic View Sanitary LF

Job ID: 280-169566-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-169566-1	L-INF	Water	11/21/22 12:40	11/23/22 09:25
280-169566-2	OBWL-TD	Water	11/21/22 11:55	11/23/22 09:25

Analytical Resources, LLC
Analytical Chemists and Consultants

20 December 2022

Janice Collins
Eurofins - Test America - Denver
4955 Yarrow Street
Arvada, CO 80002

RE: Olympic View Sanitary LF (OVSL) w/SCS Engineers (28002692)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
22K0551	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Shelly Fishel, Project Manager

Cert# 100006-012

22K0551

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0100 Fax: 303-431-7171

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Collins, Janice S	Carrier Tracking No(s):	COC No: 280-637616.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Janice.Collins@et.eurofinsus.com	State of Origin: Washington	Page: Page 1 of 1
Company: Analytical Resources, Inc		Accreditations Required (See note): State - Washington		Job #: 280-169566-1
Address: 4611 South 134th Place, Suite 100,	Due Date Requested: 12/13/2022			
City: Tukwila	TAT Requested (days):			
State, Zip: WA, 98168				
Phone: 206-695-6200(Tel)	PO #:			
Email:	WO #:			
Project Name: WA02|Olympic View Sanitary LF	Project #: 28002692			
Site: WA02|Olympic View Sanitary LF	SSOW#:			

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, Other:
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Total Arsenic (ARI))/ Total Arsenic (ARI)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
L-INF (280-169566-1)	11/21/22	12:40 Pacific		Water			X	1	
OBWL-TD (280-169566-2)	11/21/22	11:55 Pacific		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		11/28/22 14:42	ETADEN		11/30/22 16:31	ADE LLC
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Analytical Resources, LLC
Analytical Chemists and Consultants

Printed: 11/30/2022 2:49:59PM

WORK ORDER

22K0551

Samples will be discarded 90 days after submission of a final report unless other instructions are received.

Client: Eurofins - Test America - Denver
Project Manager: Shelly Fishel

Project: Olympic View Sanitary LF (OVSL) w/SCS Engine
Project Number: 28002692

Report To:
Eurofins - Test America - Denver
Janice Collins
4955 Yarrow Street
Arvada, CO 80002
Phone: (303) 736-0100
Fax: (303) 431-7171

Invoice To:
Eurofins - Test America - Denver
Accounts Payable
343 W Main St
Leola, PA 17540
Phone :(303) 736-0100
Fax: (303) 431-7171

Date Due: 14-Dec-2022 18:00 (10 day TAT)

Received By: Truett Smith
Date Received: 30-Nov-2022 10:31

Logged In By: Rowan Miller
Date Logged In: 30-Nov-2022 14:42

Samples Received at: **4.1°C**

Intact, properly signed and dated custody seals attached to outside of cooler(s)	Yes	Custody papers included with the cooler	Yes
Custody papers properly filled out (in, signed, analyses requested, etc)	Yes	Was a temperature blank included in the cooler	No
Was sufficient ice used (if appropriate)	Yes	All bottles sealed in individual plastic bags	No
All bottles arrived in good condition (unbroken)	Yes	All bottle labels complete and legible	Yes
Number of containers listed on COC match number received	Yes	Bottle labels and tags agree with COC	Yes
Correct bottles used for the requested analyses	Yes	All VOC vials free of air bubbles	No
Analyses/bottles require preservation (attach preservation sheet excluding VOC)	Yes	Sufficient amount of sample sent in each bottle	Yes
Sample split at ARI	No		

22K0551-01 L-INF (280-169566-1) [Water] Sampled 21-Nov-2022 12:40 5x conc

Met 6020B - As UCT	12/14/2022	10	5/20/2023
Metals Prep ICPMS	12/14/2022	10	11/21/2023

22K0551-02 OBWL-TD (280-169566-2) [Water] Sampled 21-Nov-2022 11:55 5x conc

Met 6020B - As UCT	12/14/2022	10	5/20/2023
Metals Prep ICPMS	12/14/2022	10	11/21/2023

Preservation Confirmation

Container ID	Container Type	pH			
22K0551-01 A	HDPE NM, 500 mL, 1:1 HNO3	<2	72	Fail	(1)
22K0551-02 A	HDPE NM, 500 mL, 1:1 HNO3	<2		pass	

Preservation Confirmed By

11/30/22
Date

(1) Preserved to pH <2.0 with 1.50 ml conc. HNO_3 (K7885). ml 12/2/22

Reviewed By

Date

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 28002692	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	20-Dec-2022 18:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
L-INF (280-169566-1)	22K0551-01	Water	21-Nov-2022 12:40	30-Nov-2022 10:31
OBWL-TD (280-169566-2)	22K0551-02	Water	21-Nov-2022 11:55	30-Nov-2022 10:31

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 28002692	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	20-Dec-2022 18:49

Work Order Case Narrative

Client: Eurofins - Test America - Denver
Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers
Project Number: 28002692
Work Order: 22K0551

Sample receipt

Sample(s) as listed on the preceding page were received 30-Nov-2022 10:31 under ARI work order 22K0551. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Total Metals - EPA Method 6020B

The sample(s) were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries and the duplicate (DUP) relative percent difference (RPD) were within advisory control limits.

Analytical Resources, LLC
Analytical Chemists and Consultants

Printed: 11/30/2022 2:49:59PM

WORK ORDER

22K0551

Samples will be discarded 90 days after submission of a final report unless other instructions are received.

Client: Eurofins - Test America - Denver
Project Manager: Shelly Fishel

Project: Olympic View Sanitary LF (OVSL) w/SCS Engine
Project Number: 28002692

Report To:
Eurofins - Test America - Denver
Janice Collins
4955 Yarrow Street
Arvada, CO 80002
Phone: (303) 736-0100
Fax: (303) 431-7171

Invoice To:
Eurofins - Test America - Denver
Accounts Payable
343 W Main St
Leola, PA 17540
Phone :(303) 736-0100
Fax: (303) 431-7171

Date Due: 14-Dec-2022 18:00 (10 day TAT)

Received By: Truett Smith
Date Received: 30-Nov-2022 10:31

Logged In By: Rowan Miller
Date Logged In: 30-Nov-2022 14:42

Samples Received at: **4.1°C**

Intact, properly signed and dated custody seals attached to outside of cooler(s)	Yes	Custody papers included with the cooler	Yes
Custody papers properly filled out (in, signed, analyses requested, etc)	Yes	Was a temperature blank included in the cooler	No
Was sufficient ice used (if appropriate)	Yes	All bottles sealed in individual plastic bags	No
All bottles arrived in good condition (unbroken)	Yes	All bottle labels complete and legible	Yes
Number of containers listed on COC match number received	Yes	Bottle labels and tags agree with COC	Yes
Correct bottles used for the requested analyses	Yes	All VOC vials free of air bubbles	No
Analyses/bottles require preservation (attach preservation sheet excluding VOC)	Yes	Sufficient amount of sample sent in each bottle	Yes
Sample split at ARI	No		

22K0551-01 L-INF (280-169566-1) [Water] Sampled 21-Nov-2022 12:40 5x conc

Met 6020B - As UCT	12/14/2022	10	5/20/2023
Metals Prep ICPMS	12/14/2022	10	11/21/2023

22K0551-02 OBWL-TD (280-169566-2) [Water] Sampled 21-Nov-2022 11:55 5x conc

Met 6020B - As UCT	12/14/2022	10	5/20/2023
Metals Prep ICPMS	12/14/2022	10	11/21/2023

Preservation Confirmation

Container ID	Container Type	pH
22K0551-01 A	HDPE NM, 500 mL, 1:1 HNO3	~~<2~~ 12 Fail
22K0551-02 A	HDPE NM, 500 mL, 1:1 HNO3	<2 pass

Preservation Confirmed By

11/30/22
Date

Reviewed By

Date

Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Eurofins Denver

Project Name: WA0210lympic View Sanitary LF

COC No(s): ______ (NA)

Delivered by: (Fed-Ex) UPS Courier Hand Delivered Other: ______

Assigned ARI Job No: 22K0551

Tracking No: 7201 6092 7397 0223 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	(YES)	NO
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 19:31 — 4.1

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: [illegible]

Cooler Accepted by: [signature] Date: 11/30/22 Time: 10:31

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		(YES)	NO
What kind of packing material was used? ... Bubble Wrap (Wet Ice) Gel Packs (Baggies) Foam Block Paper Other: ______			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
How were bottles sealed in plastic bags?	Individually	(Grouped)	Not
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ...	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)	______	

Were the sample(s) split by ARI? (NA) YES Date/Time: ______ Equipment: ______ Split by: ______

Samples Logged by: [initials] Date: 11/30/22 Time: 1442 Labels checked by: ______

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 28002692	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	20-Dec-2022 18:49

L-INF (280-169566-1)

22K0551-01 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/21/2022 12:40

Instrument: ICPMS1 Analyst: MCB — Analyzed: 12/16/2022 12:49

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0551-01 A 01

Preparation Batch: BKL0322 — Sample Size: 100 mL

Prepared: 12/13/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	50	0.000373	0.00200	0.00550	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 28002692	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	20-Dec-2022 18:49

OBWL-TD (280-169566-2)

22K0551-02 (Water)

Metals and Metallic Compounds

Method: EPA 6020B UCT-KED — Sampled: 11/21/2022 11:55

Instrument: ICPMS2 Analyst: SKD — Analyzed: 12/19/2022 21:19

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: RHN EPA 600/4-79-020 4.1.4 HNO3 matrix 5x — Extract ID: 22K0551-02 A 01

Preparation Batch: BKL0322 — Sample Size: 100 mL

Prepared: 12/13/2022 — Final Volume: 20 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	10	0.0000746	0.000400	0.00607	mg/L	D

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 28002692	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	20-Dec-2022 18:49

Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds - Quality Control

Batch BKL0322 - EPA 6020B UCT-KED

Instrument: ICPMS1 Analyst: MCB

QC Sample/Analyte	Isotope	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BKL0322-BLK1)					Prepared: 13-Dec-2022 Analyzed: 13-Dec-2022 23:15							
Arsenic	75a	ND	0.00000746	0.0000400	mg/L							U
LCS (BKL0322-BS1)					Prepared: 13-Dec-2022 Analyzed: 13-Dec-2022 23:20							
Arsenic	75a	0.00503	0.00000746	0.0000400	mg/L	0.00500		101	80-120			

Instrument: ICPMS2 Analyst: SKD

QC Sample/Analyte	Isotope	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Duplicate (BKL0322-DUP1)			**Source: 22K0551-02**		Prepared: 13-Dec-2022 Analyzed: 19-Dec-2022 21:24							
Arsenic	75a	0.00591	0.0000746	0.000400	mg/L		0.00607			2.67	20	D
Matrix Spike (BKL0322-MS1)			**Source: 22K0551-02**		Prepared: 13-Dec-2022 Analyzed: 19-Dec-2022 21:29							
Arsenic	75a	0.0111	0.0000746	0.000400	mg/L	0.00500	0.00607	101	75-125			D

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 28002692	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	20-Dec-2022 18:49

Certified Analyses included in this Report

Analyte	Certifications
EPA 6020B UCT-KED in Water	
Arsenic-75a	WADOE,WA-DW,DoD-ELAP,ADEC,NELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2023
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	02/28/2023
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2023
WADOE	WA Dept of Ecology	C558	06/30/2023
WA-DW	Ecology - Drinking Water	C558	06/30/2023

Eurofins - Test America - Denver	Project: Olympic View Sanitary LF (OVSL) w/SCS Engineers	
4955 Yarrow Street	Project Number: 28002692	**Reported:**
Arvada CO, 80002	Project Manager: Janice Collins	20-Dec-2022 18:49

Notes and Definitions

D	The reported value is from a dilution
J	Estimated concentration value detected below the reporting limit.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Phone (303) 431-7171

Chain of Custody Record

12/30/2022

Client Information	Sampler: Matt	Lab PM: Collins, Janice S	Carrier Tracking No(s):	COC No: 280-124595-4071.1
Client Contact: Matt Frame	Phone:	E-Mail: Janice.Collins@et.eurofinsus.com	State of Origin:	Page:
Company: Olympic View Transfer Station	PWSID:			Job #:
Address: 4955 Yarrow Street	Due Date Requested:			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002	Compliance Project: Δ Yes Δ No			
Phone: 303-736-0124	PO #:			
Email: Janice.Collins@et.eurofinsus.com	WO #:			
Project Name: WA02|Olympic View Sanitary LF	Project #: 28002692-Annual OBW-TB/L-INF App I/II -Dec			
Site: Washington	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	LL Total Arsenic (direct sub to ARI)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D		
L-INF - 112122	11/21/22	1240	G	W			X		
OBWL - TD - 112122	11/21/22	1155	G	W			X		

280-169566 Chain of Custody

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by: Matt Frame	Date/Time: 11/21/22 1520	Company: Aspect	Received by:	Date/Time: 11.23.22 0925	Company: ETADEN	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 2061248

Cooler Temperature(s) °C and Other Remarks: 1.3 IR1 IFC-0

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-169566-1

Login Number: 169566
List Number: 1
Creator: Held, Wesley

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	N/A	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

Appendix C

2022 Annual Time Series, Trend Test, & Predication Limit Evaluation

Olympic View Sanitary Landfill

Annual Statistical Evaluation & Summary

2022 Monitoring Year

Prepared for:

SCS ENGINEERS

2405 140th Ave NE, Ste 107
Bellevue, Washington 98005
(425) 746-4600

Prepared by:

GeoChem Applications
Geochemical and Statistical Data Analysis

3941 Park Drive, Suite 20-249
El Dorado Hills, CA 95762
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FEBRUARY 2023

CONTENTS:

1. *Statistical Trend Analysis (showing status through Q4 2022)*
2. *Prediction Limits for Detection Monitoring*
    a. *2022 Prediction Limits (showing status through Q4 2022)*
    b. *Updated Prediction Limits for Use in 2023 Monitoring Year*
3. *2022 Annual UCL Calculations for Preliminary Groundwater Cleanup Goals*

---

1. Statistical Trend Analysis

- Trend Results Summary Table (showing status through Q4 2022) (Table 1-1)
- Time-Series Graphs Depicting Significant Trends for “Trend Test A”
- Time-Series Graphs Depicting Significant Trends for “Trend Test B”

TABLE 1-1

Results of Sen's Non-Parametric Test for Trend

FOURTH QUARTER 2022

Trend Test Period: January 2005 through December 2022

Trend Test Wells:

- Compliance Wells: MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43
- Performance Wells: MW-19C
- Downgradient Wells: MW-29A, MW-32, MW-33A, MW-33C, MW-36A
- Upgradient Wells* MW-13A, MW-13B, MW-16, MW-35

*trend status shown is based on most recent event with reported data, as shown

Trend Test A *= all organic parameters listed in Appendix I and Appendix II of WAC 173-351-990 that have been detected at least once in at least one of 16 wells comprising the network of 1) compliance, 2) performance, 3) downgradient, and 4) upgradient site monitoring wells, during the trend test period. This includes the following constituents:*

	Significant Increasing Trends	Significant Decreasing Trends
1,2-Dichloroethene (total)	None	None
1,2-Dichlorobenzene	None	None
1,4-Dichlorobenzene	None	None
2-Butanone (MEK)	None	None
Acetone	None	None
Carbon Disulfide	None	None
Chlorobenzene	None	None
Chlorodifluoromethane	None	None
Chloroform	None	None
Chloromethane	None	None
cis-1,2-dichloroethene	None	None
Dichlorodifluoromethane	None	None
Dichlorofluoromethane	None	None
Ethyl Ether	None	None
Methylene Chloride	None	None
Naphthalene	None	None
n-Butyl Alcohol	None	None
tert-Butyl Alcohol	None	None
Tetrahydrofuran	None	None
trans-1,2-Dichloroethene	None	None
Trichloroethene	None	MW-19C (graph 325)
Vinyl Chloride	None	MW-19C (graph 341) MW-32 (graph 343) MW-34C (graph 347)

TABLE 1-1

Trend Test B *= all metals and groundwater quality parameters listed in Appendix I and Appendix II of WAC (173-351-990)*

	Significant Increasing Trends	Significant Decreasing Trends
Alkalinity, bicarbonate (as CaCO3)	MW-13B (graph 2) MW-35 (graph 12)	MW-15R (graph 3) MW-34A (graph 10) MW-34C (graph 11) MW-36A (graph 13) MW-42 (graph 15)
Alkalinity, total (as CaCO3)	MW-13B (graph 18) MW-35 (graph 28)	MW-15R (graph 19) MW-34A (graph 26) MW-34C (graph 27) MW-36A (graph 29) MW-42 (graph 31)
Ammonia (as N)	None	MW-19C (graph 37) MW-29A (graph 38) MW-43 (graph 48)
Antimony, total	None	None
Arsenic, total	MW-33A (graph 72) MW-33C (graph 73) MW-42 (graph 79)	MW-19C (graph 69)
Barium, total	None	MW-15R (graph 83)
Beryllium, total	None	None
Cadmium, total	None	None
Calcium, dissolved	None	MW-15R (graph 131) MW-29A (graph 134) MW-32 (graph 135) MW-34A (graph 138) MW-34C (graph 139) MW-36A (graph 141)
Chloride	MW-39 (graph 158)	MW-13B (graph 146) MW-15R (graph 147) MW-16 (graph 148) MW-19C (graph 149) MW-34A (graph 154) MW-34C (graph 155)
Chromium, total	None	None
Cobalt, total	None	None
Copper, total	None	None
Iron, total	None	None
Lead, total	None	None

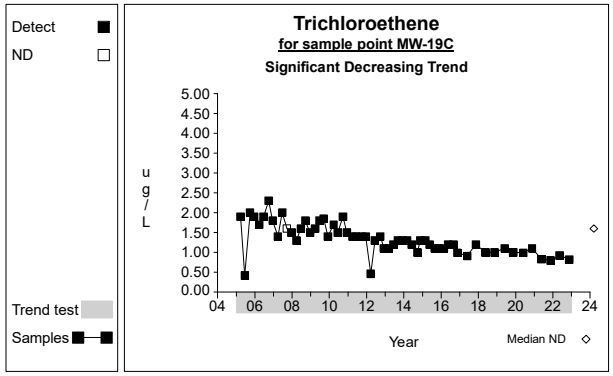
TABLE 1-1

Magnesium, dissolved	None	MW-15R (graph 243) MW-16 (graph 244) MW-33A (graph 248) MW-34A (graph 250) MW-34C (graph 251) MW-42 (graph 255)
Manganese, total	None	MW-15R (graph 259) MW-42 (graph 271)
Nickel, total	None	None
Nitrate (as N)	MW-35 (graph 300)	MW-13B (graph 290) MW-16 (graph 292)
pH	MW-32 (graph 311) MW-34C (graph 315) MW-42 (graph 319)	None
Potassium, dissolved	MW-42 (graph 335)	None
Selenium, total	None	None
Silver, total	None	None
Sodium, dissolved	None	MW-15R (graph 371) MW-19C (graph 373) MW-32 (graph 375) MW-34A (graph 378) MW-34C (graph 379) MW-36A (graph 381) MW-42 (graph 383) MW-43 (graph 384)
Specific Conductivity	MW-13B (graph 386) MW-33C (graph 393) MW-35 (graph 396)	MW-15R (graph 387) MW-33A (graph 392) MW-34A (graph 394) MW-34C (graph 395)
Sulfate	MW-33A (graph 408)	MW-13A (graph 401) MW-13B (graph 402) MW-19C (graph 405) MW-32 (graph 407) MW-42 (graph 415)
Temperature	MW-34A (graph 426) MW-34C (graph 427)	None
Thallium, total	None	None
Total Dissolved Solids	None	MW-15R (graph 451) MW-32 (graph 455) MW-33A (graph 456) MW-34A (graph 458) MW-34C (graph 459)

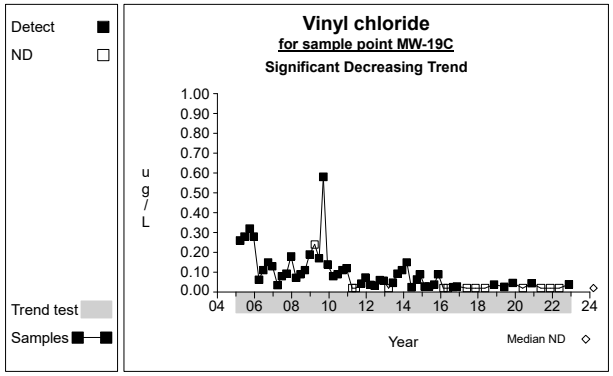
TABLE 1-1

Total Organic Carbon	None	MW-34C (graph 475)
Vanadium, total	None	None
Zinc, total	None	None

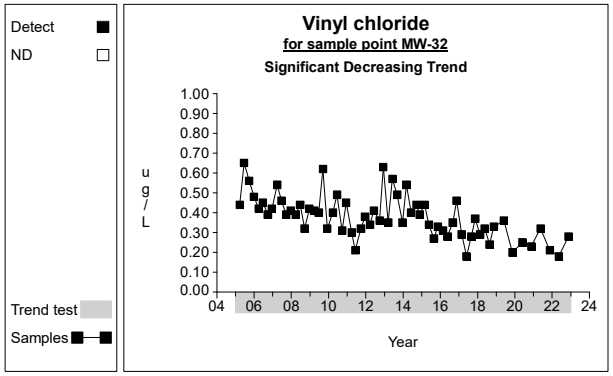
Time Series



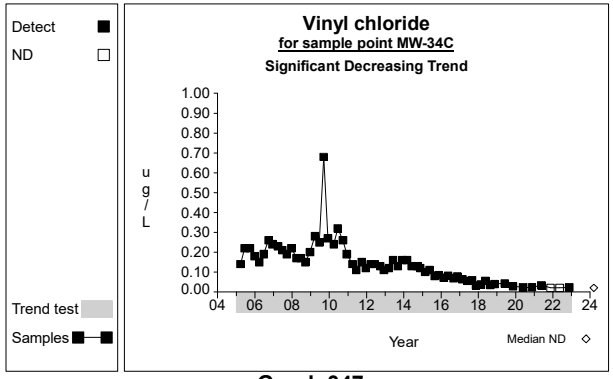
Graph 325



Graph 341

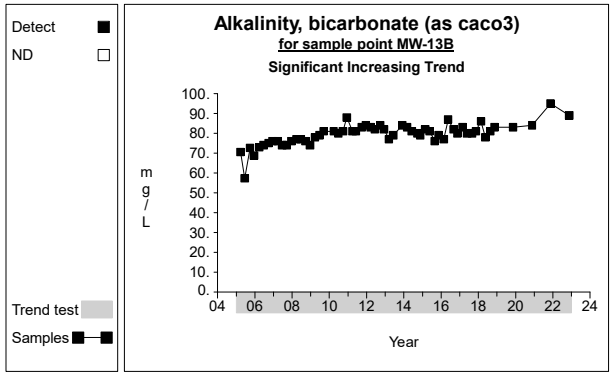


Graph 343

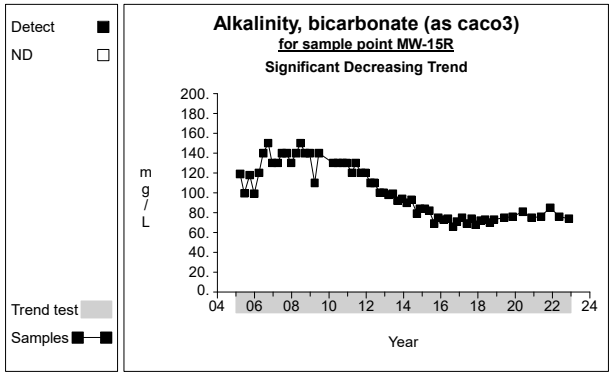


Graph 347

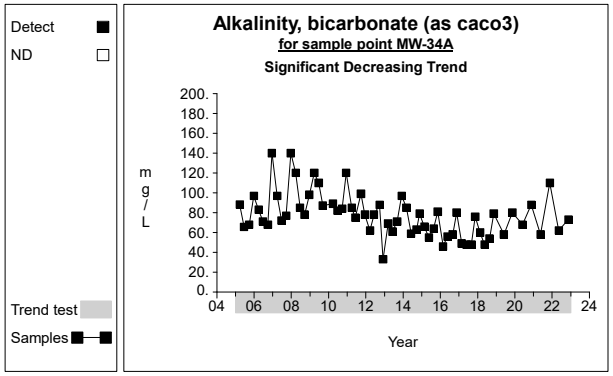
Time Series



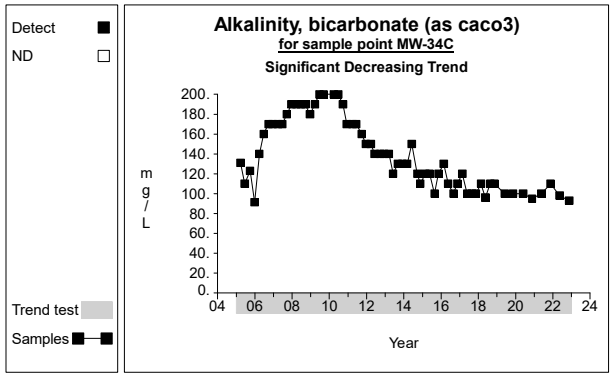
Graph 2



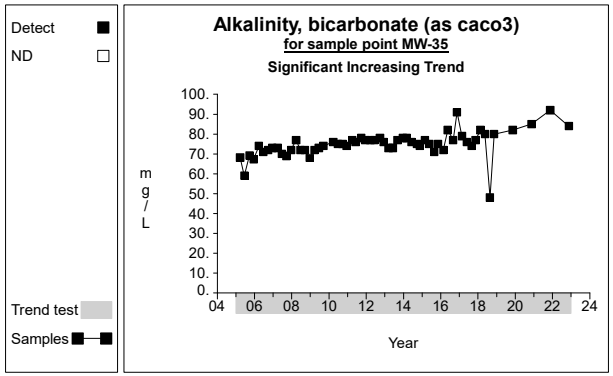
Graph 3



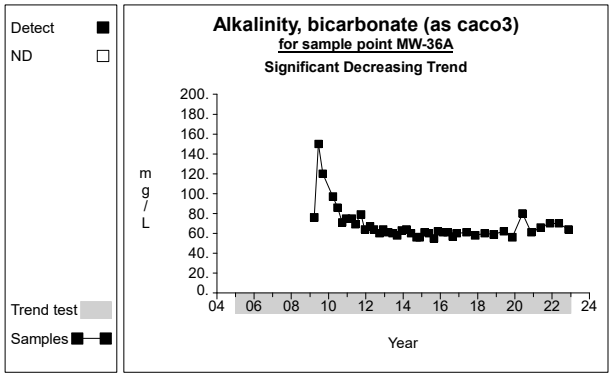
Graph 10



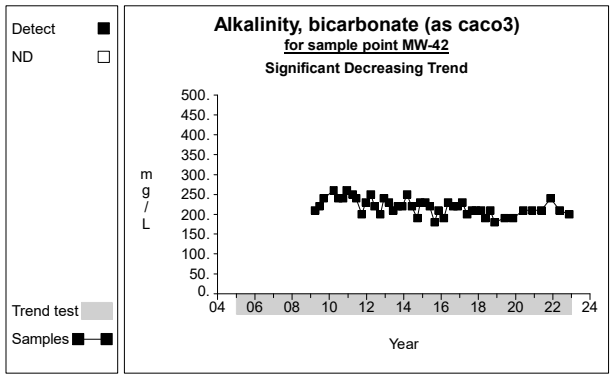
Graph 11



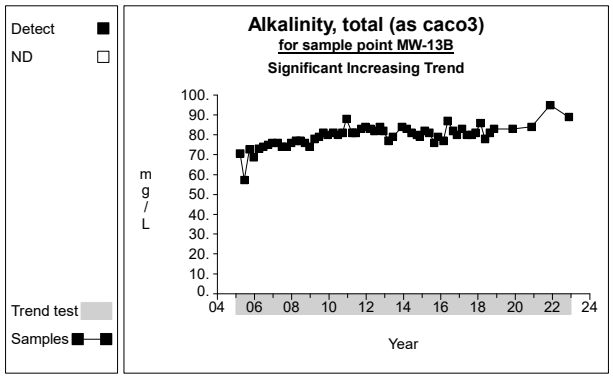
Graph 12



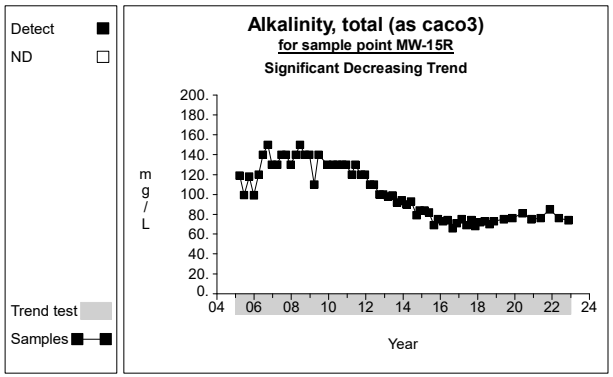
Graph 13



Graph 15

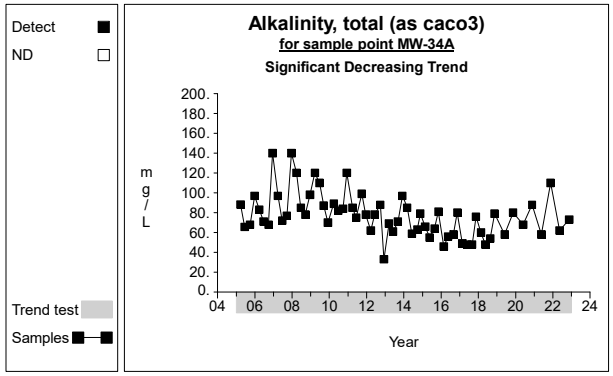


Graph 18

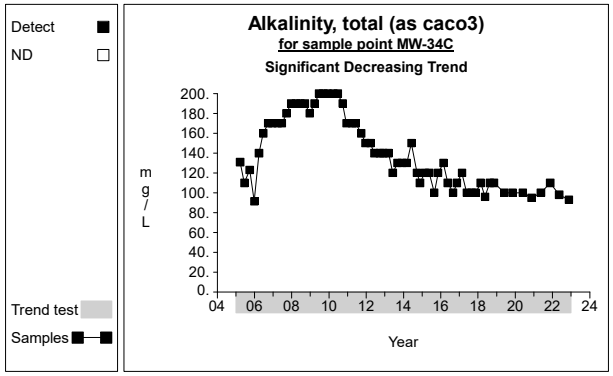


Graph 19

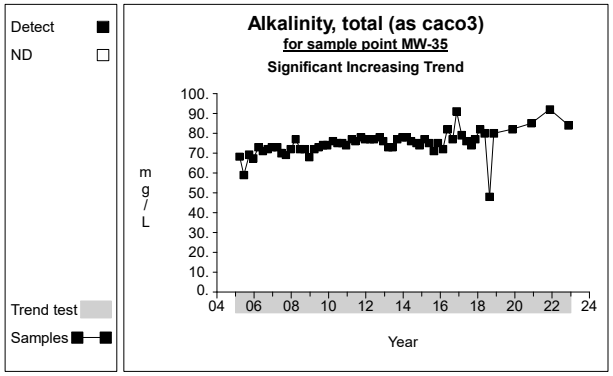
Time Series



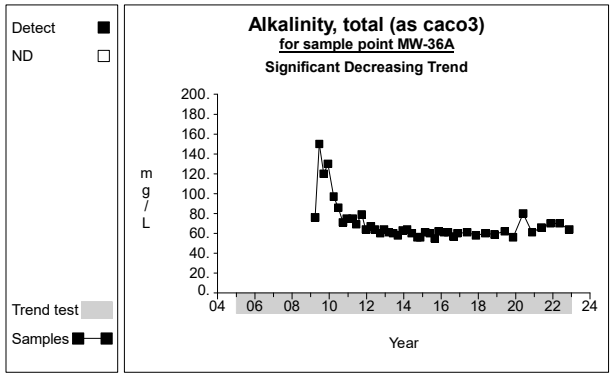
Graph 26



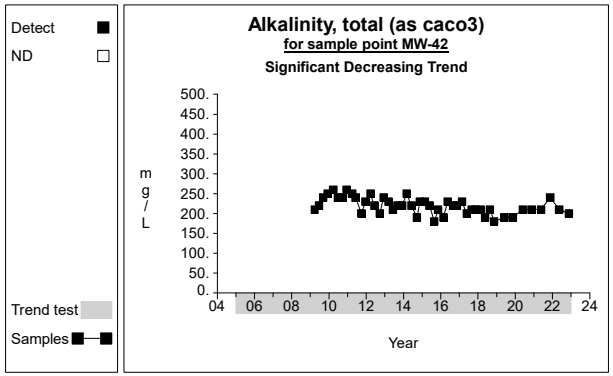
Graph 27



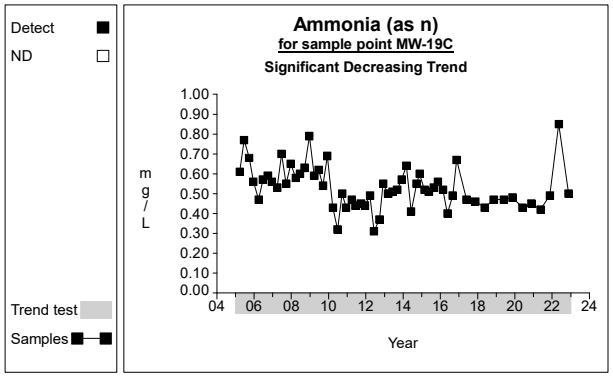
Graph 28



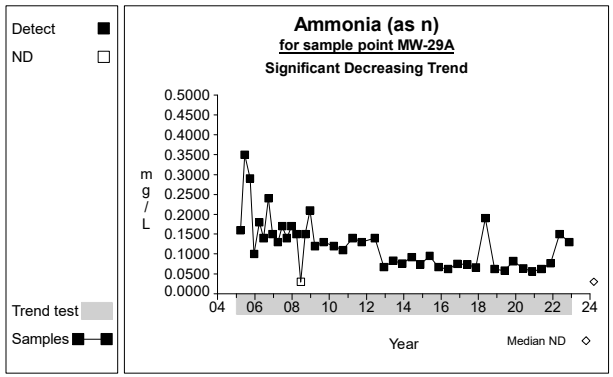
Graph 29



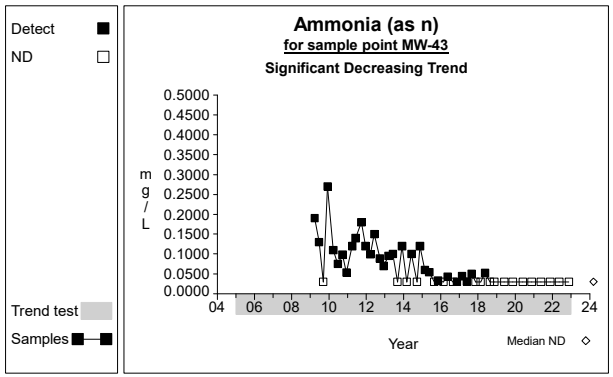
Graph 31



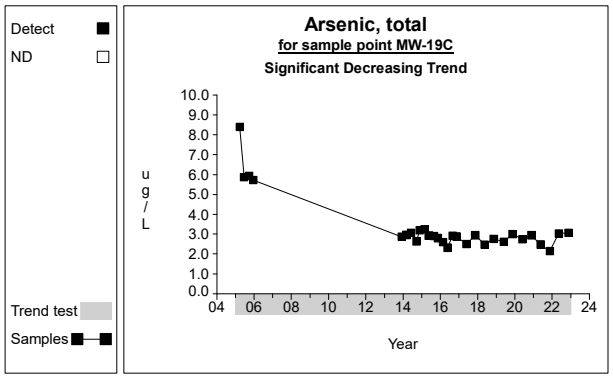
Graph 37



Graph 38

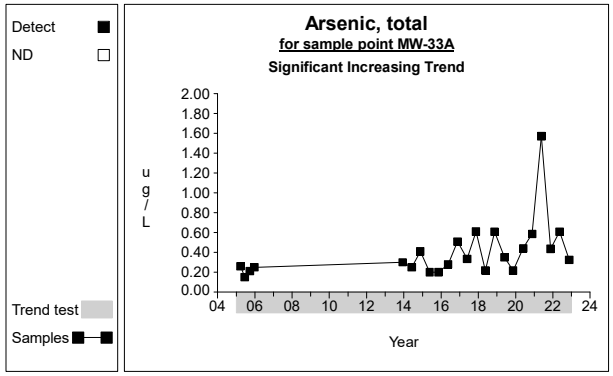


Graph 48

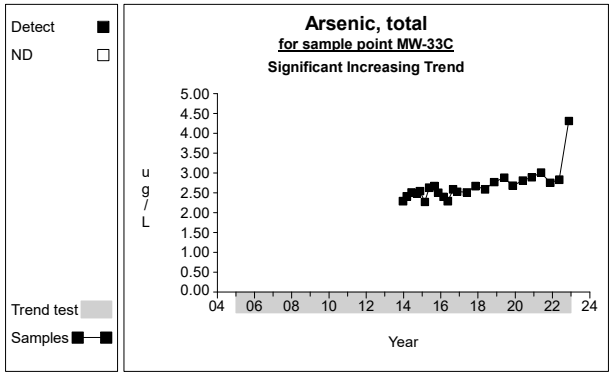


Graph 69

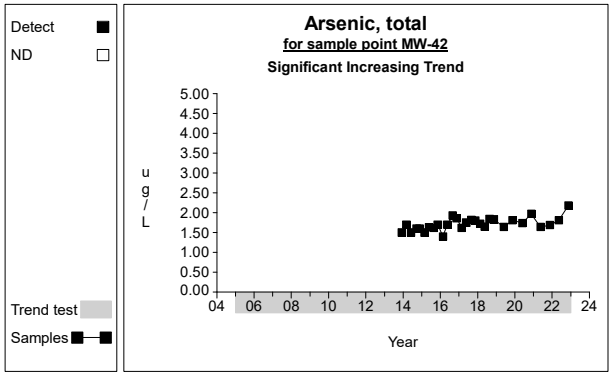
Time Series



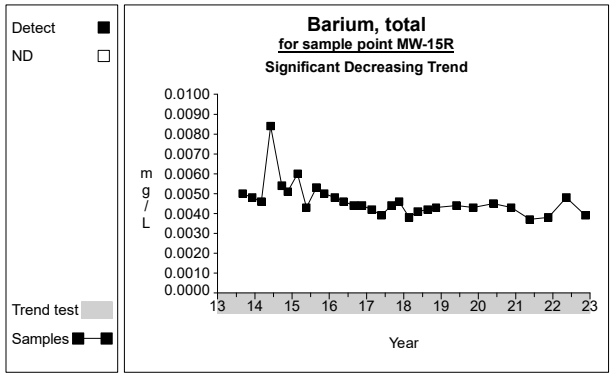
Graph 72



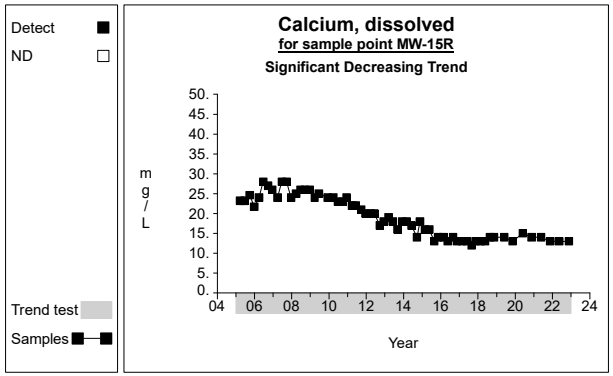
Graph 73



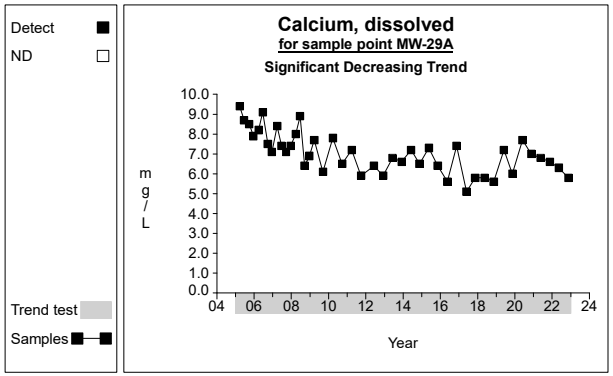
Graph 79



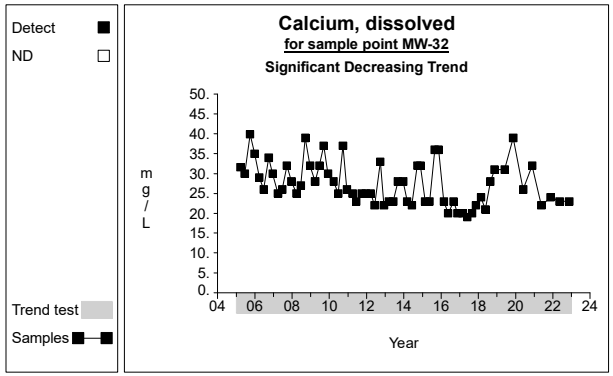
Graph 83



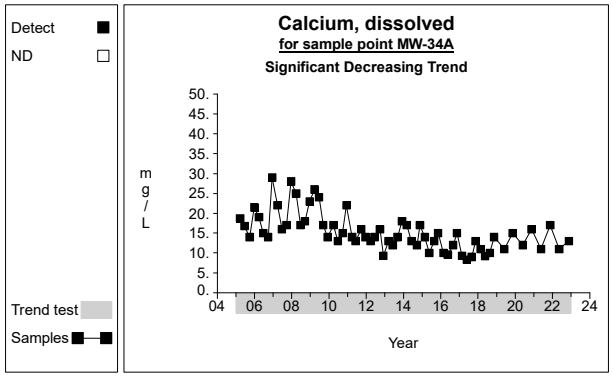
Graph 131



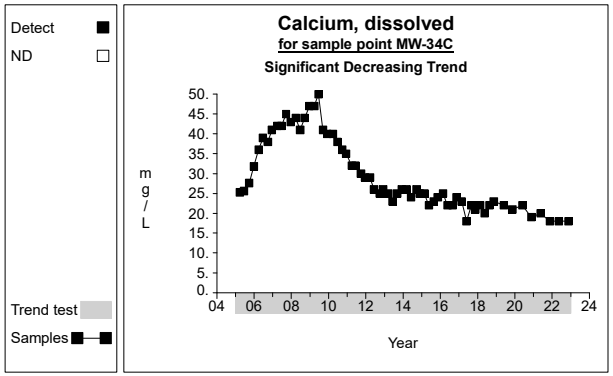
Graph 134



Graph 135

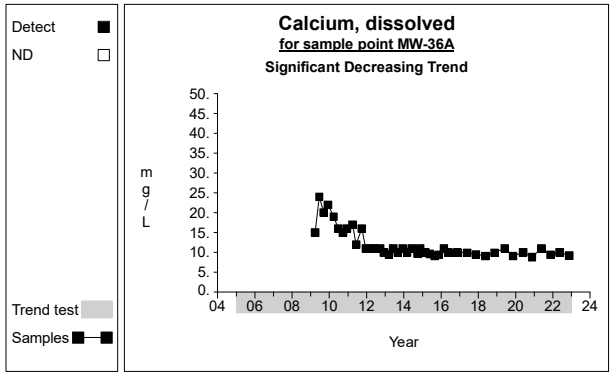


Graph 138

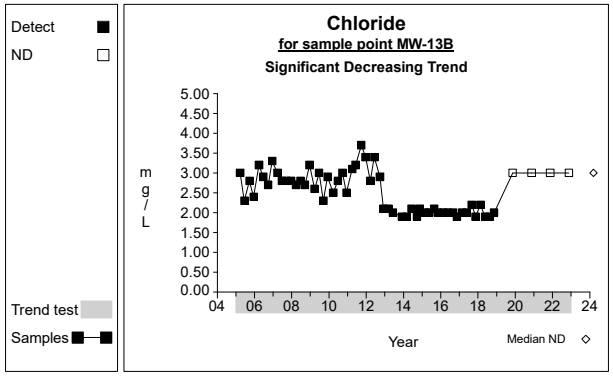


Graph 139

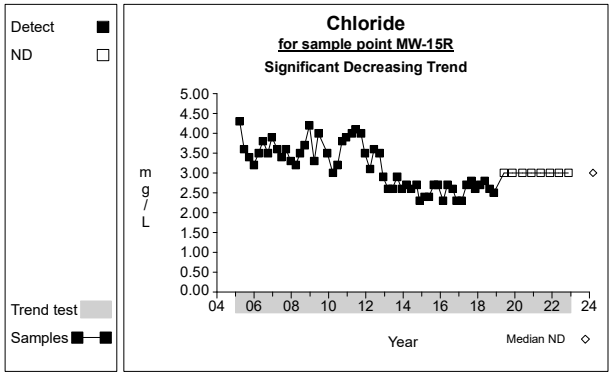
Time Series



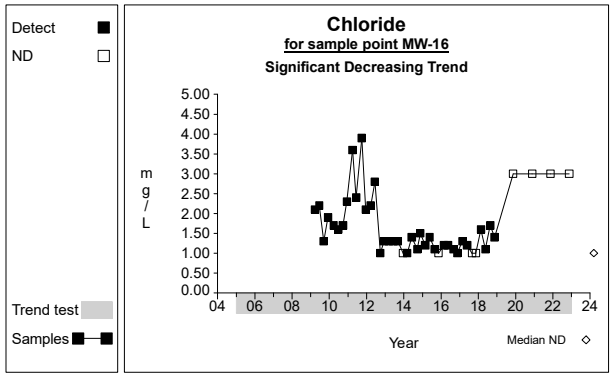
Graph 141



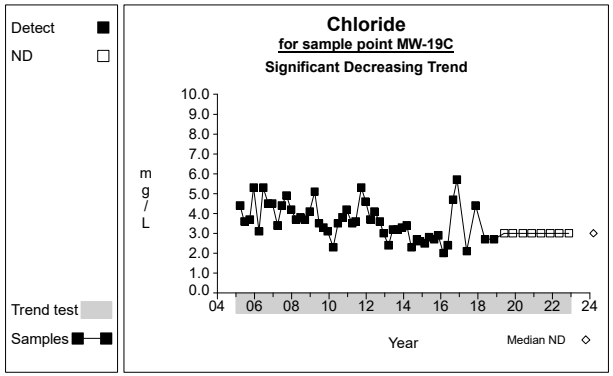
Graph 146



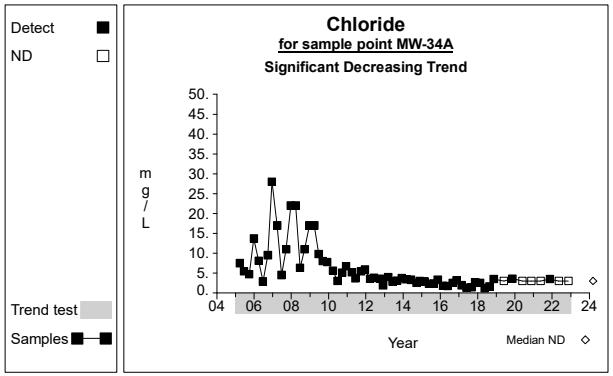
Graph 147



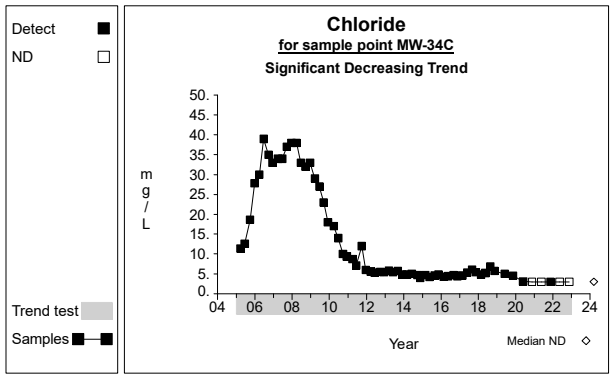
Graph 148



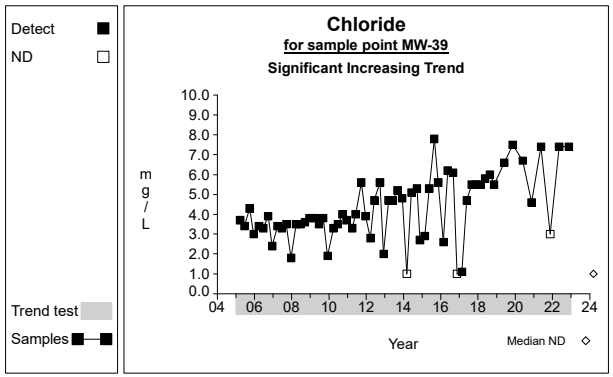
Graph 149



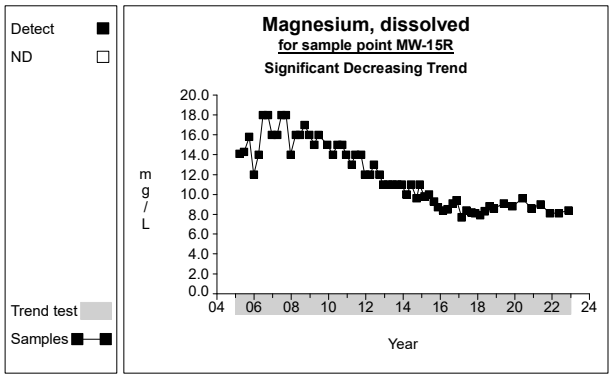
Graph 154



Graph 155

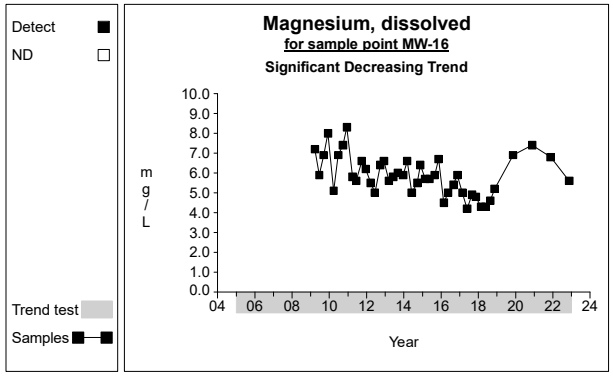


Graph 158

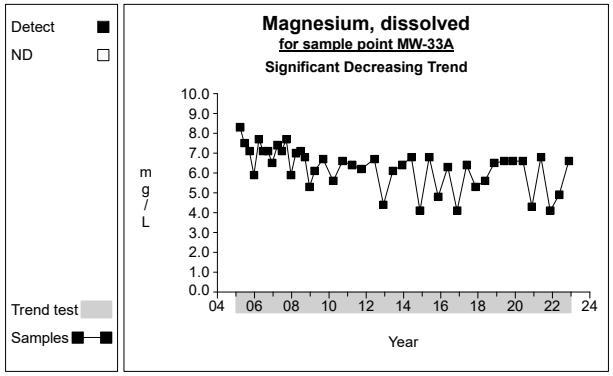


Graph 243

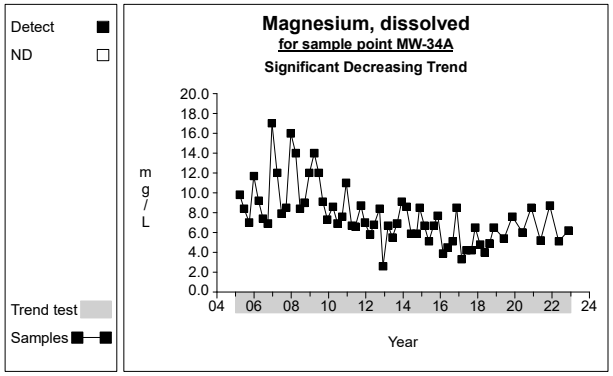
Time Series



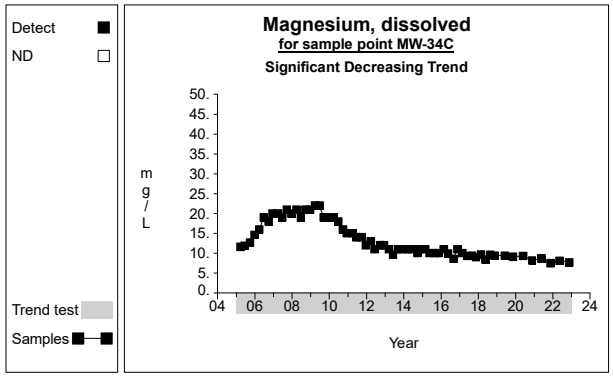
Graph 244



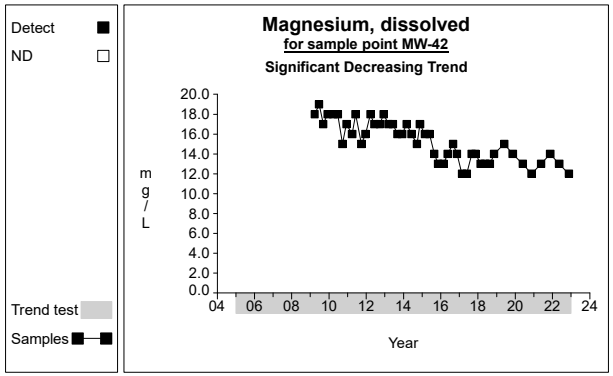
Graph 248



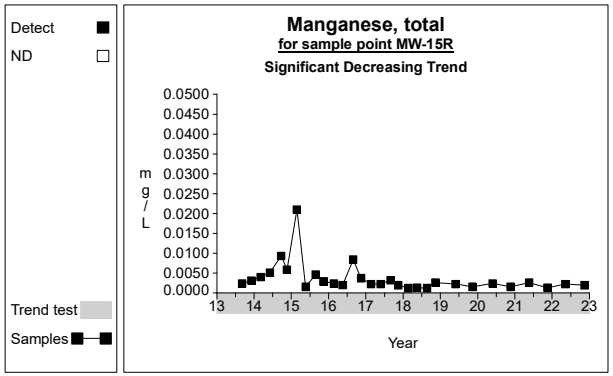
Graph 250



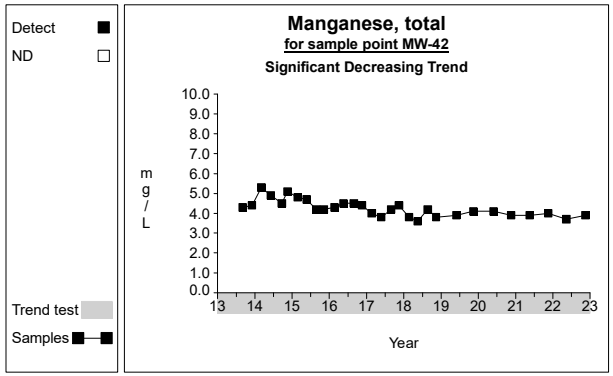
Graph 251



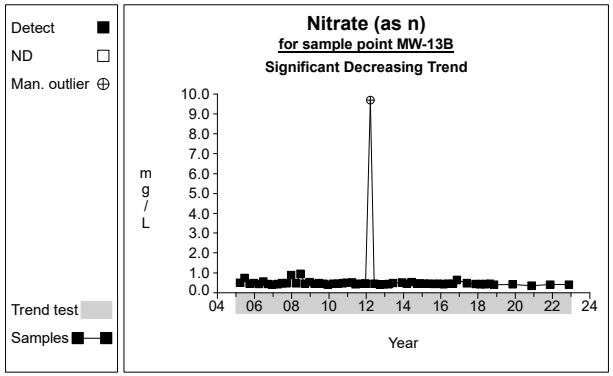
Graph 255



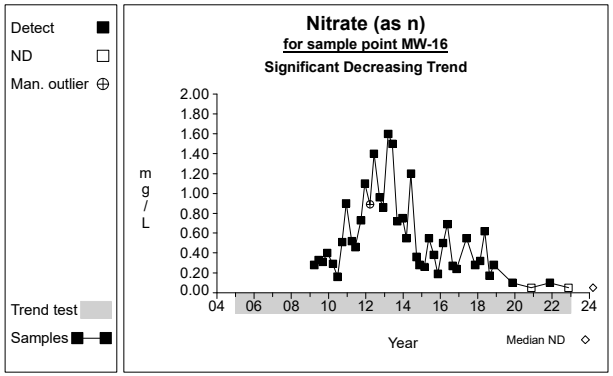
Graph 259



Graph 271

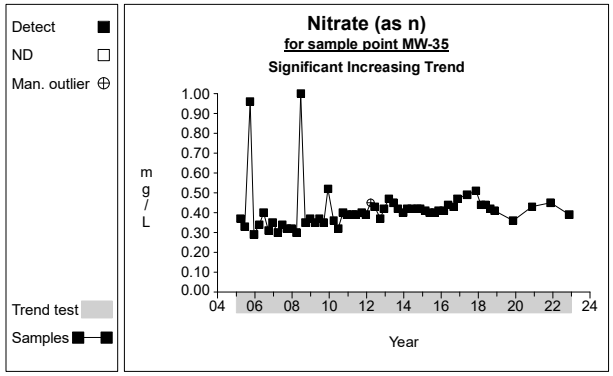


Graph 290

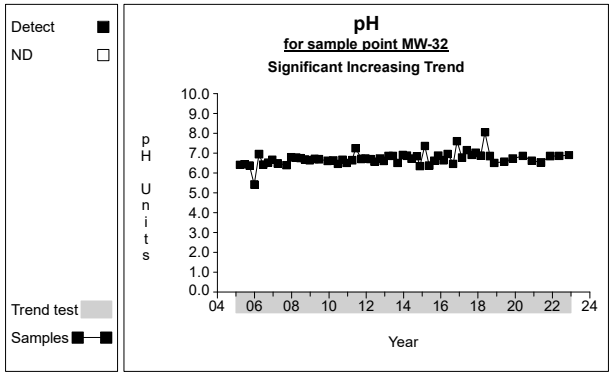


Graph 292

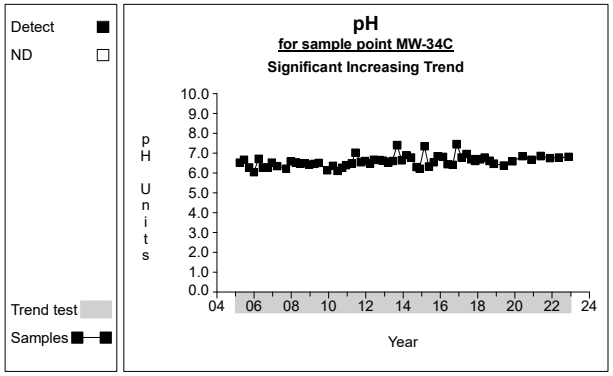
Time Series



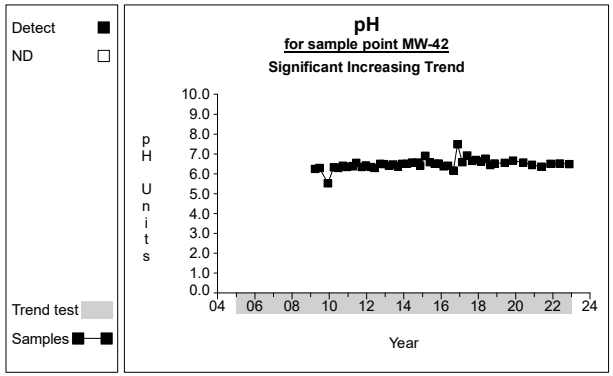
Graph 300



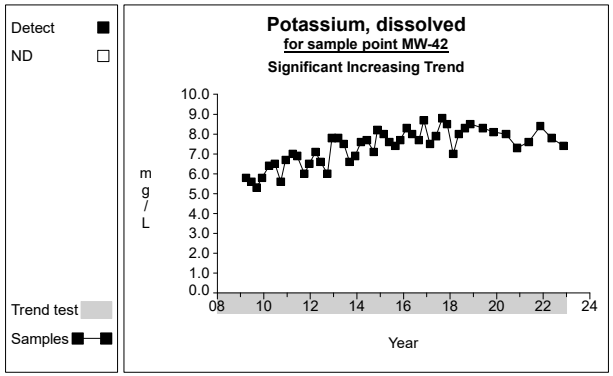
Graph 311



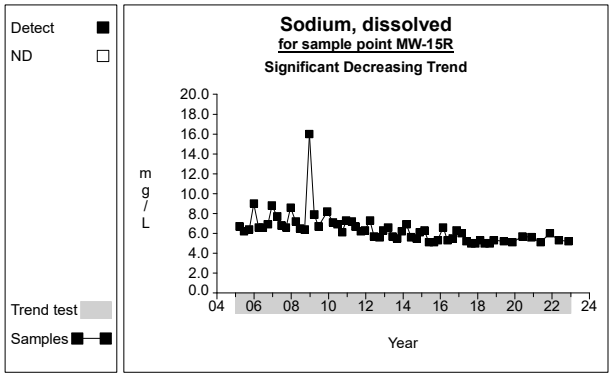
Graph 315



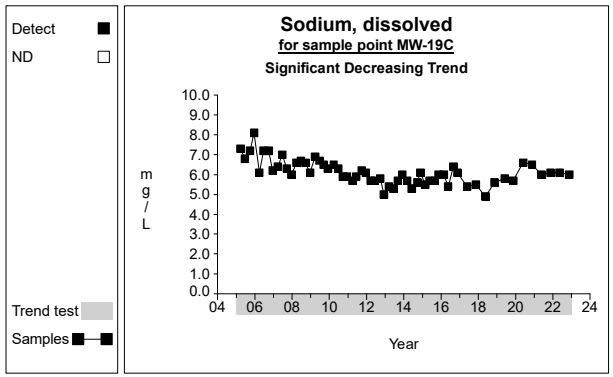
Graph 319



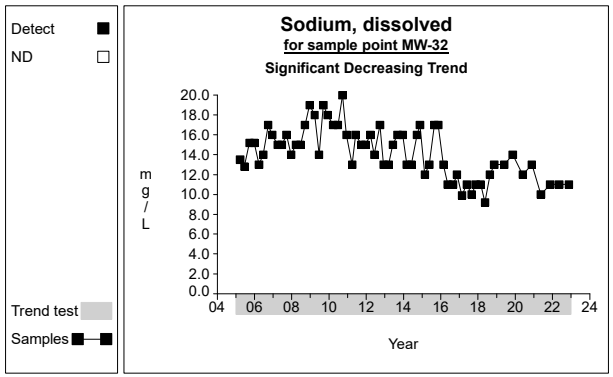
Graph 335



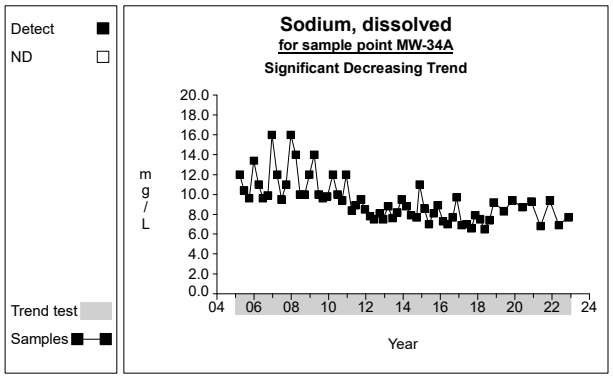
Graph 371



Graph 373

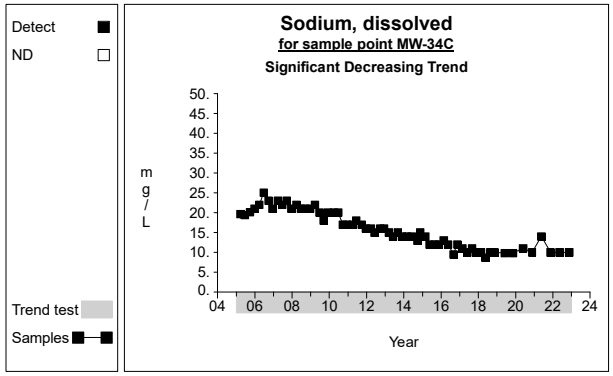


Graph 375

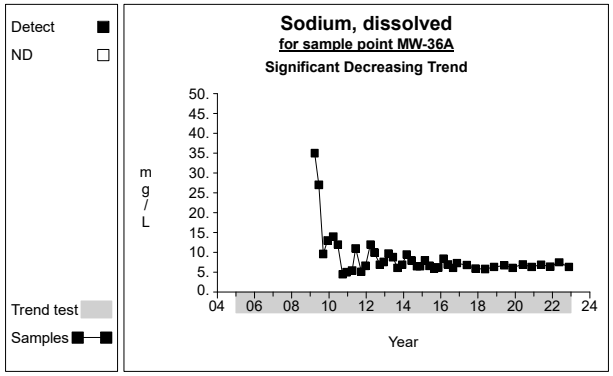


Graph 378

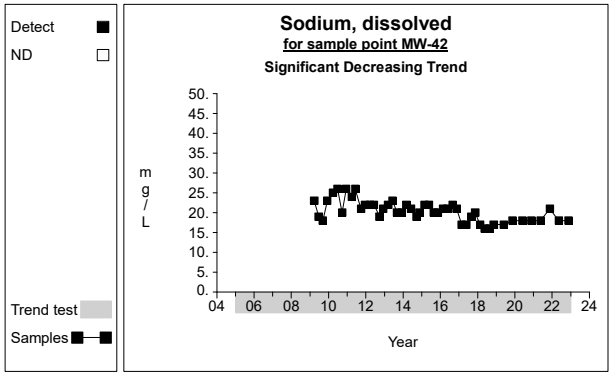
Time Series



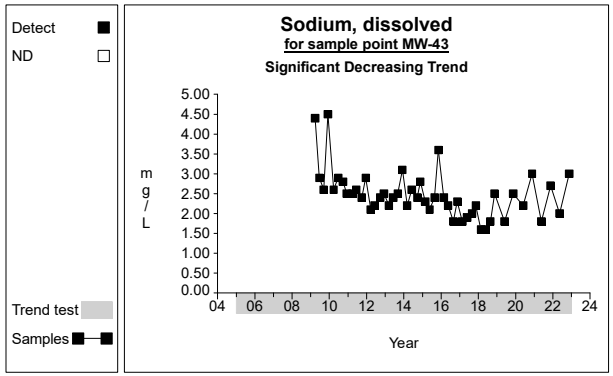
Graph 379



Graph 381



Graph 383



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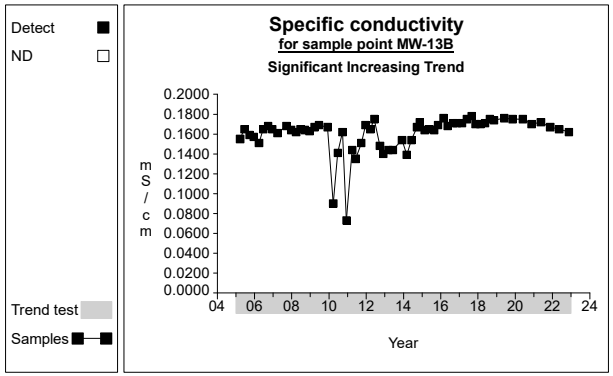
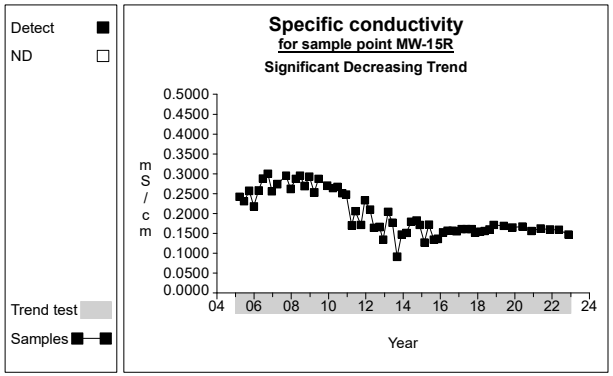
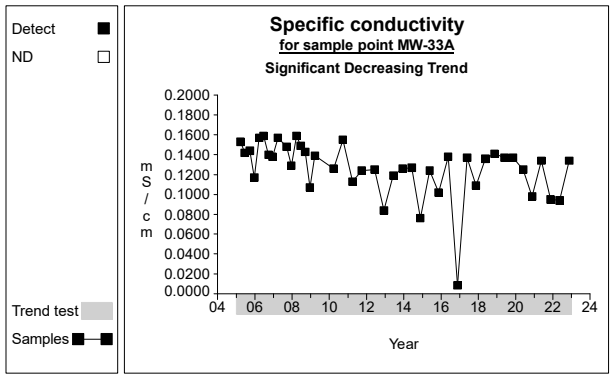


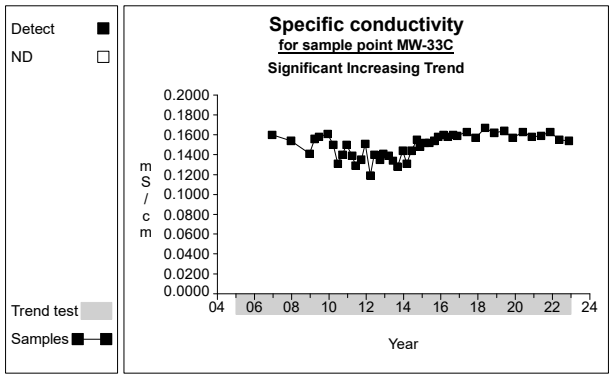
Graph 386



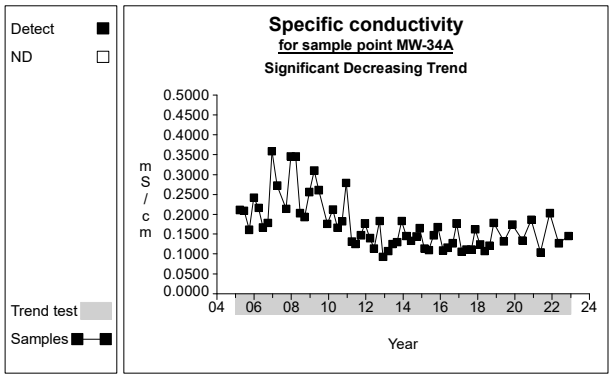
Graph 387



Graph 392

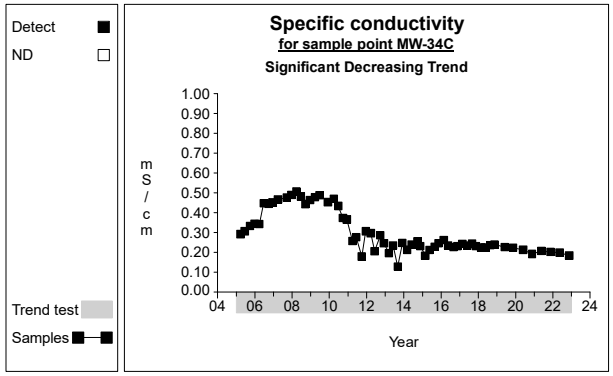


Graph 393

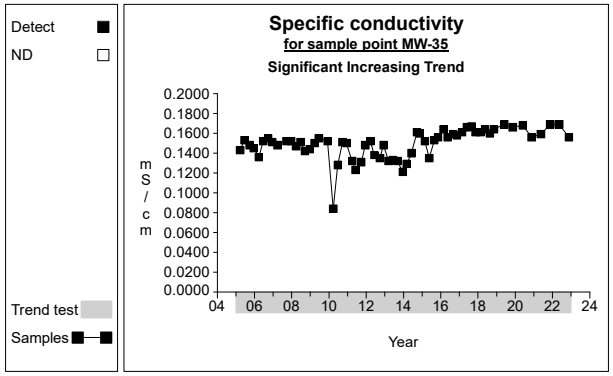


Graph 394

Time Series



Graph 395



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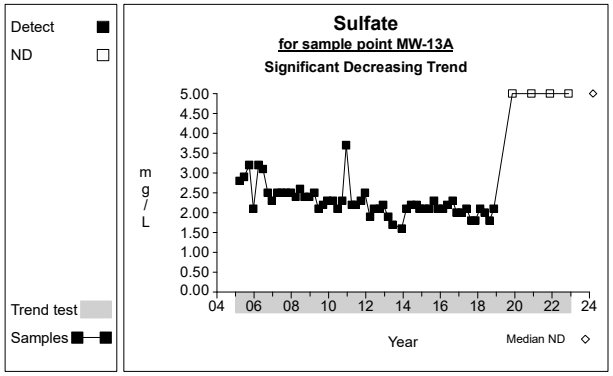
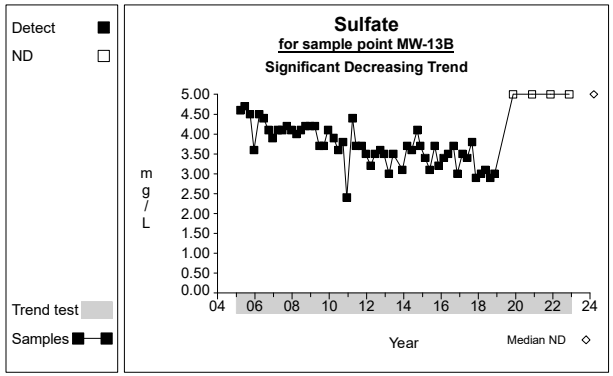


Graph 401



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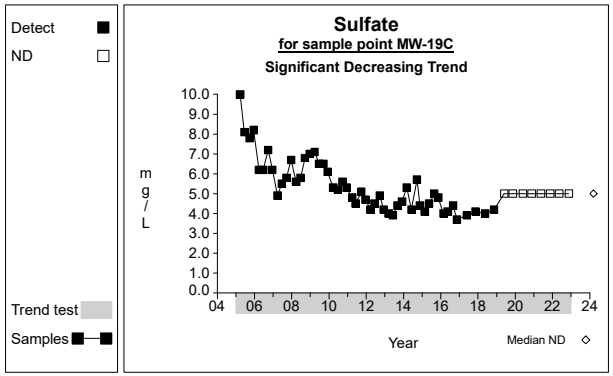
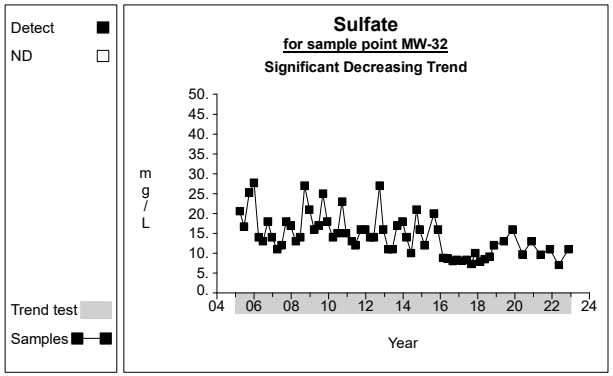
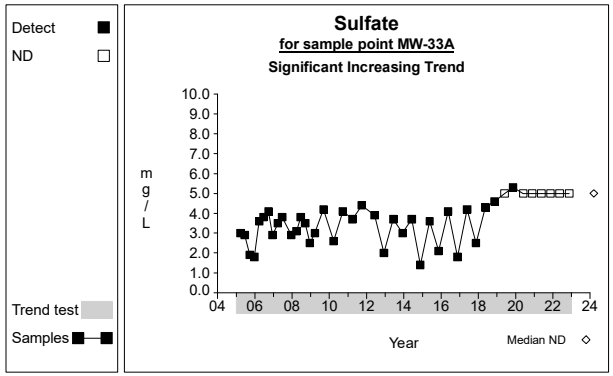


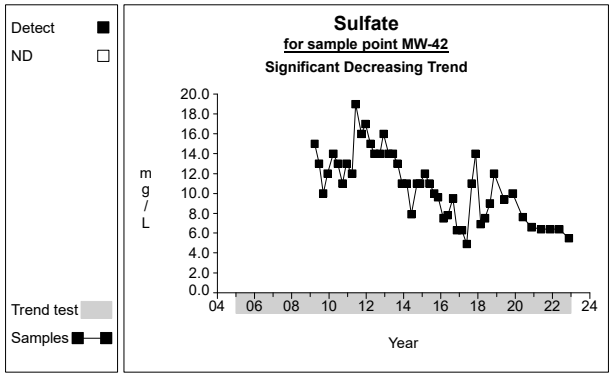
Graph 405



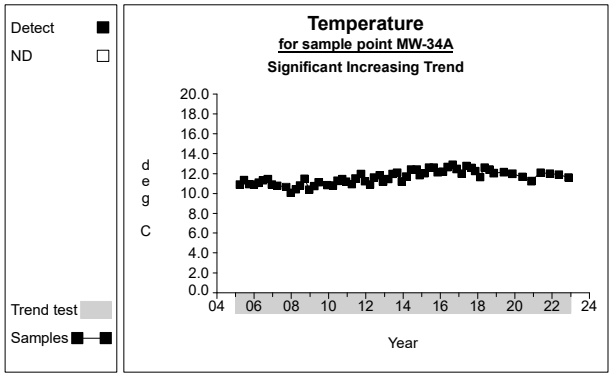
Graph 407



Graph 408

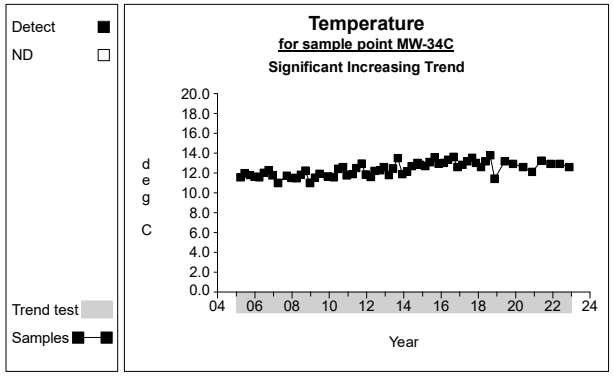


Graph 415

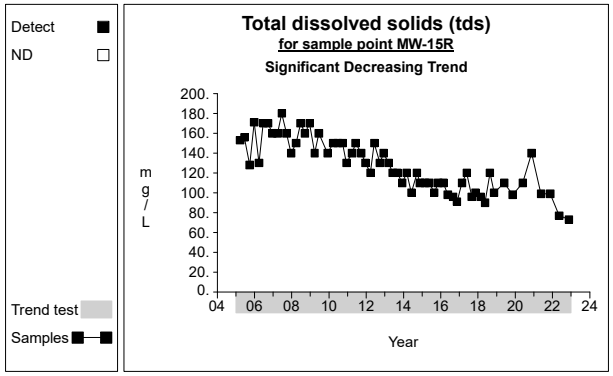


Graph 426

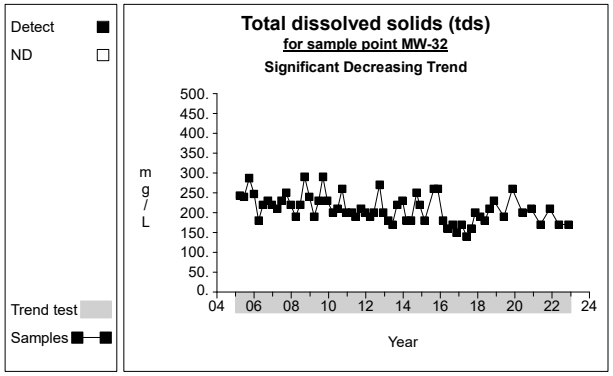
Time Series



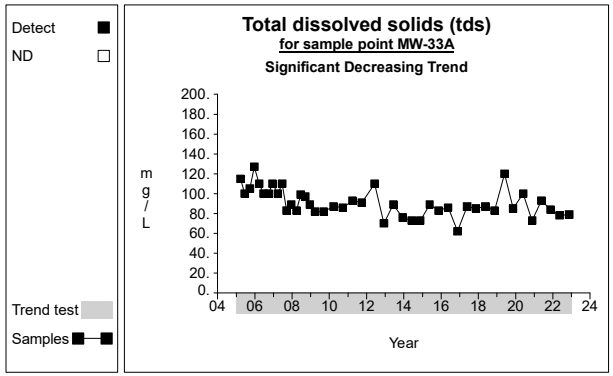
Graph 427



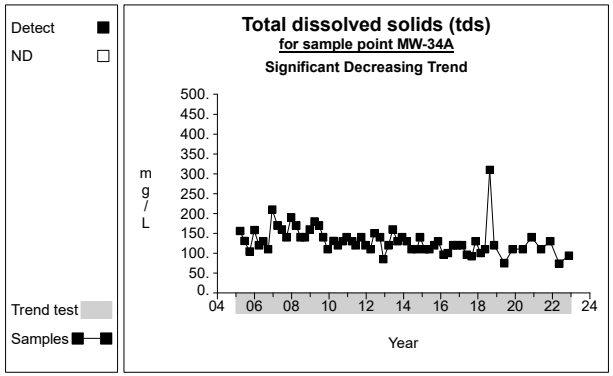
Graph 451



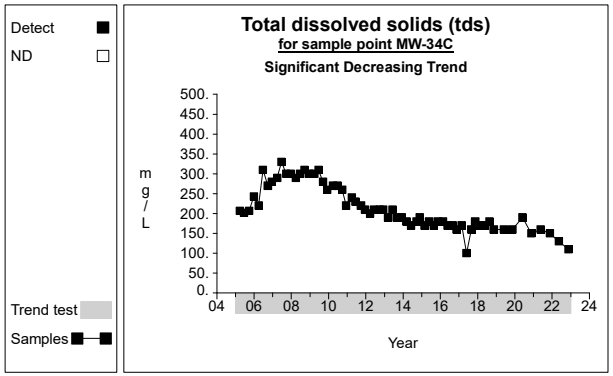
Graph 455



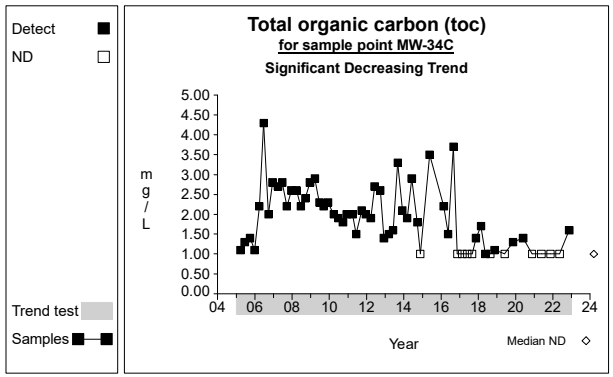
Graph 456



Graph 458



Graph 459



Graph 475

2. Prediction Limits for Detection Monitoring

- 2022 Prediction Limits and Q4 2022 Exeedance Summary Table (Table 2-1)
- Updated Prediction Limits for Use During 2023 Monitoring Year (Table 2-2)
- Upgradient Data used in 2023 Prediction Limit Calculations (Table 2-3)
- Results of Shapiro-Wilk Test for Normality for 2023 Upgradient Data (Table 2-4)
- Comparison of 2023 Prediction Limits with 2022 Prediction Limits (Table 2-5)

TABLE 2-1
SUMMARY OF CURRENT PREDICTION LIMIT EXCEEDANCES
Q4 2022
Olympic View Sanitary Landfill

Statistical Methodology:

1. Inter-Well Prediction Limits using DUMPStat™
2. Upgradient Data Set: pooled data from wells MW-13A, MW-13B, MW-16, and MW-35
3. "Detection Monitoring" well comparisons:
   - complance wells: MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43
   - downgradient wells: MW-29A, MW-32, MW-33A, MW-33C, MW-36A
4. Parameters: all Appendix I and II inorganic and ground water quality parameters
5. Background Data Sets: January 2005 - December 2021
6. Arsenic: only low-level Method 200.8 data used
7. Units: mg/L = milligrams per liter; ug/L = micrograms per liter; mS/cm = millisiemens per centimeter; deg C = degrees Celcius

Parameter	Unit	Well	Latest Result	Date Sampled	Prediction Limit
Alkalinity, bicarbonate (as caco3)	mg/L	MW-32	130	11/17/2022	96
Alkalinity, bicarbonate (as caco3)	mg/L	MW-42	200	11/16/2022	96
Alkalinity, total (as caco3)	mg/L	MW-32	130	11/17/2022	96
Alkalinity, total (as caco3)	mg/L	MW-42	200	11/16/2022	96
Ammonia (as n)	mg/L	MW-39	0.57	11/17/2022	0.28
Arsenic, total	ug/L	MW-29A	1.75	11/16/2022	0.479
Arsenic, total	ug/L	MW-32	10.8	11/17/2022	0.479
Arsenic, total	ug/L	MW-33C	4.31	11/17/2022	0.479
Arsenic, total	ug/L	MW-34C	21.9	11/16/2022	0.479
Arsenic, total	ug/L	MW-36A	0.492	11/17/2022	0.479
Arsenic, total	ug/L	MW-39	1.98	11/17/2022	0.479
Arsenic, total	ug/L	MW-42	2.18	11/16/2022	0.479
Barium, total	mg/L	MW-29A	0.0066	11/16/2022	0.0045
Barium, total	mg/L	MW-32	0.0059	11/17/2022	0.0045
Barium, total	mg/L	MW-34C	0.19	11/16/2022	0.0045
Barium, total	mg/L	MW-39	0.014	11/17/2022	0.0045
Barium, total	mg/L	MW-42	0.095	11/16/2022	0.0045
Barium, total	mg/L	MW-43	0.0052	11/16/2022	0.0045
Calcium, dissolved	mg/L	MW-32	23	11/17/2022	18
Calcium, dissolved	mg/L	MW-42	36	11/16/2022	18
Chloride	mg/L	MW-32	6.6	11/17/2022	4.4
Chloride	mg/L	MW-39	7.4	11/17/2022	4.4
Chloride	mg/L	MW-42	6.6	11/16/2022	4.4
Cobalt, total	mg/L	MW-39	0.0065	11/17/2022	0.003
Copper, total	mg/L	MW-32	0.0046	11/17/2022	0.0021
Copper, total	mg/L	MW-34C	0.0025	11/16/2022	0.0021
Iron, total	mg/L	MW-29A	3.7	11/16/2022	0.31

Parameter	Unit	Well	Latest Result	Date Sampled	Prediction Limit
Iron, total	mg/L	MW-32	0.67	11/17/2022	0.31
Iron, total	mg/L	MW-33A	0.72	11/17/2022	0.31
Iron, total	mg/L	MW-34C	44	11/16/2022	0.31
Iron, total	mg/L	MW-39	33	11/17/2022	0.31
Iron, total	mg/L	MW-42	29	11/16/2022	0.31
Iron, total	mg/L	MW-43	1.6	11/16/2022	0.31
Magnesium, dissolved	mg/L	MW-32	12	11/17/2022	11.2
Magnesium, dissolved	mg/L	MW-42	12	11/16/2022	11.2
Manganese, total	mg/L	MW-29A	1.2	11/16/2022	0.110
Manganese, total	mg/L	MW-32	2	11/17/2022	0.110
Manganese, total	mg/L	MW-33C	0.96	11/17/2022	0.110
Manganese, total	mg/L	MW-34C	3.4	11/16/2022	0.110
Manganese, total	mg/L	MW-39	0.46	11/17/2022	0.110
Manganese, total	mg/L	MW-42	3.9	11/16/2022	0.110
pH	pH Units	MW-43	5.66	11/16/2022	5.81 - 8.20
Potassium, dissolved	mg/L	MW-42	7.4	11/16/2022	1.4
Sodium, dissolved	mg/L	MW-32	11	11/17/2022	7.7
Sodium, dissolved	mg/L	MW-34C	10	11/16/2022	7.7
Sodium, dissolved	mg/L	MW-39	9	11/17/2022	7.7
Sodium, dissolved	mg/L	MW-42	18	11/16/2022	7.7
Specific conductivity	mS/cm	MW-32	0.258	11/17/2022	0.18
Specific conductivity	mS/cm	MW-34C	0.184	11/16/2022	0.18
Specific conductivity	mS/cm	MW-39	0.271	11/17/2022	0.18
Specific conductivity	mS/cm	MW-42	0.457	11/16/2022	0.18
Sulfate	mg/L	MW-32	11	11/17/2022	9.9
Total dissolved solids (tds)	mg/L	MW-42	210	11/16/2022	175
Total organic carbon (toc)	mg/L	MW-42	8.2	11/16/2022	6.0
Zinc, total	mg/L	MW-34A	0.019	11/16/2022	0.006

TABLE 2-2
STATISTICAL PREDICTION LIMITS UPDATED FOR 2023 MONITORING YEAR
Olympic View Sanitary Landfill

Statistical Methodology:

1. Inter-Well Prediction Limits using DUMPStat
2. Upgradient Data Set: pooled data from wells 13A, 13B, 16, and 35
3. "Detection Monitoring" well comparisons:
   - compliance wells
   - performance well
   - downgradient wells
4. Parameters: all Appendix I and II inorganic and ground water quality parameters
5. Background Data Sets: January 2005 - December 2022 (updated annually)
6. Arsenic: only low-level Method 200.8 data used
7. Units: mg/L = milligrams per liter; ug/L = micrograms per liter; mS/cm = millisiemens per centimeter; deg C = degrees Celcius

Constituent	Units	Distributional Assumption[1]	Total N[2]	Detected N	Mean	Standard Deviation	Prediction Limit[3]	Nonparametric Confidence[4]
Alkalinity, bicarbonate (as caco3)	MG/L	nonparametric	218	218			96	0.99
Alkalinity, total (as caco3)	MG/L	nonparametric	222	222			96	0.99
Ammonia (as n)	MG/L	nonparametric	73	217			0.28	0.99
Antimony, total	MG/L	nonparametric	3	102			0.0013	0.99
Arsenic, total	UG/L	normal	108	108	0.2436	0.102	0.4797	
Barium, total	MG/L	normal	102	102	0.0032	0.0005	0.0045	
Beryllium, total	MG/L	nonparametric	0	102			Current RL*	0.99
Cadmium, total	MG/L	nonparametric	0	102			Current RL*	0.99
Calcium, dissolved	MG/L	nonparametric	222	222			18	0.99
Chloride	MG/L	nonparametric	202	222			4.4	0.99
Chromium, total	MG/L	nonparametric	45	102			0.019	0.99
Cobalt, total	MG/L	nonparametric	0	102			Current RL*	0.99
Copper, total	MG/L	nonparametric	1	102			0.0021	0.99
Iron, total	MG/L	nonparametric	13	101			0.31	0.99
Lead, total	MG/L	nonparametric	1	102			0.0014	0.99
Magnesium, dissolved	MG/L	normal	222	222	8.1703	1.31	11.2	
Manganese, total	MG/L	nonparametric	30	102			0.11	0.99
Nickel, total	MG/L	nonparametric	2	102			0.0055	0.99
Nitrate (as n)	MG/L	nonparametric	207	209			1.6	0.99
pH	pH Units	normal	229	229	7.0123	0.467	5.82 - 8.20	
Potassium, dissolved	MG/L	nonparametric	14	222			1.4	0.99
Selenium, total	MG/L	nonparametric	0	102			Current RL*	0.99
Silver, total	MG/L	nonparametric	0	102			Current RL*	0.99
Sodium, dissolved	MG/L	nonparametric	222	222			7.7	0.99
Specific conductivity	mS/cm	nonparametric	231	231			0.18	0.99
Sulfate	MG/L	nonparametric	205	222			9.9	0.99
Temperature	deg C	nonparametric	231	231			14.32	0.99
Thallium, total	MG/L	nonparametric	0	102			Current RL*	0.99
Total dissolved solids (tds)	MG/L	nonparametric	222	222			175	0.99
Total organic carbon (toc)	MG/L	nonparametric	7	210			6.0	0.99
Vanadium, total	MG/L	nonparametric	101	102			0.009	0.99
Zinc, total	MG/L	nonparametric	1	102			0.0056	0.99

[1] Distributional Assumption based on Multiple Group Shapiro-Wilk Test (results presented on Table 2-4 herein).

[2] N = number of background data points from the pooled upgradient well data set AFTER removal of outliers (see Table 2-3 for outliers).

[3] Prediction Limit calculated at 95% confidence level and adjusted for multiple comparisons and one verification resample per Unified Guidance (USEPA, March 2009).

[4] Nonparametric confidence level as calculated by DUMPStat.

*Current RL: in cases where all background data are non-detected, a nonparametric prediction limit is set at the current constituent-specific laboratory reporting limit (RL).

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Constituent	Well	Date	ND	Result	Unit	ND Adjust	Flag
Alkalinity, bicarbonate (as caco3)	MW-13A	03/22/2005		75	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	06/15/2005		63.8	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	09/27/2005		75.6	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	12/15/2005		72.5	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	03/28/2006		80	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	06/21/2006		79	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	09/26/2006		80	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	12/13/2006		82	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	03/27/2007		83	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	06/19/2007		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	09/19/2007		79	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	12/19/2007		82	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	03/25/2008		83	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	06/18/2008		82	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	09/17/2008		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	12/17/2008		92	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	03/24/2009		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	06/17/2009		84	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	09/10/2009		87	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	03/25/2010		86	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	06/23/2010		86	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	09/23/2010		96	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	12/08/2010		82	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	03/30/2011		88	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	06/06/2011		89	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	09/27/2011		89	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	12/14/2011		90	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	03/21/2012		89	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	06/08/2012		87	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	09/26/2012		87	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	12/03/2012		83	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	03/11/2013		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	06/05/2013		83	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	12/03/2013		86	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	03/04/2014		87	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	06/02/2014		84	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	09/22/2014		82	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	11/17/2014		79	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	02/23/2015		84	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	05/19/2015		82	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	08/26/2015		77	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	11/10/2015		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	02/22/2016		80	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	05/16/2016		90	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	08/31/2016		84	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	11/14/2016		92	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	02/22/2017		85	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	05/24/2017		82	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	08/30/2017		80	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	11/13/2017		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	02/20/2018		87	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	05/15/2018		78	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	08/21/2018		79	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	11/12/2018		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	11/11/2019		82	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	11/19/2020		84	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	11/16/2021		96	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13A	11/17/2022		89	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	03/22/2005		70.6	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	06/15/2005		57.3	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	09/27/2005		72.7	mg/L		

* = outlier for that well/constituent

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ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Alkalinity, bicarbonate (as caco3)	MW-13B	12/15/2005		68.8	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	03/29/2006		73	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	06/21/2006		74	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	09/26/2006		75	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	12/13/2006		76	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	03/27/2007		76	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	06/19/2007		74	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	09/18/2007		74	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	12/19/2007		76	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	03/25/2008		77	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	06/18/2008		77	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	09/17/2008		76	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	12/16/2008		74	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	03/24/2009		78	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	06/17/2009		79	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	09/10/2009		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	03/25/2010		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	06/23/2010		80	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	09/23/2010		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	12/08/2010		88	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	03/30/2011		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	06/06/2011		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	09/27/2011		83	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	12/14/2011		84	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	03/21/2012		83	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	06/08/2012		82	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	09/26/2012		84	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	12/03/2012		82	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	03/11/2013		77	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	06/05/2013		79	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	12/03/2013		84	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	03/04/2014		83	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	06/02/2014		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	09/22/2014		80	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	11/17/2014		79	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	02/23/2015		82	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	05/19/2015		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	08/26/2015		76	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	11/10/2015		79	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	02/22/2016		77	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	05/16/2016		87	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	08/31/2016		82	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	11/14/2016		80	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	02/22/2017		83	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	05/24/2017		80	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	08/30/2017		80	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	11/13/2017		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	02/20/2018		86	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	05/15/2018		78	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	08/21/2018		81	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	11/12/2018		83	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	11/11/2019		83	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	11/19/2020		84	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	11/16/2021		95	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-13B	11/17/2022		89	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	03/24/2009		66	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	06/16/2009		59	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	09/09/2009		66	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	03/25/2010		46	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	06/24/2010		71	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	09/24/2010		74	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	12/09/2010		72	mg/L		

* = outlier for that well/constituent
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ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Alkalinity, bicarbonate (as caco3)	MW-16	03/30/2011		53	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	06/07/2011		59	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	09/27/2011		66	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	12/13/2011		60	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	03/21/2012		50	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	06/08/2012		49	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	09/27/2012		57	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	12/04/2012		64	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	03/12/2013		51	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	06/04/2013		50	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	09/05/2013		62	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	12/16/2013		62	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	03/05/2014		57	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	06/02/2014		44	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	09/22/2014		57	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	11/18/2014		57	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	02/23/2015		52	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	05/20/2015		51	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	08/26/2015		51	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	11/11/2015		65	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	02/24/2016		40	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	05/16/2016		50	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	08/31/2016		60	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	11/14/2016		56	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	02/22/2017		45	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	05/24/2017		42	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	08/30/2017		61	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	11/13/2017		50	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	02/20/2018		46	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	05/17/2018		43	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	08/22/2018		51	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	11/12/2018		53	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	11/12/2019		68	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	11/20/2020		85	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	11/16/2021		85	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-16	11/17/2022		67	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	03/22/2005		68.2	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	06/14/2005		59	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	09/27/2005		69.2	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	12/15/2005		67.3	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	03/28/2006		74	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	06/21/2006		71	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	09/26/2006		72	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	12/12/2006		73	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	03/27/2007		73	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	06/20/2007		70	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	09/18/2007		69	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	12/20/2007		72	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	03/25/2008		77	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	06/18/2008		72	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	09/18/2008		72	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	12/19/2008		68	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	03/24/2009		72	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	06/16/2009		73	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	09/10/2009		74	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	03/25/2010		76	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	06/23/2010		75	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	09/23/2010		75	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	12/09/2010		74	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	03/30/2011		77	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	06/06/2011		76	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	09/26/2011		78	mg/L		

* = outlier for that well/constituent
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ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Alkalinity, bicarbonate (as caco3)	MW-35	12/13/2011		77	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	03/21/2012		77	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	06/06/2012		77	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	09/26/2012		78	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	12/04/2012		76	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	03/13/2013		73	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	06/06/2013		73	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	09/05/2013		77	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	12/16/2013		78	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	03/04/2014		78	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	06/02/2014		76	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	09/22/2014		75	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	11/17/2014		74	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	02/25/2015		77	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	05/19/2015		75	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	08/26/2015		71	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	11/10/2015		75	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	02/22/2016		72	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	05/16/2016		82	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	08/31/2016		77	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	11/15/2016		91	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	02/22/2017		79	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	05/24/2017		76	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	08/30/2017		74	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	11/15/2017		77	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	02/20/2018		82	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	05/17/2018		80	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	08/22/2018		48	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	11/12/2018		80	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	11/12/2019		82	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	11/19/2020		85	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	11/16/2021		92	mg/L		
Alkalinity, bicarbonate (as caco3)	MW-35	11/17/2022		84	mg/L		
Alkalinity, total (as caco3)	MW-13A	03/22/2005		75	mg/L		
Alkalinity, total (as caco3)	MW-13A	06/15/2005		63.8	mg/L		
Alkalinity, total (as caco3)	MW-13A	09/27/2005		75.6	mg/L		
Alkalinity, total (as caco3)	MW-13A	12/15/2005		72.5	mg/L		
Alkalinity, total (as caco3)	MW-13A	03/28/2006		80	mg/L		
Alkalinity, total (as caco3)	MW-13A	06/21/2006		79	mg/L		
Alkalinity, total (as caco3)	MW-13A	09/26/2006		80	mg/L		
Alkalinity, total (as caco3)	MW-13A	12/13/2006		82	mg/L		
Alkalinity, total (as caco3)	MW-13A	03/27/2007		83	mg/L		
Alkalinity, total (as caco3)	MW-13A	06/19/2007		81	mg/L		
Alkalinity, total (as caco3)	MW-13A	09/19/2007		79	mg/L		
Alkalinity, total (as caco3)	MW-13A	12/19/2007		82	mg/L		
Alkalinity, total (as caco3)	MW-13A	03/25/2008		83	mg/L		
Alkalinity, total (as caco3)	MW-13A	06/18/2008		82	mg/L		
Alkalinity, total (as caco3)	MW-13A	09/17/2008		81	mg/L		
Alkalinity, total (as caco3)	MW-13A	12/17/2008		92	mg/L		
Alkalinity, total (as caco3)	MW-13A	03/24/2009		81	mg/L		
Alkalinity, total (as caco3)	MW-13A	06/17/2009		84	mg/L		
Alkalinity, total (as caco3)	MW-13A	09/10/2009		87	mg/L		
Alkalinity, total (as caco3)	MW-13A	12/03/2009		84	mg/L		
Alkalinity, total (as caco3)	MW-13A	03/25/2010		86	mg/L		
Alkalinity, total (as caco3)	MW-13A	06/23/2010		86	mg/L		
Alkalinity, total (as caco3)	MW-13A	09/23/2010		96	mg/L		
Alkalinity, total (as caco3)	MW-13A	12/08/2010		82	mg/L		
Alkalinity, total (as caco3)	MW-13A	03/30/2011		88	mg/L		
Alkalinity, total (as caco3)	MW-13A	06/06/2011		89	mg/L		
Alkalinity, total (as caco3)	MW-13A	09/27/2011		89	mg/L		
Alkalinity, total (as caco3)	MW-13A	12/14/2011		90	mg/L		
Alkalinity, total (as caco3)	MW-13A	03/21/2012		89	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Alkalinity, total (as caco3)	MW-13A	06/08/2012		87	mg/L		
Alkalinity, total (as caco3)	MW-13A	09/26/2012		87	mg/L		
Alkalinity, total (as caco3)	MW-13A	12/03/2012		83	mg/L		
Alkalinity, total (as caco3)	MW-13A	03/11/2013		81	mg/L		
Alkalinity, total (as caco3)	MW-13A	06/05/2013		83	mg/L		
Alkalinity, total (as caco3)	MW-13A	12/03/2013		86	mg/L		
Alkalinity, total (as caco3)	MW-13A	03/04/2014		87	mg/L		
Alkalinity, total (as caco3)	MW-13A	06/02/2014		84	mg/L		
Alkalinity, total (as caco3)	MW-13A	09/22/2014		82	mg/L		
Alkalinity, total (as caco3)	MW-13A	11/17/2014		79	mg/L		
Alkalinity, total (as caco3)	MW-13A	02/23/2015		84	mg/L		
Alkalinity, total (as caco3)	MW-13A	05/19/2015		82	mg/L		
Alkalinity, total (as caco3)	MW-13A	08/26/2015		77	mg/L		
Alkalinity, total (as caco3)	MW-13A	11/10/2015		81	mg/L		
Alkalinity, total (as caco3)	MW-13A	02/22/2016		80	mg/L		
Alkalinity, total (as caco3)	MW-13A	05/16/2016		90	mg/L		
Alkalinity, total (as caco3)	MW-13A	08/31/2016		84	mg/L		
Alkalinity, total (as caco3)	MW-13A	11/14/2016		92	mg/L		
Alkalinity, total (as caco3)	MW-13A	02/22/2017		85	mg/L		
Alkalinity, total (as caco3)	MW-13A	05/24/2017		82	mg/L		
Alkalinity, total (as caco3)	MW-13A	08/30/2017		80	mg/L		
Alkalinity, total (as caco3)	MW-13A	11/13/2017		81	mg/L		
Alkalinity, total (as caco3)	MW-13A	02/20/2018		87	mg/L		
Alkalinity, total (as caco3)	MW-13A	05/15/2018		78	mg/L		
Alkalinity, total (as caco3)	MW-13A	08/21/2018		79	mg/L		
Alkalinity, total (as caco3)	MW-13A	11/12/2018		81	mg/L		
Alkalinity, total (as caco3)	MW-13A	11/11/2019		82	mg/L		
Alkalinity, total (as caco3)	MW-13A	11/19/2020		84	mg/L		
Alkalinity, total (as caco3)	MW-13A	11/16/2021		96	mg/L		
Alkalinity, total (as caco3)	MW-13A	11/17/2022		89	mg/L		
Alkalinity, total (as caco3)	MW-13B	03/22/2005		70.6	mg/L		
Alkalinity, total (as caco3)	MW-13B	06/15/2005		57.3	mg/L		
Alkalinity, total (as caco3)	MW-13B	09/27/2005		72.7	mg/L		
Alkalinity, total (as caco3)	MW-13B	12/15/2005		68.8	mg/L		
Alkalinity, total (as caco3)	MW-13B	03/29/2006		73	mg/L		
Alkalinity, total (as caco3)	MW-13B	06/21/2006		74	mg/L		
Alkalinity, total (as caco3)	MW-13B	09/26/2006		75	mg/L		
Alkalinity, total (as caco3)	MW-13B	12/13/2006		76	mg/L		
Alkalinity, total (as caco3)	MW-13B	03/27/2007		76	mg/L		
Alkalinity, total (as caco3)	MW-13B	06/19/2007		74	mg/L		
Alkalinity, total (as caco3)	MW-13B	09/18/2007		74	mg/L		
Alkalinity, total (as caco3)	MW-13B	12/19/2007		76	mg/L		
Alkalinity, total (as caco3)	MW-13B	03/25/2008		77	mg/L		
Alkalinity, total (as caco3)	MW-13B	06/18/2008		77	mg/L		
Alkalinity, total (as caco3)	MW-13B	09/17/2008		76	mg/L		
Alkalinity, total (as caco3)	MW-13B	12/16/2008		74	mg/L		
Alkalinity, total (as caco3)	MW-13B	03/24/2009		78	mg/L		
Alkalinity, total (as caco3)	MW-13B	06/17/2009		79	mg/L		
Alkalinity, total (as caco3)	MW-13B	09/10/2009		81	mg/L		
Alkalinity, total (as caco3)	MW-13B	12/03/2009		80	mg/L		
Alkalinity, total (as caco3)	MW-13B	03/25/2010		81	mg/L		
Alkalinity, total (as caco3)	MW-13B	06/23/2010		80	mg/L		
Alkalinity, total (as caco3)	MW-13B	09/23/2010		81	mg/L		
Alkalinity, total (as caco3)	MW-13B	12/08/2010		88	mg/L		
Alkalinity, total (as caco3)	MW-13B	03/30/2011		81	mg/L		
Alkalinity, total (as caco3)	MW-13B	06/06/2011		81	mg/L		
Alkalinity, total (as caco3)	MW-13B	09/27/2011		83	mg/L		
Alkalinity, total (as caco3)	MW-13B	12/14/2011		84	mg/L		
Alkalinity, total (as caco3)	MW-13B	03/21/2012		83	mg/L		
Alkalinity, total (as caco3)	MW-13B	06/08/2012		82	mg/L		
Alkalinity, total (as caco3)	MW-13B	09/26/2012		84	mg/L		
Alkalinity, total (as caco3)	MW-13B	12/03/2012		82	mg/L		

* = outlier for that well/constituent
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ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Alkalinity, total (as caco3)	MW-13B	03/11/2013		77	mg/L		
Alkalinity, total (as caco3)	MW-13B	06/05/2013		79	mg/L		
Alkalinity, total (as caco3)	MW-13B	12/03/2013		84	mg/L		
Alkalinity, total (as caco3)	MW-13B	03/04/2014		83	mg/L		
Alkalinity, total (as caco3)	MW-13B	06/02/2014		81	mg/L		
Alkalinity, total (as caco3)	MW-13B	09/22/2014		80	mg/L		
Alkalinity, total (as caco3)	MW-13B	11/17/2014		79	mg/L		
Alkalinity, total (as caco3)	MW-13B	02/23/2015		82	mg/L		
Alkalinity, total (as caco3)	MW-13B	05/19/2015		81	mg/L		
Alkalinity, total (as caco3)	MW-13B	08/26/2015		76	mg/L		
Alkalinity, total (as caco3)	MW-13B	11/10/2015		79	mg/L		
Alkalinity, total (as caco3)	MW-13B	02/22/2016		77	mg/L		
Alkalinity, total (as caco3)	MW-13B	05/16/2016		87	mg/L		
Alkalinity, total (as caco3)	MW-13B	08/31/2016		82	mg/L		
Alkalinity, total (as caco3)	MW-13B	11/14/2016		80	mg/L		
Alkalinity, total (as caco3)	MW-13B	02/22/2017		83	mg/L		
Alkalinity, total (as caco3)	MW-13B	05/24/2017		80	mg/L		
Alkalinity, total (as caco3)	MW-13B	08/30/2017		80	mg/L		
Alkalinity, total (as caco3)	MW-13B	11/13/2017		81	mg/L		
Alkalinity, total (as caco3)	MW-13B	02/20/2018		86	mg/L		
Alkalinity, total (as caco3)	MW-13B	05/15/2018		78	mg/L		
Alkalinity, total (as caco3)	MW-13B	08/21/2018		81	mg/L		
Alkalinity, total (as caco3)	MW-13B	11/12/2018		83	mg/L		
Alkalinity, total (as caco3)	MW-13B	11/11/2019		83	mg/L		
Alkalinity, total (as caco3)	MW-13B	11/19/2020		84	mg/L		
Alkalinity, total (as caco3)	MW-13B	11/16/2021		95	mg/L		
Alkalinity, total (as caco3)	MW-13B	11/17/2022		89	mg/L		
Alkalinity, total (as caco3)	MW-16	03/24/2009		66	mg/L		
Alkalinity, total (as caco3)	MW-16	06/16/2009		59	mg/L		
Alkalinity, total (as caco3)	MW-16	09/09/2009		66	mg/L		
Alkalinity, total (as caco3)	MW-16	12/03/2009		77	mg/L		
Alkalinity, total (as caco3)	MW-16	03/25/2010		46	mg/L		
Alkalinity, total (as caco3)	MW-16	06/24/2010		71	mg/L		
Alkalinity, total (as caco3)	MW-16	09/24/2010		74	mg/L		
Alkalinity, total (as caco3)	MW-16	12/09/2010		72	mg/L		
Alkalinity, total (as caco3)	MW-16	03/30/2011		53	mg/L		
Alkalinity, total (as caco3)	MW-16	06/07/2011		59	mg/L		
Alkalinity, total (as caco3)	MW-16	09/27/2011		66	mg/L		
Alkalinity, total (as caco3)	MW-16	12/13/2011		60	mg/L		
Alkalinity, total (as caco3)	MW-16	03/21/2012		50	mg/L		
Alkalinity, total (as caco3)	MW-16	06/08/2012		49	mg/L		
Alkalinity, total (as caco3)	MW-16	09/27/2012		57	mg/L		
Alkalinity, total (as caco3)	MW-16	12/04/2012		64	mg/L		
Alkalinity, total (as caco3)	MW-16	03/12/2013		51	mg/L		
Alkalinity, total (as caco3)	MW-16	06/04/2013		50	mg/L		
Alkalinity, total (as caco3)	MW-16	09/05/2013		62	mg/L		
Alkalinity, total (as caco3)	MW-16	12/16/2013		62	mg/L		
Alkalinity, total (as caco3)	MW-16	03/05/2014		57	mg/L		
Alkalinity, total (as caco3)	MW-16	06/02/2014		44	mg/L		
Alkalinity, total (as caco3)	MW-16	09/22/2014		57	mg/L		
Alkalinity, total (as caco3)	MW-16	11/18/2014		57	mg/L		
Alkalinity, total (as caco3)	MW-16	02/23/2015		52	mg/L		
Alkalinity, total (as caco3)	MW-16	05/20/2015		51	mg/L		
Alkalinity, total (as caco3)	MW-16	08/26/2015		51	mg/L		
Alkalinity, total (as caco3)	MW-16	11/11/2015		65	mg/L		
Alkalinity, total (as caco3)	MW-16	02/24/2016		40	mg/L		
Alkalinity, total (as caco3)	MW-16	05/16/2016		50	mg/L		
Alkalinity, total (as caco3)	MW-16	08/31/2016		60	mg/L		
Alkalinity, total (as caco3)	MW-16	11/14/2016		56	mg/L		
Alkalinity, total (as caco3)	MW-16	02/22/2017		45	mg/L		
Alkalinity, total (as caco3)	MW-16	05/24/2017		42	mg/L		
Alkalinity, total (as caco3)	MW-16	08/30/2017		61	mg/L		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Alkalinity, total (as caco3)	MW-16	11/13/2017		50	mg/L		
Alkalinity, total (as caco3)	MW-16	02/20/2018		46	mg/L		
Alkalinity, total (as caco3)	MW-16	05/17/2018		43	mg/L		
Alkalinity, total (as caco3)	MW-16	08/22/2018		51	mg/L		
Alkalinity, total (as caco3)	MW-16	11/12/2018		53	mg/L		
Alkalinity, total (as caco3)	MW-16	11/12/2019		68	mg/L		
Alkalinity, total (as caco3)	MW-16	11/20/2020		85	mg/L		
Alkalinity, total (as caco3)	MW-16	11/16/2021		85	mg/L		
Alkalinity, total (as caco3)	MW-16	11/17/2022		67	mg/L		
Alkalinity, total (as caco3)	MW-35	03/22/2005		68.2	mg/L		
Alkalinity, total (as caco3)	MW-35	06/14/2005		59	mg/L		
Alkalinity, total (as caco3)	MW-35	09/27/2005		69.2	mg/L		
Alkalinity, total (as caco3)	MW-35	12/15/2005		67.3	mg/L		
Alkalinity, total (as caco3)	MW-35	03/28/2006		73	mg/L		
Alkalinity, total (as caco3)	MW-35	06/21/2006		71	mg/L		
Alkalinity, total (as caco3)	MW-35	09/26/2006		72	mg/L		
Alkalinity, total (as caco3)	MW-35	12/12/2006		73	mg/L		
Alkalinity, total (as caco3)	MW-35	03/27/2007		73	mg/L		
Alkalinity, total (as caco3)	MW-35	06/20/2007		70	mg/L		
Alkalinity, total (as caco3)	MW-35	09/18/2007		69	mg/L		
Alkalinity, total (as caco3)	MW-35	12/20/2007		72	mg/L		
Alkalinity, total (as caco3)	MW-35	03/25/2008		77	mg/L		
Alkalinity, total (as caco3)	MW-35	06/18/2008		72	mg/L		
Alkalinity, total (as caco3)	MW-35	09/18/2008		72	mg/L		
Alkalinity, total (as caco3)	MW-35	12/19/2008		68	mg/L		
Alkalinity, total (as caco3)	MW-35	03/24/2009		72	mg/L		
Alkalinity, total (as caco3)	MW-35	06/16/2009		73	mg/L		
Alkalinity, total (as caco3)	MW-35	09/10/2009		74	mg/L		
Alkalinity, total (as caco3)	MW-35	12/03/2009		74	mg/L		
Alkalinity, total (as caco3)	MW-35	03/25/2010		76	mg/L		
Alkalinity, total (as caco3)	MW-35	06/23/2010		75	mg/L		
Alkalinity, total (as caco3)	MW-35	09/23/2010		75	mg/L		
Alkalinity, total (as caco3)	MW-35	12/09/2010		74	mg/L		
Alkalinity, total (as caco3)	MW-35	03/30/2011		77	mg/L		
Alkalinity, total (as caco3)	MW-35	06/06/2011		76	mg/L		
Alkalinity, total (as caco3)	MW-35	09/26/2011		78	mg/L		
Alkalinity, total (as caco3)	MW-35	12/13/2011		77	mg/L		
Alkalinity, total (as caco3)	MW-35	03/21/2012		77	mg/L		
Alkalinity, total (as caco3)	MW-35	06/06/2012		77	mg/L		
Alkalinity, total (as caco3)	MW-35	09/26/2012		78	mg/L		
Alkalinity, total (as caco3)	MW-35	12/04/2012		76	mg/L		
Alkalinity, total (as caco3)	MW-35	03/13/2013		73	mg/L		
Alkalinity, total (as caco3)	MW-35	06/06/2013		73	mg/L		
Alkalinity, total (as caco3)	MW-35	09/05/2013		77	mg/L		
Alkalinity, total (as caco3)	MW-35	12/16/2013		78	mg/L		
Alkalinity, total (as caco3)	MW-35	03/04/2014		78	mg/L		
Alkalinity, total (as caco3)	MW-35	06/02/2014		76	mg/L		
Alkalinity, total (as caco3)	MW-35	09/22/2014		75	mg/L		
Alkalinity, total (as caco3)	MW-35	11/17/2014		74	mg/L		
Alkalinity, total (as caco3)	MW-35	02/25/2015		77	mg/L		
Alkalinity, total (as caco3)	MW-35	05/19/2015		75	mg/L		
Alkalinity, total (as caco3)	MW-35	08/26/2015		71	mg/L		
Alkalinity, total (as caco3)	MW-35	11/10/2015		75	mg/L		
Alkalinity, total (as caco3)	MW-35	02/22/2016		72	mg/L		
Alkalinity, total (as caco3)	MW-35	05/16/2016		82	mg/L		
Alkalinity, total (as caco3)	MW-35	08/31/2016		77	mg/L		
Alkalinity, total (as caco3)	MW-35	11/15/2016		91	mg/L		
Alkalinity, total (as caco3)	MW-35	02/22/2017		79	mg/L		
Alkalinity, total (as caco3)	MW-35	05/24/2017		76	mg/L		
Alkalinity, total (as caco3)	MW-35	08/30/2017		74	mg/L		
Alkalinity, total (as caco3)	MW-35	11/15/2017		77	mg/L		
Alkalinity, total (as caco3)	MW-35	02/20/2018		82	mg/L		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Alkalinity, total (as caco3)	MW-35	05/17/2018		80	mg/L		
Alkalinity, total (as caco3)	MW-35	08/22/2018		48	mg/L		
Alkalinity, total (as caco3)	MW-35	11/12/2018		80	mg/L		
Alkalinity, total (as caco3)	MW-35	11/12/2019		82	mg/L		
Alkalinity, total (as caco3)	MW-35	11/19/2020		85	mg/L		
Alkalinity, total (as caco3)	MW-35	11/16/2021		92	mg/L		
Alkalinity, total (as caco3)	MW-35	11/17/2022		84	mg/L		
Ammonia (as n)	MW-13A	03/22/2005		0.02	mg/L		
Ammonia (as n)	MW-13A	06/15/2005		0.13	mg/L		
Ammonia (as n)	MW-13A	09/27/2005		0.021	mg/L		
Ammonia (as n)	MW-13A	12/15/2005	ND	0.02	mg/L	0.03	**
Ammonia (as n)	MW-13A	03/28/2006		0.049	mg/L		
Ammonia (as n)	MW-13A	06/21/2006		0.068	mg/L		
Ammonia (as n)	MW-13A	09/26/2006		0.036	mg/L		
Ammonia (as n)	MW-13A	12/13/2006	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	03/27/2007	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	06/19/2007	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	09/19/2007	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	12/19/2007		0.042	mg/L		
Ammonia (as n)	MW-13A	03/25/2008		0.05	mg/L		
Ammonia (as n)	MW-13A	06/18/2008	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	09/17/2008	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	12/17/2008		0.063	mg/L		
Ammonia (as n)	MW-13A	03/24/2009		0.083	mg/L		
Ammonia (as n)	MW-13A	06/17/2009		0.093	mg/L		
Ammonia (as n)	MW-13A	09/10/2009	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	12/03/2009		0.059	mg/L		
Ammonia (as n)	MW-13A	03/25/2010		0.046	mg/L		
Ammonia (as n)	MW-13A	06/23/2010	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	09/23/2010		0.049	mg/L		
Ammonia (as n)	MW-13A	12/08/2010		0.061	mg/L		
Ammonia (as n)	MW-13A	03/30/2011		0.064	mg/L		
Ammonia (as n)	MW-13A	06/06/2011	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	09/27/2011		0.075	mg/L		
Ammonia (as n)	MW-13A	12/14/2011		0.086	mg/L		
Ammonia (as n)	MW-13A	03/21/2012		0.039	mg/L		
Ammonia (as n)	MW-13A	06/08/2012		0.28	mg/L		
Ammonia (as n)	MW-13A	09/26/2012		0.087	mg/L		
Ammonia (as n)	MW-13A	12/03/2012		0.12	mg/L		
Ammonia (as n)	MW-13A	03/11/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	06/05/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	12/03/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	03/04/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	06/02/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	09/22/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	11/17/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	02/23/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	05/19/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	08/26/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	11/10/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	02/22/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	05/16/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	08/31/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	11/14/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	02/22/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	05/24/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	08/30/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	11/13/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	02/20/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	05/15/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	08/21/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	11/12/2018	ND	0.03	mg/L		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Ammonia (as n)	MW-13A	11/11/2019	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	11/19/2020	ND	0.03	mg/L		
Ammonia (as n)	MW-13A	11/16/2021		0.052	mg/L		
Ammonia (as n)	MW-13A	11/17/2022	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	03/22/2005	ND	0.02	mg/L	0.03	**
Ammonia (as n)	MW-13B	06/15/2005		0.12	mg/L		
Ammonia (as n)	MW-13B	09/27/2005		0.17	mg/L		
Ammonia (as n)	MW-13B	12/15/2005	ND	0.02	mg/L	0.03	**
Ammonia (as n)	MW-13B	03/29/2006		0.036	mg/L		
Ammonia (as n)	MW-13B	06/21/2006	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	09/26/2006		0.03	mg/L		
Ammonia (as n)	MW-13B	12/13/2006	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	03/27/2007	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	06/19/2007		0.03	mg/L		
Ammonia (as n)	MW-13B	12/19/2007		0.11	mg/L		
Ammonia (as n)	MW-13B	03/25/2008		0.06	mg/L		
Ammonia (as n)	MW-13B	06/18/2008	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	09/17/2008	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	12/16/2008		0.056	mg/L		
Ammonia (as n)	MW-13B	03/24/2009		0.063	mg/L		
Ammonia (as n)	MW-13B	06/17/2009		0.087	mg/L		
Ammonia (as n)	MW-13B	09/10/2009		0.045	mg/L		
Ammonia (as n)	MW-13B	12/03/2009	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	03/25/2010		0.044	mg/L		
Ammonia (as n)	MW-13B	06/23/2010	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	09/23/2010		0.045	mg/L		
Ammonia (as n)	MW-13B	12/08/2010		0.052	mg/L		
Ammonia (as n)	MW-13B	03/30/2011		0.062	mg/L		
Ammonia (as n)	MW-13B	06/06/2011	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	09/27/2011		0.032	mg/L		
Ammonia (as n)	MW-13B	12/14/2011		0.03	mg/L		
Ammonia (as n)	MW-13B	03/21/2012	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	06/08/2012		0.2	mg/L		
Ammonia (as n)	MW-13B	09/26/2012		0.076	mg/L		
Ammonia (as n)	MW-13B	12/03/2012	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	03/11/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	06/05/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	12/03/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	03/04/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	06/02/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	09/22/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/17/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	02/23/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	05/19/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	08/26/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/10/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	02/22/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	05/16/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	08/31/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/14/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	02/22/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	05/24/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	08/30/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/13/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	02/20/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	05/15/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	08/21/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/12/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/11/2019	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/19/2020	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/16/2021	ND	0.03	mg/L		
Ammonia (as n)	MW-13B	11/17/2022	ND	0.03	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Ammonia (as n)	MW-16	03/24/2009		0.062	mg/L		
Ammonia (as n)	MW-16	06/16/2009		0.093	mg/L		
Ammonia (as n)	MW-16	09/09/2009		0.036	mg/L		
Ammonia (as n)	MW-16	12/03/2009		0.058	mg/L		
Ammonia (as n)	MW-16	03/25/2010		0.046	mg/L		
Ammonia (as n)	MW-16	06/24/2010	ND	0.03	mg/L		
Ammonia (as n)	MW-16	09/24/2010	ND	0.03	mg/L		
Ammonia (as n)	MW-16	12/09/2010		0.059	mg/L		
Ammonia (as n)	MW-16	03/30/2011		0.06	mg/L		
Ammonia (as n)	MW-16	06/07/2011		0.048	mg/L		
Ammonia (as n)	MW-16	09/27/2011	ND	0.03	mg/L		
Ammonia (as n)	MW-16	12/13/2011	ND	0.03	mg/L		
Ammonia (as n)	MW-16	03/21/2012		0.042	mg/L		
Ammonia (as n)	MW-16	06/08/2012		0.34	mg/L		*
Ammonia (as n)	MW-16	09/27/2012		0.3	mg/L		*
Ammonia (as n)	MW-16	12/04/2012	ND	0.03	mg/L		
Ammonia (as n)	MW-16	03/12/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-16	06/04/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-16	09/05/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-16	12/16/2013		0.096	mg/L		
Ammonia (as n)	MW-16	03/05/2014		0.051	mg/L		
Ammonia (as n)	MW-16	06/02/2014		0.058	mg/L		
Ammonia (as n)	MW-16	09/22/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-16	11/18/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-16	02/23/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-16	05/20/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-16	08/26/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-16	11/11/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-16	02/24/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-16	05/16/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-16	08/31/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-16	11/14/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-16	02/22/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-16	05/24/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-16	08/30/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-16	11/13/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-16	02/20/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-16	05/17/2018		0.031	mg/L		
Ammonia (as n)	MW-16	08/22/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-16	11/12/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-16	11/12/2019	ND	0.03	mg/L		
Ammonia (as n)	MW-16	11/20/2020	ND	0.03	mg/L		
Ammonia (as n)	MW-16	11/16/2021	ND	0.03	mg/L		
Ammonia (as n)	MW-16	11/17/2022	ND	0.03	mg/L		
Ammonia (as n)	MW-35	03/22/2005	ND	0.02	mg/L	0.03	**
Ammonia (as n)	MW-35	06/14/2005		0.12	mg/L		
Ammonia (as n)	MW-35	09/27/2005		0.15	mg/L		
Ammonia (as n)	MW-35	12/15/2005	ND	0.02	mg/L	0.03	**
Ammonia (as n)	MW-35	03/28/2006	ND	0.03	mg/L		
Ammonia (as n)	MW-35	06/21/2006	ND	0.03	mg/L		
Ammonia (as n)	MW-35	09/26/2006		0.033	mg/L		
Ammonia (as n)	MW-35	12/12/2006	ND	0.03	mg/L		
Ammonia (as n)	MW-35	03/27/2007	ND	0.03	mg/L		
Ammonia (as n)	MW-35	06/20/2007		0.042	mg/L		
Ammonia (as n)	MW-35	12/20/2007		0.06	mg/L		
Ammonia (as n)	MW-35	03/25/2008		0.059	mg/L		
Ammonia (as n)	MW-35	06/18/2008	ND	0.03	mg/L		
Ammonia (as n)	MW-35	09/18/2008	ND	0.03	mg/L		
Ammonia (as n)	MW-35	12/19/2008		0.081	mg/L		
Ammonia (as n)	MW-35	03/24/2009		0.06	mg/L		
Ammonia (as n)	MW-35	06/16/2009		0.066	mg/L		
Ammonia (as n)	MW-35	09/10/2009	ND	0.03	mg/L		

* = outlier for that well/constituent

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Ammonia (as n)	MW-35	12/03/2009		0.076	mg/L		
Ammonia (as n)	MW-35	03/25/2010		0.041	mg/L		
Ammonia (as n)	MW-35	06/23/2010	ND	0.03	mg/L		
Ammonia (as n)	MW-35	09/23/2010		0.053	mg/L		
Ammonia (as n)	MW-35	12/09/2010		0.055	mg/L		
Ammonia (as n)	MW-35	03/30/2011		0.063	mg/L		
Ammonia (as n)	MW-35	06/06/2011		0.18	mg/L		
Ammonia (as n)	MW-35	09/26/2011		0.065	mg/L		
Ammonia (as n)	MW-35	12/13/2011	ND	0.03	mg/L		
Ammonia (as n)	MW-35	03/21/2012		0.03	mg/L		
Ammonia (as n)	MW-35	06/06/2012		0.6	mg/L		*
Ammonia (as n)	MW-35	09/26/2012		0.069	mg/L		
Ammonia (as n)	MW-35	12/04/2012	ND	0.03	mg/L		
Ammonia (as n)	MW-35	03/13/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-35	06/06/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-35	09/05/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-35	12/16/2013	ND	0.03	mg/L		
Ammonia (as n)	MW-35	03/04/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-35	06/02/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-35	09/22/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/17/2014	ND	0.03	mg/L		
Ammonia (as n)	MW-35	02/25/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-35	05/19/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-35	08/26/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/10/2015	ND	0.03	mg/L		
Ammonia (as n)	MW-35	02/22/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-35	05/16/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-35	08/31/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/15/2016	ND	0.03	mg/L		
Ammonia (as n)	MW-35	02/22/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-35	05/24/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-35	08/30/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/15/2017	ND	0.03	mg/L		
Ammonia (as n)	MW-35	02/20/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-35	05/17/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-35	08/22/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/12/2018	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/12/2019	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/19/2020	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/16/2021	ND	0.03	mg/L		
Ammonia (as n)	MW-35	11/17/2022	ND	0.03	mg/L		
Antimony, total	MW-13A	12/03/2013	ND	0.001	mg/L		
Antimony, total	MW-13A	03/04/2014	ND	0.001	mg/L		
Antimony, total	MW-13A	06/02/2014	ND	0.001	mg/L		
Antimony, total	MW-13A	09/22/2014	ND	0.001	mg/L		
Antimony, total	MW-13A	11/17/2014	ND	0.001	mg/L		
Antimony, total	MW-13A	02/23/2015	ND	0.001	mg/L		
Antimony, total	MW-13A	05/19/2015	ND	0.001	mg/L		
Antimony, total	MW-13A	08/26/2015	ND	0.001	mg/L		
Antimony, total	MW-13A	11/10/2015	ND	0.001	mg/L		
Antimony, total	MW-13A	02/22/2016	ND	0.001	mg/L		
Antimony, total	MW-13A	05/16/2016	ND	0.001	mg/L		
Antimony, total	MW-13A	08/31/2016		0.001	mg/L		
Antimony, total	MW-13A	11/14/2016	ND	0.001	mg/L		
Antimony, total	MW-13A	02/22/2017	ND	0.001	mg/L		
Antimony, total	MW-13A	05/24/2017	ND	0.001	mg/L		
Antimony, total	MW-13A	08/30/2017	ND	0.001	mg/L		
Antimony, total	MW-13A	11/13/2017	ND	0.001	mg/L		
Antimony, total	MW-13A	02/20/2018	ND	0.001	mg/L		
Antimony, total	MW-13A	05/15/2018	ND	0.001	mg/L		
Antimony, total	MW-13A	08/21/2018	ND	0.001	mg/L		
Antimony, total	MW-13A	11/12/2018	ND	0.001	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Antimony, total	MW-13A	11/11/2019	ND	0.001	mg/L		
Antimony, total	MW-13A	11/19/2020	ND	0.001	mg/L		
Antimony, total	MW-13A	11/16/2021	ND	0.001	mg/L		
Antimony, total	MW-13A	11/17/2022	ND	0.001	mg/L		
Antimony, total	MW-13B	12/03/2013	ND	0.001	mg/L		
Antimony, total	MW-13B	03/04/2014	ND	0.001	mg/L		
Antimony, total	MW-13B	06/02/2014	ND	0.001	mg/L		
Antimony, total	MW-13B	09/22/2014	ND	0.001	mg/L		
Antimony, total	MW-13B	11/17/2014	ND	0.001	mg/L		
Antimony, total	MW-13B	02/23/2015	ND	0.001	mg/L		
Antimony, total	MW-13B	05/19/2015	ND	0.001	mg/L		
Antimony, total	MW-13B	08/26/2015	ND	0.001	mg/L		
Antimony, total	MW-13B	11/10/2015	ND	0.001	mg/L		
Antimony, total	MW-13B	02/22/2016	ND	0.001	mg/L		
Antimony, total	MW-13B	05/16/2016	ND	0.001	mg/L		
Antimony, total	MW-13B	08/31/2016	ND	0.001	mg/L		
Antimony, total	MW-13B	11/14/2016	ND	0.001	mg/L		
Antimony, total	MW-13B	02/22/2017	ND	0.001	mg/L		
Antimony, total	MW-13B	05/24/2017	ND	0.001	mg/L		
Antimony, total	MW-13B	08/30/2017	ND	0.001	mg/L		
Antimony, total	MW-13B	11/13/2017	ND	0.001	mg/L		
Antimony, total	MW-13B	02/20/2018	ND	0.001	mg/L		
Antimony, total	MW-13B	05/15/2018	ND	0.001	mg/L		
Antimony, total	MW-13B	08/21/2018	ND	0.001	mg/L		
Antimony, total	MW-13B	11/12/2018	ND	0.001	mg/L		
Antimony, total	MW-13B	11/11/2019	ND	0.001	mg/L		
Antimony, total	MW-13B	11/19/2020	ND	0.001	mg/L		
Antimony, total	MW-13B	11/16/2021	ND	0.001	mg/L		
Antimony, total	MW-13B	11/17/2022	ND	0.001	mg/L		
Antimony, total	MW-16	09/05/2013	ND	0.001	mg/L		
Antimony, total	MW-16	12/16/2013	ND	0.001	mg/L		
Antimony, total	MW-16	03/05/2014	ND	0.001	mg/L		
Antimony, total	MW-16	06/02/2014	ND	0.001	mg/L		
Antimony, total	MW-16	09/22/2014	ND	0.001	mg/L		
Antimony, total	MW-16	11/18/2014	ND	0.001	mg/L		
Antimony, total	MW-16	02/23/2015		0.0011	mg/L		
Antimony, total	MW-16	05/20/2015	ND	0.001	mg/L		
Antimony, total	MW-16	08/26/2015	ND	0.001	mg/L		
Antimony, total	MW-16	11/11/2015		0.0013	mg/L		
Antimony, total	MW-16	02/24/2016	ND	0.001	mg/L		
Antimony, total	MW-16	05/16/2016	ND	0.001	mg/L		
Antimony, total	MW-16	08/31/2016	ND	0.001	mg/L		
Antimony, total	MW-16	11/14/2016	ND	0.001	mg/L		
Antimony, total	MW-16	02/22/2017	ND	0.001	mg/L		
Antimony, total	MW-16	05/24/2017	ND	0.001	mg/L		
Antimony, total	MW-16	08/30/2017	ND	0.001	mg/L		
Antimony, total	MW-16	11/13/2017	ND	0.001	mg/L		
Antimony, total	MW-16	02/20/2018	ND	0.001	mg/L		
Antimony, total	MW-16	05/17/2018	ND	0.001	mg/L		
Antimony, total	MW-16	08/22/2018	ND	0.001	mg/L		
Antimony, total	MW-16	11/12/2018	ND	0.001	mg/L		
Antimony, total	MW-16	11/12/2019	ND	0.001	mg/L		
Antimony, total	MW-16	11/20/2020	ND	0.001	mg/L		
Antimony, total	MW-16	11/16/2021	ND	0.001	mg/L		
Antimony, total	MW-16	11/17/2022	ND	0.001	mg/L		
Antimony, total	MW-35	09/05/2013	ND	0.001	mg/L		
Antimony, total	MW-35	12/16/2013	ND	0.001	mg/L		
Antimony, total	MW-35	03/04/2014	ND	0.001	mg/L		
Antimony, total	MW-35	06/02/2014	ND	0.001	mg/L		
Antimony, total	MW-35	09/22/2014	ND	0.001	mg/L		
Antimony, total	MW-35	11/17/2014	ND	0.001	mg/L		
Antimony, total	MW-35	02/25/2015	ND	0.001	mg/L		

* = outlier for that well/constituent
** = ND value replaced with median reporting limit
ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Antimony, total	MW-35	05/19/2015	ND	0.001	mg/L		
Antimony, total	MW-35	08/26/2015	ND	0.001	mg/L		
Antimony, total	MW-35	11/10/2015	ND	0.001	mg/L		
Antimony, total	MW-35	02/22/2016	ND	0.001	mg/L		
Antimony, total	MW-35	05/16/2016	ND	0.001	mg/L		
Antimony, total	MW-35	08/31/2016	ND	0.001	mg/L		
Antimony, total	MW-35	11/15/2016	ND	0.001	mg/L		
Antimony, total	MW-35	02/22/2017	ND	0.001	mg/L		
Antimony, total	MW-35	05/24/2017	ND	0.001	mg/L		
Antimony, total	MW-35	08/30/2017	ND	0.001	mg/L		
Antimony, total	MW-35	11/15/2017	ND	0.001	mg/L		
Antimony, total	MW-35	02/20/2018	ND	0.001	mg/L		
Antimony, total	MW-35	05/17/2018	ND	0.001	mg/L		
Antimony, total	MW-35	08/22/2018	ND	0.001	mg/L		
Antimony, total	MW-35	11/12/2018	ND	0.001	mg/L		
Antimony, total	MW-35	11/12/2019	ND	0.001	mg/L		
Antimony, total	MW-35	11/19/2020	ND	0.001	mg/L		
Antimony, total	MW-35	11/16/2021	ND	0.001	mg/L		
Antimony, total	MW-35	11/17/2022	ND	0.001	mg/L		
Arsenic, total	MW-13A	03/22/2005	ND	5	ug/L		*
Arsenic, total	MW-13A	06/15/2005		0.22	ug/L		
Arsenic, total	MW-13A	09/27/2005		0.23	ug/L		
Arsenic, total	MW-13A	12/15/2005		0.21	ug/L		
Arsenic, total	MW-13A	12/03/2013		0.17	ug/L		
Arsenic, total	MW-13A	03/04/2014		0.18	ug/L		
Arsenic, total	MW-13A	06/02/2014		0.2	ug/L		
Arsenic, total	MW-13A	09/22/2014		0.17	ug/L		
Arsenic, total	MW-13A	11/17/2014		0.18	ug/L		
Arsenic, total	MW-13A	02/23/2015		0.21	ug/L		
Arsenic, total	MW-13A	05/19/2015		0.18	ug/L		
Arsenic, total	MW-13A	08/26/2015		0.19	ug/L		
Arsenic, total	MW-13A	11/10/2015		0.2	ug/L		
Arsenic, total	MW-13A	02/22/2016		0.2	ug/L		
Arsenic, total	MW-13A	05/16/2016		0.16	ug/L		
Arsenic, total	MW-13A	08/31/2016		0.177	ug/L		
Arsenic, total	MW-13A	11/14/2016		0.17	ug/L		
Arsenic, total	MW-13A	02/22/2017		0.201	ug/L		
Arsenic, total	MW-13A	05/24/2017		0.181	ug/L		
Arsenic, total	MW-13A	08/30/2017		0.191	ug/L		
Arsenic, total	MW-13A	11/13/2017		0.193	ug/L		
Arsenic, total	MW-13A	02/20/2018		0.199	ug/L		
Arsenic, total	MW-13A	05/15/2018		0.183	ug/L		
Arsenic, total	MW-13A	08/21/2018		0.199	ug/L		
Arsenic, total	MW-13A	11/12/2018		0.189	ug/L		
Arsenic, total	MW-13A	11/11/2019		0.205	ug/L		
Arsenic, total	MW-13A	11/19/2020		0.198	ug/L		
Arsenic, total	MW-13A	11/16/2021		0.249	ug/L		
Arsenic, total	MW-13A	11/17/2022		0.206	ug/L		
Arsenic, total	MW-13B	03/22/2005	ND	5	ug/L		*
Arsenic, total	MW-13B	06/15/2005		0.37	ug/L		
Arsenic, total	MW-13B	09/27/2005		0.39	ug/L		
Arsenic, total	MW-13B	12/15/2005		0.38	ug/L		
Arsenic, total	MW-13B	12/03/2013		0.28	ug/L		
Arsenic, total	MW-13B	03/04/2014		0.32	ug/L		
Arsenic, total	MW-13B	06/02/2014		0.33	ug/L		
Arsenic, total	MW-13B	09/22/2014		0.3	ug/L		
Arsenic, total	MW-13B	11/17/2014		0.3	ug/L		
Arsenic, total	MW-13B	02/23/2015		0.36	ug/L		
Arsenic, total	MW-13B	05/19/2015		0.31	ug/L		
Arsenic, total	MW-13B	08/26/2015		0.31	ug/L		
Arsenic, total	MW-13B	11/10/2015		0.3	ug/L		
Arsenic, total	MW-13B	02/22/2016		0.3	ug/L		

* = outlier for that well/constituent

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Arsenic, total	MW-13B	05/16/2016		0.29	ug/L		
Arsenic, total	MW-13B	08/31/2016		0.311	ug/L		
Arsenic, total	MW-13B	11/14/2016		0.314	ug/L		
Arsenic, total	MW-13B	02/22/2017		0.324	ug/L		
Arsenic, total	MW-13B	05/24/2017		0.327	ug/L		
Arsenic, total	MW-13B	08/30/2017		0.338	ug/L		
Arsenic, total	MW-13B	11/13/2017		0.311	ug/L		
Arsenic, total	MW-13B	02/20/2018		0.366	ug/L		
Arsenic, total	MW-13B	05/15/2018		0.342	ug/L		
Arsenic, total	MW-13B	08/21/2018		0.377	ug/L		
Arsenic, total	MW-13B	11/12/2018		0.337	ug/L		
Arsenic, total	MW-13B	11/11/2019		0.322	ug/L		
Arsenic, total	MW-13B	11/19/2020		0.347	ug/L		
Arsenic, total	MW-13B	11/16/2021		0.3405	ug/L		
Arsenic, total	MW-13B	11/17/2022		0.338	ug/L		
Arsenic, total	MW-16	12/23/2013		0.29	ug/L		
Arsenic, total	MW-16	03/05/2014		0.43	ug/L		
Arsenic, total	MW-16	06/02/2014		0.33	ug/L		
Arsenic, total	MW-16	09/22/2014		0.32	ug/L		
Arsenic, total	MW-16	11/18/2014		0.35	ug/L		
Arsenic, total	MW-16	02/23/2015		0.37	ug/L		
Arsenic, total	MW-16	05/20/2015		0.34	ug/L		
Arsenic, total	MW-16	08/26/2015		0.32	ug/L		
Arsenic, total	MW-16	11/11/2015		0.3	ug/L		
Arsenic, total	MW-16	02/24/2016		0.3	ug/L		
Arsenic, total	MW-16	05/16/2016		0.3	ug/L		
Arsenic, total	MW-16	08/31/2016		0.311	ug/L		
Arsenic, total	MW-16	11/14/2016		0.381	ug/L		
Arsenic, total	MW-16	02/22/2017		0.383	ug/L		
Arsenic, total	MW-16	05/24/2017		0.375	ug/L		
Arsenic, total	MW-16	08/30/2017		0.353	ug/L		
Arsenic, total	MW-16	11/13/2017		0.364	ug/L		
Arsenic, total	MW-16	02/20/2018		0.446	ug/L		
Arsenic, total	MW-16	05/17/2018		0.367	ug/L		
Arsenic, total	MW-16	08/22/2018		0.173	ug/L		
Arsenic, total	MW-16	11/12/2018		0.452	ug/L		
Arsenic, total	MW-16	11/12/2019		0.413	ug/L		
Arsenic, total	MW-16	11/20/2020		1.1	ug/L		*
Arsenic, total	MW-16	11/16/2021		0.336	ug/L		
Arsenic, total	MW-16	11/17/2022		0.369	ug/L		
Arsenic, total	MW-35	03/22/2005	ND	5	ug/L		*
Arsenic, total	MW-35	06/14/2005		0.14	ug/L		
Arsenic, total	MW-35	09/27/2005		0.15	ug/L		
Arsenic, total	MW-35	12/15/2005		0.14	ug/L		
Arsenic, total	MW-35	12/23/2013		0.12	ug/L		
Arsenic, total	MW-35	03/04/2014		0.11	ug/L		
Arsenic, total	MW-35	06/02/2014		0.12	ug/L		
Arsenic, total	MW-35	09/22/2014		0.11	ug/L		
Arsenic, total	MW-35	11/17/2014		0.12	ug/L		
Arsenic, total	MW-35	02/25/2015		0.11	ug/L		
Arsenic, total	MW-35	05/19/2015		0.11	ug/L		
Arsenic, total	MW-35	08/26/2015		0.11	ug/L		
Arsenic, total	MW-35	11/10/2015		0.1	ug/L		
Arsenic, total	MW-35	02/22/2016		0.1	ug/L		
Arsenic, total	MW-35	05/16/2016		0.1	ug/L		
Arsenic, total	MW-35	08/31/2016		0.109	ug/L		
Arsenic, total	MW-35	11/15/2016		0.114	ug/L		
Arsenic, total	MW-35	02/22/2017		0.12	ug/L		
Arsenic, total	MW-35	05/24/2017		0.134	ug/L		
Arsenic, total	MW-35	08/30/2017		0.114	ug/L		
Arsenic, total	MW-35	11/15/2017		0.107	ug/L		
Arsenic, total	MW-35	02/20/2018		0.12	ug/L		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Arsenic, total	MW-35	05/17/2018		0.111	ug/L		
Arsenic, total	MW-35	08/22/2018		0.126	ug/L		
Arsenic, total	MW-35	11/12/2018		0.112	ug/L		
Arsenic, total	MW-35	11/12/2019		0.0996	ug/L		
Arsenic, total	MW-35	11/19/2020		0.115	ug/L		
Arsenic, total	MW-35	11/16/2021		0.121	ug/L		
Arsenic, total	MW-35	11/17/2022		0.114	ug/L		
Barium, total	MW-13A	12/03/2013		0.003	mg/L		
Barium, total	MW-13A	03/04/2014		0.0029	mg/L		
Barium, total	MW-13A	06/02/2014		0.0029	mg/L		
Barium, total	MW-13A	09/22/2014		0.0027	mg/L		
Barium, total	MW-13A	11/17/2014		0.0026	mg/L		
Barium, total	MW-13A	02/23/2015		0.0024	mg/L		
Barium, total	MW-13A	05/19/2015		0.0023	mg/L		
Barium, total	MW-13A	08/26/2015		0.0033	mg/L		
Barium, total	MW-13A	11/10/2015		0.003	mg/L		
Barium, total	MW-13A	02/22/2016		0.0023	mg/L		
Barium, total	MW-13A	05/16/2016		0.003	mg/L		
Barium, total	MW-13A	08/31/2016		0.0029	mg/L		
Barium, total	MW-13A	11/14/2016		0.0028	mg/L		
Barium, total	MW-13A	02/22/2017		0.0028	mg/L		
Barium, total	MW-13A	05/24/2017		0.0025	mg/L		
Barium, total	MW-13A	08/30/2017		0.0025	mg/L		
Barium, total	MW-13A	11/13/2017		0.003	mg/L		
Barium, total	MW-13A	02/20/2018		0.0025	mg/L		
Barium, total	MW-13A	05/15/2018		0.0027	mg/L		
Barium, total	MW-13A	08/21/2018		0.0027	mg/L		
Barium, total	MW-13A	11/12/2018		0.0028	mg/L		
Barium, total	MW-13A	11/11/2019		0.0027	mg/L		
Barium, total	MW-13A	11/19/2020		0.0025	mg/L		
Barium, total	MW-13A	11/16/2021		0.0025	mg/L		
Barium, total	MW-13A	11/17/2022		0.0026	mg/L		
Barium, total	MW-13B	12/03/2013		0.0035	mg/L		
Barium, total	MW-13B	03/04/2014		0.0032	mg/L		
Barium, total	MW-13B	06/02/2014		0.0031	mg/L		
Barium, total	MW-13B	09/22/2014		0.0033	mg/L		
Barium, total	MW-13B	11/17/2014		0.0037	mg/L		
Barium, total	MW-13B	02/23/2015		0.0034	mg/L		
Barium, total	MW-13B	05/19/2015		0.0033	mg/L		
Barium, total	MW-13B	08/26/2015		0.0039	mg/L		
Barium, total	MW-13B	11/10/2015		0.0036	mg/L		
Barium, total	MW-13B	02/22/2016		0.0036	mg/L		
Barium, total	MW-13B	05/16/2016		0.0034	mg/L		
Barium, total	MW-13B	08/31/2016		0.0041	mg/L		
Barium, total	MW-13B	11/14/2016		0.0029	mg/L		
Barium, total	MW-13B	02/22/2017		0.0034	mg/L		
Barium, total	MW-13B	05/24/2017		0.0033	mg/L		
Barium, total	MW-13B	08/30/2017		0.0033	mg/L		
Barium, total	MW-13B	11/13/2017		0.0035	mg/L		
Barium, total	MW-13B	02/20/2018		0.0035	mg/L		
Barium, total	MW-13B	05/15/2018		0.0033	mg/L		
Barium, total	MW-13B	08/21/2018		0.0031	mg/L		
Barium, total	MW-13B	11/12/2018		0.0034	mg/L		
Barium, total	MW-13B	11/11/2019		0.0034	mg/L		
Barium, total	MW-13B	11/19/2020		0.0032	mg/L		
Barium, total	MW-13B	11/16/2021		0.0031	mg/L		
Barium, total	MW-13B	11/17/2022		0.0038	mg/L		
Barium, total	MW-16	09/05/2013		0.0041	mg/L		
Barium, total	MW-16	12/16/2013		0.0043	mg/L		
Barium, total	MW-16	03/05/2014		0.0036	mg/L		
Barium, total	MW-16	06/02/2014		0.0025	mg/L		
Barium, total	MW-16	09/22/2014		0.0033	mg/L		

* = outlier for that well/constituent
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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Barium, total	MW-16	11/18/2014		0.0039	mg/L		
Barium, total	MW-16	02/23/2015		0.0036	mg/L		
Barium, total	MW-16	05/20/2015		0.0034	mg/L		
Barium, total	MW-16	08/26/2015		0.0038	mg/L		
Barium, total	MW-16	11/11/2015		0.0043	mg/L		
Barium, total	MW-16	02/24/2016		0.0027	mg/L		
Barium, total	MW-16	05/16/2016		0.0031	mg/L		
Barium, total	MW-16	08/31/2016		0.0042	mg/L		
Barium, total	MW-16	11/14/2016		0.0045	mg/L		
Barium, total	MW-16	02/22/2017		0.0027	mg/L		
Barium, total	MW-16	05/24/2017		0.0026	mg/L		
Barium, total	MW-16	08/30/2017		0.0031	mg/L		
Barium, total	MW-16	11/13/2017		0.0035	mg/L		
Barium, total	MW-16	02/20/2018		0.0027	mg/L		
Barium, total	MW-16	05/17/2018		0.0032	mg/L		
Barium, total	MW-16	08/22/2018		0.0033	mg/L		
Barium, total	MW-16	11/12/2018		0.0038	mg/L		
Barium, total	MW-16	11/12/2019		0.0043	mg/L		
Barium, total	MW-16	11/20/2020		0.0055	mg/L		
Barium, total	MW-16	11/16/2021		0.0044	mg/L		
Barium, total	MW-16	11/17/2022		0.0038	mg/L		
Barium, total	MW-35	09/05/2013		0.0034	mg/L		
Barium, total	MW-35	12/16/2013		0.0031	mg/L		
Barium, total	MW-35	03/04/2014		0.003	mg/L		
Barium, total	MW-35	06/02/2014		0.0034	mg/L		
Barium, total	MW-35	09/22/2014		0.0034	mg/L		
Barium, total	MW-35	11/17/2014		0.0034	mg/L		
Barium, total	MW-35	02/25/2015		0.003	mg/L		
Barium, total	MW-35	05/19/2015		0.0031	mg/L		
Barium, total	MW-35	08/26/2015		0.0029	mg/L		
Barium, total	MW-35	11/10/2015		0.003	mg/L		
Barium, total	MW-35	02/22/2016		0.0031	mg/L		
Barium, total	MW-35	05/16/2016		0.0033	mg/L		
Barium, total	MW-35	08/31/2016		0.0029	mg/L		
Barium, total	MW-35	11/15/2016		0.0027	mg/L		
Barium, total	MW-35	02/22/2017		0.0031	mg/L		
Barium, total	MW-35	05/24/2017		0.0027	mg/L		
Barium, total	MW-35	08/30/2017		0.0028	mg/L		
Barium, total	MW-35	11/15/2017		0.0028	mg/L		
Barium, total	MW-35	02/20/2018		0.0026	mg/L		
Barium, total	MW-35	05/17/2018		0.0032	mg/L		
Barium, total	MW-35	08/22/2018		0.0033	mg/L		
Barium, total	MW-35	11/12/2018		0.0032	mg/L		
Barium, total	MW-35	11/12/2019		0.0033	mg/L		
Barium, total	MW-35	11/19/2020		0.0029	mg/L		
Barium, total	MW-35	11/16/2021		0.0031	mg/L		
Barium, total	MW-35	11/17/2022		0.0038	mg/L		
Beryllium, total	MW-13A	12/03/2013	ND	0.001	mg/L		
Beryllium, total	MW-13A	03/04/2014	ND	0.001	mg/L		
Beryllium, total	MW-13A	06/02/2014	ND	0.001	mg/L		
Beryllium, total	MW-13A	09/22/2014	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/17/2014	ND	0.001	mg/L		
Beryllium, total	MW-13A	02/23/2015	ND	0.001	mg/L		
Beryllium, total	MW-13A	05/19/2015	ND	0.001	mg/L		
Beryllium, total	MW-13A	08/26/2015	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/10/2015	ND	0.001	mg/L		
Beryllium, total	MW-13A	02/22/2016	ND	0.001	mg/L		
Beryllium, total	MW-13A	05/16/2016	ND	0.001	mg/L		
Beryllium, total	MW-13A	08/31/2016	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/14/2016	ND	0.001	mg/L		
Beryllium, total	MW-13A	02/22/2017	ND	0.001	mg/L		
Beryllium, total	MW-13A	05/24/2017	ND	0.001	mg/L		

* = outlier for that well/constituent

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Beryllium, total	MW-13A	08/30/2017	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/13/2017	ND	0.001	mg/L		
Beryllium, total	MW-13A	02/20/2018	ND	0.001	mg/L		
Beryllium, total	MW-13A	05/15/2018	ND	0.001	mg/L		
Beryllium, total	MW-13A	08/21/2018	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/12/2018	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/11/2019	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/19/2020	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/16/2021	ND	0.001	mg/L		
Beryllium, total	MW-13A	11/17/2022	ND	0.001	mg/L		
Beryllium, total	MW-13B	12/03/2013	ND	0.001	mg/L		
Beryllium, total	MW-13B	03/04/2014	ND	0.001	mg/L		
Beryllium, total	MW-13B	06/02/2014	ND	0.001	mg/L		
Beryllium, total	MW-13B	09/22/2014	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/17/2014	ND	0.001	mg/L		
Beryllium, total	MW-13B	02/23/2015	ND	0.001	mg/L		
Beryllium, total	MW-13B	05/19/2015	ND	0.001	mg/L		
Beryllium, total	MW-13B	08/26/2015	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/10/2015	ND	0.001	mg/L		
Beryllium, total	MW-13B	02/22/2016	ND	0.001	mg/L		
Beryllium, total	MW-13B	05/16/2016	ND	0.001	mg/L		
Beryllium, total	MW-13B	08/31/2016	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/14/2016	ND	0.001	mg/L		
Beryllium, total	MW-13B	02/22/2017	ND	0.001	mg/L		
Beryllium, total	MW-13B	05/24/2017	ND	0.001	mg/L		
Beryllium, total	MW-13B	08/30/2017	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/13/2017	ND	0.001	mg/L		
Beryllium, total	MW-13B	02/20/2018	ND	0.001	mg/L		
Beryllium, total	MW-13B	05/15/2018	ND	0.001	mg/L		
Beryllium, total	MW-13B	08/21/2018	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/12/2018	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/11/2019	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/19/2020	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/16/2021	ND	0.001	mg/L		
Beryllium, total	MW-13B	11/17/2022	ND	0.001	mg/L		
Beryllium, total	MW-16	09/05/2013	ND	0.001	mg/L		
Beryllium, total	MW-16	12/16/2013	ND	0.001	mg/L		
Beryllium, total	MW-16	03/05/2014	ND	0.001	mg/L		
Beryllium, total	MW-16	06/02/2014	ND	0.001	mg/L		
Beryllium, total	MW-16	09/22/2014	ND	0.001	mg/L		
Beryllium, total	MW-16	11/18/2014	ND	0.001	mg/L		
Beryllium, total	MW-16	02/23/2015	ND	0.001	mg/L		
Beryllium, total	MW-16	05/20/2015	ND	0.001	mg/L		
Beryllium, total	MW-16	08/26/2015	ND	0.001	mg/L		
Beryllium, total	MW-16	11/11/2015	ND	0.001	mg/L		
Beryllium, total	MW-16	02/24/2016	ND	0.001	mg/L		
Beryllium, total	MW-16	05/16/2016	ND	0.001	mg/L		
Beryllium, total	MW-16	08/31/2016	ND	0.001	mg/L		
Beryllium, total	MW-16	11/14/2016	ND	0.001	mg/L		
Beryllium, total	MW-16	02/22/2017	ND	0.001	mg/L		
Beryllium, total	MW-16	05/24/2017	ND	0.001	mg/L		
Beryllium, total	MW-16	08/30/2017	ND	0.001	mg/L		
Beryllium, total	MW-16	11/13/2017	ND	0.001	mg/L		
Beryllium, total	MW-16	02/20/2018	ND	0.001	mg/L		
Beryllium, total	MW-16	05/17/2018	ND	0.001	mg/L		
Beryllium, total	MW-16	08/22/2018	ND	0.001	mg/L		
Beryllium, total	MW-16	11/12/2018	ND	0.001	mg/L		
Beryllium, total	MW-16	11/12/2019	ND	0.001	mg/L		
Beryllium, total	MW-16	11/20/2020	ND	0.001	mg/L		
Beryllium, total	MW-16	11/16/2021	ND	0.001	mg/L		
Beryllium, total	MW-16	11/17/2022	ND	0.001	mg/L		
Beryllium, total	MW-35	09/05/2013	ND	0.001	mg/L		

* = outlier for that well/constituent

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ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Beryllium, total	MW-35	12/16/2013	ND	0.001	mg/L		
Beryllium, total	MW-35	03/04/2014	ND	0.001	mg/L		
Beryllium, total	MW-35	06/02/2014	ND	0.001	mg/L		
Beryllium, total	MW-35	09/22/2014	ND	0.001	mg/L		
Beryllium, total	MW-35	11/17/2014	ND	0.001	mg/L		
Beryllium, total	MW-35	02/25/2015	ND	0.001	mg/L		
Beryllium, total	MW-35	05/19/2015	ND	0.001	mg/L		
Beryllium, total	MW-35	08/26/2015	ND	0.001	mg/L		
Beryllium, total	MW-35	11/10/2015	ND	0.001	mg/L		
Beryllium, total	MW-35	02/22/2016	ND	0.001	mg/L		
Beryllium, total	MW-35	05/16/2016	ND	0.001	mg/L		
Beryllium, total	MW-35	08/31/2016	ND	0.001	mg/L		
Beryllium, total	MW-35	11/15/2016	ND	0.001	mg/L		
Beryllium, total	MW-35	02/22/2017	ND	0.001	mg/L		
Beryllium, total	MW-35	05/24/2017	ND	0.001	mg/L		
Beryllium, total	MW-35	08/30/2017	ND	0.001	mg/L		
Beryllium, total	MW-35	11/15/2017	ND	0.001	mg/L		
Beryllium, total	MW-35	02/20/2018	ND	0.001	mg/L		
Beryllium, total	MW-35	05/17/2018	ND	0.001	mg/L		
Beryllium, total	MW-35	08/22/2018	ND	0.001	mg/L		
Beryllium, total	MW-35	11/12/2018	ND	0.001	mg/L		
Beryllium, total	MW-35	11/12/2019	ND	0.001	mg/L		
Beryllium, total	MW-35	11/19/2020	ND	0.001	mg/L		
Beryllium, total	MW-35	11/16/2021	ND	0.001	mg/L		
Beryllium, total	MW-35	11/17/2022	ND	0.001	mg/L		
Cadmium, total	MW-13A	12/03/2013	ND	0.0002	mg/L		
Cadmium, total	MW-13A	03/04/2014	ND	0.0002	mg/L		
Cadmium, total	MW-13A	06/02/2014	ND	0.0002	mg/L		
Cadmium, total	MW-13A	09/22/2014	ND	0.0002	mg/L		
Cadmium, total	MW-13A	11/17/2014	ND	0.0002	mg/L		
Cadmium, total	MW-13A	02/23/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13A	05/19/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13A	08/26/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13A	11/10/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13A	02/22/2016	ND	0.0002	mg/L		
Cadmium, total	MW-13A	05/16/2016	ND	0.0002	mg/L		
Cadmium, total	MW-13A	08/31/2016	ND	0.0002	mg/L		
Cadmium, total	MW-13A	11/14/2016	ND	0.0002	mg/L		
Cadmium, total	MW-13A	02/22/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13A	05/24/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13A	08/30/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13A	11/13/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13A	02/20/2018	ND	0.0002	mg/L		
Cadmium, total	MW-13A	05/15/2018	ND	0.0002	mg/L		
Cadmium, total	MW-13A	08/21/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13A	11/12/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13A	11/11/2019	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13A	11/19/2020	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13A	11/16/2021	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13A	11/17/2022	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13B	12/03/2013	ND	0.0002	mg/L		
Cadmium, total	MW-13B	03/04/2014	ND	0.0002	mg/L		
Cadmium, total	MW-13B	06/02/2014	ND	0.0002	mg/L		
Cadmium, total	MW-13B	09/22/2014	ND	0.0002	mg/L		
Cadmium, total	MW-13B	11/17/2014	ND	0.0002	mg/L		
Cadmium, total	MW-13B	02/23/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13B	05/19/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13B	08/26/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13B	11/10/2015	ND	0.0002	mg/L		
Cadmium, total	MW-13B	02/22/2016	ND	0.0002	mg/L		
Cadmium, total	MW-13B	05/16/2016	ND	0.0002	mg/L		
Cadmium, total	MW-13B	08/31/2016	ND	0.0002	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Cadmium, total	MW-13B	11/14/2016	ND	0.0002	mg/L		
Cadmium, total	MW-13B	02/22/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13B	05/24/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13B	08/30/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13B	11/13/2017	ND	0.0002	mg/L		
Cadmium, total	MW-13B	02/20/2018	ND	0.0002	mg/L		
Cadmium, total	MW-13B	05/15/2018	ND	0.0002	mg/L		
Cadmium, total	MW-13B	08/21/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13B	11/12/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13B	11/11/2019	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13B	11/19/2020	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13B	11/16/2021	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-13B	11/17/2022	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-16	09/05/2013	ND	0.0002	mg/L		
Cadmium, total	MW-16	12/16/2013	ND	0.0002	mg/L		
Cadmium, total	MW-16	03/05/2014	ND	0.0002	mg/L		
Cadmium, total	MW-16	06/02/2014	ND	0.0002	mg/L		
Cadmium, total	MW-16	09/22/2014	ND	0.0002	mg/L		
Cadmium, total	MW-16	11/18/2014	ND	0.0002	mg/L		
Cadmium, total	MW-16	02/23/2015	ND	0.0002	mg/L		
Cadmium, total	MW-16	05/20/2015	ND	0.0002	mg/L		
Cadmium, total	MW-16	08/26/2015	ND	0.0002	mg/L		
Cadmium, total	MW-16	11/11/2015	ND	0.0002	mg/L		
Cadmium, total	MW-16	02/24/2016	ND	0.0002	mg/L		
Cadmium, total	MW-16	05/16/2016	ND	0.0002	mg/L		
Cadmium, total	MW-16	08/31/2016	ND	0.0002	mg/L		
Cadmium, total	MW-16	11/14/2016	ND	0.0002	mg/L		
Cadmium, total	MW-16	02/22/2017	ND	0.0002	mg/L		
Cadmium, total	MW-16	05/24/2017	ND	0.0002	mg/L		
Cadmium, total	MW-16	08/30/2017	ND	0.0002	mg/L		
Cadmium, total	MW-16	11/13/2017	ND	0.0002	mg/L		
Cadmium, total	MW-16	02/20/2018	ND	0.0002	mg/L		
Cadmium, total	MW-16	05/17/2018	ND	0.0002	mg/L		
Cadmium, total	MW-16	08/22/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-16	11/12/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-16	11/12/2019	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-16	11/20/2020	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-16	11/16/2021	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-16	11/17/2022	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-35	09/05/2013	ND	0.0002	mg/L		
Cadmium, total	MW-35	12/16/2013	ND	0.0002	mg/L		
Cadmium, total	MW-35	03/04/2014	ND	0.0002	mg/L		
Cadmium, total	MW-35	06/02/2014	ND	0.0002	mg/L		
Cadmium, total	MW-35	09/22/2014	ND	0.0002	mg/L		
Cadmium, total	MW-35	11/17/2014	ND	0.0002	mg/L		
Cadmium, total	MW-35	02/25/2015	ND	0.0002	mg/L		
Cadmium, total	MW-35	05/19/2015	ND	0.0002	mg/L		
Cadmium, total	MW-35	08/26/2015	ND	0.0002	mg/L		
Cadmium, total	MW-35	11/10/2015	ND	0.0002	mg/L		
Cadmium, total	MW-35	02/22/2016	ND	0.0002	mg/L		
Cadmium, total	MW-35	05/16/2016	ND	0.0002	mg/L		
Cadmium, total	MW-35	08/31/2016	ND	0.0002	mg/L		
Cadmium, total	MW-35	11/15/2016	ND	0.0002	mg/L		
Cadmium, total	MW-35	02/22/2017	ND	0.0002	mg/L		
Cadmium, total	MW-35	05/24/2017	ND	0.0002	mg/L		
Cadmium, total	MW-35	08/30/2017	ND	0.0002	mg/L		
Cadmium, total	MW-35	11/15/2017	ND	0.0002	mg/L		
Cadmium, total	MW-35	02/20/2018	ND	0.0002	mg/L		
Cadmium, total	MW-35	05/17/2018	ND	0.0002	mg/L		
Cadmium, total	MW-35	08/22/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-35	11/12/2018	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-35	11/12/2019	ND	0.0003	mg/L	0.0002	**

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Cadmium, total	MW-35	11/19/2020	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-35	11/16/2021	ND	0.0003	mg/L	0.0002	**
Cadmium, total	MW-35	11/17/2022	ND	0.0003	mg/L	0.0002	**
Calcium, dissolved	MW-13A	03/22/2005		15.7	mg/L		
Calcium, dissolved	MW-13A	06/15/2005		14.2	mg/L		
Calcium, dissolved	MW-13A	09/27/2005		14.2	mg/L		
Calcium, dissolved	MW-13A	12/15/2005		15.1	mg/L		
Calcium, dissolved	MW-13A	03/28/2006		16	mg/L		
Calcium, dissolved	MW-13A	06/21/2006		16	mg/L		
Calcium, dissolved	MW-13A	09/26/2006		15	mg/L		
Calcium, dissolved	MW-13A	12/13/2006		15	mg/L		
Calcium, dissolved	MW-13A	03/27/2007		15	mg/L		
Calcium, dissolved	MW-13A	06/19/2007		16	mg/L		
Calcium, dissolved	MW-13A	09/19/2007		16	mg/L		
Calcium, dissolved	MW-13A	12/19/2007		15	mg/L		
Calcium, dissolved	MW-13A	03/25/2008		16	mg/L		
Calcium, dissolved	MW-13A	06/18/2008		16	mg/L		
Calcium, dissolved	MW-13A	09/17/2008		15	mg/L		
Calcium, dissolved	MW-13A	12/17/2008		16	mg/L		
Calcium, dissolved	MW-13A	03/24/2009		15	mg/L		
Calcium, dissolved	MW-13A	06/17/2009		17	mg/L		
Calcium, dissolved	MW-13A	09/10/2009		15	mg/L		
Calcium, dissolved	MW-13A	12/03/2009		15	mg/L		
Calcium, dissolved	MW-13A	03/25/2010		16	mg/L		
Calcium, dissolved	MW-13A	06/23/2010		15	mg/L		
Calcium, dissolved	MW-13A	09/23/2010		15	mg/L		
Calcium, dissolved	MW-13A	12/08/2010		16	mg/L		
Calcium, dissolved	MW-13A	03/30/2011		16	mg/L		
Calcium, dissolved	MW-13A	06/06/2011		16	mg/L		
Calcium, dissolved	MW-13A	09/27/2011		16	mg/L		
Calcium, dissolved	MW-13A	12/14/2011		16	mg/L		
Calcium, dissolved	MW-13A	03/21/2012		16	mg/L		
Calcium, dissolved	MW-13A	06/08/2012		15	mg/L		
Calcium, dissolved	MW-13A	09/26/2012		15	mg/L		
Calcium, dissolved	MW-13A	12/03/2012		16	mg/L		
Calcium, dissolved	MW-13A	03/11/2013		16	mg/L		
Calcium, dissolved	MW-13A	06/05/2013		16	mg/L		
Calcium, dissolved	MW-13A	12/03/2013		16	mg/L		
Calcium, dissolved	MW-13A	03/04/2014		16	mg/L		
Calcium, dissolved	MW-13A	06/02/2014		16	mg/L		
Calcium, dissolved	MW-13A	09/22/2014		15	mg/L		
Calcium, dissolved	MW-13A	11/17/2014		15	mg/L		
Calcium, dissolved	MW-13A	02/23/2015		15	mg/L		
Calcium, dissolved	MW-13A	05/19/2015		16	mg/L		
Calcium, dissolved	MW-13A	08/26/2015		15	mg/L		
Calcium, dissolved	MW-13A	11/10/2015		15	mg/L		
Calcium, dissolved	MW-13A	02/22/2016		16	mg/L		
Calcium, dissolved	MW-13A	05/16/2016		15	mg/L		
Calcium, dissolved	MW-13A	08/31/2016		17	mg/L		
Calcium, dissolved	MW-13A	11/14/2016		16	mg/L		
Calcium, dissolved	MW-13A	02/22/2017		17	mg/L		
Calcium, dissolved	MW-13A	05/24/2017		14	mg/L		
Calcium, dissolved	MW-13A	08/30/2017		15	mg/L		
Calcium, dissolved	MW-13A	11/13/2017		15	mg/L		
Calcium, dissolved	MW-13A	02/20/2018		14	mg/L		
Calcium, dissolved	MW-13A	05/15/2018		15	mg/L		
Calcium, dissolved	MW-13A	08/21/2018		15	mg/L		
Calcium, dissolved	MW-13A	11/12/2018		15	mg/L		
Calcium, dissolved	MW-13A	11/11/2019		15	mg/L		
Calcium, dissolved	MW-13A	11/19/2020		15	mg/L		
Calcium, dissolved	MW-13A	11/16/2021		15	mg/L		
Calcium, dissolved	MW-13A	11/17/2022		15	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Calcium, dissolved	MW-13B	03/22/2005		16.9	mg/L		
Calcium, dissolved	MW-13B	06/15/2005		16	mg/L		
Calcium, dissolved	MW-13B	09/27/2005		17.1	mg/L		
Calcium, dissolved	MW-13B	12/15/2005		16.1	mg/L		
Calcium, dissolved	MW-13B	03/29/2006		17	mg/L		
Calcium, dissolved	MW-13B	06/21/2006		17	mg/L		
Calcium, dissolved	MW-13B	09/26/2006		16	mg/L		
Calcium, dissolved	MW-13B	12/13/2006		17	mg/L		
Calcium, dissolved	MW-13B	03/27/2007		16	mg/L		
Calcium, dissolved	MW-13B	06/19/2007		16	mg/L		
Calcium, dissolved	MW-13B	09/18/2007		17	mg/L		
Calcium, dissolved	MW-13B	12/19/2007		15	mg/L		
Calcium, dissolved	MW-13B	03/25/2008		16	mg/L		
Calcium, dissolved	MW-13B	06/18/2008		17	mg/L		
Calcium, dissolved	MW-13B	09/17/2008		16	mg/L		
Calcium, dissolved	MW-13B	12/16/2008		16	mg/L		
Calcium, dissolved	MW-13B	03/24/2009		16	mg/L		
Calcium, dissolved	MW-13B	06/17/2009		17	mg/L		
Calcium, dissolved	MW-13B	09/10/2009		16	mg/L		
Calcium, dissolved	MW-13B	12/03/2009		16	mg/L		
Calcium, dissolved	MW-13B	03/25/2010		17	mg/L		
Calcium, dissolved	MW-13B	06/23/2010		16	mg/L		
Calcium, dissolved	MW-13B	09/23/2010		16	mg/L		
Calcium, dissolved	MW-13B	12/08/2010		16	mg/L		
Calcium, dissolved	MW-13B	03/30/2011		16	mg/L		
Calcium, dissolved	MW-13B	06/06/2011		16	mg/L		
Calcium, dissolved	MW-13B	09/27/2011		16	mg/L		
Calcium, dissolved	MW-13B	12/14/2011		16	mg/L		
Calcium, dissolved	MW-13B	03/21/2012		16	mg/L		
Calcium, dissolved	MW-13B	06/08/2012		16	mg/L		
Calcium, dissolved	MW-13B	09/26/2012		16	mg/L		
Calcium, dissolved	MW-13B	12/03/2012		17	mg/L		
Calcium, dissolved	MW-13B	03/11/2013		17	mg/L		
Calcium, dissolved	MW-13B	06/05/2013		17	mg/L		
Calcium, dissolved	MW-13B	12/03/2013		17	mg/L		
Calcium, dissolved	MW-13B	03/04/2014		17	mg/L		
Calcium, dissolved	MW-13B	06/02/2014		16	mg/L		
Calcium, dissolved	MW-13B	09/22/2014		15	mg/L		
Calcium, dissolved	MW-13B	11/17/2014		16	mg/L		
Calcium, dissolved	MW-13B	02/23/2015		17	mg/L		
Calcium, dissolved	MW-13B	05/19/2015		17	mg/L		
Calcium, dissolved	MW-13B	08/26/2015		16	mg/L		
Calcium, dissolved	MW-13B	11/10/2015		17	mg/L		
Calcium, dissolved	MW-13B	02/22/2016		18	mg/L		
Calcium, dissolved	MW-13B	05/16/2016		16	mg/L		
Calcium, dissolved	MW-13B	08/31/2016		18	mg/L		
Calcium, dissolved	MW-13B	11/14/2016		17	mg/L		
Calcium, dissolved	MW-13B	02/22/2017		18	mg/L		
Calcium, dissolved	MW-13B	05/24/2017		14	mg/L		
Calcium, dissolved	MW-13B	08/30/2017		17	mg/L		
Calcium, dissolved	MW-13B	11/13/2017		17	mg/L		
Calcium, dissolved	MW-13B	02/20/2018		16	mg/L		
Calcium, dissolved	MW-13B	05/15/2018		17	mg/L		
Calcium, dissolved	MW-13B	08/21/2018		18	mg/L		
Calcium, dissolved	MW-13B	11/12/2018		17	mg/L		
Calcium, dissolved	MW-13B	11/11/2019		16	mg/L		
Calcium, dissolved	MW-13B	11/19/2020		16	mg/L		
Calcium, dissolved	MW-13B	11/16/2021		16	mg/L		
Calcium, dissolved	MW-13B	11/17/2022		17	mg/L		
Calcium, dissolved	MW-16	03/24/2009		12	mg/L		
Calcium, dissolved	MW-16	06/16/2009		10	mg/L		
Calcium, dissolved	MW-16	09/09/2009		11	mg/L		

* = outlier for that well/constituent
** = ND value replaced with median reporting limit
ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Calcium, dissolved	MW-16	12/03/2009		14	mg/L		
Calcium, dissolved	MW-16	03/25/2010		9.6	mg/L		
Calcium, dissolved	MW-16	06/24/2010		12	mg/L		
Calcium, dissolved	MW-16	09/24/2010		13	mg/L		
Calcium, dissolved	MW-16	12/09/2010		13	mg/L		
Calcium, dissolved	MW-16	03/30/2011		9.8	mg/L		
Calcium, dissolved	MW-16	06/07/2011		9.7	mg/L		
Calcium, dissolved	MW-16	09/27/2011		12	mg/L		
Calcium, dissolved	MW-16	12/13/2011		11	mg/L		
Calcium, dissolved	MW-16	03/21/2012		8.9	mg/L		
Calcium, dissolved	MW-16	06/08/2012		9.1	mg/L		
Calcium, dissolved	MW-16	09/27/2012		11	mg/L		
Calcium, dissolved	MW-16	12/04/2012		11	mg/L		
Calcium, dissolved	MW-16	03/12/2013		10	mg/L		
Calcium, dissolved	MW-16	06/04/2013		10	mg/L		
Calcium, dissolved	MW-16	09/05/2013		11	mg/L		
Calcium, dissolved	MW-16	12/16/2013		11	mg/L		
Calcium, dissolved	MW-16	03/05/2014		9.8	mg/L		
Calcium, dissolved	MW-16	06/02/2014		8.8	mg/L		
Calcium, dissolved	MW-16	09/22/2014		9.9	mg/L		
Calcium, dissolved	MW-16	11/18/2014		11	mg/L		
Calcium, dissolved	MW-16	02/23/2015		9.5	mg/L		
Calcium, dissolved	MW-16	05/20/2015		10	mg/L		
Calcium, dissolved	MW-16	08/26/2015		9.8	mg/L		
Calcium, dissolved	MW-16	11/11/2015		12	mg/L		
Calcium, dissolved	MW-16	02/24/2016		7.7	mg/L		
Calcium, dissolved	MW-16	05/16/2016		8.4	mg/L		
Calcium, dissolved	MW-16	08/31/2016		12	mg/L		
Calcium, dissolved	MW-16	11/14/2016		9.6	mg/L		
Calcium, dissolved	MW-16	02/22/2017		8.4	mg/L		
Calcium, dissolved	MW-16	05/24/2017		7.6	mg/L		
Calcium, dissolved	MW-16	08/30/2017		9.2	mg/L		
Calcium, dissolved	MW-16	11/13/2017		8.9	mg/L		
Calcium, dissolved	MW-16	02/20/2018		7.5	mg/L		
Calcium, dissolved	MW-16	05/17/2018		7.9	mg/L		
Calcium, dissolved	MW-16	08/22/2018		8.8	mg/L		
Calcium, dissolved	MW-16	11/12/2018		9.7	mg/L		
Calcium, dissolved	MW-16	11/12/2019		12	mg/L		
Calcium, dissolved	MW-16	11/20/2020		13	mg/L		
Calcium, dissolved	MW-16	11/16/2021		12	mg/L		
Calcium, dissolved	MW-16	11/17/2022		10	mg/L		
Calcium, dissolved	MW-35	03/22/2005		13.9	mg/L		
Calcium, dissolved	MW-35	06/14/2005		12.9	mg/L		
Calcium, dissolved	MW-35	09/27/2005		14.8	mg/L		
Calcium, dissolved	MW-35	12/15/2005		13.2	mg/L		
Calcium, dissolved	MW-35	03/28/2006		14	mg/L		
Calcium, dissolved	MW-35	06/21/2006		14	mg/L		
Calcium, dissolved	MW-35	09/26/2006		13	mg/L		
Calcium, dissolved	MW-35	12/12/2006		14	mg/L		
Calcium, dissolved	MW-35	03/27/2007		13	mg/L		
Calcium, dissolved	MW-35	06/20/2007		14	mg/L		
Calcium, dissolved	MW-35	09/18/2007		14	mg/L		
Calcium, dissolved	MW-35	12/20/2007		13	mg/L		
Calcium, dissolved	MW-35	03/25/2008		13	mg/L		
Calcium, dissolved	MW-35	06/18/2008		13	mg/L		
Calcium, dissolved	MW-35	09/18/2008		13	mg/L		
Calcium, dissolved	MW-35	12/19/2008		12	mg/L		
Calcium, dissolved	MW-35	03/24/2009		13	mg/L		
Calcium, dissolved	MW-35	06/16/2009		13	mg/L		
Calcium, dissolved	MW-35	09/10/2009		12	mg/L		
Calcium, dissolved	MW-35	12/03/2009		13	mg/L		
Calcium, dissolved	MW-35	03/25/2010		13	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Calcium, dissolved	MW-35	06/23/2010		13	mg/L		
Calcium, dissolved	MW-35	09/23/2010		13	mg/L		
Calcium, dissolved	MW-35	12/09/2010		14	mg/L		
Calcium, dissolved	MW-35	03/30/2011		14	mg/L		
Calcium, dissolved	MW-35	06/06/2011		13	mg/L		
Calcium, dissolved	MW-35	09/26/2011		14	mg/L		
Calcium, dissolved	MW-35	12/13/2011		14	mg/L		
Calcium, dissolved	MW-35	03/21/2012		14	mg/L		
Calcium, dissolved	MW-35	06/06/2012		13	mg/L		
Calcium, dissolved	MW-35	09/26/2012		13	mg/L		
Calcium, dissolved	MW-35	12/04/2012		14	mg/L		
Calcium, dissolved	MW-35	03/13/2013		14	mg/L		
Calcium, dissolved	MW-35	06/06/2013		13	mg/L		
Calcium, dissolved	MW-35	09/05/2013		13	mg/L		
Calcium, dissolved	MW-35	12/16/2013		14	mg/L		
Calcium, dissolved	MW-35	03/04/2014		14	mg/L		
Calcium, dissolved	MW-35	06/02/2014		14	mg/L		
Calcium, dissolved	MW-35	09/22/2014		13	mg/L		
Calcium, dissolved	MW-35	11/17/2014		14	mg/L		
Calcium, dissolved	MW-35	02/25/2015		15	mg/L		
Calcium, dissolved	MW-35	05/19/2015		13	mg/L		
Calcium, dissolved	MW-35	08/26/2015		13	mg/L		
Calcium, dissolved	MW-35	11/10/2015		15	mg/L		
Calcium, dissolved	MW-35	02/22/2016		15	mg/L		
Calcium, dissolved	MW-35	05/16/2016		14	mg/L		
Calcium, dissolved	MW-35	08/31/2016		15	mg/L		
Calcium, dissolved	MW-35	11/15/2016		14	mg/L		
Calcium, dissolved	MW-35	02/22/2017		15	mg/L		
Calcium, dissolved	MW-35	05/24/2017		13	mg/L		
Calcium, dissolved	MW-35	08/30/2017		14	mg/L		
Calcium, dissolved	MW-35	11/15/2017		13	mg/L		
Calcium, dissolved	MW-35	02/20/2018		13	mg/L		
Calcium, dissolved	MW-35	05/17/2018		14	mg/L		
Calcium, dissolved	MW-35	08/22/2018		14	mg/L		
Calcium, dissolved	MW-35	11/12/2018		15	mg/L		
Calcium, dissolved	MW-35	11/12/2019		14	mg/L		
Calcium, dissolved	MW-35	11/19/2020		14	mg/L		
Calcium, dissolved	MW-35	11/16/2021		15	mg/L		
Calcium, dissolved	MW-35	11/17/2022		14	mg/L		
Chloride	MW-13A	03/22/2005		2.6	mg/L		
Chloride	MW-13A	06/15/2005		1.9	mg/L		
Chloride	MW-13A	09/27/2005		2.4	mg/L		
Chloride	MW-13A	12/15/2005		2.1	mg/L		
Chloride	MW-13A	03/28/2006		3	mg/L		
Chloride	MW-13A	06/21/2006		2.4	mg/L		
Chloride	MW-13A	09/26/2006		2.6	mg/L		
Chloride	MW-13A	12/13/2006		3	mg/L		
Chloride	MW-13A	03/27/2007		2.8	mg/L		
Chloride	MW-13A	06/19/2007		2.6	mg/L		
Chloride	MW-13A	09/19/2007		2.6	mg/L		
Chloride	MW-13A	12/19/2007		2.6	mg/L		
Chloride	MW-13A	03/25/2008		2.5	mg/L		
Chloride	MW-13A	06/18/2008		2.6	mg/L		
Chloride	MW-13A	09/17/2008		2.5	mg/L		
Chloride	MW-13A	12/17/2008		3.1	mg/L		
Chloride	MW-13A	03/24/2009		2.7	mg/L		
Chloride	MW-13A	06/17/2009		2.4	mg/L		
Chloride	MW-13A	09/10/2009		2.1	mg/L		
Chloride	MW-13A	12/03/2009		3.4	mg/L		
Chloride	MW-13A	03/25/2010		2.2	mg/L		
Chloride	MW-13A	06/23/2010		2.6	mg/L		
Chloride	MW-13A	09/23/2010		2.8	mg/L		

* = outlier for that well/constituent

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ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Chloride	MW-13A	12/08/2010		2.9	mg/L		
Chloride	MW-13A	03/30/2011		2.9	mg/L		
Chloride	MW-13A	06/06/2011		3	mg/L		
Chloride	MW-13A	09/27/2011		3.8	mg/L		
Chloride	MW-13A	12/14/2011		4.4	mg/L		
Chloride	MW-13A	03/21/2012		2.7	mg/L		
Chloride	MW-13A	06/08/2012		3	mg/L		
Chloride	MW-13A	09/26/2012		2.6	mg/L		
Chloride	MW-13A	12/03/2012		1.8	mg/L		
Chloride	MW-13A	03/11/2013		3	mg/L		
Chloride	MW-13A	06/05/2013		1.7	mg/L		
Chloride	MW-13A	12/03/2013		1.7	mg/L		
Chloride	MW-13A	03/04/2014		1.7	mg/L		
Chloride	MW-13A	06/02/2014		2	mg/L		
Chloride	MW-13A	09/22/2014		1.7	mg/L		
Chloride	MW-13A	11/17/2014		1.9	mg/L		
Chloride	MW-13A	02/23/2015		1.8	mg/L		
Chloride	MW-13A	05/19/2015		1.9	mg/L		
Chloride	MW-13A	08/26/2015		2.1	mg/L		
Chloride	MW-13A	11/10/2015		1.9	mg/L		
Chloride	MW-13A	02/22/2016		1.9	mg/L		
Chloride	MW-13A	05/16/2016		1.9	mg/L		
Chloride	MW-13A	08/31/2016		1.9	mg/L		
Chloride	MW-13A	11/14/2016		1.8	mg/L		
Chloride	MW-13A	02/22/2017		2	mg/L		
Chloride	MW-13A	05/24/2017		1.9	mg/L		
Chloride	MW-13A	08/30/2017		2.4	mg/L		
Chloride	MW-13A	11/13/2017		1.7	mg/L		
Chloride	MW-13A	02/20/2018		2.1	mg/L		
Chloride	MW-13A	05/15/2018		1.8	mg/L		
Chloride	MW-13A	08/21/2018		1.8	mg/L		
Chloride	MW-13A	11/12/2018		1.9	mg/L		
Chloride	MW-13A	11/11/2019	ND	3	mg/L		
Chloride	MW-13A	11/19/2020	ND	3	mg/L		
Chloride	MW-13A	11/16/2021	ND	3	mg/L		
Chloride	MW-13A	11/17/2022	ND	3	mg/L		
Chloride	MW-13B	03/22/2005		3	mg/L		
Chloride	MW-13B	06/15/2005		2.3	mg/L		
Chloride	MW-13B	09/27/2005		2.8	mg/L		
Chloride	MW-13B	12/15/2005		2.4	mg/L		
Chloride	MW-13B	03/29/2006		3.2	mg/L		
Chloride	MW-13B	06/21/2006		2.9	mg/L		
Chloride	MW-13B	09/26/2006		2.7	mg/L		
Chloride	MW-13B	12/13/2006		3.3	mg/L		
Chloride	MW-13B	03/27/2007		3	mg/L		
Chloride	MW-13B	06/19/2007		2.8	mg/L		
Chloride	MW-13B	09/18/2007		2.8	mg/L		
Chloride	MW-13B	12/19/2007		2.8	mg/L		
Chloride	MW-13B	03/25/2008		2.7	mg/L		
Chloride	MW-13B	06/18/2008		2.8	mg/L		
Chloride	MW-13B	09/17/2008		2.7	mg/L		
Chloride	MW-13B	12/16/2008		3.2	mg/L		
Chloride	MW-13B	03/24/2009		2.6	mg/L		
Chloride	MW-13B	06/17/2009		3	mg/L		
Chloride	MW-13B	09/10/2009		2.3	mg/L		
Chloride	MW-13B	12/03/2009		2.9	mg/L		
Chloride	MW-13B	03/25/2010		2.5	mg/L		
Chloride	MW-13B	06/23/2010		2.8	mg/L		
Chloride	MW-13B	09/23/2010		3	mg/L		
Chloride	MW-13B	12/08/2010		2.5	mg/L		
Chloride	MW-13B	03/30/2011		3.1	mg/L		
Chloride	MW-13B	06/06/2011		3.2	mg/L		

* = outlier for that well/constituent

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Chloride	MW-13B	09/27/2011		3.7	mg/L		
Chloride	MW-13B	12/14/2011		3.4	mg/L		
Chloride	MW-13B	03/21/2012		2.8	mg/L		
Chloride	MW-13B	06/08/2012		3.4	mg/L		
Chloride	MW-13B	09/26/2012		2.9	mg/L		
Chloride	MW-13B	12/03/2012		2.1	mg/L		
Chloride	MW-13B	03/11/2013		2.1	mg/L		
Chloride	MW-13B	06/05/2013		2	mg/L		
Chloride	MW-13B	12/03/2013		1.9	mg/L		
Chloride	MW-13B	03/04/2014		1.9	mg/L		
Chloride	MW-13B	06/02/2014		2.1	mg/L		
Chloride	MW-13B	09/22/2014		1.9	mg/L		
Chloride	MW-13B	11/17/2014		2.1	mg/L		
Chloride	MW-13B	02/23/2015		2	mg/L		
Chloride	MW-13B	05/19/2015		2	mg/L		
Chloride	MW-13B	08/26/2015		2.1	mg/L		
Chloride	MW-13B	11/10/2015		2	mg/L		
Chloride	MW-13B	02/22/2016		2	mg/L		
Chloride	MW-13B	05/16/2016		2	mg/L		
Chloride	MW-13B	08/31/2016		2	mg/L		
Chloride	MW-13B	11/14/2016		1.9	mg/L		
Chloride	MW-13B	02/22/2017		2	mg/L		
Chloride	MW-13B	05/24/2017		2	mg/L		
Chloride	MW-13B	08/30/2017		2.2	mg/L		
Chloride	MW-13B	11/13/2017		1.9	mg/L		
Chloride	MW-13B	02/20/2018		2.2	mg/L		
Chloride	MW-13B	05/15/2018		1.9	mg/L		
Chloride	MW-13B	08/21/2018		1.9	mg/L		
Chloride	MW-13B	11/12/2018		2	mg/L		
Chloride	MW-13B	11/11/2019	ND	3	mg/L		
Chloride	MW-13B	11/19/2020	ND	3	mg/L		
Chloride	MW-13B	11/16/2021	ND	3	mg/L		
Chloride	MW-13B	11/17/2022	ND	3	mg/L		
Chloride	MW-16	03/24/2009		2.1	mg/L		
Chloride	MW-16	06/16/2009		2.2	mg/L		
Chloride	MW-16	09/09/2009		1.3	mg/L		
Chloride	MW-16	12/03/2009		1.9	mg/L		
Chloride	MW-16	03/25/2010		1.7	mg/L		
Chloride	MW-16	06/24/2010		1.6	mg/L		
Chloride	MW-16	09/24/2010		1.7	mg/L		
Chloride	MW-16	12/09/2010		2.3	mg/L		
Chloride	MW-16	03/30/2011		3.6	mg/L		
Chloride	MW-16	06/07/2011		2.4	mg/L		
Chloride	MW-16	09/27/2011		3.9	mg/L		
Chloride	MW-16	12/13/2011		2.1	mg/L		
Chloride	MW-16	03/21/2012		2.2	mg/L		
Chloride	MW-16	06/08/2012		2.8	mg/L		
Chloride	MW-16	09/27/2012		1	mg/L		
Chloride	MW-16	12/04/2012		1.3	mg/L		
Chloride	MW-16	03/12/2013		1.3	mg/L		
Chloride	MW-16	06/04/2013		1.3	mg/L		
Chloride	MW-16	09/05/2013		1.3	mg/L		
Chloride	MW-16	12/16/2013	ND	1	mg/L	3	**
Chloride	MW-16	03/05/2014		1	mg/L		
Chloride	MW-16	06/02/2014		1.4	mg/L		
Chloride	MW-16	09/22/2014		1.1	mg/L		
Chloride	MW-16	11/18/2014		1.5	mg/L		
Chloride	MW-16	02/23/2015		1.2	mg/L		
Chloride	MW-16	05/20/2015		1.4	mg/L		
Chloride	MW-16	08/26/2015		1.1	mg/L		
Chloride	MW-16	11/11/2015	ND	1	mg/L	3	**
Chloride	MW-16	02/24/2016		1.2	mg/L		

* = outlier for that well/constituent

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Chloride	MW-16	05/16/2016		1.2	mg/L		
Chloride	MW-16	08/31/2016		1.1	mg/L		
Chloride	MW-16	11/14/2016		1	mg/L		
Chloride	MW-16	02/22/2017		1.3	mg/L		
Chloride	MW-16	05/24/2017		1.2	mg/L		
Chloride	MW-16	08/30/2017	ND	1	mg/L	3	**
Chloride	MW-16	11/13/2017	ND	1	mg/L	3	**
Chloride	MW-16	02/20/2018		1.6	mg/L		
Chloride	MW-16	05/17/2018		1.1	mg/L		
Chloride	MW-16	08/22/2018		1.7	mg/L		
Chloride	MW-16	11/12/2018		1.4	mg/L		
Chloride	MW-16	11/12/2019	ND	3	mg/L		
Chloride	MW-16	11/20/2020	ND	3	mg/L		
Chloride	MW-16	11/16/2021	ND	3	mg/L		
Chloride	MW-16	11/17/2022	ND	3	mg/L		
Chloride	MW-35	03/22/2005		2.2	mg/L		
Chloride	MW-35	06/14/2005		2.2	mg/L		
Chloride	MW-35	09/27/2005		2.6	mg/L		
Chloride	MW-35	12/15/2005		1.9	mg/L		
Chloride	MW-35	03/28/2006		2.9	mg/L		
Chloride	MW-35	06/21/2006		2.8	mg/L		
Chloride	MW-35	09/26/2006		2.5	mg/L		
Chloride	MW-35	12/12/2006		3	mg/L		
Chloride	MW-35	03/27/2007		2.8	mg/L		
Chloride	MW-35	06/20/2007		2.6	mg/L		
Chloride	MW-35	09/18/2007		2.4	mg/L		
Chloride	MW-35	12/20/2007		2.3	mg/L		
Chloride	MW-35	03/25/2008		2.4	mg/L		
Chloride	MW-35	06/18/2008		2.6	mg/L		
Chloride	MW-35	09/18/2008		2.4	mg/L		
Chloride	MW-35	12/19/2008		2.9	mg/L		
Chloride	MW-35	03/24/2009		2.3	mg/L		
Chloride	MW-35	06/16/2009		2.4	mg/L		
Chloride	MW-35	09/10/2009		2.5	mg/L		
Chloride	MW-35	12/03/2009		2.8	mg/L		
Chloride	MW-35	03/25/2010		2	mg/L		
Chloride	MW-35	06/23/2010		2.1	mg/L		
Chloride	MW-35	09/23/2010		2.6	mg/L		
Chloride	MW-35	12/09/2010		2.7	mg/L		
Chloride	MW-35	03/30/2011		3.2	mg/L		
Chloride	MW-35	06/06/2011		2.3	mg/L		
Chloride	MW-35	09/26/2011		3	mg/L		
Chloride	MW-35	12/13/2011		3.2	mg/L		
Chloride	MW-35	03/21/2012		2.9	mg/L		
Chloride	MW-35	06/06/2012		1.3	mg/L		
Chloride	MW-35	09/26/2012		2.4	mg/L		
Chloride	MW-35	12/04/2012		1.9	mg/L		
Chloride	MW-35	03/13/2013		1.8	mg/L		
Chloride	MW-35	06/06/2013		1.7	mg/L		
Chloride	MW-35	09/05/2013		1.8	mg/L		
Chloride	MW-35	12/16/2013		1.7	mg/L		
Chloride	MW-35	03/04/2014		1.8	mg/L		
Chloride	MW-35	06/02/2014		2	mg/L		
Chloride	MW-35	09/22/2014		1.7	mg/L		
Chloride	MW-35	11/17/2014		1.8	mg/L		
Chloride	MW-35	02/25/2015		1.8	mg/L		
Chloride	MW-35	05/19/2015		1.9	mg/L		
Chloride	MW-35	08/26/2015		1.9	mg/L		
Chloride	MW-35	11/10/2015		1.8	mg/L		
Chloride	MW-35	02/22/2016		2.1	mg/L		
Chloride	MW-35	05/16/2016		1.9	mg/L		
Chloride	MW-35	08/31/2016		1.9	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Chloride	MW-35	11/15/2016		1.8	mg/L		
Chloride	MW-35	02/22/2017		1.9	mg/L		
Chloride	MW-35	05/24/2017		1.9	mg/L		
Chloride	MW-35	08/30/2017		1.6	mg/L		
Chloride	MW-35	11/15/2017		1.7	mg/L		
Chloride	MW-35	02/20/2018		2.1	mg/L		
Chloride	MW-35	05/17/2018		1.9	mg/L		
Chloride	MW-35	08/22/2018		2.1	mg/L		
Chloride	MW-35	11/12/2018		1.9	mg/L		
Chloride	MW-35	11/12/2019	ND	3	mg/L		
Chloride	MW-35	11/19/2020	ND	3	mg/L		
Chloride	MW-35	11/16/2021	ND	3	mg/L		
Chloride	MW-35	11/17/2022	ND	3	mg/L		
Chromium, total	MW-13A	12/03/2013	ND	0.003	mg/L		
Chromium, total	MW-13A	03/04/2014	ND	0.003	mg/L		
Chromium, total	MW-13A	06/02/2014	ND	0.003	mg/L		
Chromium, total	MW-13A	09/22/2014	ND	0.003	mg/L		
Chromium, total	MW-13A	11/17/2014	ND	0.003	mg/L		
Chromium, total	MW-13A	02/23/2015	ND	0.003	mg/L		
Chromium, total	MW-13A	05/19/2015	ND	0.003	mg/L		
Chromium, total	MW-13A	08/26/2015	ND	0.003	mg/L		
Chromium, total	MW-13A	11/10/2015	ND	0.003	mg/L		
Chromium, total	MW-13A	02/22/2016	ND	0.003	mg/L		
Chromium, total	MW-13A	05/16/2016	ND	0.003	mg/L		
Chromium, total	MW-13A	08/31/2016	ND	0.003	mg/L		
Chromium, total	MW-13A	11/14/2016	ND	0.003	mg/L		
Chromium, total	MW-13A	02/22/2017	ND	0.003	mg/L		
Chromium, total	MW-13A	05/24/2017	ND	0.003	mg/L		
Chromium, total	MW-13A	08/30/2017	ND	0.003	mg/L		
Chromium, total	MW-13A	11/13/2017	ND	0.003	mg/L		
Chromium, total	MW-13A	02/20/2018	ND	0.003	mg/L		
Chromium, total	MW-13A	05/15/2018	ND	0.003	mg/L		
Chromium, total	MW-13A	08/21/2018	ND	0.003	mg/L		
Chromium, total	MW-13A	11/12/2018	ND	0.003	mg/L		
Chromium, total	MW-13A	11/11/2019	ND	0.003	mg/L		
Chromium, total	MW-13A	11/19/2020	ND	0.003	mg/L		
Chromium, total	MW-13A	11/16/2021	ND	0.003	mg/L		
Chromium, total	MW-13A	11/17/2022	ND	0.003	mg/L		
Chromium, total	MW-13B	12/03/2013		0.003	mg/L		
Chromium, total	MW-13B	03/04/2014		0.0032	mg/L		
Chromium, total	MW-13B	06/02/2014		0.0033	mg/L		
Chromium, total	MW-13B	09/22/2014	ND	0.003	mg/L		
Chromium, total	MW-13B	11/17/2014		0.0032	mg/L		
Chromium, total	MW-13B	02/23/2015	ND	0.003	mg/L		
Chromium, total	MW-13B	05/19/2015		0.003	mg/L		
Chromium, total	MW-13B	08/26/2015	ND	0.003	mg/L		
Chromium, total	MW-13B	11/10/2015		0.0033	mg/L		
Chromium, total	MW-13B	02/22/2016		0.0033	mg/L		
Chromium, total	MW-13B	05/16/2016		0.0032	mg/L		
Chromium, total	MW-13B	08/31/2016		0.0031	mg/L		
Chromium, total	MW-13B	11/14/2016		0.0036	mg/L		
Chromium, total	MW-13B	02/22/2017		0.0033	mg/L		
Chromium, total	MW-13B	05/24/2017	ND	0.003	mg/L		
Chromium, total	MW-13B	08/30/2017		0.0031	mg/L		
Chromium, total	MW-13B	11/13/2017		0.0034	mg/L		
Chromium, total	MW-13B	02/20/2018		0.0031	mg/L		
Chromium, total	MW-13B	05/15/2018	ND	0.003	mg/L		
Chromium, total	MW-13B	08/21/2018		0.0031	mg/L		
Chromium, total	MW-13B	11/12/2018		0.003	mg/L		
Chromium, total	MW-13B	11/11/2019	ND	0.003	mg/L		
Chromium, total	MW-13B	11/19/2020	ND	0.003	mg/L		
Chromium, total	MW-13B	11/16/2021		0.0034	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Chromium, total	MW-13B	11/17/2022		0.0034	mg/L		
Chromium, total	MW-16	09/05/2013		0.0063	mg/L		
Chromium, total	MW-16	12/16/2013		0.008	mg/L		
Chromium, total	MW-16	03/05/2014		0.0085	mg/L		
Chromium, total	MW-16	06/02/2014		0.0087	mg/L		
Chromium, total	MW-16	09/22/2014		0.0073	mg/L		
Chromium, total	MW-16	11/18/2014		0.0077	mg/L		
Chromium, total	MW-16	02/23/2015		0.009	mg/L		
Chromium, total	MW-16	05/20/2015		0.007	mg/L		
Chromium, total	MW-16	08/26/2015		0.0064	mg/L		
Chromium, total	MW-16	11/11/2015		0.0071	mg/L		
Chromium, total	MW-16	02/24/2016		0.0077	mg/L		
Chromium, total	MW-16	05/16/2016		0.0066	mg/L		
Chromium, total	MW-16	08/31/2016		0.0092	mg/L		
Chromium, total	MW-16	11/14/2016		0.0085	mg/L		
Chromium, total	MW-16	02/22/2017		0.0088	mg/L		
Chromium, total	MW-16	05/24/2017		0.0079	mg/L		
Chromium, total	MW-16	08/30/2017		0.0075	mg/L		
Chromium, total	MW-16	11/13/2017		0.0073	mg/L		
Chromium, total	MW-16	02/20/2018		0.0072	mg/L		
Chromium, total	MW-16	05/17/2018		0.0091	mg/L		
Chromium, total	MW-16	08/22/2018		0.007	mg/L		
Chromium, total	MW-16	11/12/2018		0.0092	mg/L		
Chromium, total	MW-16	11/12/2019		0.0076	mg/L		
Chromium, total	MW-16	11/20/2020		0.019	mg/L		
Chromium, total	MW-16	11/16/2021		0.0088	mg/L		
Chromium, total	MW-16	11/17/2022		0.0085	mg/L		
Chromium, total	MW-35	09/05/2013	ND	0.003	mg/L		
Chromium, total	MW-35	12/16/2013	ND	0.003	mg/L		
Chromium, total	MW-35	03/04/2014	ND	0.003	mg/L		
Chromium, total	MW-35	06/02/2014	ND	0.003	mg/L		
Chromium, total	MW-35	09/22/2014	ND	0.003	mg/L		
Chromium, total	MW-35	11/17/2014	ND	0.003	mg/L		
Chromium, total	MW-35	02/25/2015	ND	0.003	mg/L		
Chromium, total	MW-35	05/19/2015	ND	0.003	mg/L		
Chromium, total	MW-35	08/26/2015	ND	0.003	mg/L		
Chromium, total	MW-35	11/10/2015	ND	0.003	mg/L		
Chromium, total	MW-35	02/22/2016	ND	0.003	mg/L		
Chromium, total	MW-35	05/16/2016	ND	0.003	mg/L		
Chromium, total	MW-35	08/31/2016	ND	0.003	mg/L		
Chromium, total	MW-35	11/15/2016	ND	0.003	mg/L		
Chromium, total	MW-35	02/22/2017	ND	0.003	mg/L		
Chromium, total	MW-35	05/24/2017	ND	0.003	mg/L		
Chromium, total	MW-35	08/30/2017	ND	0.003	mg/L		
Chromium, total	MW-35	11/15/2017	ND	0.003	mg/L		
Chromium, total	MW-35	02/20/2018	ND	0.003	mg/L		
Chromium, total	MW-35	05/17/2018	ND	0.003	mg/L		
Chromium, total	MW-35	08/22/2018		0.0047	mg/L		
Chromium, total	MW-35	11/12/2018	ND	0.003	mg/L		
Chromium, total	MW-35	11/12/2019	ND	0.003	mg/L		
Chromium, total	MW-35	11/19/2020	ND	0.003	mg/L		
Chromium, total	MW-35	11/16/2021	ND	0.003	mg/L		
Chromium, total	MW-35	11/17/2022	ND	0.003	mg/L		
Cobalt, total	MW-13A	12/03/2013	ND	0.003	mg/L		
Cobalt, total	MW-13A	03/04/2014	ND	0.003	mg/L		
Cobalt, total	MW-13A	06/02/2014	ND	0.003	mg/L		
Cobalt, total	MW-13A	09/22/2014	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/17/2014	ND	0.003	mg/L		
Cobalt, total	MW-13A	02/23/2015	ND	0.003	mg/L		
Cobalt, total	MW-13A	05/19/2015	ND	0.003	mg/L		
Cobalt, total	MW-13A	08/26/2015	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/10/2015	ND	0.003	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Cobalt, total	MW-13A	02/22/2016	ND	0.003	mg/L		
Cobalt, total	MW-13A	05/16/2016	ND	0.003	mg/L		
Cobalt, total	MW-13A	08/31/2016	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/14/2016	ND	0.003	mg/L		
Cobalt, total	MW-13A	02/22/2017	ND	0.003	mg/L		
Cobalt, total	MW-13A	05/24/2017	ND	0.003	mg/L		
Cobalt, total	MW-13A	08/30/2017	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/13/2017	ND	0.003	mg/L		
Cobalt, total	MW-13A	02/20/2018	ND	0.003	mg/L		
Cobalt, total	MW-13A	05/15/2018	ND	0.003	mg/L		
Cobalt, total	MW-13A	08/21/2018	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/12/2018	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/11/2019	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/19/2020	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/16/2021	ND	0.003	mg/L		
Cobalt, total	MW-13A	11/17/2022	ND	0.003	mg/L		
Cobalt, total	MW-13B	12/03/2013	ND	0.003	mg/L		
Cobalt, total	MW-13B	03/04/2014	ND	0.003	mg/L		
Cobalt, total	MW-13B	06/02/2014	ND	0.003	mg/L		
Cobalt, total	MW-13B	09/22/2014	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/17/2014	ND	0.003	mg/L		
Cobalt, total	MW-13B	02/23/2015	ND	0.003	mg/L		
Cobalt, total	MW-13B	05/19/2015	ND	0.003	mg/L		
Cobalt, total	MW-13B	08/26/2015	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/10/2015	ND	0.003	mg/L		
Cobalt, total	MW-13B	02/22/2016	ND	0.003	mg/L		
Cobalt, total	MW-13B	05/16/2016	ND	0.003	mg/L		
Cobalt, total	MW-13B	08/31/2016	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/14/2016	ND	0.003	mg/L		
Cobalt, total	MW-13B	02/22/2017	ND	0.003	mg/L		
Cobalt, total	MW-13B	05/24/2017	ND	0.003	mg/L		
Cobalt, total	MW-13B	08/30/2017	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/13/2017	ND	0.003	mg/L		
Cobalt, total	MW-13B	02/20/2018	ND	0.003	mg/L		
Cobalt, total	MW-13B	05/15/2018	ND	0.003	mg/L		
Cobalt, total	MW-13B	08/21/2018	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/12/2018	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/11/2019	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/19/2020	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/16/2021	ND	0.003	mg/L		
Cobalt, total	MW-13B	11/17/2022	ND	0.003	mg/L		
Cobalt, total	MW-16	09/05/2013	ND	0.003	mg/L		
Cobalt, total	MW-16	12/16/2013	ND	0.003	mg/L		
Cobalt, total	MW-16	03/05/2014	ND	0.003	mg/L		
Cobalt, total	MW-16	06/02/2014	ND	0.003	mg/L		
Cobalt, total	MW-16	09/22/2014	ND	0.003	mg/L		
Cobalt, total	MW-16	11/18/2014	ND	0.003	mg/L		
Cobalt, total	MW-16	02/23/2015	ND	0.003	mg/L		
Cobalt, total	MW-16	05/20/2015	ND	0.003	mg/L		
Cobalt, total	MW-16	08/26/2015	ND	0.003	mg/L		
Cobalt, total	MW-16	11/11/2015	ND	0.003	mg/L		
Cobalt, total	MW-16	02/24/2016	ND	0.003	mg/L		
Cobalt, total	MW-16	05/16/2016	ND	0.003	mg/L		
Cobalt, total	MW-16	08/31/2016	ND	0.003	mg/L		
Cobalt, total	MW-16	11/14/2016	ND	0.003	mg/L		
Cobalt, total	MW-16	02/22/2017	ND	0.003	mg/L		
Cobalt, total	MW-16	05/24/2017	ND	0.003	mg/L		
Cobalt, total	MW-16	08/30/2017	ND	0.003	mg/L		
Cobalt, total	MW-16	11/13/2017	ND	0.003	mg/L		
Cobalt, total	MW-16	02/20/2018	ND	0.003	mg/L		
Cobalt, total	MW-16	05/17/2018	ND	0.003	mg/L		
Cobalt, total	MW-16	08/22/2018	ND	0.003	mg/L		

* = outlier for that well/constituent
** = ND value replaced with median reporting limit
ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Cobalt, total	MW-16	11/12/2018	ND	0.003	mg/L		
Cobalt, total	MW-16	11/12/2019	ND	0.003	mg/L		
Cobalt, total	MW-16	11/20/2020	ND	0.003	mg/L		
Cobalt, total	MW-16	11/16/2021	ND	0.003	mg/L		
Cobalt, total	MW-16	11/17/2022	ND	0.003	mg/L		
Cobalt, total	MW-35	09/05/2013	ND	0.003	mg/L		
Cobalt, total	MW-35	12/16/2013	ND	0.003	mg/L		
Cobalt, total	MW-35	03/04/2014	ND	0.003	mg/L		
Cobalt, total	MW-35	06/02/2014	ND	0.003	mg/L		
Cobalt, total	MW-35	09/22/2014	ND	0.003	mg/L		
Cobalt, total	MW-35	11/17/2014	ND	0.003	mg/L		
Cobalt, total	MW-35	02/25/2015	ND	0.003	mg/L		
Cobalt, total	MW-35	05/19/2015	ND	0.003	mg/L		
Cobalt, total	MW-35	08/26/2015	ND	0.003	mg/L		
Cobalt, total	MW-35	11/10/2015	ND	0.003	mg/L		
Cobalt, total	MW-35	02/22/2016	ND	0.003	mg/L		
Cobalt, total	MW-35	05/16/2016	ND	0.003	mg/L		
Cobalt, total	MW-35	08/31/2016	ND	0.003	mg/L		
Cobalt, total	MW-35	11/15/2016	ND	0.003	mg/L		
Cobalt, total	MW-35	02/22/2017	ND	0.003	mg/L		
Cobalt, total	MW-35	05/24/2017	ND	0.003	mg/L		
Cobalt, total	MW-35	08/30/2017	ND	0.003	mg/L		
Cobalt, total	MW-35	11/15/2017	ND	0.003	mg/L		
Cobalt, total	MW-35	02/20/2018	ND	0.003	mg/L		
Cobalt, total	MW-35	05/17/2018	ND	0.003	mg/L		
Cobalt, total	MW-35	08/22/2018	ND	0.003	mg/L		
Cobalt, total	MW-35	11/12/2018	ND	0.003	mg/L		
Cobalt, total	MW-35	11/12/2019	ND	0.003	mg/L		
Cobalt, total	MW-35	11/19/2020	ND	0.003	mg/L		
Cobalt, total	MW-35	11/16/2021	ND	0.003	mg/L		
Cobalt, total	MW-35	11/17/2022	ND	0.003	mg/L		
Copper, total	MW-13A	12/03/2013	ND	0.002	mg/L		
Copper, total	MW-13A	03/04/2014	ND	0.002	mg/L		
Copper, total	MW-13A	06/02/2014	ND	0.002	mg/L		
Copper, total	MW-13A	09/22/2014	ND	0.002	mg/L		
Copper, total	MW-13A	11/17/2014	ND	0.002	mg/L		
Copper, total	MW-13A	02/23/2015	ND	0.002	mg/L		
Copper, total	MW-13A	05/19/2015	ND	0.002	mg/L		
Copper, total	MW-13A	08/26/2015	ND	0.002	mg/L		
Copper, total	MW-13A	11/10/2015	ND	0.002	mg/L		
Copper, total	MW-13A	02/22/2016	ND	0.002	mg/L		
Copper, total	MW-13A	05/16/2016	ND	0.002	mg/L		
Copper, total	MW-13A	08/31/2016	ND	0.002	mg/L		
Copper, total	MW-13A	11/14/2016		0.0021	mg/L		
Copper, total	MW-13A	02/22/2017	ND	0.002	mg/L		
Copper, total	MW-13A	05/24/2017	ND	0.002	mg/L		
Copper, total	MW-13A	08/30/2017	ND	0.002	mg/L		
Copper, total	MW-13A	11/13/2017	ND	0.002	mg/L		
Copper, total	MW-13A	02/20/2018	ND	0.002	mg/L		
Copper, total	MW-13A	05/15/2018	ND	0.002	mg/L		
Copper, total	MW-13A	08/21/2018	ND	0.002	mg/L		
Copper, total	MW-13A	11/12/2018	ND	0.002	mg/L		
Copper, total	MW-13A	11/11/2019	ND	0.002	mg/L		
Copper, total	MW-13A	11/19/2020	ND	0.002	mg/L		
Copper, total	MW-13A	11/16/2021	ND	0.002	mg/L		
Copper, total	MW-13A	11/17/2022	ND	0.002	mg/L		
Copper, total	MW-13B	12/03/2013	ND	0.002	mg/L		
Copper, total	MW-13B	03/04/2014	ND	0.002	mg/L		
Copper, total	MW-13B	06/02/2014	ND	0.002	mg/L		
Copper, total	MW-13B	09/22/2014	ND	0.002	mg/L		
Copper, total	MW-13B	11/17/2014	ND	0.002	mg/L		
Copper, total	MW-13B	02/23/2015	ND	0.002	mg/L		

* = outlier for that well/constituent
** = ND value replaced with median reporting limit
ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Copper, total	MW-13B	05/19/2015	ND	0.002	mg/L		
Copper, total	MW-13B	08/26/2015	ND	0.002	mg/L		
Copper, total	MW-13B	11/10/2015	ND	0.002	mg/L		
Copper, total	MW-13B	02/22/2016	ND	0.002	mg/L		
Copper, total	MW-13B	05/16/2016	ND	0.002	mg/L		
Copper, total	MW-13B	08/31/2016	ND	0.002	mg/L		
Copper, total	MW-13B	11/14/2016	ND	0.002	mg/L		
Copper, total	MW-13B	02/22/2017	ND	0.002	mg/L		
Copper, total	MW-13B	05/24/2017	ND	0.002	mg/L		
Copper, total	MW-13B	08/30/2017	ND	0.002	mg/L		
Copper, total	MW-13B	11/13/2017	ND	0.002	mg/L		
Copper, total	MW-13B	02/20/2018	ND	0.002	mg/L		
Copper, total	MW-13B	05/15/2018	ND	0.002	mg/L		
Copper, total	MW-13B	08/21/2018	ND	0.002	mg/L		
Copper, total	MW-13B	11/12/2018	ND	0.002	mg/L		
Copper, total	MW-13B	11/11/2019	ND	0.002	mg/L		
Copper, total	MW-13B	11/19/2020	ND	0.002	mg/L		
Copper, total	MW-13B	11/16/2021	ND	0.002	mg/L		
Copper, total	MW-13B	11/17/2022	ND	0.002	mg/L		
Copper, total	MW-16	09/05/2013	ND	0.002	mg/L		
Copper, total	MW-16	12/16/2013	ND	0.002	mg/L		
Copper, total	MW-16	03/05/2014	ND	0.002	mg/L		
Copper, total	MW-16	06/02/2014	ND	0.002	mg/L		
Copper, total	MW-16	09/22/2014	ND	0.002	mg/L		
Copper, total	MW-16	11/18/2014	ND	0.002	mg/L		
Copper, total	MW-16	02/23/2015	ND	0.002	mg/L		
Copper, total	MW-16	05/20/2015	ND	0.002	mg/L		
Copper, total	MW-16	08/26/2015	ND	0.002	mg/L		
Copper, total	MW-16	11/11/2015	ND	0.002	mg/L		
Copper, total	MW-16	02/24/2016	ND	0.002	mg/L		
Copper, total	MW-16	05/16/2016	ND	0.002	mg/L		
Copper, total	MW-16	08/31/2016	ND	0.002	mg/L		
Copper, total	MW-16	11/14/2016	ND	0.002	mg/L		
Copper, total	MW-16	02/22/2017	ND	0.002	mg/L		
Copper, total	MW-16	05/24/2017	ND	0.002	mg/L		
Copper, total	MW-16	08/30/2017	ND	0.002	mg/L		
Copper, total	MW-16	11/13/2017	ND	0.002	mg/L		
Copper, total	MW-16	02/20/2018	ND	0.002	mg/L		
Copper, total	MW-16	05/17/2018	ND	0.002	mg/L		
Copper, total	MW-16	08/22/2018	ND	0.002	mg/L		
Copper, total	MW-16	11/12/2018	ND	0.002	mg/L		
Copper, total	MW-16	11/12/2019	ND	0.002	mg/L		
Copper, total	MW-16	11/20/2020	ND	0.002	mg/L		
Copper, total	MW-16	11/16/2021	ND	0.002	mg/L		
Copper, total	MW-16	11/17/2022	ND	0.002	mg/L		
Copper, total	MW-35	09/05/2013	ND	0.002	mg/L		
Copper, total	MW-35	12/16/2013	ND	0.002	mg/L		
Copper, total	MW-35	03/04/2014	ND	0.002	mg/L		
Copper, total	MW-35	06/02/2014	ND	0.002	mg/L		
Copper, total	MW-35	09/22/2014	ND	0.002	mg/L		
Copper, total	MW-35	11/17/2014	ND	0.002	mg/L		
Copper, total	MW-35	02/25/2015	ND	0.002	mg/L		
Copper, total	MW-35	05/19/2015	ND	0.002	mg/L		
Copper, total	MW-35	08/26/2015	ND	0.002	mg/L		
Copper, total	MW-35	11/10/2015	ND	0.002	mg/L		
Copper, total	MW-35	02/22/2016	ND	0.002	mg/L		
Copper, total	MW-35	05/16/2016	ND	0.002	mg/L		
Copper, total	MW-35	08/31/2016	ND	0.002	mg/L		
Copper, total	MW-35	11/15/2016	ND	0.002	mg/L		
Copper, total	MW-35	02/22/2017	ND	0.002	mg/L		
Copper, total	MW-35	05/24/2017	ND	0.002	mg/L		
Copper, total	MW-35	08/30/2017	ND	0.002	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Copper, total	MW-35	11/15/2017	ND	0.002	mg/L		
Copper, total	MW-35	02/20/2018	ND	0.002	mg/L		
Copper, total	MW-35	05/17/2018	ND	0.002	mg/L		
Copper, total	MW-35	08/22/2018	ND	0.002	mg/L		
Copper, total	MW-35	11/12/2018	ND	0.002	mg/L		
Copper, total	MW-35	11/12/2019	ND	0.002	mg/L		
Copper, total	MW-35	11/19/2020	ND	0.002	mg/L		
Copper, total	MW-35	11/16/2021	ND	0.002	mg/L		
Copper, total	MW-35	11/17/2022	ND	0.002	mg/L		
Iron, total	MW-13A	12/03/2013	ND	0.06	mg/L		
Iron, total	MW-13A	03/04/2014	ND	0.06	mg/L		
Iron, total	MW-13A	06/02/2014	ND	0.06	mg/L		
Iron, total	MW-13A	09/22/2014	ND	0.06	mg/L		
Iron, total	MW-13A	11/17/2014	ND	0.06	mg/L		
Iron, total	MW-13A	02/23/2015	ND	0.06	mg/L		
Iron, total	MW-13A	05/19/2015	ND	0.06	mg/L		
Iron, total	MW-13A	08/26/2015	ND	0.06	mg/L		
Iron, total	MW-13A	11/10/2015	ND	0.06	mg/L		
Iron, total	MW-13A	02/22/2016	ND	0.06	mg/L		
Iron, total	MW-13A	05/16/2016	ND	0.06	mg/L		
Iron, total	MW-13A	08/31/2016	ND	0.06	mg/L		
Iron, total	MW-13A	11/14/2016		0.073	mg/L		
Iron, total	MW-13A	02/22/2017	ND	0.06	mg/L		
Iron, total	MW-13A	05/24/2017		0.087	mg/L		
Iron, total	MW-13A	08/30/2017	ND	0.06	mg/L		
Iron, total	MW-13A	11/13/2017	ND	0.06	mg/L		
Iron, total	MW-13A	02/20/2018	ND	0.06	mg/L		
Iron, total	MW-13A	05/15/2018	ND	0.06	mg/L		
Iron, total	MW-13A	08/21/2018	ND	0.06	mg/L		
Iron, total	MW-13A	11/12/2018	ND	0.06	mg/L		
Iron, total	MW-13A	11/11/2019	ND	0.06	mg/L		
Iron, total	MW-13A	11/19/2020	ND	0.06	mg/L		
Iron, total	MW-13A	11/16/2021	ND	0.06	mg/L		
Iron, total	MW-13A	11/17/2022	ND	0.06	mg/L		
Iron, total	MW-13B	12/03/2013	ND	0.06	mg/L		
Iron, total	MW-13B	03/04/2014	ND	0.06	mg/L		
Iron, total	MW-13B	06/02/2014	ND	0.06	mg/L		
Iron, total	MW-13B	09/22/2014	ND	0.06	mg/L		
Iron, total	MW-13B	11/17/2014	ND	0.06	mg/L		
Iron, total	MW-13B	02/23/2015	ND	0.06	mg/L		
Iron, total	MW-13B	05/19/2015	ND	0.06	mg/L		
Iron, total	MW-13B	08/26/2015	ND	0.06	mg/L		
Iron, total	MW-13B	11/10/2015	ND	0.06	mg/L		
Iron, total	MW-13B	02/22/2016	ND	0.06	mg/L		
Iron, total	MW-13B	05/16/2016	ND	0.06	mg/L		
Iron, total	MW-13B	08/31/2016	ND	0.06	mg/L		
Iron, total	MW-13B	11/14/2016	ND	0.06	mg/L		
Iron, total	MW-13B	02/22/2017	ND	0.06	mg/L		
Iron, total	MW-13B	05/24/2017	ND	0.06	mg/L		
Iron, total	MW-13B	08/30/2017	ND	0.06	mg/L		
Iron, total	MW-13B	11/13/2017	ND	0.06	mg/L		
Iron, total	MW-13B	02/20/2018	ND	0.06	mg/L		
Iron, total	MW-13B	05/15/2018	ND	0.06	mg/L		
Iron, total	MW-13B	08/21/2018	ND	0.06	mg/L		
Iron, total	MW-13B	11/12/2018	ND	0.06	mg/L		
Iron, total	MW-13B	11/11/2019	ND	0.06	mg/L		
Iron, total	MW-13B	11/19/2020	ND	0.06	mg/L		
Iron, total	MW-13B	11/16/2021	ND	0.06	mg/L		
Iron, total	MW-13B	11/17/2022	ND	0.06	mg/L		
Iron, total	MW-16	09/05/2013		0.12	mg/L		
Iron, total	MW-16	12/16/2013		0.068	mg/L		
Iron, total	MW-16	03/05/2014		0.2	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Iron, total	MW-16	06/02/2014	ND	0.06	mg/L		
Iron, total	MW-16	09/22/2014	ND	0.06	mg/L		
Iron, total	MW-16	11/18/2014		0.18	mg/L		
Iron, total	MW-16	02/23/2015		0.31	mg/L		
Iron, total	MW-16	05/20/2015	ND	0.06	mg/L		
Iron, total	MW-16	08/26/2015	ND	0.06	mg/L		
Iron, total	MW-16	11/11/2015	ND	0.06	mg/L		
Iron, total	MW-16	02/24/2016	ND	0.06	mg/L		
Iron, total	MW-16	05/16/2016	ND	0.06	mg/L		
Iron, total	MW-16	08/31/2016	ND	0.06	mg/L		
Iron, total	MW-16	11/14/2016		0.12	mg/L		
Iron, total	MW-16	02/22/2017	ND	0.06	mg/L		
Iron, total	MW-16	05/24/2017		0.068	mg/L		
Iron, total	MW-16	08/30/2017	ND	0.06	mg/L		
Iron, total	MW-16	11/13/2017	ND	0.06	mg/L		
Iron, total	MW-16	02/20/2018		0.067	mg/L		
Iron, total	MW-16	05/17/2018	ND	0.06	mg/L		
Iron, total	MW-16	08/22/2018	ND	0.06	mg/L		
Iron, total	MW-16	11/12/2018		0.22	mg/L		
Iron, total	MW-16	11/12/2019		0.11	mg/L		
Iron, total	MW-16	11/20/2020		0.88	mg/L		*
Iron, total	MW-16	11/16/2021		0.11	mg/L		
Iron, total	MW-16	11/17/2022	ND	0.06	mg/L		
Iron, total	MW-35	09/05/2013	ND	0.06	mg/L		
Iron, total	MW-35	12/16/2013	ND	0.06	mg/L		
Iron, total	MW-35	03/04/2014	ND	0.06	mg/L		
Iron, total	MW-35	06/02/2014	ND	0.06	mg/L		
Iron, total	MW-35	09/22/2014	ND	0.06	mg/L		
Iron, total	MW-35	11/17/2014	ND	0.06	mg/L		
Iron, total	MW-35	02/25/2015	ND	0.06	mg/L		
Iron, total	MW-35	05/19/2015	ND	0.06	mg/L		
Iron, total	MW-35	08/26/2015	ND	0.06	mg/L		
Iron, total	MW-35	11/10/2015	ND	0.06	mg/L		
Iron, total	MW-35	02/22/2016	ND	0.06	mg/L		
Iron, total	MW-35	05/16/2016	ND	0.06	mg/L		
Iron, total	MW-35	08/31/2016	ND	0.06	mg/L		
Iron, total	MW-35	11/15/2016	ND	0.06	mg/L		
Iron, total	MW-35	02/22/2017	ND	0.06	mg/L		
Iron, total	MW-35	05/24/2017	ND	0.06	mg/L		
Iron, total	MW-35	08/30/2017	ND	0.06	mg/L		
Iron, total	MW-35	11/15/2017	ND	0.06	mg/L		
Iron, total	MW-35	02/20/2018	ND	0.06	mg/L		
Iron, total	MW-35	05/17/2018	ND	0.06	mg/L		
Iron, total	MW-35	08/22/2018	ND	0.06	mg/L		
Iron, total	MW-35	11/12/2018	ND	0.06	mg/L		
Iron, total	MW-35	11/12/2019	ND	0.06	mg/L		
Iron, total	MW-35	11/19/2020	ND	0.06	mg/L		
Iron, total	MW-35	11/16/2021	ND	0.06	mg/L		
Iron, total	MW-35	11/17/2022	ND	0.06	mg/L		
Lead, total	MW-13A	12/03/2013	ND	0.001	mg/L		
Lead, total	MW-13A	03/04/2014	ND	0.001	mg/L		
Lead, total	MW-13A	06/02/2014	ND	0.001	mg/L		
Lead, total	MW-13A	09/22/2014	ND	0.001	mg/L		
Lead, total	MW-13A	11/17/2014	ND	0.001	mg/L		
Lead, total	MW-13A	02/23/2015	ND	0.001	mg/L		
Lead, total	MW-13A	05/19/2015	ND	0.001	mg/L		
Lead, total	MW-13A	08/26/2015	ND	0.001	mg/L		
Lead, total	MW-13A	11/10/2015	ND	0.001	mg/L		
Lead, total	MW-13A	02/22/2016	ND	0.001	mg/L		
Lead, total	MW-13A	05/16/2016	ND	0.001	mg/L		
Lead, total	MW-13A	08/31/2016	ND	0.001	mg/L		
Lead, total	MW-13A	11/14/2016	ND	0.001	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Lead, total	MW-13A	02/22/2017	ND	0.001	mg/L		
Lead, total	MW-13A	05/24/2017	ND	0.001	mg/L		
Lead, total	MW-13A	08/30/2017	ND	0.001	mg/L		
Lead, total	MW-13A	11/13/2017	ND	0.001	mg/L		
Lead, total	MW-13A	02/20/2018	ND	0.001	mg/L		
Lead, total	MW-13A	05/15/2018	ND	0.001	mg/L		
Lead, total	MW-13A	08/21/2018	ND	0.001	mg/L		
Lead, total	MW-13A	11/12/2018	ND	0.001	mg/L		
Lead, total	MW-13A	11/11/2019	ND	0.001	mg/L		
Lead, total	MW-13A	11/19/2020	ND	0.001	mg/L		
Lead, total	MW-13A	11/16/2021	ND	0.001	mg/L		
Lead, total	MW-13A	11/17/2022	ND	0.001	mg/L		
Lead, total	MW-13B	12/03/2013	ND	0.001	mg/L		
Lead, total	MW-13B	03/04/2014	ND	0.001	mg/L		
Lead, total	MW-13B	06/02/2014	ND	0.001	mg/L		
Lead, total	MW-13B	09/22/2014	ND	0.001	mg/L		
Lead, total	MW-13B	11/17/2014	ND	0.001	mg/L		
Lead, total	MW-13B	02/23/2015	ND	0.001	mg/L		
Lead, total	MW-13B	05/19/2015	ND	0.001	mg/L		
Lead, total	MW-13B	08/26/2015	ND	0.001	mg/L		
Lead, total	MW-13B	11/10/2015	ND	0.001	mg/L		
Lead, total	MW-13B	02/22/2016	ND	0.001	mg/L		
Lead, total	MW-13B	05/16/2016	ND	0.001	mg/L		
Lead, total	MW-13B	08/31/2016	ND	0.001	mg/L		
Lead, total	MW-13B	11/14/2016	ND	0.001	mg/L		
Lead, total	MW-13B	02/22/2017	ND	0.001	mg/L		
Lead, total	MW-13B	05/24/2017	ND	0.001	mg/L		
Lead, total	MW-13B	08/30/2017	ND	0.001	mg/L		
Lead, total	MW-13B	11/13/2017	ND	0.001	mg/L		
Lead, total	MW-13B	02/20/2018	ND	0.001	mg/L		
Lead, total	MW-13B	05/15/2018	ND	0.001	mg/L		
Lead, total	MW-13B	08/21/2018	ND	0.001	mg/L		
Lead, total	MW-13B	11/12/2018	ND	0.001	mg/L		
Lead, total	MW-13B	11/11/2019	ND	0.001	mg/L		
Lead, total	MW-13B	11/19/2020	ND	0.001	mg/L		
Lead, total	MW-13B	11/16/2021	ND	0.001	mg/L		
Lead, total	MW-13B	11/17/2022	ND	0.001	mg/L		
Lead, total	MW-16	09/05/2013	ND	0.001	mg/L		
Lead, total	MW-16	12/16/2013	ND	0.001	mg/L		
Lead, total	MW-16	03/05/2014	ND	0.001	mg/L		
Lead, total	MW-16	06/02/2014	ND	0.001	mg/L		
Lead, total	MW-16	09/22/2014		0.0014	mg/L		
Lead, total	MW-16	11/18/2014	ND	0.001	mg/L		
Lead, total	MW-16	02/23/2015	ND	0.001	mg/L		
Lead, total	MW-16	05/20/2015	ND	0.001	mg/L		
Lead, total	MW-16	08/26/2015	ND	0.001	mg/L		
Lead, total	MW-16	11/11/2015	ND	0.001	mg/L		
Lead, total	MW-16	02/24/2016	ND	0.001	mg/L		
Lead, total	MW-16	05/16/2016	ND	0.001	mg/L		
Lead, total	MW-16	08/31/2016	ND	0.001	mg/L		
Lead, total	MW-16	11/14/2016	ND	0.001	mg/L		
Lead, total	MW-16	02/22/2017	ND	0.001	mg/L		
Lead, total	MW-16	05/24/2017	ND	0.001	mg/L		
Lead, total	MW-16	08/30/2017	ND	0.001	mg/L		
Lead, total	MW-16	11/13/2017	ND	0.001	mg/L		
Lead, total	MW-16	02/20/2018	ND	0.001	mg/L		
Lead, total	MW-16	05/17/2018	ND	0.001	mg/L		
Lead, total	MW-16	08/22/2018	ND	0.001	mg/L		
Lead, total	MW-16	11/12/2018	ND	0.001	mg/L		
Lead, total	MW-16	11/12/2019	ND	0.001	mg/L		
Lead, total	MW-16	11/20/2020	ND	0.001	mg/L		
Lead, total	MW-16	11/16/2021	ND	0.001	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Lead, total	MW-16	11/17/2022	ND	0.001	mg/L		
Lead, total	MW-35	09/05/2013	ND	0.001	mg/L		
Lead, total	MW-35	12/16/2013	ND	0.001	mg/L		
Lead, total	MW-35	03/04/2014	ND	0.001	mg/L		
Lead, total	MW-35	06/02/2014	ND	0.001	mg/L		
Lead, total	MW-35	09/22/2014	ND	0.001	mg/L		
Lead, total	MW-35	11/17/2014	ND	0.001	mg/L		
Lead, total	MW-35	02/25/2015	ND	0.001	mg/L		
Lead, total	MW-35	05/19/2015	ND	0.001	mg/L		
Lead, total	MW-35	08/26/2015	ND	0.001	mg/L		
Lead, total	MW-35	11/10/2015	ND	0.001	mg/L		
Lead, total	MW-35	02/22/2016	ND	0.001	mg/L		
Lead, total	MW-35	05/16/2016	ND	0.001	mg/L		
Lead, total	MW-35	08/31/2016	ND	0.001	mg/L		
Lead, total	MW-35	11/15/2016	ND	0.001	mg/L		
Lead, total	MW-35	02/22/2017	ND	0.001	mg/L		
Lead, total	MW-35	05/24/2017	ND	0.001	mg/L		
Lead, total	MW-35	08/30/2017	ND	0.001	mg/L		
Lead, total	MW-35	11/15/2017	ND	0.001	mg/L		
Lead, total	MW-35	02/20/2018	ND	0.001	mg/L		
Lead, total	MW-35	05/17/2018	ND	0.001	mg/L		
Lead, total	MW-35	08/22/2018	ND	0.001	mg/L		
Lead, total	MW-35	11/12/2018	ND	0.001	mg/L		
Lead, total	MW-35	11/12/2019	ND	0.001	mg/L		
Lead, total	MW-35	11/19/2020	ND	0.001	mg/L		
Lead, total	MW-35	11/16/2021	ND	0.001	mg/L		
Lead, total	MW-35	11/17/2022	ND	0.001	mg/L		
Magnesium, dissolved	MW-13A	03/22/2005		9.2	mg/L		
Magnesium, dissolved	MW-13A	06/15/2005		8.2	mg/L		
Magnesium, dissolved	MW-13A	09/27/2005		8.4	mg/L		
Magnesium, dissolved	MW-13A	12/15/2005		8.6	mg/L		
Magnesium, dissolved	MW-13A	03/28/2006		9.2	mg/L		
Magnesium, dissolved	MW-13A	06/21/2006		9.1	mg/L		
Magnesium, dissolved	MW-13A	09/26/2006		9.2	mg/L		
Magnesium, dissolved	MW-13A	12/13/2006		9.3	mg/L		
Magnesium, dissolved	MW-13A	03/27/2007		9.3	mg/L		
Magnesium, dissolved	MW-13A	06/19/2007		9	mg/L		
Magnesium, dissolved	MW-13A	09/19/2007		9.4	mg/L		
Magnesium, dissolved	MW-13A	12/19/2007		8.6	mg/L		
Magnesium, dissolved	MW-13A	03/25/2008		9.1	mg/L		
Magnesium, dissolved	MW-13A	06/18/2008		9.3	mg/L		
Magnesium, dissolved	MW-13A	09/17/2008		9.2	mg/L		
Magnesium, dissolved	MW-13A	12/17/2008		9.3	mg/L		
Magnesium, dissolved	MW-13A	03/24/2009		9.6	mg/L		
Magnesium, dissolved	MW-13A	06/17/2009		9.6	mg/L		
Magnesium, dissolved	MW-13A	09/10/2009		9.3	mg/L		
Magnesium, dissolved	MW-13A	12/03/2009		9.1	mg/L		
Magnesium, dissolved	MW-13A	03/25/2010		8.7	mg/L		
Magnesium, dissolved	MW-13A	06/23/2010		9.7	mg/L		
Magnesium, dissolved	MW-13A	09/23/2010		9.4	mg/L		
Magnesium, dissolved	MW-13A	12/08/2010		8.1	mg/L		
Magnesium, dissolved	MW-13A	03/30/2011		9.6	mg/L		
Magnesium, dissolved	MW-13A	06/06/2011		10	mg/L		
Magnesium, dissolved	MW-13A	09/27/2011		9.7	mg/L		
Magnesium, dissolved	MW-13A	12/14/2011		9.3	mg/L		
Magnesium, dissolved	MW-13A	03/21/2012		9.9	mg/L		
Magnesium, dissolved	MW-13A	06/08/2012		8.9	mg/L		
Magnesium, dissolved	MW-13A	09/26/2012		9.6	mg/L		
Magnesium, dissolved	MW-13A	12/03/2012		9.2	mg/L		
Magnesium, dissolved	MW-13A	03/11/2013		9.4	mg/L		
Magnesium, dissolved	MW-13A	06/05/2013		9.8	mg/L		
Magnesium, dissolved	MW-13A	12/03/2013		9.4	mg/L		

* = outlier for that well/constituent
** = ND value replaced with median reporting limit
ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Magnesium, dissolved	MW-13A	03/04/2014		9.8	mg/L		
Magnesium, dissolved	MW-13A	06/02/2014		9.2	mg/L		
Magnesium, dissolved	MW-13A	09/22/2014		8.7	mg/L		
Magnesium, dissolved	MW-13A	11/17/2014		9.3	mg/L		
Magnesium, dissolved	MW-13A	02/23/2015		9.2	mg/L		
Magnesium, dissolved	MW-13A	05/19/2015		9.5	mg/L		
Magnesium, dissolved	MW-13A	08/26/2015		9.3	mg/L		
Magnesium, dissolved	MW-13A	11/10/2015		9.1	mg/L		
Magnesium, dissolved	MW-13A	02/22/2016		9.7	mg/L		
Magnesium, dissolved	MW-13A	05/16/2016		9.5	mg/L		
Magnesium, dissolved	MW-13A	08/31/2016		8.6	mg/L		
Magnesium, dissolved	MW-13A	11/14/2016		10	mg/L		
Magnesium, dissolved	MW-13A	02/22/2017		10	mg/L		
Magnesium, dissolved	MW-13A	05/24/2017		8.9	mg/L		
Magnesium, dissolved	MW-13A	08/30/2017		8.8	mg/L		
Magnesium, dissolved	MW-13A	11/13/2017		8.6	mg/L		
Magnesium, dissolved	MW-13A	02/20/2018		8.2	mg/L		
Magnesium, dissolved	MW-13A	05/15/2018		8.5	mg/L		
Magnesium, dissolved	MW-13A	08/21/2018		8.3	mg/L		
Magnesium, dissolved	MW-13A	11/12/2018		8.3	mg/L		
Magnesium, dissolved	MW-13A	11/11/2019		8.6	mg/L		
Magnesium, dissolved	MW-13A	11/19/2020		8.7	mg/L		
Magnesium, dissolved	MW-13A	11/16/2021		8.8	mg/L		
Magnesium, dissolved	MW-13A	11/17/2022		8.9	mg/L		
Magnesium, dissolved	MW-13B	03/22/2005		8.6	mg/L		
Magnesium, dissolved	MW-13B	06/15/2005		8	mg/L		
Magnesium, dissolved	MW-13B	09/27/2005		8.7	mg/L		
Magnesium, dissolved	MW-13B	12/15/2005		8	mg/L		
Magnesium, dissolved	MW-13B	03/29/2006		8.1	mg/L		
Magnesium, dissolved	MW-13B	06/21/2006		8.3	mg/L		
Magnesium, dissolved	MW-13B	09/26/2006		8.5	mg/L		
Magnesium, dissolved	MW-13B	12/13/2006		8.7	mg/L		
Magnesium, dissolved	MW-13B	03/27/2007		8.4	mg/L		
Magnesium, dissolved	MW-13B	06/19/2007		7.9	mg/L		
Magnesium, dissolved	MW-13B	09/18/2007		8.7	mg/L		
Magnesium, dissolved	MW-13B	12/19/2007		7.6	mg/L		
Magnesium, dissolved	MW-13B	03/25/2008		8	mg/L		
Magnesium, dissolved	MW-13B	06/18/2008		8.2	mg/L		
Magnesium, dissolved	MW-13B	09/17/2008		8.3	mg/L		
Magnesium, dissolved	MW-13B	12/16/2008		8.3	mg/L		
Magnesium, dissolved	MW-13B	03/24/2009		8.5	mg/L		
Magnesium, dissolved	MW-13B	06/17/2009		8.5	mg/L		
Magnesium, dissolved	MW-13B	09/10/2009		8.3	mg/L		
Magnesium, dissolved	MW-13B	12/03/2009		8	mg/L		
Magnesium, dissolved	MW-13B	03/25/2010		8.1	mg/L		
Magnesium, dissolved	MW-13B	06/23/2010		8.7	mg/L		
Magnesium, dissolved	MW-13B	09/23/2010		8.3	mg/L		
Magnesium, dissolved	MW-13B	12/08/2010		9.3	mg/L		
Magnesium, dissolved	MW-13B	03/30/2011		8.2	mg/L		
Magnesium, dissolved	MW-13B	06/06/2011		9	mg/L		
Magnesium, dissolved	MW-13B	09/27/2011		8.4	mg/L		
Magnesium, dissolved	MW-13B	12/14/2011		8.1	mg/L		
Magnesium, dissolved	MW-13B	03/21/2012		8.5	mg/L		
Magnesium, dissolved	MW-13B	06/08/2012		8.1	mg/L		
Magnesium, dissolved	MW-13B	09/26/2012		8.6	mg/L		
Magnesium, dissolved	MW-13B	12/03/2012		8.2	mg/L		
Magnesium, dissolved	MW-13B	03/11/2013		8.6	mg/L		
Magnesium, dissolved	MW-13B	06/05/2013		8.9	mg/L		
Magnesium, dissolved	MW-13B	12/03/2013		8.9	mg/L		
Magnesium, dissolved	MW-13B	03/04/2014		8.7	mg/L		
Magnesium, dissolved	MW-13B	06/02/2014		8.3	mg/L		
Magnesium, dissolved	MW-13B	09/22/2014		7.7	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Magnesium, dissolved	MW-13B	11/17/2014		8.7	mg/L		
Magnesium, dissolved	MW-13B	02/23/2015		8.6	mg/L		
Magnesium, dissolved	MW-13B	05/19/2015		8.9	mg/L		
Magnesium, dissolved	MW-13B	08/26/2015		8.8	mg/L		
Magnesium, dissolved	MW-13B	11/10/2015		8.6	mg/L		
Magnesium, dissolved	MW-13B	02/22/2016		9.1	mg/L		
Magnesium, dissolved	MW-13B	05/16/2016		8.6	mg/L		
Magnesium, dissolved	MW-13B	08/31/2016		8.1	mg/L		
Magnesium, dissolved	MW-13B	11/14/2016		9.3	mg/L		
Magnesium, dissolved	MW-13B	02/22/2017		9.3	mg/L		
Magnesium, dissolved	MW-13B	05/24/2017		8.6	mg/L		
Magnesium, dissolved	MW-13B	08/30/2017		8.5	mg/L		
Magnesium, dissolved	MW-13B	11/13/2017		8.3	mg/L		
Magnesium, dissolved	MW-13B	02/20/2018		8.2	mg/L		
Magnesium, dissolved	MW-13B	05/15/2018		7.8	mg/L		
Magnesium, dissolved	MW-13B	08/21/2018		8.6	mg/L		
Magnesium, dissolved	MW-13B	11/12/2018		8.2	mg/L		
Magnesium, dissolved	MW-13B	11/11/2019		8.3	mg/L		
Magnesium, dissolved	MW-13B	11/19/2020		8	mg/L		
Magnesium, dissolved	MW-13B	11/16/2021		7.7	mg/L		
Magnesium, dissolved	MW-13B	11/17/2022		8.6	mg/L		
Magnesium, dissolved	MW-16	03/24/2009		7.2	mg/L		
Magnesium, dissolved	MW-16	06/16/2009		5.9	mg/L		
Magnesium, dissolved	MW-16	09/09/2009		6.9	mg/L		
Magnesium, dissolved	MW-16	12/03/2009		8	mg/L		
Magnesium, dissolved	MW-16	03/25/2010		5.1	mg/L		
Magnesium, dissolved	MW-16	06/24/2010		6.9	mg/L		
Magnesium, dissolved	MW-16	09/24/2010		7.4	mg/L		
Magnesium, dissolved	MW-16	12/09/2010		8.3	mg/L		
Magnesium, dissolved	MW-16	03/30/2011		5.8	mg/L		
Magnesium, dissolved	MW-16	06/07/2011		5.6	mg/L		
Magnesium, dissolved	MW-16	09/27/2011		6.6	mg/L		
Magnesium, dissolved	MW-16	12/13/2011		6.2	mg/L		
Magnesium, dissolved	MW-16	03/21/2012		5.5	mg/L		
Magnesium, dissolved	MW-16	06/08/2012		5	mg/L		
Magnesium, dissolved	MW-16	09/27/2012		6.4	mg/L		
Magnesium, dissolved	MW-16	12/04/2012		6.6	mg/L		
Magnesium, dissolved	MW-16	03/12/2013		5.6	mg/L		
Magnesium, dissolved	MW-16	06/04/2013		5.8	mg/L		
Magnesium, dissolved	MW-16	09/05/2013		6	mg/L		
Magnesium, dissolved	MW-16	12/16/2013		5.9	mg/L		
Magnesium, dissolved	MW-16	03/05/2014		6.6	mg/L		
Magnesium, dissolved	MW-16	06/02/2014		5	mg/L		
Magnesium, dissolved	MW-16	09/22/2014		5.5	mg/L		
Magnesium, dissolved	MW-16	11/18/2014		6.4	mg/L		
Magnesium, dissolved	MW-16	02/23/2015		5.7	mg/L		
Magnesium, dissolved	MW-16	05/20/2015		5.7	mg/L		
Magnesium, dissolved	MW-16	08/26/2015		5.9	mg/L		
Magnesium, dissolved	MW-16	11/11/2015		6.7	mg/L		
Magnesium, dissolved	MW-16	02/24/2016		4.5	mg/L		
Magnesium, dissolved	MW-16	05/16/2016		5	mg/L		
Magnesium, dissolved	MW-16	08/31/2016		5.4	mg/L		
Magnesium, dissolved	MW-16	11/14/2016		5.9	mg/L		
Magnesium, dissolved	MW-16	02/22/2017		5	mg/L		
Magnesium, dissolved	MW-16	05/24/2017		4.2	mg/L		
Magnesium, dissolved	MW-16	08/30/2017		4.9	mg/L		
Magnesium, dissolved	MW-16	11/13/2017		4.8	mg/L		
Magnesium, dissolved	MW-16	02/20/2018		4.3	mg/L		
Magnesium, dissolved	MW-16	05/17/2018		4.3	mg/L		
Magnesium, dissolved	MW-16	08/22/2018		4.6	mg/L		
Magnesium, dissolved	MW-16	11/12/2018		5.2	mg/L		
Magnesium, dissolved	MW-16	11/12/2019		6.9	mg/L		

* = outlier for that well/constituent
** = ND value replaced with median reporting limit
ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Magnesium, dissolved	MW-16	11/20/2020		7.4	mg/L		
Magnesium, dissolved	MW-16	11/16/2021		6.8	mg/L		
Magnesium, dissolved	MW-16	11/17/2022		5.6	mg/L		
Magnesium, dissolved	MW-35	03/22/2005		8.6	mg/L		
Magnesium, dissolved	MW-35	06/14/2005		8.1	mg/L		
Magnesium, dissolved	MW-35	09/27/2005		9.2	mg/L		
Magnesium, dissolved	MW-35	12/15/2005		8	mg/L		
Magnesium, dissolved	MW-35	03/28/2006		8.3	mg/L		
Magnesium, dissolved	MW-35	06/21/2006		8.4	mg/L		
Magnesium, dissolved	MW-35	09/26/2006		8.2	mg/L		
Magnesium, dissolved	MW-35	12/12/2006		8.8	mg/L		
Magnesium, dissolved	MW-35	03/27/2007		8.6	mg/L		
Magnesium, dissolved	MW-35	06/20/2007		8.4	mg/L		
Magnesium, dissolved	MW-35	09/18/2007		9.1	mg/L		
Magnesium, dissolved	MW-35	12/20/2007		8.1	mg/L		
Magnesium, dissolved	MW-35	03/25/2008		8.2	mg/L		
Magnesium, dissolved	MW-35	06/18/2008		8.1	mg/L		
Magnesium, dissolved	MW-35	09/18/2008		8.1	mg/L		
Magnesium, dissolved	MW-35	12/19/2008		8.1	mg/L		
Magnesium, dissolved	MW-35	03/24/2009		8.7	mg/L		
Magnesium, dissolved	MW-35	06/16/2009		8.1	mg/L		
Magnesium, dissolved	MW-35	09/10/2009		8.1	mg/L		
Magnesium, dissolved	MW-35	12/03/2009		8.3	mg/L		
Magnesium, dissolved	MW-35	03/25/2010		7.9	mg/L		
Magnesium, dissolved	MW-35	06/23/2010		8.8	mg/L		
Magnesium, dissolved	MW-35	09/23/2010		8.7	mg/L		
Magnesium, dissolved	MW-35	12/09/2010		9.3	mg/L		
Magnesium, dissolved	MW-35	03/30/2011		8.8	mg/L		
Magnesium, dissolved	MW-35	06/06/2011		9	mg/L		
Magnesium, dissolved	MW-35	09/26/2011		8.7	mg/L		
Magnesium, dissolved	MW-35	12/13/2011		8.8	mg/L		
Magnesium, dissolved	MW-35	03/21/2012		9	mg/L		
Magnesium, dissolved	MW-35	06/06/2012		8.3	mg/L		
Magnesium, dissolved	MW-35	09/26/2012		8.9	mg/L		
Magnesium, dissolved	MW-35	12/04/2012		8.6	mg/L		
Magnesium, dissolved	MW-35	03/13/2013		9.2	mg/L		
Magnesium, dissolved	MW-35	06/06/2013		8.5	mg/L		
Magnesium, dissolved	MW-35	09/05/2013		8.1	mg/L		
Magnesium, dissolved	MW-35	12/16/2013		8.4	mg/L		
Magnesium, dissolved	MW-35	03/04/2014		9.2	mg/L		
Magnesium, dissolved	MW-35	06/02/2014		8.6	mg/L		
Magnesium, dissolved	MW-35	09/22/2014		8.2	mg/L		
Magnesium, dissolved	MW-35	11/17/2014		8.7	mg/L		
Magnesium, dissolved	MW-35	02/25/2015		9.3	mg/L		
Magnesium, dissolved	MW-35	05/19/2015		8.5	mg/L		
Magnesium, dissolved	MW-35	08/26/2015		9	mg/L		
Magnesium, dissolved	MW-35	11/10/2015		9.3	mg/L		
Magnesium, dissolved	MW-35	02/22/2016		9.3	mg/L		
Magnesium, dissolved	MW-35	05/16/2016		9	mg/L		
Magnesium, dissolved	MW-35	08/31/2016		8.1	mg/L		
Magnesium, dissolved	MW-35	11/15/2016		10	mg/L		
Magnesium, dissolved	MW-35	02/22/2017		9.9	mg/L		
Magnesium, dissolved	MW-35	05/24/2017		8.6	mg/L		
Magnesium, dissolved	MW-35	08/30/2017		8.9	mg/L		
Magnesium, dissolved	MW-35	11/15/2017		8.5	mg/L		
Magnesium, dissolved	MW-35	02/20/2018		8.2	mg/L		
Magnesium, dissolved	MW-35	05/17/2018		8.4	mg/L		
Magnesium, dissolved	MW-35	08/22/2018		8.6	mg/L		
Magnesium, dissolved	MW-35	11/12/2018		8.6	mg/L		
Magnesium, dissolved	MW-35	11/12/2019		9	mg/L		
Magnesium, dissolved	MW-35	11/19/2020		8.6	mg/L		
Magnesium, dissolved	MW-35	11/16/2021		8.9	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Magnesium, dissolved	MW-35	11/17/2022		8.7	mg/L		
Manganese, total	MW-13A	12/03/2013	ND	0.001	mg/L		
Manganese, total	MW-13A	03/04/2014	ND	0.001	mg/L		
Manganese, total	MW-13A	06/02/2014	ND	0.001	mg/L		
Manganese, total	MW-13A	09/22/2014	ND	0.001	mg/L		
Manganese, total	MW-13A	11/17/2014	ND	0.001	mg/L		
Manganese, total	MW-13A	02/23/2015	ND	0.001	mg/L		
Manganese, total	MW-13A	05/19/2015	ND	0.001	mg/L		
Manganese, total	MW-13A	08/26/2015	ND	0.001	mg/L		
Manganese, total	MW-13A	11/10/2015	ND	0.001	mg/L		
Manganese, total	MW-13A	02/22/2016	ND	0.001	mg/L		
Manganese, total	MW-13A	05/16/2016	ND	0.001	mg/L		
Manganese, total	MW-13A	08/31/2016	ND	0.001	mg/L		
Manganese, total	MW-13A	11/14/2016	ND	0.001	mg/L		
Manganese, total	MW-13A	02/22/2017	ND	0.001	mg/L		
Manganese, total	MW-13A	05/24/2017	ND	0.001	mg/L		
Manganese, total	MW-13A	08/30/2017	ND	0.001	mg/L		
Manganese, total	MW-13A	11/13/2017	ND	0.001	mg/L		
Manganese, total	MW-13A	02/20/2018	ND	0.001	mg/L		
Manganese, total	MW-13A	05/15/2018	ND	0.001	mg/L		
Manganese, total	MW-13A	08/21/2018	ND	0.001	mg/L		
Manganese, total	MW-13A	11/12/2018	ND	0.001	mg/L		
Manganese, total	MW-13A	11/11/2019	ND	0.001	mg/L		
Manganese, total	MW-13A	11/19/2020	ND	0.001	mg/L		
Manganese, total	MW-13A	11/16/2021	ND	0.001	mg/L		
Manganese, total	MW-13A	11/17/2022		0.02	mg/L		
Manganese, total	MW-13B	12/03/2013	ND	0.001	mg/L		
Manganese, total	MW-13B	03/04/2014	ND	0.001	mg/L		
Manganese, total	MW-13B	06/02/2014		0.002	mg/L		
Manganese, total	MW-13B	09/22/2014	ND	0.001	mg/L		
Manganese, total	MW-13B	11/17/2014	ND	0.001	mg/L		
Manganese, total	MW-13B	02/23/2015	ND	0.001	mg/L		
Manganese, total	MW-13B	05/19/2015	ND	0.001	mg/L		
Manganese, total	MW-13B	08/26/2015	ND	0.001	mg/L		
Manganese, total	MW-13B	11/10/2015	ND	0.001	mg/L		
Manganese, total	MW-13B	02/22/2016	ND	0.001	mg/L		
Manganese, total	MW-13B	05/16/2016	ND	0.001	mg/L		
Manganese, total	MW-13B	08/31/2016	ND	0.001	mg/L		
Manganese, total	MW-13B	11/14/2016	ND	0.001	mg/L		
Manganese, total	MW-13B	02/22/2017	ND	0.001	mg/L		
Manganese, total	MW-13B	05/24/2017	ND	0.001	mg/L		
Manganese, total	MW-13B	08/30/2017	ND	0.001	mg/L		
Manganese, total	MW-13B	11/13/2017	ND	0.001	mg/L		
Manganese, total	MW-13B	02/20/2018		0.0018	mg/L		
Manganese, total	MW-13B	05/15/2018	ND	0.001	mg/L		
Manganese, total	MW-13B	08/21/2018	ND	0.001	mg/L		
Manganese, total	MW-13B	11/12/2018	ND	0.001	mg/L		
Manganese, total	MW-13B	11/11/2019	ND	0.001	mg/L		
Manganese, total	MW-13B	11/19/2020	ND	0.001	mg/L		
Manganese, total	MW-13B	11/16/2021		0.0019	mg/L		
Manganese, total	MW-13B	11/17/2022	ND	0.001	mg/L		
Manganese, total	MW-16	09/05/2013		0.016	mg/L		
Manganese, total	MW-16	12/16/2013		0.013	mg/L		
Manganese, total	MW-16	03/05/2014		0.02	mg/L		
Manganese, total	MW-16	06/02/2014		0.0049	mg/L		
Manganese, total	MW-16	09/22/2014		0.014	mg/L		
Manganese, total	MW-16	11/18/2014		0.032	mg/L		
Manganese, total	MW-16	02/23/2015		0.062	mg/L		
Manganese, total	MW-16	05/20/2015		0.0035	mg/L		
Manganese, total	MW-16	08/26/2015		0.0012	mg/L		
Manganese, total	MW-16	11/11/2015		0.0014	mg/L		
Manganese, total	MW-16	02/24/2016		0.0019	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Manganese, total	MW-16	05/16/2016	ND	0.001	mg/L		
Manganese, total	MW-16	08/31/2016		0.0024	mg/L		
Manganese, total	MW-16	11/14/2016		0.017	mg/L		
Manganese, total	MW-16	02/22/2017		0.0045	mg/L		
Manganese, total	MW-16	05/24/2017		0.01	mg/L		
Manganese, total	MW-16	08/30/2017		0.0016	mg/L		
Manganese, total	MW-16	11/13/2017		0.0011	mg/L		
Manganese, total	MW-16	02/20/2018		0.013	mg/L		
Manganese, total	MW-16	05/17/2018		0.0033	mg/L		
Manganese, total	MW-16	08/22/2018		0.002	mg/L		
Manganese, total	MW-16	11/12/2018		0.025	mg/L		
Manganese, total	MW-16	11/12/2019		0.018	mg/L		
Manganese, total	MW-16	11/20/2020		0.11	mg/L		
Manganese, total	MW-16	11/16/2021		0.0063	mg/L		
Manganese, total	MW-16	11/17/2022		0.0016	mg/L		
Manganese, total	MW-35	09/05/2013	ND	0.001	mg/L		
Manganese, total	MW-35	12/16/2013	ND	0.001	mg/L		
Manganese, total	MW-35	03/04/2014	ND	0.001	mg/L		
Manganese, total	MW-35	06/02/2014	ND	0.001	mg/L		
Manganese, total	MW-35	09/22/2014	ND	0.001	mg/L		
Manganese, total	MW-35	11/17/2014	ND	0.001	mg/L		
Manganese, total	MW-35	02/25/2015	ND	0.001	mg/L		
Manganese, total	MW-35	05/19/2015		0.0014	mg/L		
Manganese, total	MW-35	08/26/2015	ND	0.001	mg/L		
Manganese, total	MW-35	11/10/2015	ND	0.001	mg/L		
Manganese, total	MW-35	02/22/2016	ND	0.001	mg/L		
Manganese, total	MW-35	05/16/2016	ND	0.001	mg/L		
Manganese, total	MW-35	08/31/2016	ND	0.001	mg/L		
Manganese, total	MW-35	11/15/2016	ND	0.001	mg/L		
Manganese, total	MW-35	02/22/2017	ND	0.001	mg/L		
Manganese, total	MW-35	05/24/2017	ND	0.001	mg/L		
Manganese, total	MW-35	08/30/2017	ND	0.001	mg/L		
Manganese, total	MW-35	11/15/2017	ND	0.001	mg/L		
Manganese, total	MW-35	02/20/2018	ND	0.001	mg/L		
Manganese, total	MW-35	05/17/2018	ND	0.001	mg/L		
Manganese, total	MW-35	08/22/2018	ND	0.001	mg/L		
Manganese, total	MW-35	11/12/2018	ND	0.001	mg/L		
Manganese, total	MW-35	11/12/2019	ND	0.001	mg/L		
Manganese, total	MW-35	11/19/2020	ND	0.001	mg/L		
Manganese, total	MW-35	11/16/2021	ND	0.001	mg/L		
Manganese, total	MW-35	11/17/2022	ND	0.001	mg/L		
Nickel, total	MW-13A	12/03/2013	ND	0.004	mg/L		
Nickel, total	MW-13A	03/04/2014	ND	0.004	mg/L		
Nickel, total	MW-13A	06/02/2014	ND	0.004	mg/L		
Nickel, total	MW-13A	09/22/2014	ND	0.004	mg/L		
Nickel, total	MW-13A	11/17/2014	ND	0.004	mg/L		
Nickel, total	MW-13A	02/23/2015	ND	0.004	mg/L		
Nickel, total	MW-13A	05/19/2015	ND	0.004	mg/L		
Nickel, total	MW-13A	08/26/2015	ND	0.004	mg/L		
Nickel, total	MW-13A	11/10/2015	ND	0.004	mg/L		
Nickel, total	MW-13A	02/22/2016	ND	0.004	mg/L		
Nickel, total	MW-13A	05/16/2016	ND	0.004	mg/L		
Nickel, total	MW-13A	08/31/2016	ND	0.004	mg/L		
Nickel, total	MW-13A	11/14/2016	ND	0.004	mg/L		
Nickel, total	MW-13A	02/22/2017	ND	0.004	mg/L		
Nickel, total	MW-13A	05/24/2017	ND	0.004	mg/L		
Nickel, total	MW-13A	08/30/2017	ND	0.004	mg/L		
Nickel, total	MW-13A	11/13/2017	ND	0.004	mg/L		
Nickel, total	MW-13A	02/20/2018	ND	0.004	mg/L		
Nickel, total	MW-13A	05/15/2018	ND	0.004	mg/L		
Nickel, total	MW-13A	08/21/2018	ND	0.004	mg/L		
Nickel, total	MW-13A	11/12/2018	ND	0.004	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Nickel, total	MW-13A	11/11/2019	ND	0.004	mg/L		
Nickel, total	MW-13A	11/19/2020	ND	0.004	mg/L		
Nickel, total	MW-13A	11/16/2021	ND	0.004	mg/L		
Nickel, total	MW-13A	11/17/2022	ND	0.004	mg/L		
Nickel, total	MW-13B	12/03/2013	ND	0.004	mg/L		
Nickel, total	MW-13B	03/04/2014	ND	0.004	mg/L		
Nickel, total	MW-13B	06/02/2014	ND	0.004	mg/L		
Nickel, total	MW-13B	09/22/2014	ND	0.004	mg/L		
Nickel, total	MW-13B	11/17/2014	ND	0.004	mg/L		
Nickel, total	MW-13B	02/23/2015	ND	0.004	mg/L		
Nickel, total	MW-13B	05/19/2015	ND	0.004	mg/L		
Nickel, total	MW-13B	08/26/2015	ND	0.004	mg/L		
Nickel, total	MW-13B	11/10/2015	ND	0.004	mg/L		
Nickel, total	MW-13B	02/22/2016	ND	0.004	mg/L		
Nickel, total	MW-13B	05/16/2016	ND	0.004	mg/L		
Nickel, total	MW-13B	08/31/2016	ND	0.004	mg/L		
Nickel, total	MW-13B	11/14/2016	ND	0.004	mg/L		
Nickel, total	MW-13B	02/22/2017	ND	0.004	mg/L		
Nickel, total	MW-13B	05/24/2017	ND	0.004	mg/L		
Nickel, total	MW-13B	08/30/2017	ND	0.004	mg/L		
Nickel, total	MW-13B	11/13/2017	ND	0.004	mg/L		
Nickel, total	MW-13B	02/20/2018	ND	0.004	mg/L		
Nickel, total	MW-13B	05/15/2018	ND	0.004	mg/L		
Nickel, total	MW-13B	08/21/2018	ND	0.004	mg/L		
Nickel, total	MW-13B	11/12/2018	ND	0.004	mg/L		
Nickel, total	MW-13B	11/11/2019	ND	0.004	mg/L		
Nickel, total	MW-13B	11/19/2020	ND	0.004	mg/L		
Nickel, total	MW-13B	11/16/2021	ND	0.004	mg/L		
Nickel, total	MW-13B	11/17/2022	ND	0.004	mg/L		
Nickel, total	MW-16	09/05/2013	ND	0.004	mg/L		
Nickel, total	MW-16	12/16/2013	ND	0.004	mg/L		
Nickel, total	MW-16	03/05/2014	ND	0.004	mg/L		
Nickel, total	MW-16	06/02/2014	ND	0.004	mg/L		
Nickel, total	MW-16	09/22/2014	ND	0.004	mg/L		
Nickel, total	MW-16	11/18/2014	ND	0.004	mg/L		
Nickel, total	MW-16	02/23/2015		0.0041	mg/L		
Nickel, total	MW-16	05/20/2015	ND	0.004	mg/L		
Nickel, total	MW-16	08/26/2015	ND	0.004	mg/L		
Nickel, total	MW-16	11/11/2015	ND	0.004	mg/L		
Nickel, total	MW-16	02/24/2016	ND	0.004	mg/L		
Nickel, total	MW-16	05/16/2016	ND	0.004	mg/L		
Nickel, total	MW-16	08/31/2016	ND	0.004	mg/L		
Nickel, total	MW-16	11/14/2016	ND	0.004	mg/L		
Nickel, total	MW-16	02/22/2017	ND	0.004	mg/L		
Nickel, total	MW-16	05/24/2017	ND	0.004	mg/L		
Nickel, total	MW-16	08/30/2017	ND	0.004	mg/L		
Nickel, total	MW-16	11/13/2017	ND	0.004	mg/L		
Nickel, total	MW-16	02/20/2018	ND	0.004	mg/L		
Nickel, total	MW-16	05/17/2018	ND	0.004	mg/L		
Nickel, total	MW-16	08/22/2018	ND	0.004	mg/L		
Nickel, total	MW-16	11/12/2018	ND	0.004	mg/L		
Nickel, total	MW-16	11/12/2019	ND	0.004	mg/L		
Nickel, total	MW-16	11/20/2020		0.0055	mg/L		
Nickel, total	MW-16	11/16/2021	ND	0.004	mg/L		
Nickel, total	MW-16	11/17/2022	ND	0.004	mg/L		
Nickel, total	MW-35	09/05/2013	ND	0.004	mg/L		
Nickel, total	MW-35	12/16/2013	ND	0.004	mg/L		
Nickel, total	MW-35	03/04/2014	ND	0.004	mg/L		
Nickel, total	MW-35	06/02/2014	ND	0.004	mg/L		
Nickel, total	MW-35	09/22/2014	ND	0.004	mg/L		
Nickel, total	MW-35	11/17/2014	ND	0.004	mg/L		
Nickel, total	MW-35	02/25/2015	ND	0.004	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Nickel, total	MW-35	05/19/2015	ND	0.004	mg/L		
Nickel, total	MW-35	08/26/2015	ND	0.004	mg/L		
Nickel, total	MW-35	11/10/2015	ND	0.004	mg/L		
Nickel, total	MW-35	02/22/2016	ND	0.004	mg/L		
Nickel, total	MW-35	05/16/2016	ND	0.004	mg/L		
Nickel, total	MW-35	08/31/2016	ND	0.004	mg/L		
Nickel, total	MW-35	11/15/2016	ND	0.004	mg/L		
Nickel, total	MW-35	02/22/2017	ND	0.004	mg/L		
Nickel, total	MW-35	05/24/2017	ND	0.004	mg/L		
Nickel, total	MW-35	08/30/2017	ND	0.004	mg/L		
Nickel, total	MW-35	11/15/2017	ND	0.004	mg/L		
Nickel, total	MW-35	02/20/2018	ND	0.004	mg/L		
Nickel, total	MW-35	05/17/2018	ND	0.004	mg/L		
Nickel, total	MW-35	08/22/2018	ND	0.004	mg/L		
Nickel, total	MW-35	11/12/2018	ND	0.004	mg/L		
Nickel, total	MW-35	11/12/2019	ND	0.004	mg/L		
Nickel, total	MW-35	11/19/2020	ND	0.004	mg/L		
Nickel, total	MW-35	11/16/2021	ND	0.004	mg/L		
Nickel, total	MW-35	11/17/2022	ND	0.004	mg/L		
Nitrate (as n)	MW-13A	03/22/2005		0.51	mg/L		
Nitrate (as n)	MW-13A	06/15/2005		0.44	mg/L		
Nitrate (as n)	MW-13A	09/27/2005		1.8	mg/L		*
Nitrate (as n)	MW-13A	12/15/2005		0.47	mg/L		
Nitrate (as n)	MW-13A	03/28/2006		0.44	mg/L		
Nitrate (as n)	MW-13A	06/21/2006		0.54	mg/L		
Nitrate (as n)	MW-13A	09/26/2006		0.44	mg/L		
Nitrate (as n)	MW-13A	12/13/2006		0.46	mg/L		
Nitrate (as n)	MW-13A	03/27/2007		0.42	mg/L		
Nitrate (as n)	MW-13A	06/19/2007		0.46	mg/L		
Nitrate (as n)	MW-13A	09/19/2007		0.46	mg/L		
Nitrate (as n)	MW-13A	12/19/2007		0.41	mg/L		
Nitrate (as n)	MW-13A	03/25/2008		0.49	mg/L		
Nitrate (as n)	MW-13A	06/18/2008		0.51	mg/L		
Nitrate (as n)	MW-13A	09/17/2008		0.44	mg/L		
Nitrate (as n)	MW-13A	12/17/2008		0.48	mg/L		
Nitrate (as n)	MW-13A	03/24/2009		0.47	mg/L		
Nitrate (as n)	MW-13A	06/17/2009		0.49	mg/L		
Nitrate (as n)	MW-13A	09/10/2009		0.45	mg/L		
Nitrate (as n)	MW-13A	12/03/2009		0.41	mg/L		
Nitrate (as n)	MW-13A	03/25/2010		0.48	mg/L		
Nitrate (as n)	MW-13A	06/23/2010		0.47	mg/L		
Nitrate (as n)	MW-13A	09/23/2010		0.51	mg/L		
Nitrate (as n)	MW-13A	12/08/2010		0.49	mg/L		
Nitrate (as n)	MW-13A	03/30/2011		0.53	mg/L		
Nitrate (as n)	MW-13A	06/06/2011		0.46	mg/L		
Nitrate (as n)	MW-13A	09/27/2011		0.48	mg/L		
Nitrate (as n)	MW-13A	12/14/2011		0.48	mg/L		
Nitrate (as n)	MW-13A	03/21/2012		9.4	mg/L		*
Nitrate (as n)	MW-13A	06/08/2012		0.45	mg/L		
Nitrate (as n)	MW-13A	09/26/2012		0.42	mg/L		
Nitrate (as n)	MW-13A	12/03/2012		0.54	mg/L		
Nitrate (as n)	MW-13A	03/11/2013		0.46	mg/L		
Nitrate (as n)	MW-13A	06/05/2013		0.49	mg/L		
Nitrate (as n)	MW-13A	12/03/2013		0.47	mg/L		
Nitrate (as n)	MW-13A	03/04/2014		0.48	mg/L		
Nitrate (as n)	MW-13A	06/02/2014		0.48	mg/L		
Nitrate (as n)	MW-13A	09/22/2014		0.44	mg/L		
Nitrate (as n)	MW-13A	11/17/2014		0.46	mg/L		
Nitrate (as n)	MW-13A	02/23/2015		0.47	mg/L		
Nitrate (as n)	MW-13A	05/19/2015		0.45	mg/L		
Nitrate (as n)	MW-13A	08/26/2015		0.41	mg/L		
Nitrate (as n)	MW-13A	11/10/2015		0.44	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Nitrate (as n)	MW-13A	02/22/2016		0.42	mg/L		
Nitrate (as n)	MW-13A	05/16/2016		0.45	mg/L		
Nitrate (as n)	MW-13A	08/31/2016		0.45	mg/L		
Nitrate (as n)	MW-13A	11/14/2016		0.48	mg/L		
Nitrate (as n)	MW-13A	05/24/2017		0.45	mg/L		
Nitrate (as n)	MW-13A	11/13/2017		0.42	mg/L		
Nitrate (as n)	MW-13A	02/20/2018		0.41	mg/L		
Nitrate (as n)	MW-13A	05/15/2018		0.48	mg/L		
Nitrate (as n)	MW-13A	08/21/2018		0.39	mg/L		
Nitrate (as n)	MW-13A	11/12/2018		0.38	mg/L		
Nitrate (as n)	MW-13A	11/11/2019		0.41	mg/L		
Nitrate (as n)	MW-13A	11/19/2020		0.42	mg/L		
Nitrate (as n)	MW-13A	11/16/2021		0.44	mg/L		
Nitrate (as n)	MW-13A	11/17/2022		0.48	mg/L		
Nitrate (as n)	MW-13B	03/22/2005		0.5	mg/L		
Nitrate (as n)	MW-13B	06/15/2005		0.74	mg/L		
Nitrate (as n)	MW-13B	09/27/2005		0.46	mg/L		
Nitrate (as n)	MW-13B	12/15/2005		0.49	mg/L		
Nitrate (as n)	MW-13B	03/29/2006		0.44	mg/L		
Nitrate (as n)	MW-13B	06/21/2006		0.56	mg/L		
Nitrate (as n)	MW-13B	09/26/2006		0.44	mg/L		
Nitrate (as n)	MW-13B	12/13/2006		0.4	mg/L		
Nitrate (as n)	MW-13B	03/27/2007		0.43	mg/L		
Nitrate (as n)	MW-13B	06/19/2007		0.48	mg/L		
Nitrate (as n)	MW-13B	09/18/2007		0.48	mg/L		
Nitrate (as n)	MW-13B	12/19/2007		0.89	mg/L		
Nitrate (as n)	MW-13B	03/25/2008		0.48	mg/L		
Nitrate (as n)	MW-13B	06/18/2008		0.95	mg/L		
Nitrate (as n)	MW-13B	09/17/2008		0.46	mg/L		
Nitrate (as n)	MW-13B	12/16/2008		0.53	mg/L		
Nitrate (as n)	MW-13B	03/24/2009		0.46	mg/L		
Nitrate (as n)	MW-13B	06/17/2009		0.49	mg/L		
Nitrate (as n)	MW-13B	09/10/2009		0.46	mg/L		
Nitrate (as n)	MW-13B	12/03/2009		0.4	mg/L		
Nitrate (as n)	MW-13B	03/25/2010		0.46	mg/L		
Nitrate (as n)	MW-13B	06/23/2010		0.45	mg/L		
Nitrate (as n)	MW-13B	09/23/2010		0.48	mg/L		
Nitrate (as n)	MW-13B	12/08/2010		0.5	mg/L		
Nitrate (as n)	MW-13B	03/30/2011		0.51	mg/L		
Nitrate (as n)	MW-13B	06/06/2011		0.43	mg/L		
Nitrate (as n)	MW-13B	09/27/2011		0.46	mg/L		
Nitrate (as n)	MW-13B	12/14/2011		0.47	mg/L		
Nitrate (as n)	MW-13B	03/21/2012		9.7	mg/L		*
Nitrate (as n)	MW-13B	06/08/2012		0.45	mg/L		
Nitrate (as n)	MW-13B	09/26/2012		0.4	mg/L		
Nitrate (as n)	MW-13B	12/03/2012		0.42	mg/L		
Nitrate (as n)	MW-13B	03/11/2013		0.43	mg/L		
Nitrate (as n)	MW-13B	06/05/2013		0.49	mg/L		
Nitrate (as n)	MW-13B	12/03/2013		0.51	mg/L		
Nitrate (as n)	MW-13B	03/04/2014		0.45	mg/L		
Nitrate (as n)	MW-13B	06/02/2014		0.53	mg/L		
Nitrate (as n)	MW-13B	09/22/2014		0.45	mg/L		
Nitrate (as n)	MW-13B	11/17/2014		0.47	mg/L		
Nitrate (as n)	MW-13B	02/23/2015		0.45	mg/L		
Nitrate (as n)	MW-13B	05/19/2015		0.45	mg/L		
Nitrate (as n)	MW-13B	08/26/2015		0.44	mg/L		
Nitrate (as n)	MW-13B	11/10/2015		0.45	mg/L		
Nitrate (as n)	MW-13B	02/22/2016		0.43	mg/L		
Nitrate (as n)	MW-13B	05/16/2016		0.46	mg/L		
Nitrate (as n)	MW-13B	08/31/2016		0.45	mg/L		
Nitrate (as n)	MW-13B	11/14/2016		0.64	mg/L		
Nitrate (as n)	MW-13B	05/24/2017		0.48	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Nitrate (as n)	MW-13B	11/13/2017		0.44	mg/L		
Nitrate (as n)	MW-13B	02/20/2018		0.43	mg/L		
Nitrate (as n)	MW-13B	05/15/2018		0.43	mg/L		
Nitrate (as n)	MW-13B	08/21/2018		0.45	mg/L		
Nitrate (as n)	MW-13B	11/12/2018		0.4	mg/L		
Nitrate (as n)	MW-13B	11/11/2019		0.42	mg/L		
Nitrate (as n)	MW-13B	11/19/2020		0.35	mg/L		
Nitrate (as n)	MW-13B	11/16/2021		0.41	mg/L		
Nitrate (as n)	MW-13B	11/17/2022		0.41	mg/L		
Nitrate (as n)	MW-16	03/24/2009		0.28	mg/L		
Nitrate (as n)	MW-16	06/16/2009		0.33	mg/L		
Nitrate (as n)	MW-16	09/09/2009		0.31	mg/L		
Nitrate (as n)	MW-16	12/03/2009		0.4	mg/L		
Nitrate (as n)	MW-16	03/25/2010		0.29	mg/L		
Nitrate (as n)	MW-16	06/24/2010		0.16	mg/L		
Nitrate (as n)	MW-16	09/24/2010		0.51	mg/L		
Nitrate (as n)	MW-16	12/09/2010		0.9	mg/L		
Nitrate (as n)	MW-16	03/30/2011		0.52	mg/L		
Nitrate (as n)	MW-16	06/07/2011		0.46	mg/L		
Nitrate (as n)	MW-16	09/27/2011		0.73	mg/L		
Nitrate (as n)	MW-16	12/13/2011		1.1	mg/L		
Nitrate (as n)	MW-16	03/21/2012		0.89	mg/L		*
Nitrate (as n)	MW-16	06/08/2012		1.4	mg/L		
Nitrate (as n)	MW-16	09/27/2012		0.96	mg/L		
Nitrate (as n)	MW-16	12/04/2012		0.86	mg/L		
Nitrate (as n)	MW-16	03/12/2013		1.6	mg/L		
Nitrate (as n)	MW-16	06/04/2013		1.5	mg/L		
Nitrate (as n)	MW-16	09/05/2013		0.72	mg/L		
Nitrate (as n)	MW-16	12/16/2013		0.75	mg/L		
Nitrate (as n)	MW-16	03/05/2014		0.55	mg/L		
Nitrate (as n)	MW-16	06/02/2014		1.2	mg/L		
Nitrate (as n)	MW-16	09/22/2014		0.36	mg/L		
Nitrate (as n)	MW-16	11/18/2014		0.28	mg/L		
Nitrate (as n)	MW-16	02/23/2015		0.26	mg/L		
Nitrate (as n)	MW-16	05/20/2015		0.55	mg/L		
Nitrate (as n)	MW-16	08/26/2015		0.38	mg/L		
Nitrate (as n)	MW-16	11/11/2015		0.19	mg/L		
Nitrate (as n)	MW-16	02/24/2016		0.5	mg/L		
Nitrate (as n)	MW-16	05/16/2016		0.69	mg/L		
Nitrate (as n)	MW-16	08/31/2016		0.27	mg/L		
Nitrate (as n)	MW-16	11/14/2016		0.24	mg/L		
Nitrate (as n)	MW-16	05/24/2017		0.55	mg/L		
Nitrate (as n)	MW-16	11/13/2017		0.28	mg/L		
Nitrate (as n)	MW-16	02/20/2018		0.32	mg/L		
Nitrate (as n)	MW-16	05/17/2018		0.62	mg/L		
Nitrate (as n)	MW-16	08/22/2018		0.17	mg/L		
Nitrate (as n)	MW-16	11/12/2018		0.28	mg/L		
Nitrate (as n)	MW-16	11/12/2019		0.1	mg/L		
Nitrate (as n)	MW-16	11/20/2020	ND	0.05	mg/L		
Nitrate (as n)	MW-16	11/16/2021		0.1	mg/L		
Nitrate (as n)	MW-16	11/17/2022	ND	0.05	mg/L		
Nitrate (as n)	MW-35	03/22/2005		0.37	mg/L		
Nitrate (as n)	MW-35	06/14/2005		0.33	mg/L		
Nitrate (as n)	MW-35	09/27/2005		0.96	mg/L		
Nitrate (as n)	MW-35	12/15/2005		0.29	mg/L		
Nitrate (as n)	MW-35	03/28/2006		0.34	mg/L		
Nitrate (as n)	MW-35	06/21/2006		0.4	mg/L		
Nitrate (as n)	MW-35	09/26/2006		0.31	mg/L		
Nitrate (as n)	MW-35	12/12/2006		0.35	mg/L		
Nitrate (as n)	MW-35	03/27/2007		0.3	mg/L		
Nitrate (as n)	MW-35	06/20/2007		0.34	mg/L		
Nitrate (as n)	MW-35	09/18/2007		0.32	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Nitrate (as n)	MW-35	12/20/2007		0.32	mg/L		
Nitrate (as n)	MW-35	03/25/2008		0.3	mg/L		
Nitrate (as n)	MW-35	06/18/2008		1	mg/L		
Nitrate (as n)	MW-35	09/18/2008		0.35	mg/L		
Nitrate (as n)	MW-35	12/19/2008		0.37	mg/L		
Nitrate (as n)	MW-35	03/24/2009		0.35	mg/L		
Nitrate (as n)	MW-35	06/16/2009		0.37	mg/L		
Nitrate (as n)	MW-35	09/10/2009		0.35	mg/L		
Nitrate (as n)	MW-35	12/03/2009		0.52	mg/L		
Nitrate (as n)	MW-35	03/25/2010		0.36	mg/L		
Nitrate (as n)	MW-35	06/23/2010		0.32	mg/L		
Nitrate (as n)	MW-35	09/23/2010		0.4	mg/L		
Nitrate (as n)	MW-35	12/09/2010		0.39	mg/L		
Nitrate (as n)	MW-35	03/30/2011		0.39	mg/L		
Nitrate (as n)	MW-35	06/06/2011		0.39	mg/L		
Nitrate (as n)	MW-35	09/26/2011		0.4	mg/L		
Nitrate (as n)	MW-35	12/13/2011		0.39	mg/L		
Nitrate (as n)	MW-35	03/21/2012		0.45	mg/L		*
Nitrate (as n)	MW-35	06/06/2012		0.43	mg/L		
Nitrate (as n)	MW-35	09/26/2012		0.37	mg/L		
Nitrate (as n)	MW-35	12/04/2012		0.42	mg/L		
Nitrate (as n)	MW-35	03/13/2013		0.47	mg/L		
Nitrate (as n)	MW-35	06/06/2013		0.45	mg/L		
Nitrate (as n)	MW-35	09/05/2013		0.42	mg/L		
Nitrate (as n)	MW-35	12/16/2013		0.4	mg/L		
Nitrate (as n)	MW-35	03/04/2014		0.42	mg/L		
Nitrate (as n)	MW-35	06/02/2014		0.42	mg/L		
Nitrate (as n)	MW-35	09/22/2014		0.42	mg/L		
Nitrate (as n)	MW-35	11/17/2014		0.42	mg/L		
Nitrate (as n)	MW-35	02/25/2015		0.41	mg/L		
Nitrate (as n)	MW-35	05/19/2015		0.4	mg/L		
Nitrate (as n)	MW-35	08/26/2015		0.4	mg/L		
Nitrate (as n)	MW-35	11/10/2015		0.41	mg/L		
Nitrate (as n)	MW-35	02/22/2016		0.41	mg/L		
Nitrate (as n)	MW-35	05/16/2016		0.44	mg/L		
Nitrate (as n)	MW-35	08/31/2016		0.43	mg/L		
Nitrate (as n)	MW-35	11/15/2016		0.47	mg/L		
Nitrate (as n)	MW-35	05/24/2017		0.49	mg/L		
Nitrate (as n)	MW-35	11/15/2017		0.51	mg/L		
Nitrate (as n)	MW-35	02/20/2018		0.44	mg/L		
Nitrate (as n)	MW-35	05/17/2018		0.44	mg/L		
Nitrate (as n)	MW-35	08/22/2018		0.42	mg/L		
Nitrate (as n)	MW-35	11/12/2018		0.41	mg/L		
Nitrate (as n)	MW-35	11/12/2019		0.36	mg/L		
Nitrate (as n)	MW-35	11/19/2020		0.43	mg/L		
Nitrate (as n)	MW-35	11/16/2021		0.45	mg/L		
Nitrate (as n)	MW-35	11/17/2022		0.39	mg/L		
pH	MW-13A	03/22/2005		7.01	pH Units		
pH	MW-13A	06/15/2005		7.21	pH Units		
pH	MW-13A	09/27/2005		7.1	pH Units		
pH	MW-13A	12/15/2005		6.34	pH Units		
pH	MW-13A	03/28/2006		6.9	pH Units		
pH	MW-13A	06/21/2006		7.25	pH Units		
pH	MW-13A	09/26/2006		7.25	pH Units		
pH	MW-13A	12/13/2006		6.87	pH Units		
pH	MW-13A	03/27/2007		7.32	pH Units		
pH	MW-13A	09/19/2007		6.68	pH Units		
pH	MW-13A	12/19/2007		7.29	pH Units		
pH	MW-13A	03/25/2008		7.12	pH Units		
pH	MW-13A	06/18/2008		7.19	pH Units		
pH	MW-13A	09/17/2008		7	pH Units		
pH	MW-13A	12/17/2008		6.51	pH Units		

* = outlier for that well/constituent

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

pH	MW-13A	03/24/2009		6.85	pH Units		
pH	MW-13A	06/17/2009		7.07	pH Units		
pH	MW-13A	12/03/2009		7.03	pH Units		
pH	MW-13A	03/25/2010		6.96	pH Units		
pH	MW-13A	06/23/2010		6.99	pH Units		
pH	MW-13A	09/23/2010		6.78	pH Units		
pH	MW-13A	12/08/2010		7.48	pH Units		
pH	MW-13A	03/30/2011		6.95	pH Units		
pH	MW-13A	06/06/2011		7.45	pH Units		
pH	MW-13A	09/27/2011		6.91	pH Units		
pH	MW-13A	12/14/2011		7.13	pH Units		
pH	MW-13A	03/21/2012		6.78	pH Units		
pH	MW-13A	06/08/2012		6.72	pH Units		
pH	MW-13A	09/26/2012		7.35	pH Units		
pH	MW-13A	12/03/2012		6.95	pH Units		
pH	MW-13A	03/11/2013		7.18	pH Units		
pH	MW-13A	06/05/2013		7.33	pH Units		
pH	MW-13A	12/03/2013		7.16	pH Units		
pH	MW-13A	03/04/2014		7.48	pH Units		
pH	MW-13A	06/02/2014		7.26	pH Units		
pH	MW-13A	09/22/2014		7.26	pH Units		
pH	MW-13A	11/17/2014		6.99	pH Units		
pH	MW-13A	05/19/2015		7.03	pH Units		
pH	MW-13A	08/26/2015		7.07	pH Units		
pH	MW-13A	11/10/2015		6.68	pH Units		
pH	MW-13A	02/22/2016		6.69	pH Units		
pH	MW-13A	05/16/2016		6.87	pH Units		
pH	MW-13A	08/31/2016		6.65	pH Units		
pH	MW-13A	11/14/2016		6.5	pH Units		
pH	MW-13A	02/22/2017		6.97	pH Units		
pH	MW-13A	05/24/2017		7.17	pH Units		
pH	MW-13A	08/30/2017		7	pH Units		
pH	MW-13A	11/13/2017		6.79	pH Units		
pH	MW-13A	02/20/2018		6.87	pH Units		
pH	MW-13A	05/15/2018		6.91	pH Units		
pH	MW-13A	08/21/2018		6.88	pH Units		
pH	MW-13A	11/12/2018		7.02	pH Units		
pH	MW-13A	05/28/2019		6.7	pH Units		
pH	MW-13A	11/11/2019		6.72	pH Units		
pH	MW-13A	05/26/2020		7.28	pH Units		
pH	MW-13A	11/19/2020		6.99	pH Units		
pH	MW-13A	05/17/2021		7.09	pH Units		
pH	MW-13A	11/16/2021		7.17	pH Units		
pH	MW-13A	05/10/2022		7.17	pH Units		
pH	MW-13A	11/17/2022		6.93	pH Units		
pH	MW-13B	03/22/2005		7.49	pH Units		
pH	MW-13B	06/15/2005		7.81	pH Units		
pH	MW-13B	09/27/2005		7.73	pH Units		
pH	MW-13B	12/15/2005		6.93	pH Units		
pH	MW-13B	03/29/2006		7.45	pH Units		
pH	MW-13B	06/21/2006		7.76	pH Units		
pH	MW-13B	09/26/2006		7.78	pH Units		
pH	MW-13B	12/13/2006		7.32	pH Units		
pH	MW-13B	03/27/2007		7.76	pH Units		
pH	MW-13B	09/18/2007		7.48	pH Units		
pH	MW-13B	12/19/2007		7.85	pH Units		
pH	MW-13B	03/25/2008		7.78	pH Units		
pH	MW-13B	06/18/2008		7.74	pH Units		
pH	MW-13B	09/17/2008		7.57	pH Units		
pH	MW-13B	12/16/2008		7.23	pH Units		
pH	MW-13B	03/24/2009		7.37	pH Units		
pH	MW-13B	06/17/2009		7.56	pH Units		

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pH	MW-13B	12/03/2009		6.93	pH Units		
pH	MW-13B	03/25/2010		7.49	pH Units		
pH	MW-13B	06/23/2010		7.27	pH Units		
pH	MW-13B	09/23/2010		7.11	pH Units		
pH	MW-13B	12/08/2010		7.05	pH Units		
pH	MW-13B	03/30/2011		7.51	pH Units		
pH	MW-13B	06/06/2011		7.58	pH Units		
pH	MW-13B	09/27/2011		7.08	pH Units		
pH	MW-13B	12/14/2011		7.53	pH Units		
pH	MW-13B	03/21/2012		7.09	pH Units		
pH	MW-13B	06/08/2012		7.15	pH Units		
pH	MW-13B	09/26/2012		7.32	pH Units		
pH	MW-13B	12/03/2012		7.32	pH Units		
pH	MW-13B	03/11/2013		7.42	pH Units		
pH	MW-13B	06/05/2013		7.27	pH Units		
pH	MW-13B	12/03/2013		7.34	pH Units		
pH	MW-13B	03/04/2014		7.4	pH Units		
pH	MW-13B	06/02/2014		7.35	pH Units		
pH	MW-13B	09/22/2014		7.68	pH Units		
pH	MW-13B	11/17/2014		7.08	pH Units		
pH	MW-13B	05/19/2015		7.65	pH Units		
pH	MW-13B	08/26/2015		7.59	pH Units		
pH	MW-13B	11/10/2015		7.28	pH Units		
pH	MW-13B	02/22/2016		7.01	pH Units		
pH	MW-13B	05/16/2016		7.31	pH Units		
pH	MW-13B	08/31/2016		7.23	pH Units		
pH	MW-13B	11/14/2016		7.17	pH Units		
pH	MW-13B	02/22/2017		7.65	pH Units		
pH	MW-13B	05/24/2017		7.76	pH Units		
pH	MW-13B	08/30/2017		7.41	pH Units		
pH	MW-13B	11/13/2017		7.49	pH Units		
pH	MW-13B	02/20/2018		7.35	pH Units		
pH	MW-13B	05/15/2018		7.35	pH Units		
pH	MW-13B	08/21/2018		7.31	pH Units		
pH	MW-13B	11/12/2018		7.65	pH Units		
pH	MW-13B	05/28/2019		7.09	pH Units		
pH	MW-13B	11/11/2019		7.03	pH Units		
pH	MW-13B	05/26/2020		7.76	pH Units		
pH	MW-13B	11/19/2020		7.64	pH Units		
pH	MW-13B	05/17/2021		7.53	pH Units		
pH	MW-13B	11/16/2021		7.69	pH Units		
pH	MW-13B	05/10/2022		7.66	pH Units		
pH	MW-13B	11/17/2022		7.36	pH Units		
pH	MW-16	03/24/2009		6.27	pH Units		
pH	MW-16	06/16/2009		6.33	pH Units		
pH	MW-16	12/03/2009		6.27	pH Units		
pH	MW-16	03/25/2010		6.26	pH Units		
pH	MW-16	06/24/2010		6.04	pH Units		
pH	MW-16	09/24/2010		5.9	pH Units		
pH	MW-16	12/09/2010		6.17	pH Units		
pH	MW-16	03/30/2011		6.31	pH Units		
pH	MW-16	06/07/2011		6.15	pH Units		
pH	MW-16	09/27/2011		6.44	pH Units		
pH	MW-16	12/13/2011		6.3	pH Units		
pH	MW-16	03/21/2012		6.32	pH Units		
pH	MW-16	06/08/2012		6.25	pH Units		
pH	MW-16	09/27/2012		6.26	pH Units		
pH	MW-16	12/04/2012		6.22	pH Units		
pH	MW-16	03/12/2013		6.35	pH Units		
pH	MW-16	06/04/2013		6.45	pH Units		
pH	MW-16	09/05/2013		6.62	pH Units		
pH	MW-16	12/16/2013		6.32	pH Units		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

pH	MW-16	03/05/2014		6.5	pH Units		
pH	MW-16	06/02/2014		6.61	pH Units		
pH	MW-16	09/22/2014		6.4	pH Units		
pH	MW-16	11/18/2014		6.38	pH Units		
pH	MW-16	02/23/2015		6.48	pH Units		
pH	MW-16	05/20/2015		6.51	pH Units		
pH	MW-16	08/26/2015		6.35	pH Units		
pH	MW-16	11/11/2015		6.13	pH Units		
pH	MW-16	02/24/2016		6.49	pH Units		
pH	MW-16	05/16/2016		6.11	pH Units		
pH	MW-16	08/31/2016		5.93	pH Units		
pH	MW-16	11/14/2016		5.89	pH Units		
pH	MW-16	02/22/2017		6.42	pH Units		
pH	MW-16	05/24/2017		6.35	pH Units		
pH	MW-16	08/30/2017		6.17	pH Units		
pH	MW-16	11/13/2017		6.35	pH Units		
pH	MW-16	02/20/2018		6.11	pH Units		
pH	MW-16	05/17/2018		6.27	pH Units		
pH	MW-16	08/22/2018		6.1	pH Units		
pH	MW-16	11/12/2018		6.34	pH Units		
pH	MW-16	05/29/2019		5.98	pH Units		
pH	MW-16	11/12/2019		6.17	pH Units		
pH	MW-16	05/27/2020		6.5	pH Units		
pH	MW-16	11/20/2020		6.14	pH Units		
pH	MW-16	05/17/2021		6.5	pH Units		
pH	MW-16	11/16/2021		6.33	pH Units		
pH	MW-16	05/11/2022		6.39	pH Units		
pH	MW-16	11/17/2022		6.64	pH Units		
pH	MW-35	03/22/2005		7.06	pH Units		
pH	MW-35	06/14/2005		7.43	pH Units		
pH	MW-35	09/27/2005		7.39	pH Units		
pH	MW-35	12/15/2005		6.41	pH Units		
pH	MW-35	03/28/2006		7.1	pH Units		
pH	MW-35	06/21/2006		7.46	pH Units		
pH	MW-35	09/26/2006		7.5	pH Units		
pH	MW-35	12/12/2006		6.99	pH Units		
pH	MW-35	03/27/2007		7.51	pH Units		
pH	MW-35	09/18/2007		6.97	pH Units		
pH	MW-35	12/20/2007		7.25	pH Units		
pH	MW-35	03/25/2008		7.4	pH Units		
pH	MW-35	06/18/2008		7.44	pH Units		
pH	MW-35	09/18/2008		7.42	pH Units		
pH	MW-35	12/19/2008		7.19	pH Units		
pH	MW-35	03/24/2009		7.21	pH Units		
pH	MW-35	06/16/2009		7.15	pH Units		
pH	MW-35	12/03/2009		7.22	pH Units		
pH	MW-35	03/25/2010		7.24	pH Units		
pH	MW-35	06/23/2010		7.37	pH Units		
pH	MW-35	09/23/2010		6.85	pH Units		
pH	MW-35	12/09/2010		7.39	pH Units		
pH	MW-35	03/30/2011		7.37	pH Units		
pH	MW-35	06/06/2011		7.23	pH Units		
pH	MW-35	09/26/2011		6.86	pH Units		
pH	MW-35	12/13/2011		7	pH Units		
pH	MW-35	03/21/2012		7.02	pH Units		
pH	MW-35	06/06/2012		6.98	pH Units		
pH	MW-35	09/26/2012		7.11	pH Units		
pH	MW-35	12/04/2012		7.16	pH Units		
pH	MW-35	03/13/2013		7.06	pH Units		
pH	MW-35	06/06/2013		7.37	pH Units		
pH	MW-35	09/05/2013		7.1	pH Units		
pH	MW-35	12/16/2013		7.15	pH Units		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

pH	MW-35	03/04/2014		7.53	pH Units		
pH	MW-35	06/02/2014		7.17	pH Units		
pH	MW-35	09/22/2014		6.62	pH Units		
pH	MW-35	11/17/2014		7.48	pH Units		
pH	MW-35	02/25/2015		7.77	pH Units		
pH	MW-35	05/19/2015		6.72	pH Units		
pH	MW-35	08/26/2015		7.25	pH Units		
pH	MW-35	11/10/2015		6.92	pH Units		
pH	MW-35	02/22/2016		6.58	pH Units		
pH	MW-35	05/16/2016		6.95	pH Units		
pH	MW-35	08/31/2016		7.09	pH Units		
pH	MW-35	11/15/2016		6.61	pH Units		
pH	MW-35	02/22/2017		7.38	pH Units		
pH	MW-35	05/24/2017		7.23	pH Units		
pH	MW-35	08/30/2017		7.29	pH Units		
pH	MW-35	11/15/2017		6.98	pH Units		
pH	MW-35	02/20/2018		6.93	pH Units		
pH	MW-35	05/17/2018		6.95	pH Units		
pH	MW-35	08/22/2018		7.06	pH Units		
pH	MW-35	11/12/2018		7.4	pH Units		
pH	MW-35	05/29/2019		6.77	pH Units		
pH	MW-35	11/12/2019		6.61	pH Units		
pH	MW-35	05/27/2020		7.49	pH Units		
pH	MW-35	11/19/2020		7.2	pH Units		
pH	MW-35	05/17/2021		7.55	pH Units		
pH	MW-35	11/16/2021		7.41	pH Units		
pH	MW-35	05/10/2022		7.45	pH Units		
pH	MW-35	11/17/2022		7.49	pH Units		
Potassium, dissolved	MW-13A	03/22/2005		0.57	mg/L		
Potassium, dissolved	MW-13A	06/15/2005		0.52	mg/L		
Potassium, dissolved	MW-13A	09/27/2005		0.48	mg/L		
Potassium, dissolved	MW-13A	12/15/2005		0.5	mg/L		
Potassium, dissolved	MW-13A	03/28/2006	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/21/2006	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/26/2006	ND	1	mg/L		
Potassium, dissolved	MW-13A	12/13/2006	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/27/2007	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/19/2007	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/19/2007	ND	1	mg/L		
Potassium, dissolved	MW-13A	12/19/2007	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/25/2008	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/18/2008	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/17/2008	ND	1	mg/L		
Potassium, dissolved	MW-13A	12/17/2008	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/24/2009	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/17/2009	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/10/2009	ND	1	mg/L		
Potassium, dissolved	MW-13A	12/03/2009	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/25/2010	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/23/2010	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/23/2010	ND	1	mg/L		
Potassium, dissolved	MW-13A	12/08/2010	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/30/2011	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/06/2011	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/27/2011	ND	1	mg/L		
Potassium, dissolved	MW-13A	12/14/2011	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/21/2012	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/08/2012	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/26/2012	ND	1	mg/L		
Potassium, dissolved	MW-13A	12/03/2012	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/11/2013	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/05/2013	ND	1	mg/L		

* = outlier for that well/constituent

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ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Potassium, dissolved	MW-13A	12/03/2013	ND	1	mg/L		
Potassium, dissolved	MW-13A	03/04/2014	ND	1	mg/L		
Potassium, dissolved	MW-13A	06/02/2014	ND	1	mg/L		
Potassium, dissolved	MW-13A	09/22/2014	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/17/2014	ND	1	mg/L		
Potassium, dissolved	MW-13A	02/23/2015	ND	1	mg/L		
Potassium, dissolved	MW-13A	05/19/2015	ND	1	mg/L		
Potassium, dissolved	MW-13A	08/26/2015	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/10/2015	ND	1	mg/L		
Potassium, dissolved	MW-13A	02/22/2016	ND	1	mg/L		
Potassium, dissolved	MW-13A	05/16/2016	ND	1	mg/L		
Potassium, dissolved	MW-13A	08/31/2016	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/14/2016	ND	1	mg/L		
Potassium, dissolved	MW-13A	02/22/2017	ND	1	mg/L		
Potassium, dissolved	MW-13A	05/24/2017		1.4	mg/L		
Potassium, dissolved	MW-13A	08/30/2017	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/13/2017	ND	1	mg/L		
Potassium, dissolved	MW-13A	02/20/2018	ND	1	mg/L		
Potassium, dissolved	MW-13A	05/15/2018	ND	1	mg/L		
Potassium, dissolved	MW-13A	08/21/2018	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/12/2018	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/11/2019	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/19/2020	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/16/2021	ND	1	mg/L		
Potassium, dissolved	MW-13A	11/17/2022	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/22/2005		0.6	mg/L		
Potassium, dissolved	MW-13B	06/15/2005		0.55	mg/L		
Potassium, dissolved	MW-13B	09/27/2005		0.55	mg/L		
Potassium, dissolved	MW-13B	12/15/2005		0.52	mg/L		
Potassium, dissolved	MW-13B	03/29/2006	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/21/2006	ND	1	mg/L		
Potassium, dissolved	MW-13B	09/26/2006	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/13/2006	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/27/2007	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/19/2007	ND	1	mg/L		
Potassium, dissolved	MW-13B	09/18/2007	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/19/2007	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/25/2008	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/18/2008	ND	1	mg/L		
Potassium, dissolved	MW-13B	09/17/2008	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/16/2008	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/24/2009	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/17/2009	ND	1	mg/L		
Potassium, dissolved	MW-13B	09/10/2009	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/03/2009	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/25/2010	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/23/2010	ND	1	mg/L		
Potassium, dissolved	MW-13B	09/23/2010	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/08/2010	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/30/2011	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/06/2011	ND	1	mg/L		
Potassium, dissolved	MW-13B	09/27/2011	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/14/2011	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/21/2012	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/08/2012	ND	1	mg/L		
Potassium, dissolved	MW-13B	09/26/2012	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/03/2012	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/11/2013	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/05/2013	ND	1	mg/L		
Potassium, dissolved	MW-13B	12/03/2013	ND	1	mg/L		
Potassium, dissolved	MW-13B	03/04/2014	ND	1	mg/L		
Potassium, dissolved	MW-13B	06/02/2014	ND	1	mg/L		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Potassium, dissolved	MW-13B	09/22/2014	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/17/2014	ND	1	mg/L		
Potassium, dissolved	MW-13B	02/23/2015	ND	1	mg/L		
Potassium, dissolved	MW-13B	05/19/2015	ND	1	mg/L		
Potassium, dissolved	MW-13B	08/26/2015	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/10/2015	ND	1	mg/L		
Potassium, dissolved	MW-13B	02/22/2016	ND	1	mg/L		
Potassium, dissolved	MW-13B	05/16/2016	ND	1	mg/L		
Potassium, dissolved	MW-13B	08/31/2016	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/14/2016	ND	1	mg/L		
Potassium, dissolved	MW-13B	02/22/2017	ND	1	mg/L		
Potassium, dissolved	MW-13B	05/24/2017	ND	1	mg/L		
Potassium, dissolved	MW-13B	08/30/2017	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/13/2017	ND	1	mg/L		
Potassium, dissolved	MW-13B	02/20/2018	ND	1	mg/L		
Potassium, dissolved	MW-13B	05/15/2018	ND	1	mg/L		
Potassium, dissolved	MW-13B	08/21/2018	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/12/2018	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/11/2019	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/19/2020	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/16/2021	ND	1	mg/L		
Potassium, dissolved	MW-13B	11/17/2022	ND	1	mg/L		
Potassium, dissolved	MW-16	03/24/2009	ND	1	mg/L		
Potassium, dissolved	MW-16	06/16/2009	ND	1	mg/L		
Potassium, dissolved	MW-16	09/09/2009	ND	1	mg/L		
Potassium, dissolved	MW-16	12/03/2009	ND	1	mg/L		
Potassium, dissolved	MW-16	03/25/2010	ND	1	mg/L		
Potassium, dissolved	MW-16	06/24/2010	ND	1	mg/L		
Potassium, dissolved	MW-16	09/24/2010	ND	1	mg/L		
Potassium, dissolved	MW-16	12/09/2010	ND	1	mg/L		
Potassium, dissolved	MW-16	03/30/2011	ND	1	mg/L		
Potassium, dissolved	MW-16	06/07/2011	ND	1	mg/L		
Potassium, dissolved	MW-16	09/27/2011	ND	1	mg/L		
Potassium, dissolved	MW-16	12/13/2011	ND	1	mg/L		
Potassium, dissolved	MW-16	03/21/2012	ND	1	mg/L		
Potassium, dissolved	MW-16	06/08/2012	ND	1	mg/L		
Potassium, dissolved	MW-16	09/27/2012	ND	1	mg/L		
Potassium, dissolved	MW-16	12/04/2012	ND	1	mg/L		
Potassium, dissolved	MW-16	03/12/2013	ND	1	mg/L		
Potassium, dissolved	MW-16	06/04/2013	ND	1	mg/L		
Potassium, dissolved	MW-16	09/05/2013	ND	1	mg/L		
Potassium, dissolved	MW-16	12/16/2013	ND	1	mg/L		
Potassium, dissolved	MW-16	03/05/2014	ND	1	mg/L		
Potassium, dissolved	MW-16	06/02/2014		1.2	mg/L		
Potassium, dissolved	MW-16	09/22/2014	ND	1	mg/L		
Potassium, dissolved	MW-16	11/18/2014	ND	1	mg/L		
Potassium, dissolved	MW-16	02/23/2015	ND	1	mg/L		
Potassium, dissolved	MW-16	05/20/2015	ND	1	mg/L		
Potassium, dissolved	MW-16	08/26/2015	ND	1	mg/L		
Potassium, dissolved	MW-16	11/11/2015	ND	1	mg/L		
Potassium, dissolved	MW-16	02/24/2016	ND	1	mg/L		
Potassium, dissolved	MW-16	05/16/2016	ND	1	mg/L		
Potassium, dissolved	MW-16	08/31/2016	ND	1	mg/L		
Potassium, dissolved	MW-16	11/14/2016	ND	1	mg/L		
Potassium, dissolved	MW-16	02/22/2017	ND	1	mg/L		
Potassium, dissolved	MW-16	05/24/2017	ND	1	mg/L		
Potassium, dissolved	MW-16	08/30/2017	ND	1	mg/L		
Potassium, dissolved	MW-16	11/13/2017	ND	1	mg/L		
Potassium, dissolved	MW-16	02/20/2018	ND	1	mg/L		
Potassium, dissolved	MW-16	05/17/2018	ND	1	mg/L		
Potassium, dissolved	MW-16	08/22/2018	ND	1	mg/L		
Potassium, dissolved	MW-16	11/12/2018	ND	1	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Potassium, dissolved	MW-16	11/12/2019	ND	1	mg/L		
Potassium, dissolved	MW-16	11/20/2020	ND	1	mg/L		
Potassium, dissolved	MW-16	11/16/2021	ND	1	mg/L		
Potassium, dissolved	MW-16	11/17/2022	ND	1	mg/L		
Potassium, dissolved	MW-35	03/22/2005		0.52	mg/L		
Potassium, dissolved	MW-35	06/14/2005		0.48	mg/L		
Potassium, dissolved	MW-35	09/27/2005		0.52	mg/L		
Potassium, dissolved	MW-35	12/15/2005		0.46	mg/L		
Potassium, dissolved	MW-35	03/28/2006	ND	1	mg/L		
Potassium, dissolved	MW-35	06/21/2006	ND	1	mg/L		
Potassium, dissolved	MW-35	09/26/2006	ND	1	mg/L		
Potassium, dissolved	MW-35	12/12/2006	ND	1	mg/L		
Potassium, dissolved	MW-35	03/27/2007	ND	1	mg/L		
Potassium, dissolved	MW-35	06/20/2007	ND	1	mg/L		
Potassium, dissolved	MW-35	09/18/2007	ND	1	mg/L		
Potassium, dissolved	MW-35	12/20/2007	ND	1	mg/L		
Potassium, dissolved	MW-35	03/25/2008	ND	1	mg/L		
Potassium, dissolved	MW-35	06/18/2008	ND	1	mg/L		
Potassium, dissolved	MW-35	09/18/2008	ND	1	mg/L		
Potassium, dissolved	MW-35	12/19/2008	ND	1	mg/L		
Potassium, dissolved	MW-35	03/24/2009	ND	1	mg/L		
Potassium, dissolved	MW-35	06/16/2009	ND	1	mg/L		
Potassium, dissolved	MW-35	09/10/2009	ND	1	mg/L		
Potassium, dissolved	MW-35	12/03/2009	ND	1	mg/L		
Potassium, dissolved	MW-35	03/25/2010	ND	1	mg/L		
Potassium, dissolved	MW-35	06/23/2010	ND	1	mg/L		
Potassium, dissolved	MW-35	09/23/2010	ND	1	mg/L		
Potassium, dissolved	MW-35	12/09/2010	ND	1	mg/L		
Potassium, dissolved	MW-35	03/30/2011	ND	1	mg/L		
Potassium, dissolved	MW-35	06/06/2011	ND	1	mg/L		
Potassium, dissolved	MW-35	09/26/2011	ND	1	mg/L		
Potassium, dissolved	MW-35	12/13/2011	ND	1	mg/L		
Potassium, dissolved	MW-35	03/21/2012	ND	1	mg/L		
Potassium, dissolved	MW-35	06/06/2012	ND	1	mg/L		
Potassium, dissolved	MW-35	09/26/2012	ND	1	mg/L		
Potassium, dissolved	MW-35	12/04/2012	ND	1	mg/L		
Potassium, dissolved	MW-35	03/13/2013	ND	1	mg/L		
Potassium, dissolved	MW-35	06/06/2013	ND	1	mg/L		
Potassium, dissolved	MW-35	09/05/2013	ND	1	mg/L		
Potassium, dissolved	MW-35	12/16/2013	ND	1	mg/L		
Potassium, dissolved	MW-35	03/04/2014	ND	1	mg/L		
Potassium, dissolved	MW-35	06/02/2014	ND	1	mg/L		
Potassium, dissolved	MW-35	09/22/2014	ND	1	mg/L		
Potassium, dissolved	MW-35	11/17/2014	ND	1	mg/L		
Potassium, dissolved	MW-35	02/25/2015	ND	1	mg/L		
Potassium, dissolved	MW-35	05/19/2015	ND	1	mg/L		
Potassium, dissolved	MW-35	08/26/2015	ND	1	mg/L		
Potassium, dissolved	MW-35	11/10/2015	ND	1	mg/L		
Potassium, dissolved	MW-35	02/22/2016	ND	1	mg/L		
Potassium, dissolved	MW-35	05/16/2016	ND	1	mg/L		
Potassium, dissolved	MW-35	08/31/2016	ND	1	mg/L		
Potassium, dissolved	MW-35	11/15/2016	ND	1	mg/L		
Potassium, dissolved	MW-35	02/22/2017	ND	1	mg/L		
Potassium, dissolved	MW-35	05/24/2017	ND	1	mg/L		
Potassium, dissolved	MW-35	08/30/2017	ND	1	mg/L		
Potassium, dissolved	MW-35	11/15/2017	ND	1	mg/L		
Potassium, dissolved	MW-35	02/20/2018	ND	1	mg/L		
Potassium, dissolved	MW-35	05/17/2018	ND	1	mg/L		
Potassium, dissolved	MW-35	08/22/2018	ND	1	mg/L		
Potassium, dissolved	MW-35	11/12/2018	ND	1	mg/L		
Potassium, dissolved	MW-35	11/12/2019	ND	1	mg/L		
Potassium, dissolved	MW-35	11/19/2020	ND	1	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Potassium, dissolved	MW-35	11/16/2021	ND	1	mg/L		
Potassium, dissolved	MW-35	11/17/2022	ND	1	mg/L		
Selenium, total	MW-13A	12/03/2013	ND	0.001	mg/L		
Selenium, total	MW-13A	03/04/2014	ND	0.001	mg/L		
Selenium, total	MW-13A	06/02/2014	ND	0.001	mg/L		
Selenium, total	MW-13A	09/22/2014	ND	0.001	mg/L		
Selenium, total	MW-13A	11/17/2014	ND	0.001	mg/L		
Selenium, total	MW-13A	02/23/2015	ND	0.001	mg/L		
Selenium, total	MW-13A	05/19/2015	ND	0.001	mg/L		
Selenium, total	MW-13A	08/26/2015	ND	0.001	mg/L		
Selenium, total	MW-13A	11/10/2015	ND	0.001	mg/L		
Selenium, total	MW-13A	02/22/2016	ND	0.001	mg/L		
Selenium, total	MW-13A	05/16/2016	ND	0.001	mg/L		
Selenium, total	MW-13A	08/31/2016	ND	0.001	mg/L		
Selenium, total	MW-13A	11/14/2016	ND	0.001	mg/L		
Selenium, total	MW-13A	02/22/2017	ND	0.001	mg/L		
Selenium, total	MW-13A	05/24/2017	ND	0.001	mg/L		
Selenium, total	MW-13A	08/30/2017	ND	0.001	mg/L		
Selenium, total	MW-13A	11/13/2017	ND	0.001	mg/L		
Selenium, total	MW-13A	02/20/2018	ND	0.001	mg/L		
Selenium, total	MW-13A	05/15/2018	ND	0.001	mg/L		
Selenium, total	MW-13A	08/21/2018	ND	0.001	mg/L		
Selenium, total	MW-13A	11/12/2018	ND	0.001	mg/L		
Selenium, total	MW-13A	11/11/2019	ND	0.001	mg/L		
Selenium, total	MW-13A	11/19/2020	ND	0.001	mg/L		
Selenium, total	MW-13A	11/16/2021	ND	0.001	mg/L		
Selenium, total	MW-13A	11/17/2022	ND	0.001	mg/L		
Selenium, total	MW-13B	12/03/2013	ND	0.001	mg/L		
Selenium, total	MW-13B	03/04/2014	ND	0.001	mg/L		
Selenium, total	MW-13B	06/02/2014	ND	0.001	mg/L		
Selenium, total	MW-13B	09/22/2014	ND	0.001	mg/L		
Selenium, total	MW-13B	11/17/2014	ND	0.001	mg/L		
Selenium, total	MW-13B	02/23/2015	ND	0.001	mg/L		
Selenium, total	MW-13B	05/19/2015	ND	0.001	mg/L		
Selenium, total	MW-13B	08/26/2015	ND	0.001	mg/L		
Selenium, total	MW-13B	11/10/2015	ND	0.001	mg/L		
Selenium, total	MW-13B	02/22/2016	ND	0.001	mg/L		
Selenium, total	MW-13B	05/16/2016	ND	0.001	mg/L		
Selenium, total	MW-13B	08/31/2016	ND	0.001	mg/L		
Selenium, total	MW-13B	11/14/2016	ND	0.001	mg/L		
Selenium, total	MW-13B	02/22/2017	ND	0.001	mg/L		
Selenium, total	MW-13B	05/24/2017	ND	0.001	mg/L		
Selenium, total	MW-13B	08/30/2017	ND	0.001	mg/L		
Selenium, total	MW-13B	11/13/2017	ND	0.001	mg/L		
Selenium, total	MW-13B	02/20/2018	ND	0.001	mg/L		
Selenium, total	MW-13B	05/15/2018	ND	0.001	mg/L		
Selenium, total	MW-13B	08/21/2018	ND	0.001	mg/L		
Selenium, total	MW-13B	11/12/2018	ND	0.001	mg/L		
Selenium, total	MW-13B	11/11/2019	ND	0.001	mg/L		
Selenium, total	MW-13B	11/19/2020	ND	0.001	mg/L		
Selenium, total	MW-13B	11/16/2021	ND	0.001	mg/L		
Selenium, total	MW-13B	11/17/2022	ND	0.001	mg/L		
Selenium, total	MW-16	09/05/2013	ND	0.001	mg/L		
Selenium, total	MW-16	12/16/2013	ND	0.001	mg/L		
Selenium, total	MW-16	03/05/2014	ND	0.001	mg/L		
Selenium, total	MW-16	06/02/2014	ND	0.001	mg/L		
Selenium, total	MW-16	09/22/2014	ND	0.001	mg/L		
Selenium, total	MW-16	11/18/2014	ND	0.001	mg/L		
Selenium, total	MW-16	02/23/2015	ND	0.001	mg/L		
Selenium, total	MW-16	05/20/2015	ND	0.001	mg/L		
Selenium, total	MW-16	08/26/2015	ND	0.001	mg/L		
Selenium, total	MW-16	11/11/2015	ND	0.001	mg/L		

* = outlier for that well/constituent
** = ND value replaced with median reporting limit
ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Selenium, total	MW-16	02/24/2016	ND	0.001	mg/L		
Selenium, total	MW-16	05/16/2016	ND	0.001	mg/L		
Selenium, total	MW-16	08/31/2016	ND	0.001	mg/L		
Selenium, total	MW-16	11/14/2016	ND	0.001	mg/L		
Selenium, total	MW-16	02/22/2017	ND	0.001	mg/L		
Selenium, total	MW-16	05/24/2017	ND	0.001	mg/L		
Selenium, total	MW-16	08/30/2017	ND	0.001	mg/L		
Selenium, total	MW-16	11/13/2017	ND	0.001	mg/L		
Selenium, total	MW-16	02/20/2018	ND	0.001	mg/L		
Selenium, total	MW-16	05/17/2018	ND	0.001	mg/L		
Selenium, total	MW-16	08/22/2018	ND	0.001	mg/L		
Selenium, total	MW-16	11/12/2018	ND	0.001	mg/L		
Selenium, total	MW-16	11/12/2019	ND	0.001	mg/L		
Selenium, total	MW-16	11/20/2020	ND	0.001	mg/L		
Selenium, total	MW-16	11/16/2021	ND	0.001	mg/L		
Selenium, total	MW-16	11/17/2022	ND	0.001	mg/L		
Selenium, total	MW-35	09/05/2013	ND	0.001	mg/L		
Selenium, total	MW-35	12/16/2013	ND	0.001	mg/L		
Selenium, total	MW-35	03/04/2014	ND	0.001	mg/L		
Selenium, total	MW-35	06/02/2014	ND	0.001	mg/L		
Selenium, total	MW-35	09/22/2014	ND	0.001	mg/L		
Selenium, total	MW-35	11/17/2014	ND	0.001	mg/L		
Selenium, total	MW-35	02/25/2015	ND	0.001	mg/L		
Selenium, total	MW-35	05/19/2015	ND	0.001	mg/L		
Selenium, total	MW-35	08/26/2015	ND	0.001	mg/L		
Selenium, total	MW-35	11/10/2015	ND	0.001	mg/L		
Selenium, total	MW-35	02/22/2016	ND	0.001	mg/L		
Selenium, total	MW-35	05/16/2016	ND	0.001	mg/L		
Selenium, total	MW-35	08/31/2016	ND	0.001	mg/L		
Selenium, total	MW-35	11/15/2016	ND	0.001	mg/L		
Selenium, total	MW-35	02/22/2017	ND	0.001	mg/L		
Selenium, total	MW-35	05/24/2017	ND	0.001	mg/L		
Selenium, total	MW-35	08/30/2017	ND	0.001	mg/L		
Selenium, total	MW-35	11/15/2017	ND	0.001	mg/L		
Selenium, total	MW-35	02/20/2018	ND	0.001	mg/L		
Selenium, total	MW-35	05/17/2018	ND	0.001	mg/L		
Selenium, total	MW-35	08/22/2018	ND	0.001	mg/L		
Selenium, total	MW-35	11/12/2018	ND	0.001	mg/L		
Selenium, total	MW-35	11/12/2019	ND	0.001	mg/L		
Selenium, total	MW-35	11/19/2020	ND	0.001	mg/L		
Selenium, total	MW-35	11/16/2021	ND	0.001	mg/L		
Selenium, total	MW-35	11/17/2022	ND	0.001	mg/L		
Silver, total	MW-13A	12/03/2013	ND	0.002	mg/L		
Silver, total	MW-13A	03/04/2014	ND	0.002	mg/L		
Silver, total	MW-13A	06/02/2014	ND	0.002	mg/L		
Silver, total	MW-13A	09/22/2014	ND	0.002	mg/L		
Silver, total	MW-13A	11/17/2014	ND	0.002	mg/L		
Silver, total	MW-13A	02/23/2015	ND	0.002	mg/L		
Silver, total	MW-13A	05/19/2015	ND	0.002	mg/L		
Silver, total	MW-13A	08/26/2015	ND	0.002	mg/L		
Silver, total	MW-13A	11/10/2015	ND	0.002	mg/L		
Silver, total	MW-13A	02/22/2016	ND	0.002	mg/L		
Silver, total	MW-13A	05/16/2016	ND	0.002	mg/L		
Silver, total	MW-13A	08/31/2016	ND	0.002	mg/L		
Silver, total	MW-13A	11/14/2016	ND	0.002	mg/L		
Silver, total	MW-13A	02/22/2017	ND	0.002	mg/L		
Silver, total	MW-13A	05/24/2017	ND	0.002	mg/L		
Silver, total	MW-13A	08/30/2017	ND	0.002	mg/L		
Silver, total	MW-13A	11/13/2017	ND	0.002	mg/L		
Silver, total	MW-13A	02/20/2018	ND	0.002	mg/L		
Silver, total	MW-13A	05/15/2018	ND	0.002	mg/L		
Silver, total	MW-13A	08/21/2018	ND	0.002	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Silver, total	MW-13A	11/12/2018	ND	0.002	mg/L		
Silver, total	MW-13A	11/11/2019	ND	0.002	mg/L		
Silver, total	MW-13A	11/19/2020	ND	0.002	mg/L		
Silver, total	MW-13A	11/16/2021	ND	0.002	mg/L		
Silver, total	MW-13A	11/17/2022	ND	0.002	mg/L		
Silver, total	MW-13B	12/03/2013	ND	0.002	mg/L		
Silver, total	MW-13B	03/04/2014	ND	0.002	mg/L		
Silver, total	MW-13B	06/02/2014	ND	0.002	mg/L		
Silver, total	MW-13B	09/22/2014	ND	0.002	mg/L		
Silver, total	MW-13B	11/17/2014	ND	0.002	mg/L		
Silver, total	MW-13B	02/23/2015	ND	0.002	mg/L		
Silver, total	MW-13B	05/19/2015	ND	0.002	mg/L		
Silver, total	MW-13B	08/26/2015	ND	0.002	mg/L		
Silver, total	MW-13B	11/10/2015	ND	0.002	mg/L		
Silver, total	MW-13B	02/22/2016	ND	0.002	mg/L		
Silver, total	MW-13B	05/16/2016	ND	0.002	mg/L		
Silver, total	MW-13B	08/31/2016	ND	0.002	mg/L		
Silver, total	MW-13B	11/14/2016	ND	0.002	mg/L		
Silver, total	MW-13B	02/22/2017	ND	0.002	mg/L		
Silver, total	MW-13B	05/24/2017	ND	0.002	mg/L		
Silver, total	MW-13B	08/30/2017	ND	0.002	mg/L		
Silver, total	MW-13B	11/13/2017	ND	0.002	mg/L		
Silver, total	MW-13B	02/20/2018	ND	0.002	mg/L		
Silver, total	MW-13B	05/15/2018	ND	0.002	mg/L		
Silver, total	MW-13B	08/21/2018	ND	0.002	mg/L		
Silver, total	MW-13B	11/12/2018	ND	0.002	mg/L		
Silver, total	MW-13B	11/11/2019	ND	0.002	mg/L		
Silver, total	MW-13B	11/19/2020	ND	0.002	mg/L		
Silver, total	MW-13B	11/16/2021	ND	0.002	mg/L		
Silver, total	MW-13B	11/17/2022	ND	0.002	mg/L		
Silver, total	MW-16	09/05/2013	ND	0.002	mg/L		
Silver, total	MW-16	12/16/2013	ND	0.002	mg/L		
Silver, total	MW-16	03/05/2014	ND	0.002	mg/L		
Silver, total	MW-16	06/02/2014	ND	0.002	mg/L		
Silver, total	MW-16	09/22/2014	ND	0.002	mg/L		
Silver, total	MW-16	11/18/2014	ND	0.002	mg/L		
Silver, total	MW-16	02/23/2015	ND	0.002	mg/L		
Silver, total	MW-16	05/20/2015	ND	0.002	mg/L		
Silver, total	MW-16	08/26/2015	ND	0.002	mg/L		
Silver, total	MW-16	11/11/2015	ND	0.002	mg/L		
Silver, total	MW-16	02/24/2016	ND	0.002	mg/L		
Silver, total	MW-16	05/16/2016	ND	0.002	mg/L		
Silver, total	MW-16	08/31/2016	ND	0.002	mg/L		
Silver, total	MW-16	11/14/2016	ND	0.002	mg/L		
Silver, total	MW-16	02/22/2017	ND	0.002	mg/L		
Silver, total	MW-16	05/24/2017	ND	0.002	mg/L		
Silver, total	MW-16	08/30/2017	ND	0.002	mg/L		
Silver, total	MW-16	11/13/2017	ND	0.002	mg/L		
Silver, total	MW-16	02/20/2018	ND	0.002	mg/L		
Silver, total	MW-16	05/17/2018	ND	0.002	mg/L		
Silver, total	MW-16	08/22/2018	ND	0.002	mg/L		
Silver, total	MW-16	11/12/2018	ND	0.002	mg/L		
Silver, total	MW-16	11/12/2019	ND	0.002	mg/L		
Silver, total	MW-16	11/20/2020	ND	0.002	mg/L		
Silver, total	MW-16	11/16/2021	ND	0.002	mg/L		
Silver, total	MW-16	11/17/2022	ND	0.002	mg/L		
Silver, total	MW-35	09/05/2013	ND	0.002	mg/L		
Silver, total	MW-35	12/16/2013	ND	0.002	mg/L		
Silver, total	MW-35	03/04/2014	ND	0.002	mg/L		
Silver, total	MW-35	06/02/2014	ND	0.002	mg/L		
Silver, total	MW-35	09/22/2014	ND	0.002	mg/L		
Silver, total	MW-35	11/17/2014	ND	0.002	mg/L		

* = outlier for that well/constituent
** = ND value replaced with median reporting limit
ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Silver, total	MW-35	02/25/2015	ND	0.002	mg/L		
Silver, total	MW-35	05/19/2015	ND	0.002	mg/L		
Silver, total	MW-35	08/26/2015	ND	0.002	mg/L		
Silver, total	MW-35	11/10/2015	ND	0.002	mg/L		
Silver, total	MW-35	02/22/2016	ND	0.002	mg/L		
Silver, total	MW-35	05/16/2016	ND	0.002	mg/L		
Silver, total	MW-35	08/31/2016	ND	0.002	mg/L		
Silver, total	MW-35	11/15/2016	ND	0.002	mg/L		
Silver, total	MW-35	02/22/2017	ND	0.002	mg/L		
Silver, total	MW-35	05/24/2017	ND	0.002	mg/L		
Silver, total	MW-35	08/30/2017	ND	0.002	mg/L		
Silver, total	MW-35	11/15/2017	ND	0.002	mg/L		
Silver, total	MW-35	02/20/2018	ND	0.002	mg/L		
Silver, total	MW-35	05/17/2018	ND	0.002	mg/L		
Silver, total	MW-35	08/22/2018	ND	0.002	mg/L		
Silver, total	MW-35	11/12/2018	ND	0.002	mg/L		
Silver, total	MW-35	11/12/2019	ND	0.002	mg/L		
Silver, total	MW-35	11/19/2020	ND	0.002	mg/L		
Silver, total	MW-35	11/16/2021	ND	0.002	mg/L		
Silver, total	MW-35	11/17/2022	ND	0.002	mg/L		
Sodium, dissolved	MW-13A	03/22/2005		5.4	mg/L		
Sodium, dissolved	MW-13A	06/15/2005		4.4	mg/L		
Sodium, dissolved	MW-13A	09/27/2005		4.5	mg/L		
Sodium, dissolved	MW-13A	12/15/2005		4.8	mg/L		
Sodium, dissolved	MW-13A	03/28/2006		5.4	mg/L		
Sodium, dissolved	MW-13A	06/21/2006		5.2	mg/L		
Sodium, dissolved	MW-13A	09/26/2006		5.5	mg/L		
Sodium, dissolved	MW-13A	12/13/2006		4.8	mg/L		
Sodium, dissolved	MW-13A	03/27/2007		5.4	mg/L		
Sodium, dissolved	MW-13A	06/19/2007		5.5	mg/L		
Sodium, dissolved	MW-13A	09/19/2007		5.4	mg/L		
Sodium, dissolved	MW-13A	12/19/2007		4.9	mg/L		
Sodium, dissolved	MW-13A	03/25/2008		5.5	mg/L		
Sodium, dissolved	MW-13A	06/18/2008		5.5	mg/L		
Sodium, dissolved	MW-13A	09/17/2008		5.2	mg/L		
Sodium, dissolved	MW-13A	12/17/2008		5.5	mg/L		
Sodium, dissolved	MW-13A	03/24/2009		5.3	mg/L		
Sodium, dissolved	MW-13A	06/17/2009		5.4	mg/L		
Sodium, dissolved	MW-13A	09/10/2009		5.2	mg/L		
Sodium, dissolved	MW-13A	12/03/2009		5.6	mg/L		
Sodium, dissolved	MW-13A	03/25/2010		6.1	mg/L		
Sodium, dissolved	MW-13A	06/23/2010		5.7	mg/L		
Sodium, dissolved	MW-13A	09/23/2010		5	mg/L		
Sodium, dissolved	MW-13A	12/08/2010		5.2	mg/L		
Sodium, dissolved	MW-13A	03/30/2011		5.4	mg/L		
Sodium, dissolved	MW-13A	06/06/2011		5.4	mg/L		
Sodium, dissolved	MW-13A	09/27/2011		5.6	mg/L		
Sodium, dissolved	MW-13A	12/14/2011		5.5	mg/L		
Sodium, dissolved	MW-13A	03/21/2012		5.3	mg/L		
Sodium, dissolved	MW-13A	06/08/2012		5.2	mg/L		
Sodium, dissolved	MW-13A	09/26/2012		5.2	mg/L		
Sodium, dissolved	MW-13A	12/03/2012		5.5	mg/L		
Sodium, dissolved	MW-13A	03/11/2013		5.7	mg/L		
Sodium, dissolved	MW-13A	06/05/2013		5.6	mg/L		
Sodium, dissolved	MW-13A	12/03/2013		5.5	mg/L		
Sodium, dissolved	MW-13A	03/04/2014		5.4	mg/L		
Sodium, dissolved	MW-13A	06/02/2014		5.2	mg/L		
Sodium, dissolved	MW-13A	09/22/2014		5.2	mg/L		
Sodium, dissolved	MW-13A	11/17/2014		5.4	mg/L		
Sodium, dissolved	MW-13A	02/23/2015		5.2	mg/L		
Sodium, dissolved	MW-13A	05/19/2015		5.5	mg/L		
Sodium, dissolved	MW-13A	08/26/2015		5.3	mg/L		

* = outlier for that well/constituent
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ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Sodium, dissolved	MW-13A	11/10/2015		5.4	mg/L		
Sodium, dissolved	MW-13A	02/22/2016		5.9	mg/L		
Sodium, dissolved	MW-13A	05/16/2016		5.5	mg/L		
Sodium, dissolved	MW-13A	08/31/2016		5.4	mg/L		
Sodium, dissolved	MW-13A	11/14/2016		5.4	mg/L		
Sodium, dissolved	MW-13A	02/22/2017		5.4	mg/L		
Sodium, dissolved	MW-13A	05/24/2017		7.7	mg/L		
Sodium, dissolved	MW-13A	08/30/2017		5.4	mg/L		
Sodium, dissolved	MW-13A	11/13/2017		5.1	mg/L		
Sodium, dissolved	MW-13A	02/20/2018		4.6	mg/L		
Sodium, dissolved	MW-13A	05/15/2018		4.8	mg/L		
Sodium, dissolved	MW-13A	08/21/2018		4.9	mg/L		
Sodium, dissolved	MW-13A	11/12/2018		5.2	mg/L		
Sodium, dissolved	MW-13A	11/11/2019		5	mg/L		
Sodium, dissolved	MW-13A	11/19/2020		5.3	mg/L		
Sodium, dissolved	MW-13A	11/16/2021		5.4	mg/L		
Sodium, dissolved	MW-13A	11/17/2022		5.4	mg/L		
Sodium, dissolved	MW-13B	03/22/2005		5.3	mg/L		
Sodium, dissolved	MW-13B	06/15/2005		4.8	mg/L		
Sodium, dissolved	MW-13B	09/27/2005		5	mg/L		
Sodium, dissolved	MW-13B	12/15/2005		4.8	mg/L		
Sodium, dissolved	MW-13B	03/29/2006		4.9	mg/L		
Sodium, dissolved	MW-13B	06/21/2006		5	mg/L		
Sodium, dissolved	MW-13B	09/26/2006		5.5	mg/L		
Sodium, dissolved	MW-13B	12/13/2006		4.8	mg/L		
Sodium, dissolved	MW-13B	03/27/2007		5.2	mg/L		
Sodium, dissolved	MW-13B	06/19/2007		5.2	mg/L		
Sodium, dissolved	MW-13B	09/18/2007		5.2	mg/L		
Sodium, dissolved	MW-13B	12/19/2007		4.9	mg/L		
Sodium, dissolved	MW-13B	03/25/2008		5.3	mg/L		
Sodium, dissolved	MW-13B	06/18/2008		5.3	mg/L		
Sodium, dissolved	MW-13B	09/17/2008		5	mg/L		
Sodium, dissolved	MW-13B	12/16/2008		5.1	mg/L		
Sodium, dissolved	MW-13B	03/24/2009		5.1	mg/L		
Sodium, dissolved	MW-13B	06/17/2009		5.3	mg/L		
Sodium, dissolved	MW-13B	09/10/2009		5.1	mg/L		
Sodium, dissolved	MW-13B	12/03/2009		5.3	mg/L		
Sodium, dissolved	MW-13B	03/25/2010		5.3	mg/L		
Sodium, dissolved	MW-13B	06/23/2010		5.3	mg/L		
Sodium, dissolved	MW-13B	09/23/2010		4.8	mg/L		
Sodium, dissolved	MW-13B	12/08/2010		5.6	mg/L		
Sodium, dissolved	MW-13B	03/30/2011		5.1	mg/L		
Sodium, dissolved	MW-13B	06/06/2011		5.2	mg/L		
Sodium, dissolved	MW-13B	09/27/2011		5.2	mg/L		
Sodium, dissolved	MW-13B	12/14/2011		5.1	mg/L		
Sodium, dissolved	MW-13B	03/21/2012		4.9	mg/L		
Sodium, dissolved	MW-13B	06/08/2012		5.1	mg/L		
Sodium, dissolved	MW-13B	09/26/2012		5	mg/L		
Sodium, dissolved	MW-13B	12/03/2012		5.7	mg/L		
Sodium, dissolved	MW-13B	03/11/2013		5.3	mg/L		
Sodium, dissolved	MW-13B	06/05/2013		5.4	mg/L		
Sodium, dissolved	MW-13B	12/03/2013		5.4	mg/L		
Sodium, dissolved	MW-13B	03/04/2014		5.1	mg/L		
Sodium, dissolved	MW-13B	06/02/2014		4.9	mg/L		
Sodium, dissolved	MW-13B	09/22/2014		5	mg/L		
Sodium, dissolved	MW-13B	11/17/2014		5.3	mg/L		
Sodium, dissolved	MW-13B	02/23/2015		5	mg/L		
Sodium, dissolved	MW-13B	05/19/2015		5.5	mg/L		
Sodium, dissolved	MW-13B	08/26/2015		5.2	mg/L		
Sodium, dissolved	MW-13B	11/10/2015		5.2	mg/L		
Sodium, dissolved	MW-13B	02/22/2016		5.8	mg/L		
Sodium, dissolved	MW-13B	05/16/2016		5.2	mg/L		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Sodium, dissolved	MW-13B	08/31/2016		5.8	mg/L		
Sodium, dissolved	MW-13B	11/14/2016		5.1	mg/L		
Sodium, dissolved	MW-13B	02/22/2017		4.9	mg/L		
Sodium, dissolved	MW-13B	05/24/2017		5.4	mg/L		
Sodium, dissolved	MW-13B	08/30/2017		5.4	mg/L		
Sodium, dissolved	MW-13B	11/13/2017		5.1	mg/L		
Sodium, dissolved	MW-13B	02/20/2018		5	mg/L		
Sodium, dissolved	MW-13B	05/15/2018		4.6	mg/L		
Sodium, dissolved	MW-13B	08/21/2018		5.1	mg/L		
Sodium, dissolved	MW-13B	11/12/2018		5.3	mg/L		
Sodium, dissolved	MW-13B	11/11/2019		5	mg/L		
Sodium, dissolved	MW-13B	11/19/2020		5.3	mg/L		
Sodium, dissolved	MW-13B	11/16/2021		5	mg/L		
Sodium, dissolved	MW-13B	11/17/2022		5.4	mg/L		
Sodium, dissolved	MW-16	03/24/2009		5.4	mg/L		
Sodium, dissolved	MW-16	06/16/2009		5.3	mg/L		
Sodium, dissolved	MW-16	09/09/2009		5.4	mg/L		
Sodium, dissolved	MW-16	12/03/2009		6.2	mg/L		
Sodium, dissolved	MW-16	03/25/2010		4.9	mg/L		
Sodium, dissolved	MW-16	06/24/2010		5.7	mg/L		
Sodium, dissolved	MW-16	09/24/2010		5.7	mg/L		
Sodium, dissolved	MW-16	12/09/2010		5.2	mg/L		
Sodium, dissolved	MW-16	03/30/2011		4.7	mg/L		
Sodium, dissolved	MW-16	06/07/2011		5	mg/L		
Sodium, dissolved	MW-16	09/27/2011		5.8	mg/L		
Sodium, dissolved	MW-16	12/13/2011		5.3	mg/L		
Sodium, dissolved	MW-16	03/21/2012		4.7	mg/L		
Sodium, dissolved	MW-16	06/08/2012		4.8	mg/L		
Sodium, dissolved	MW-16	09/27/2012		5.4	mg/L		
Sodium, dissolved	MW-16	12/04/2012		4.7	mg/L		
Sodium, dissolved	MW-16	03/12/2013		5.1	mg/L		
Sodium, dissolved	MW-16	06/04/2013		5.3	mg/L		
Sodium, dissolved	MW-16	09/05/2013		6.2	mg/L		
Sodium, dissolved	MW-16	12/16/2013		5.7	mg/L		
Sodium, dissolved	MW-16	03/05/2014		4.9	mg/L		
Sodium, dissolved	MW-16	06/02/2014		4.5	mg/L		
Sodium, dissolved	MW-16	09/22/2014		4.9	mg/L		
Sodium, dissolved	MW-16	11/18/2014		4.8	mg/L		
Sodium, dissolved	MW-16	02/23/2015		4.7	mg/L		
Sodium, dissolved	MW-16	05/20/2015		4.6	mg/L		
Sodium, dissolved	MW-16	08/26/2015		4.9	mg/L		
Sodium, dissolved	MW-16	11/11/2015		5.7	mg/L		
Sodium, dissolved	MW-16	02/24/2016		4.4	mg/L		
Sodium, dissolved	MW-16	05/16/2016		4.8	mg/L		
Sodium, dissolved	MW-16	08/31/2016		5.4	mg/L		
Sodium, dissolved	MW-16	11/14/2016		5	mg/L		
Sodium, dissolved	MW-16	02/22/2017		4.2	mg/L		
Sodium, dissolved	MW-16	05/24/2017		4.4	mg/L		
Sodium, dissolved	MW-16	08/30/2017		4.9	mg/L		
Sodium, dissolved	MW-16	11/13/2017		4.9	mg/L		
Sodium, dissolved	MW-16	02/20/2018		4.2	mg/L		
Sodium, dissolved	MW-16	05/17/2018		4.2	mg/L		
Sodium, dissolved	MW-16	08/22/2018		4.4	mg/L		
Sodium, dissolved	MW-16	11/12/2018		5.1	mg/L		
Sodium, dissolved	MW-16	11/12/2019		5.5	mg/L		
Sodium, dissolved	MW-16	11/20/2020		5.6	mg/L		
Sodium, dissolved	MW-16	11/16/2021		5.6	mg/L		
Sodium, dissolved	MW-16	11/17/2022		5.2	mg/L		
Sodium, dissolved	MW-35	03/22/2005		5.1	mg/L		
Sodium, dissolved	MW-35	06/14/2005		4.5	mg/L		
Sodium, dissolved	MW-35	09/27/2005		5.1	mg/L		
Sodium, dissolved	MW-35	12/15/2005		4.6	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Sodium, dissolved	MW-35	03/28/2006		5	mg/L		
Sodium, dissolved	MW-35	06/21/2006		4.9	mg/L		
Sodium, dissolved	MW-35	09/26/2006		5.1	mg/L		
Sodium, dissolved	MW-35	12/12/2006		4.7	mg/L		
Sodium, dissolved	MW-35	03/27/2007		5.1	mg/L		
Sodium, dissolved	MW-35	06/20/2007		5.2	mg/L		
Sodium, dissolved	MW-35	09/18/2007		5.2	mg/L		
Sodium, dissolved	MW-35	12/20/2007		4.8	mg/L		
Sodium, dissolved	MW-35	03/25/2008		5.1	mg/L		
Sodium, dissolved	MW-35	06/18/2008		4.9	mg/L		
Sodium, dissolved	MW-35	09/18/2008		4.8	mg/L		
Sodium, dissolved	MW-35	12/19/2008		4.7	mg/L		
Sodium, dissolved	MW-35	03/24/2009		5	mg/L		
Sodium, dissolved	MW-35	06/16/2009		5.1	mg/L		
Sodium, dissolved	MW-35	09/10/2009		4.9	mg/L		
Sodium, dissolved	MW-35	12/03/2009		5.3	mg/L		
Sodium, dissolved	MW-35	03/25/2010		5	mg/L		
Sodium, dissolved	MW-35	06/23/2010		5.1	mg/L		
Sodium, dissolved	MW-35	09/23/2010		4.7	mg/L		
Sodium, dissolved	MW-35	12/09/2010		4.8	mg/L		
Sodium, dissolved	MW-35	03/30/2011		4.9	mg/L		
Sodium, dissolved	MW-35	06/06/2011		5.1	mg/L		
Sodium, dissolved	MW-35	09/26/2011		5.2	mg/L		
Sodium, dissolved	MW-35	12/13/2011		5.1	mg/L		
Sodium, dissolved	MW-35	03/21/2012		5	mg/L		
Sodium, dissolved	MW-35	06/06/2012		4.8	mg/L		
Sodium, dissolved	MW-35	09/26/2012		4.9	mg/L		
Sodium, dissolved	MW-35	12/04/2012		4.5	mg/L		
Sodium, dissolved	MW-35	03/13/2013		4.9	mg/L		
Sodium, dissolved	MW-35	06/06/2013		4.9	mg/L		
Sodium, dissolved	MW-35	09/05/2013		4.9	mg/L		
Sodium, dissolved	MW-35	12/16/2013		5.9	mg/L		
Sodium, dissolved	MW-35	03/04/2014		5.1	mg/L		
Sodium, dissolved	MW-35	06/02/2014		4.9	mg/L		
Sodium, dissolved	MW-35	09/22/2014		5.1	mg/L		
Sodium, dissolved	MW-35	11/17/2014		5.2	mg/L		
Sodium, dissolved	MW-35	02/25/2015		5.2	mg/L		
Sodium, dissolved	MW-35	05/19/2015		4.8	mg/L		
Sodium, dissolved	MW-35	08/26/2015		5.1	mg/L		
Sodium, dissolved	MW-35	11/10/2015		5.5	mg/L		
Sodium, dissolved	MW-35	02/22/2016		5.6	mg/L		
Sodium, dissolved	MW-35	05/16/2016		5.2	mg/L		
Sodium, dissolved	MW-35	08/31/2016		5.1	mg/L		
Sodium, dissolved	MW-35	11/15/2016		6.3	mg/L		
Sodium, dissolved	MW-35	02/22/2017		4.9	mg/L		
Sodium, dissolved	MW-35	05/24/2017		5	mg/L		
Sodium, dissolved	MW-35	08/30/2017		5.4	mg/L		
Sodium, dissolved	MW-35	11/15/2017		5	mg/L		
Sodium, dissolved	MW-35	02/20/2018		4.8	mg/L		
Sodium, dissolved	MW-35	05/17/2018		4.8	mg/L		
Sodium, dissolved	MW-35	08/22/2018		4.8	mg/L		
Sodium, dissolved	MW-35	11/12/2018		5.2	mg/L		
Sodium, dissolved	MW-35	11/12/2019		5.6	mg/L		
Sodium, dissolved	MW-35	11/19/2020		5.2	mg/L		
Sodium, dissolved	MW-35	11/16/2021		5.4	mg/L		
Sodium, dissolved	MW-35	11/17/2022		5.2	mg/L		
Specific conductivity	MW-13A	03/22/2005		0.158	mS/cm		
Specific conductivity	MW-13A	06/15/2005		0.167	mS/cm		
Specific conductivity	MW-13A	09/27/2005		0.161	mS/cm		
Specific conductivity	MW-13A	12/15/2005		0.159	mS/cm		
Specific conductivity	MW-13A	03/28/2006		0.152	mS/cm		
Specific conductivity	MW-13A	06/21/2006		0.169	mS/cm		

* = outlier for that well/constituent
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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Specific conductivity	MW-13A	09/26/2006		0.171	mS/cm		
Specific conductivity	MW-13A	12/13/2006		0.17	mS/cm		
Specific conductivity	MW-13A	03/27/2007		0.167	mS/cm		
Specific conductivity	MW-13A	09/19/2007		0.167	mS/cm		
Specific conductivity	MW-13A	12/19/2007		0.169	mS/cm		
Specific conductivity	MW-13A	03/25/2008		0.166	mS/cm		
Specific conductivity	MW-13A	06/18/2008		0.17	mS/cm		
Specific conductivity	MW-13A	09/17/2008		0.168	mS/cm		
Specific conductivity	MW-13A	12/17/2008		0.139	mS/cm		
Specific conductivity	MW-13A	03/24/2009		0.168	mS/cm		
Specific conductivity	MW-13A	06/17/2009		0.174	mS/cm		
Specific conductivity	MW-13A	12/03/2009		0.173	mS/cm		
Specific conductivity	MW-13A	03/25/2010		0.093	mS/cm		
Specific conductivity	MW-13A	06/23/2010		0.145	mS/cm		
Specific conductivity	MW-13A	09/23/2010		0.17	mS/cm		
Specific conductivity	MW-13A	12/08/2010		0.07	mS/cm		
Specific conductivity	MW-13A	03/30/2011		0.151	mS/cm		
Specific conductivity	MW-13A	06/06/2011		0.158	mS/cm		
Specific conductivity	MW-13A	09/27/2011		0.158	mS/cm		
Specific conductivity	MW-13A	12/14/2011		0.176	mS/cm		
Specific conductivity	MW-13A	03/21/2012		0.171	mS/cm		
Specific conductivity	MW-13A	06/08/2012		0.18	mS/cm		
Specific conductivity	MW-13A	09/26/2012		0.15	mS/cm		
Specific conductivity	MW-13A	12/03/2012		0.107	mS/cm		
Specific conductivity	MW-13A	03/11/2013		0.145	mS/cm		
Specific conductivity	MW-13A	06/05/2013		0.147	mS/cm		
Specific conductivity	MW-13A	12/03/2013		0.156	mS/cm		
Specific conductivity	MW-13A	03/04/2014		0.141	mS/cm		
Specific conductivity	MW-13A	06/02/2014		0.154	mS/cm		
Specific conductivity	MW-13A	09/22/2014		0.166	mS/cm		
Specific conductivity	MW-13A	11/17/2014		0.172	mS/cm		
Specific conductivity	MW-13A	02/23/2015		0.165	mS/cm		
Specific conductivity	MW-13A	05/19/2015		0.164	mS/cm		
Specific conductivity	MW-13A	08/26/2015		0.166	mS/cm		
Specific conductivity	MW-13A	11/10/2015		0.169	mS/cm		
Specific conductivity	MW-13A	02/22/2016		0.177	mS/cm		
Specific conductivity	MW-13A	05/16/2016		0.169	mS/cm		
Specific conductivity	MW-13A	08/31/2016		0.171	mS/cm		
Specific conductivity	MW-13A	11/14/2016		0.169	mS/cm		
Specific conductivity	MW-13A	02/22/2017		0.17	mS/cm		
Specific conductivity	MW-13A	05/24/2017		0.175	mS/cm		
Specific conductivity	MW-13A	08/30/2017		0.175	mS/cm		
Specific conductivity	MW-13A	11/13/2017		0.171	mS/cm		
Specific conductivity	MW-13A	02/20/2018		0.17	mS/cm		
Specific conductivity	MW-13A	05/15/2018		0.17	mS/cm		
Specific conductivity	MW-13A	08/21/2018		0.171	mS/cm		
Specific conductivity	MW-13A	11/12/2018		0.169	mS/cm		
Specific conductivity	MW-13A	05/28/2019		0.169	mS/cm		
Specific conductivity	MW-13A	11/11/2019		0.169	mS/cm		
Specific conductivity	MW-13A	05/26/2020		0.17	mS/cm		
Specific conductivity	MW-13A	11/19/2020		0.168	mS/cm		
Specific conductivity	MW-13A	05/17/2021		0.171	mS/cm		
Specific conductivity	MW-13A	11/16/2021		0.168	mS/cm		
Specific conductivity	MW-13A	05/10/2022		0.166	mS/cm		
Specific conductivity	MW-13A	11/17/2022		0.166	mS/cm		
Specific conductivity	MW-13B	03/22/2005		0.155	mS/cm		
Specific conductivity	MW-13B	06/15/2005		0.165	mS/cm		
Specific conductivity	MW-13B	09/27/2005		0.159	mS/cm		
Specific conductivity	MW-13B	12/15/2005		0.157	mS/cm		
Specific conductivity	MW-13B	03/29/2006		0.151	mS/cm		
Specific conductivity	MW-13B	06/21/2006		0.165	mS/cm		
Specific conductivity	MW-13B	09/26/2006		0.168	mS/cm		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Specific conductivity	MW-13B	12/13/2006		0.165	mS/cm		
Specific conductivity	MW-13B	03/27/2007		0.161	mS/cm		
Specific conductivity	MW-13B	09/18/2007		0.168	mS/cm		
Specific conductivity	MW-13B	12/19/2007		0.164	mS/cm		
Specific conductivity	MW-13B	03/25/2008		0.162	mS/cm		
Specific conductivity	MW-13B	06/18/2008		0.165	mS/cm		
Specific conductivity	MW-13B	09/17/2008		0.164	mS/cm		
Specific conductivity	MW-13B	12/16/2008		0.163	mS/cm		
Specific conductivity	MW-13B	03/24/2009		0.167	mS/cm		
Specific conductivity	MW-13B	06/17/2009		0.169	mS/cm		
Specific conductivity	MW-13B	12/03/2009		0.167	mS/cm		
Specific conductivity	MW-13B	03/25/2010		0.09	mS/cm		
Specific conductivity	MW-13B	06/23/2010		0.141	mS/cm		
Specific conductivity	MW-13B	09/23/2010		0.162	mS/cm		
Specific conductivity	MW-13B	12/08/2010		0.073	mS/cm		
Specific conductivity	MW-13B	03/30/2011		0.144	mS/cm		
Specific conductivity	MW-13B	06/06/2011		0.135	mS/cm		
Specific conductivity	MW-13B	09/27/2011		0.151	mS/cm		
Specific conductivity	MW-13B	12/14/2011		0.169	mS/cm		
Specific conductivity	MW-13B	03/21/2012		0.165	mS/cm		
Specific conductivity	MW-13B	06/08/2012		0.175	mS/cm		
Specific conductivity	MW-13B	09/26/2012		0.148	mS/cm		
Specific conductivity	MW-13B	12/03/2012		0.14	mS/cm		
Specific conductivity	MW-13B	03/11/2013		0.144	mS/cm		
Specific conductivity	MW-13B	06/05/2013		0.144	mS/cm		
Specific conductivity	MW-13B	12/03/2013		0.154	mS/cm		
Specific conductivity	MW-13B	03/04/2014		0.139	mS/cm		
Specific conductivity	MW-13B	06/02/2014		0.154	mS/cm		
Specific conductivity	MW-13B	09/22/2014		0.167	mS/cm		
Specific conductivity	MW-13B	11/17/2014		0.172	mS/cm		
Specific conductivity	MW-13B	02/23/2015		0.164	mS/cm		
Specific conductivity	MW-13B	05/19/2015		0.165	mS/cm		
Specific conductivity	MW-13B	08/26/2015		0.164	mS/cm		
Specific conductivity	MW-13B	11/10/2015		0.169	mS/cm		
Specific conductivity	MW-13B	02/22/2016		0.176	mS/cm		
Specific conductivity	MW-13B	05/16/2016		0.168	mS/cm		
Specific conductivity	MW-13B	08/31/2016		0.171	mS/cm		
Specific conductivity	MW-13B	11/14/2016		0.171	mS/cm		
Specific conductivity	MW-13B	02/22/2017		0.171	mS/cm		
Specific conductivity	MW-13B	05/24/2017		0.175	mS/cm		
Specific conductivity	MW-13B	08/30/2017		0.178	mS/cm		
Specific conductivity	MW-13B	11/13/2017		0.17	mS/cm		
Specific conductivity	MW-13B	02/20/2018		0.17	mS/cm		
Specific conductivity	MW-13B	05/15/2018		0.171	mS/cm		
Specific conductivity	MW-13B	08/21/2018		0.175	mS/cm		
Specific conductivity	MW-13B	11/12/2018		0.174	mS/cm		
Specific conductivity	MW-13B	05/28/2019		0.176	mS/cm		
Specific conductivity	MW-13B	11/11/2019		0.175	mS/cm		
Specific conductivity	MW-13B	05/26/2020		0.175	mS/cm		
Specific conductivity	MW-13B	11/19/2020		0.17	mS/cm		
Specific conductivity	MW-13B	05/17/2021		0.172	mS/cm		
Specific conductivity	MW-13B	11/16/2021		0.167	mS/cm		
Specific conductivity	MW-13B	05/10/2022		0.165	mS/cm		
Specific conductivity	MW-13B	11/17/2022		0.162	mS/cm		
Specific conductivity	MW-16	03/24/2009		0.135	mS/cm		
Specific conductivity	MW-16	06/16/2009		0.123	mS/cm		
Specific conductivity	MW-16	12/03/2009		0.16	mS/cm		
Specific conductivity	MW-16	03/25/2010		0.118	mS/cm		
Specific conductivity	MW-16	06/24/2010		0.155	mS/cm		
Specific conductivity	MW-16	09/24/2010		0.148	mS/cm		
Specific conductivity	MW-16	12/09/2010		0.15	mS/cm		
Specific conductivity	MW-16	03/30/2011		0.102	mS/cm		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Specific conductivity	MW-16	06/07/2011		0.096	mS/cm		
Specific conductivity	MW-16	09/27/2011		0.068	mS/cm		
Specific conductivity	MW-16	12/13/2011		0.12	mS/cm		
Specific conductivity	MW-16	03/21/2012		0.079	mS/cm		
Specific conductivity	MW-16	06/08/2012		0.118	mS/cm		
Specific conductivity	MW-16	09/27/2012		0.106	mS/cm		
Specific conductivity	MW-16	12/04/2012		0.085	mS/cm		
Specific conductivity	MW-16	03/12/2013		0.118	mS/cm		
Specific conductivity	MW-16	06/04/2013		0.103	mS/cm		
Specific conductivity	MW-16	09/05/2013		0.11	mS/cm		
Specific conductivity	MW-16	12/16/2013		0.096	mS/cm		
Specific conductivity	MW-16	03/05/2014		0.099	mS/cm		
Specific conductivity	MW-16	06/02/2014		0.094	mS/cm		
Specific conductivity	MW-16	09/22/2014		0.122	mS/cm		
Specific conductivity	MW-16	11/18/2014		0.126	mS/cm		
Specific conductivity	MW-16	02/23/2015		0.08	mS/cm		
Specific conductivity	MW-16	05/20/2015		0.101	mS/cm		
Specific conductivity	MW-16	08/26/2015		0.097	mS/cm		
Specific conductivity	MW-16	11/11/2015		0.136	mS/cm		
Specific conductivity	MW-16	02/24/2016		0.091	mS/cm		
Specific conductivity	MW-16	05/16/2016		0.102	mS/cm		
Specific conductivity	MW-16	08/31/2016		0.123	mS/cm		
Specific conductivity	MW-16	11/14/2016		0.11	mS/cm		
Specific conductivity	MW-16	02/22/2017		0.097	mS/cm		
Specific conductivity	MW-16	05/24/2017		0.047	mS/cm		
Specific conductivity	MW-16	08/30/2017		0.114	mS/cm		
Specific conductivity	MW-16	11/13/2017		0.104	mS/cm		
Specific conductivity	MW-16	02/20/2018		0.095	mS/cm		
Specific conductivity	MW-16	05/17/2018		0.097	mS/cm		
Specific conductivity	MW-16	08/22/2018		0.106	mS/cm		
Specific conductivity	MW-16	11/12/2018		0.112	mS/cm		
Specific conductivity	MW-16	05/29/2019		0.108	mS/cm		
Specific conductivity	MW-16	11/12/2019		0.136	mS/cm		
Specific conductivity	MW-16	05/27/2020		0.121	mS/cm		
Specific conductivity	MW-16	11/20/2020		0.151	mS/cm		
Specific conductivity	MW-16	05/17/2021		0.123	mS/cm		
Specific conductivity	MW-16	11/16/2021		0.147	mS/cm		
Specific conductivity	MW-16	05/11/2022		0.112	mS/cm		
Specific conductivity	MW-16	11/17/2022		0.115	mS/cm		
Specific conductivity	MW-35	03/22/2005		0.143	mS/cm		
Specific conductivity	MW-35	06/14/2005		0.153	mS/cm		
Specific conductivity	MW-35	09/27/2005		0.148	mS/cm		
Specific conductivity	MW-35	12/15/2005		0.145	mS/cm		
Specific conductivity	MW-35	03/28/2006		0.136	mS/cm		
Specific conductivity	MW-35	06/21/2006		0.152	mS/cm		
Specific conductivity	MW-35	09/26/2006		0.155	mS/cm		
Specific conductivity	MW-35	12/12/2006		0.151	mS/cm		
Specific conductivity	MW-35	03/27/2007		0.148	mS/cm		
Specific conductivity	MW-35	09/18/2007		0.152	mS/cm		
Specific conductivity	MW-35	12/20/2007		0.152	mS/cm		
Specific conductivity	MW-35	03/25/2008		0.147	mS/cm		
Specific conductivity	MW-35	06/18/2008		0.151	mS/cm		
Specific conductivity	MW-35	09/18/2008		0.142	mS/cm		
Specific conductivity	MW-35	12/19/2008		0.144	mS/cm		
Specific conductivity	MW-35	03/24/2009		0.15	mS/cm		
Specific conductivity	MW-35	06/16/2009		0.155	mS/cm		
Specific conductivity	MW-35	12/03/2009		0.152	mS/cm		
Specific conductivity	MW-35	03/25/2010		0.084	mS/cm		
Specific conductivity	MW-35	06/23/2010		0.128	mS/cm		
Specific conductivity	MW-35	09/23/2010		0.151	mS/cm		
Specific conductivity	MW-35	12/09/2010		0.15	mS/cm		
Specific conductivity	MW-35	03/30/2011		0.132	mS/cm		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Specific conductivity	MW-35	06/06/2011		0.123	mS/cm		
Specific conductivity	MW-35	09/26/2011		0.131	mS/cm		
Specific conductivity	MW-35	12/13/2011		0.148	mS/cm		
Specific conductivity	MW-35	03/21/2012		0.152	mS/cm		
Specific conductivity	MW-35	06/06/2012		0.138	mS/cm		
Specific conductivity	MW-35	09/26/2012		0.135	mS/cm		
Specific conductivity	MW-35	12/04/2012		0.148	mS/cm		
Specific conductivity	MW-35	03/13/2013		0.132	mS/cm		
Specific conductivity	MW-35	06/06/2013		0.133	mS/cm		
Specific conductivity	MW-35	09/05/2013		0.132	mS/cm		
Specific conductivity	MW-35	12/16/2013		0.121	mS/cm		
Specific conductivity	MW-35	03/04/2014		0.129	mS/cm		
Specific conductivity	MW-35	06/02/2014		0.14	mS/cm		
Specific conductivity	MW-35	09/22/2014		0.161	mS/cm		
Specific conductivity	MW-35	11/17/2014		0.16	mS/cm		
Specific conductivity	MW-35	02/25/2015		0.152	mS/cm		
Specific conductivity	MW-35	05/19/2015		0.135	mS/cm		
Specific conductivity	MW-35	08/26/2015		0.153	mS/cm		
Specific conductivity	MW-35	11/10/2015		0.156	mS/cm		
Specific conductivity	MW-35	02/22/2016		0.164	mS/cm		
Specific conductivity	MW-35	05/16/2016		0.156	mS/cm		
Specific conductivity	MW-35	08/31/2016		0.159	mS/cm		
Specific conductivity	MW-35	11/15/2016		0.158	mS/cm		
Specific conductivity	MW-35	02/22/2017		0.161	mS/cm		
Specific conductivity	MW-35	05/24/2017		0.166	mS/cm		
Specific conductivity	MW-35	08/30/2017		0.167	mS/cm		
Specific conductivity	MW-35	11/15/2017		0.161	mS/cm		
Specific conductivity	MW-35	02/20/2018		0.161	mS/cm		
Specific conductivity	MW-35	05/17/2018		0.164	mS/cm		
Specific conductivity	MW-35	08/22/2018		0.16	mS/cm		
Specific conductivity	MW-35	11/12/2018		0.164	mS/cm		
Specific conductivity	MW-35	05/29/2019		0.169	mS/cm		
Specific conductivity	MW-35	11/12/2019		0.166	mS/cm		
Specific conductivity	MW-35	05/27/2020		0.168	mS/cm		
Specific conductivity	MW-35	11/19/2020		0.156	mS/cm		
Specific conductivity	MW-35	05/17/2021		0.159	mS/cm		
Specific conductivity	MW-35	11/16/2021		0.169	mS/cm		
Specific conductivity	MW-35	05/10/2022		0.169	mS/cm		
Specific conductivity	MW-35	11/17/2022		0.156	mS/cm		
Sulfate	MW-13A	03/22/2005		2.8	mg/L		
Sulfate	MW-13A	06/15/2005		2.9	mg/L		
Sulfate	MW-13A	09/27/2005		3.2	mg/L		
Sulfate	MW-13A	12/15/2005		2.1	mg/L		
Sulfate	MW-13A	03/28/2006		3.2	mg/L		
Sulfate	MW-13A	06/21/2006		3.1	mg/L		
Sulfate	MW-13A	09/26/2006		2.5	mg/L		
Sulfate	MW-13A	12/13/2006		2.3	mg/L		
Sulfate	MW-13A	03/27/2007		2.5	mg/L		
Sulfate	MW-13A	06/19/2007		2.5	mg/L		
Sulfate	MW-13A	09/19/2007		2.5	mg/L		
Sulfate	MW-13A	12/19/2007		2.5	mg/L		
Sulfate	MW-13A	03/25/2008		2.4	mg/L		
Sulfate	MW-13A	06/18/2008		2.6	mg/L		
Sulfate	MW-13A	09/17/2008		2.4	mg/L		
Sulfate	MW-13A	12/17/2008		2.4	mg/L		
Sulfate	MW-13A	03/24/2009		2.5	mg/L		
Sulfate	MW-13A	06/17/2009		2.1	mg/L		
Sulfate	MW-13A	09/10/2009		2.2	mg/L		
Sulfate	MW-13A	12/03/2009		2.3	mg/L		
Sulfate	MW-13A	03/25/2010		2.3	mg/L		
Sulfate	MW-13A	06/23/2010		2.1	mg/L		
Sulfate	MW-13A	09/23/2010		2.3	mg/L		

* = outlier for that well/constituent
** = ND value replaced with median reporting limit
ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Sulfate	MW-13A	12/08/2010		3.7	mg/L		
Sulfate	MW-13A	03/30/2011		2.2	mg/L		
Sulfate	MW-13A	06/06/2011		2.2	mg/L		
Sulfate	MW-13A	09/27/2011		2.3	mg/L		
Sulfate	MW-13A	12/14/2011		2.5	mg/L		
Sulfate	MW-13A	03/21/2012		1.9	mg/L		
Sulfate	MW-13A	06/08/2012		2.1	mg/L		
Sulfate	MW-13A	09/26/2012		2.1	mg/L		
Sulfate	MW-13A	12/03/2012		2.2	mg/L		
Sulfate	MW-13A	03/11/2013		1.9	mg/L		
Sulfate	MW-13A	06/05/2013		1.7	mg/L		
Sulfate	MW-13A	12/03/2013		1.6	mg/L		
Sulfate	MW-13A	03/04/2014		2.1	mg/L		
Sulfate	MW-13A	06/02/2014		2.2	mg/L		
Sulfate	MW-13A	09/22/2014		2.2	mg/L		
Sulfate	MW-13A	11/17/2014		2.1	mg/L		
Sulfate	MW-13A	02/23/2015		2.1	mg/L		
Sulfate	MW-13A	05/19/2015		2.1	mg/L		
Sulfate	MW-13A	08/26/2015		2.3	mg/L		
Sulfate	MW-13A	11/10/2015		2.1	mg/L		
Sulfate	MW-13A	02/22/2016		2.1	mg/L		
Sulfate	MW-13A	05/16/2016		2.2	mg/L		
Sulfate	MW-13A	08/31/2016		2.3	mg/L		
Sulfate	MW-13A	11/14/2016		2	mg/L		
Sulfate	MW-13A	02/22/2017		2	mg/L		
Sulfate	MW-13A	05/24/2017		2.1	mg/L		
Sulfate	MW-13A	08/30/2017		1.8	mg/L		
Sulfate	MW-13A	11/13/2017		1.8	mg/L		
Sulfate	MW-13A	02/20/2018		2.1	mg/L		
Sulfate	MW-13A	05/15/2018		2	mg/L		
Sulfate	MW-13A	08/21/2018		1.8	mg/L		
Sulfate	MW-13A	11/12/2018		2.1	mg/L		
Sulfate	MW-13A	11/11/2019	ND	5	mg/L		
Sulfate	MW-13A	11/19/2020	ND	5	mg/L		
Sulfate	MW-13A	11/16/2021	ND	5	mg/L		
Sulfate	MW-13A	11/17/2022	ND	5	mg/L		
Sulfate	MW-13B	03/22/2005		4.6	mg/L		
Sulfate	MW-13B	06/15/2005		4.7	mg/L		
Sulfate	MW-13B	09/27/2005		4.5	mg/L		
Sulfate	MW-13B	12/15/2005		3.6	mg/L		
Sulfate	MW-13B	03/29/2006		4.5	mg/L		
Sulfate	MW-13B	06/21/2006		4.4	mg/L		
Sulfate	MW-13B	09/26/2006		4.1	mg/L		
Sulfate	MW-13B	12/13/2006		3.9	mg/L		
Sulfate	MW-13B	03/27/2007		4.1	mg/L		
Sulfate	MW-13B	06/19/2007		4.1	mg/L		
Sulfate	MW-13B	09/18/2007		4.2	mg/L		
Sulfate	MW-13B	12/19/2007		4.1	mg/L		
Sulfate	MW-13B	03/25/2008		4	mg/L		
Sulfate	MW-13B	06/18/2008		4.1	mg/L		
Sulfate	MW-13B	09/17/2008		4.2	mg/L		
Sulfate	MW-13B	12/16/2008		4.2	mg/L		
Sulfate	MW-13B	03/24/2009		4.2	mg/L		
Sulfate	MW-13B	06/17/2009		3.7	mg/L		
Sulfate	MW-13B	09/10/2009		3.7	mg/L		
Sulfate	MW-13B	12/03/2009		4.1	mg/L		
Sulfate	MW-13B	03/25/2010		3.9	mg/L		
Sulfate	MW-13B	06/23/2010		3.6	mg/L		
Sulfate	MW-13B	09/23/2010		3.8	mg/L		
Sulfate	MW-13B	12/08/2010		2.4	mg/L		
Sulfate	MW-13B	03/30/2011		4.4	mg/L		
Sulfate	MW-13B	06/06/2011		3.7	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Sulfate	MW-13B	09/27/2011		3.7	mg/L		
Sulfate	MW-13B	12/14/2011		3.5	mg/L		
Sulfate	MW-13B	03/21/2012		3.2	mg/L		
Sulfate	MW-13B	06/08/2012		3.5	mg/L		
Sulfate	MW-13B	09/26/2012		3.6	mg/L		
Sulfate	MW-13B	12/03/2012		3.5	mg/L		
Sulfate	MW-13B	03/11/2013		3	mg/L		
Sulfate	MW-13B	06/05/2013		3.5	mg/L		
Sulfate	MW-13B	12/03/2013		3.1	mg/L		
Sulfate	MW-13B	03/04/2014		3.7	mg/L		
Sulfate	MW-13B	06/02/2014		3.6	mg/L		
Sulfate	MW-13B	09/22/2014		4.1	mg/L		
Sulfate	MW-13B	11/17/2014		3.7	mg/L		
Sulfate	MW-13B	02/23/2015		3.4	mg/L		
Sulfate	MW-13B	05/19/2015		3.1	mg/L		
Sulfate	MW-13B	08/26/2015		3.7	mg/L		
Sulfate	MW-13B	11/10/2015		3.2	mg/L		
Sulfate	MW-13B	02/22/2016		3.4	mg/L		
Sulfate	MW-13B	05/16/2016		3.5	mg/L		
Sulfate	MW-13B	08/31/2016		3.7	mg/L		
Sulfate	MW-13B	11/14/2016		3	mg/L		
Sulfate	MW-13B	02/22/2017		3.5	mg/L		
Sulfate	MW-13B	05/24/2017		3.4	mg/L		
Sulfate	MW-13B	08/30/2017		3.8	mg/L		
Sulfate	MW-13B	11/13/2017		2.9	mg/L		
Sulfate	MW-13B	02/20/2018		3	mg/L		
Sulfate	MW-13B	05/15/2018		3.1	mg/L		
Sulfate	MW-13B	08/21/2018		2.9	mg/L		
Sulfate	MW-13B	11/12/2018		3	mg/L		
Sulfate	MW-13B	11/11/2019	ND	5	mg/L		
Sulfate	MW-13B	11/19/2020	ND	5	mg/L		
Sulfate	MW-13B	11/16/2021	ND	5	mg/L		
Sulfate	MW-13B	11/17/2022	ND	5	mg/L		
Sulfate	MW-16	03/24/2009		3	mg/L		
Sulfate	MW-16	06/16/2009		2.2	mg/L		
Sulfate	MW-16	09/09/2009		4.3	mg/L		
Sulfate	MW-16	12/03/2009		3.6	mg/L		
Sulfate	MW-16	03/25/2010		9.9	mg/L		
Sulfate	MW-16	06/24/2010		2.5	mg/L		
Sulfate	MW-16	09/24/2010		2.3	mg/L		
Sulfate	MW-16	12/09/2010		2.7	mg/L		
Sulfate	MW-16	03/30/2011		7.1	mg/L		
Sulfate	MW-16	06/07/2011		2.4	mg/L		
Sulfate	MW-16	09/27/2011		4.1	mg/L		
Sulfate	MW-16	12/13/2011		2.3	mg/L		
Sulfate	MW-16	03/21/2012		1.6	mg/L		
Sulfate	MW-16	06/08/2012		3	mg/L		
Sulfate	MW-16	09/27/2012		3.1	mg/L		
Sulfate	MW-16	12/04/2012		3	mg/L		
Sulfate	MW-16	03/12/2013		1.9	mg/L		
Sulfate	MW-16	06/04/2013		2.7	mg/L		
Sulfate	MW-16	09/05/2013		1.7	mg/L		
Sulfate	MW-16	12/16/2013		2.3	mg/L		
Sulfate	MW-16	03/05/2014		2.8	mg/L		
Sulfate	MW-16	06/02/2014		3.8	mg/L		
Sulfate	MW-16	09/22/2014		2.9	mg/L		
Sulfate	MW-16	11/18/2014		3.3	mg/L		
Sulfate	MW-16	02/23/2015		2.9	mg/L		
Sulfate	MW-16	05/20/2015		2.1	mg/L		
Sulfate	MW-16	08/26/2015		3.4	mg/L		
Sulfate	MW-16	11/11/2015		2.8	mg/L		
Sulfate	MW-16	02/24/2016		2.9	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Sulfate	MW-16	05/16/2016		2.6	mg/L		
Sulfate	MW-16	08/31/2016		1.7	mg/L		
Sulfate	MW-16	11/14/2016		1.6	mg/L		
Sulfate	MW-16	02/22/2017		2.5	mg/L		
Sulfate	MW-16	05/24/2017		2.7	mg/L		
Sulfate	MW-16	08/30/2017		1.6	mg/L		
Sulfate	MW-16	11/13/2017		1	mg/L		
Sulfate	MW-16	02/20/2018		2.2	mg/L		
Sulfate	MW-16	05/17/2018		2.3	mg/L		
Sulfate	MW-16	08/22/2018		2.1	mg/L		
Sulfate	MW-16	11/12/2018		1.6	mg/L		
Sulfate	MW-16	11/12/2019	ND	5	mg/L		
Sulfate	MW-16	11/20/2020	ND	5	mg/L		
Sulfate	MW-16	11/16/2021	ND	5	mg/L		
Sulfate	MW-16	11/17/2022	ND	5	mg/L		
Sulfate	MW-35	03/22/2005		2.5	mg/L		
Sulfate	MW-35	06/14/2005		1.6	mg/L		
Sulfate	MW-35	09/27/2005		1.3	mg/L		
Sulfate	MW-35	12/15/2005	ND	1	mg/L	5	**
Sulfate	MW-35	03/28/2006		3	mg/L		
Sulfate	MW-35	06/21/2006		3	mg/L		
Sulfate	MW-35	09/26/2006		2.4	mg/L		
Sulfate	MW-35	12/12/2006		2.2	mg/L		
Sulfate	MW-35	03/27/2007		2.5	mg/L		
Sulfate	MW-35	06/20/2007		2.4	mg/L		
Sulfate	MW-35	09/18/2007		2.6	mg/L		
Sulfate	MW-35	12/20/2007		2.4	mg/L		
Sulfate	MW-35	03/25/2008		2.4	mg/L		
Sulfate	MW-35	06/18/2008		2.6	mg/L		
Sulfate	MW-35	09/18/2008		2.3	mg/L		
Sulfate	MW-35	12/19/2008		2.6	mg/L		
Sulfate	MW-35	03/24/2009		2.7	mg/L		
Sulfate	MW-35	06/16/2009		2.2	mg/L		
Sulfate	MW-35	09/10/2009		2.4	mg/L		
Sulfate	MW-35	12/03/2009		2.5	mg/L		
Sulfate	MW-35	03/25/2010		2.6	mg/L		
Sulfate	MW-35	06/23/2010		2.3	mg/L		
Sulfate	MW-35	09/23/2010		2.5	mg/L		
Sulfate	MW-35	12/09/2010		2.2	mg/L		
Sulfate	MW-35	03/30/2011		2.6	mg/L		
Sulfate	MW-35	06/06/2011		2.5	mg/L		
Sulfate	MW-35	09/26/2011		2.6	mg/L		
Sulfate	MW-35	12/13/2011		2.5	mg/L		
Sulfate	MW-35	03/21/2012		2.1	mg/L		
Sulfate	MW-35	06/06/2012		2.4	mg/L		
Sulfate	MW-35	09/26/2012		2.4	mg/L		
Sulfate	MW-35	12/04/2012		2.5	mg/L		
Sulfate	MW-35	03/13/2013		2.3	mg/L		
Sulfate	MW-35	06/06/2013		2	mg/L		
Sulfate	MW-35	09/05/2013		2.1	mg/L		
Sulfate	MW-35	12/16/2013		2.6	mg/L		
Sulfate	MW-35	03/04/2014		2.7	mg/L		
Sulfate	MW-35	06/02/2014		2.5	mg/L		
Sulfate	MW-35	09/22/2014		3.2	mg/L		
Sulfate	MW-35	11/17/2014		2.5	mg/L		
Sulfate	MW-35	02/25/2015		2.4	mg/L		
Sulfate	MW-35	05/19/2015		2.3	mg/L		
Sulfate	MW-35	08/26/2015		2.4	mg/L		
Sulfate	MW-35	11/10/2015		2.5	mg/L		
Sulfate	MW-35	02/22/2016		2.6	mg/L		
Sulfate	MW-35	05/16/2016		2.5	mg/L		
Sulfate	MW-35	08/31/2016		2.8	mg/L		

* = outlier for that well/constituent

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ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Sulfate	MW-35	11/15/2016		2.2	mg/L		
Sulfate	MW-35	02/22/2017		2.5	mg/L		
Sulfate	MW-35	05/24/2017		2.3	mg/L		
Sulfate	MW-35	08/30/2017		2.2	mg/L		
Sulfate	MW-35	11/15/2017		2.8	mg/L		
Sulfate	MW-35	02/20/2018		2.3	mg/L		
Sulfate	MW-35	05/17/2018		2.2	mg/L		
Sulfate	MW-35	08/22/2018		2.6	mg/L		
Sulfate	MW-35	11/12/2018		2.3	mg/L		
Sulfate	MW-35	11/12/2019	ND	5	mg/L		
Sulfate	MW-35	11/19/2020	ND	5	mg/L		
Sulfate	MW-35	11/16/2021	ND	5	mg/L		
Sulfate	MW-35	11/17/2022	ND	5	mg/L		
Temperature	MW-13A	03/22/2005		9.08	deg C		
Temperature	MW-13A	06/15/2005		9.37	deg C		
Temperature	MW-13A	09/27/2005		9.65	deg C		
Temperature	MW-13A	12/15/2005		8.6	deg C		
Temperature	MW-13A	03/28/2006		9.44	deg C		
Temperature	MW-13A	06/21/2006		9.41	deg C		
Temperature	MW-13A	09/26/2006		9.71	deg C		
Temperature	MW-13A	12/13/2006		8.79	deg C		
Temperature	MW-13A	03/27/2007		9.14	deg C		
Temperature	MW-13A	09/19/2007		9.26	deg C		
Temperature	MW-13A	12/19/2007		8.17	deg C		
Temperature	MW-13A	03/25/2008		8.47	deg C		
Temperature	MW-13A	06/18/2008		9.3	deg C		
Temperature	MW-13A	09/17/2008		8.8	deg C		
Temperature	MW-13A	12/17/2008		8.75	deg C		
Temperature	MW-13A	03/24/2009		8.32	deg C		
Temperature	MW-13A	06/17/2009		9.85	deg C		
Temperature	MW-13A	12/03/2009		8.92	deg C		
Temperature	MW-13A	03/25/2010		9.22	deg C		
Temperature	MW-13A	06/23/2010		9.58	deg C		
Temperature	MW-13A	09/23/2010		9.42	deg C		
Temperature	MW-13A	12/08/2010		9.45	deg C		
Temperature	MW-13A	03/30/2011		9.37	deg C		
Temperature	MW-13A	06/06/2011		10.4	deg C		
Temperature	MW-13A	09/27/2011		9.58	deg C		
Temperature	MW-13A	12/14/2011		8.92	deg C		
Temperature	MW-13A	03/21/2012		8.74	deg C		
Temperature	MW-13A	06/08/2012		9.3	deg C		
Temperature	MW-13A	09/26/2012		10.04	deg C		
Temperature	MW-13A	12/03/2012		9.2	deg C		
Temperature	MW-13A	03/11/2013		9.22	deg C		
Temperature	MW-13A	06/05/2013		11.96	deg C		
Temperature	MW-13A	12/03/2013		8.93	deg C		
Temperature	MW-13A	03/04/2014		8.98	deg C		
Temperature	MW-13A	06/02/2014		11.15	deg C		
Temperature	MW-13A	09/22/2014		10.58	deg C		
Temperature	MW-13A	11/17/2014		9.4	deg C		
Temperature	MW-13A	02/23/2015		9.41	deg C		
Temperature	MW-13A	05/19/2015		9.89	deg C		
Temperature	MW-13A	08/26/2015		10.69	deg C		
Temperature	MW-13A	11/10/2015		9.49	deg C		
Temperature	MW-13A	02/22/2016		9.59	deg C		
Temperature	MW-13A	05/16/2016		9.77	deg C		
Temperature	MW-13A	08/31/2016		9.98	deg C		
Temperature	MW-13A	11/14/2016		9.57	deg C		
Temperature	MW-13A	02/22/2017		9.11	deg C		
Temperature	MW-13A	05/24/2017		4.59	deg C		
Temperature	MW-13A	08/30/2017		9.85	deg C		
Temperature	MW-13A	11/13/2017		9.41	deg C		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Temperature	MW-13A	02/20/2018		9.07	deg C		
Temperature	MW-13A	05/15/2018		9.63	deg C		
Temperature	MW-13A	08/21/2018		9.58	deg C		
Temperature	MW-13A	11/12/2018		9.5	deg C		
Temperature	MW-13A	05/28/2019		9.5	deg C		
Temperature	MW-13A	11/11/2019		9.24	deg C		
Temperature	MW-13A	05/26/2020		9.45	deg C		
Temperature	MW-13A	11/19/2020		9.4	deg C		
Temperature	MW-13A	05/17/2021		9.6	deg C		
Temperature	MW-13A	11/16/2021		9.4	deg C		
Temperature	MW-13A	05/10/2022		9.7	deg C		
Temperature	MW-13A	11/17/2022		9.6	deg C		
Temperature	MW-13B	03/22/2005		9.55	deg C		
Temperature	MW-13B	06/15/2005		9.92	deg C		
Temperature	MW-13B	09/27/2005		10.79	deg C		
Temperature	MW-13B	12/15/2005		8.11	deg C		
Temperature	MW-13B	03/29/2006		8.8	deg C		
Temperature	MW-13B	06/21/2006		9.76	deg C		
Temperature	MW-13B	09/26/2006		10.32	deg C		
Temperature	MW-13B	12/13/2006		8.85	deg C		
Temperature	MW-13B	03/27/2007		9.04	deg C		
Temperature	MW-13B	09/18/2007		10.01	deg C		
Temperature	MW-13B	12/19/2007		8.08	deg C		
Temperature	MW-13B	03/25/2008		8.09	deg C		
Temperature	MW-13B	06/18/2008		9.23	deg C		
Temperature	MW-13B	09/17/2008		9.01	deg C		
Temperature	MW-13B	12/16/2008		8.43	deg C		
Temperature	MW-13B	03/24/2009		8.37	deg C		
Temperature	MW-13B	06/17/2009		10.81	deg C		
Temperature	MW-13B	12/03/2009		8.79	deg C		
Temperature	MW-13B	03/25/2010		9.23	deg C		
Temperature	MW-13B	06/23/2010		9.97	deg C		
Temperature	MW-13B	09/23/2010		9.6	deg C		
Temperature	MW-13B	12/08/2010		9.25	deg C		
Temperature	MW-13B	03/30/2011		9.32	deg C		
Temperature	MW-13B	06/06/2011		11.3	deg C		
Temperature	MW-13B	09/27/2011		10.57	deg C		
Temperature	MW-13B	12/14/2011		8.76	deg C		
Temperature	MW-13B	03/21/2012		8.5	deg C		
Temperature	MW-13B	06/08/2012		9.4	deg C		
Temperature	MW-13B	09/26/2012		10.59	deg C		
Temperature	MW-13B	12/03/2012		9.2	deg C		
Temperature	MW-13B	03/11/2013		9.15	deg C		
Temperature	MW-13B	06/05/2013		11.41	deg C		
Temperature	MW-13B	12/03/2013		9.44	deg C		
Temperature	MW-13B	03/04/2014		9	deg C		
Temperature	MW-13B	06/02/2014		14.32	deg C		
Temperature	MW-13B	09/22/2014		11.02	deg C		
Temperature	MW-13B	11/17/2014		9.4	deg C		
Temperature	MW-13B	02/23/2015		9.76	deg C		
Temperature	MW-13B	05/19/2015		10.23	deg C		
Temperature	MW-13B	08/26/2015		10.53	deg C		
Temperature	MW-13B	11/10/2015		9.59	deg C		
Temperature	MW-13B	02/22/2016		9.3	deg C		
Temperature	MW-13B	05/16/2016		9.93	deg C		
Temperature	MW-13B	08/31/2016		10.43	deg C		
Temperature	MW-13B	11/14/2016		10.41	deg C		
Temperature	MW-13B	02/22/2017		9.06	deg C		
Temperature	MW-13B	05/24/2017		9.76	deg C		
Temperature	MW-13B	08/30/2017		10.27	deg C		
Temperature	MW-13B	11/13/2017		9.54	deg C		
Temperature	MW-13B	02/20/2018		8.82	deg C		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Temperature	MW-13B	05/15/2018		9.98	deg C		
Temperature	MW-13B	08/21/2018		10.14	deg C		
Temperature	MW-13B	11/12/2018		10	deg C		
Temperature	MW-13B	05/28/2019		10.13	deg C		
Temperature	MW-13B	11/11/2019		9.66	deg C		
Temperature	MW-13B	05/26/2020		9.97	deg C		
Temperature	MW-13B	11/19/2020		9.5	deg C		
Temperature	MW-13B	05/17/2021		9.9	deg C		
Temperature	MW-13B	11/16/2021		9.42	deg C		
Temperature	MW-13B	05/10/2022		9.9	deg C		
Temperature	MW-13B	11/17/2022		9.9	deg C		
Temperature	MW-16	03/24/2009		9.08	deg C		
Temperature	MW-16	06/16/2009		9.98	deg C		
Temperature	MW-16	12/03/2009		9.08	deg C		
Temperature	MW-16	03/25/2010		9.11	deg C		
Temperature	MW-16	06/24/2010		9.39	deg C		
Temperature	MW-16	09/24/2010		9.44	deg C		
Temperature	MW-16	12/09/2010		9.13	deg C		
Temperature	MW-16	03/30/2011		9.14	deg C		
Temperature	MW-16	06/07/2011		9.46	deg C		
Temperature	MW-16	09/27/2011		9.43	deg C		
Temperature	MW-16	12/13/2011		8.84	deg C		
Temperature	MW-16	03/21/2012		8.82	deg C		
Temperature	MW-16	06/08/2012		9.2	deg C		
Temperature	MW-16	09/27/2012		9.06	deg C		
Temperature	MW-16	12/04/2012		9.1	deg C		
Temperature	MW-16	03/12/2013		9.02	deg C		
Temperature	MW-16	06/04/2013		9.47	deg C		
Temperature	MW-16	09/05/2013		9.36	deg C		
Temperature	MW-16	12/16/2013		9.04	deg C		
Temperature	MW-16	03/05/2014		9.4	deg C		
Temperature	MW-16	06/02/2014		9.56	deg C		
Temperature	MW-16	09/22/2014		10.73	deg C		
Temperature	MW-16	11/18/2014		8.9	deg C		
Temperature	MW-16	02/23/2015		9.02	deg C		
Temperature	MW-16	05/20/2015		9.3	deg C		
Temperature	MW-16	08/26/2015		9.48	deg C		
Temperature	MW-16	11/11/2015		9.01	deg C		
Temperature	MW-16	02/24/2016		9.02	deg C		
Temperature	MW-16	05/16/2016		9.38	deg C		
Temperature	MW-16	08/31/2016		9.66	deg C		
Temperature	MW-16	11/14/2016		9.81	deg C		
Temperature	MW-16	02/22/2017		9.01	deg C		
Temperature	MW-16	05/24/2017		9.35	deg C		
Temperature	MW-16	08/30/2017		9.7	deg C		
Temperature	MW-16	11/13/2017		9.3	deg C		
Temperature	MW-16	02/20/2018		8.86	deg C		
Temperature	MW-16	05/17/2018		9.36	deg C		
Temperature	MW-16	08/22/2018		9.86	deg C		
Temperature	MW-16	11/12/2018		9.6	deg C		
Temperature	MW-16	05/29/2019		9.65	deg C		
Temperature	MW-16	11/12/2019		8.95	deg C		
Temperature	MW-16	05/27/2020		9.71	deg C		
Temperature	MW-16	11/20/2020		8.57	deg C		
Temperature	MW-16	05/17/2021		9.49	deg C		
Temperature	MW-16	11/16/2021		9.3	deg C		
Temperature	MW-16	05/11/2022		9.3	deg C		
Temperature	MW-16	11/17/2022		9.2	deg C		
Temperature	MW-35	03/22/2005		9.8	deg C		
Temperature	MW-35	06/14/2005		10.28	deg C		
Temperature	MW-35	09/27/2005		10.49	deg C		
Temperature	MW-35	12/15/2005		8.86	deg C		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Temperature	MW-35	03/28/2006		9.53	deg C		
Temperature	MW-35	06/21/2006		10.31	deg C		
Temperature	MW-35	09/26/2006		10.62	deg C		
Temperature	MW-35	12/12/2006		9.26	deg C		
Temperature	MW-35	03/27/2007		9.4	deg C		
Temperature	MW-35	09/18/2007		10.24	deg C		
Temperature	MW-35	12/20/2007		8.69	deg C		
Temperature	MW-35	03/25/2008		8.75	deg C		
Temperature	MW-35	06/18/2008		9.73	deg C		
Temperature	MW-35	09/18/2008		9.98	deg C		
Temperature	MW-35	12/19/2008		8.5	deg C		
Temperature	MW-35	03/24/2009		9.32	deg C		
Temperature	MW-35	06/16/2009		11.76	deg C		
Temperature	MW-35	12/03/2009		9.57	deg C		
Temperature	MW-35	03/25/2010		9.82	deg C		
Temperature	MW-35	06/23/2010		10.07	deg C		
Temperature	MW-35	09/23/2010		10.09	deg C		
Temperature	MW-35	12/09/2010		9.85	deg C		
Temperature	MW-35	03/30/2011		9.72	deg C		
Temperature	MW-35	06/06/2011		10.2	deg C		
Temperature	MW-35	09/26/2011		10.14	deg C		
Temperature	MW-35	12/13/2011		9.41	deg C		
Temperature	MW-35	03/21/2012		9.78	deg C		
Temperature	MW-35	06/06/2012		10.3	deg C		
Temperature	MW-35	09/26/2012		10.2	deg C		
Temperature	MW-35	12/04/2012		9.8	deg C		
Temperature	MW-35	03/13/2013		9.75	deg C		
Temperature	MW-35	06/06/2013		10.83	deg C		
Temperature	MW-35	09/05/2013		10.09	deg C		
Temperature	MW-35	12/16/2013		9.84	deg C		
Temperature	MW-35	03/04/2014		9.76	deg C		
Temperature	MW-35	06/02/2014		11.79	deg C		
Temperature	MW-35	09/22/2014		13.7	deg C		
Temperature	MW-35	11/17/2014		10.4	deg C		
Temperature	MW-35	02/25/2015		9.9	deg C		
Temperature	MW-35	05/19/2015		10.3	deg C		
Temperature	MW-35	08/26/2015		13.09	deg C		
Temperature	MW-35	11/10/2015		10.34	deg C		
Temperature	MW-35	02/22/2016		10.31	deg C		
Temperature	MW-35	05/16/2016		10.12	deg C		
Temperature	MW-35	08/31/2016		10.78	deg C		
Temperature	MW-35	11/15/2016		10.41	deg C		
Temperature	MW-35	02/22/2017		9.95	deg C		
Temperature	MW-35	05/24/2017		9.99	deg C		
Temperature	MW-35	08/30/2017		11.63	deg C		
Temperature	MW-35	11/15/2017		9.83	deg C		
Temperature	MW-35	02/20/2018		9.52	deg C		
Temperature	MW-35	05/17/2018		10.07	deg C		
Temperature	MW-35	08/22/2018		10.48	deg C		
Temperature	MW-35	11/12/2018		10.3	deg C		
Temperature	MW-35	05/29/2019		10.42	deg C		
Temperature	MW-35	11/12/2019		9.73	deg C		
Temperature	MW-35	05/27/2020		9.98	deg C		
Temperature	MW-35	11/19/2020		9.58	deg C		
Temperature	MW-35	05/17/2021		10.16	deg C		
Temperature	MW-35	11/16/2021		10.4	deg C		
Temperature	MW-35	05/10/2022		10.4	deg C		
Temperature	MW-35	11/17/2022		10	deg C		
Thallium, total	MW-13A	12/03/2013	ND	0.001	mg/L		
Thallium, total	MW-13A	03/04/2014	ND	0.001	mg/L		
Thallium, total	MW-13A	06/02/2014	ND	0.001	mg/L		
Thallium, total	MW-13A	09/22/2014	ND	0.001	mg/L		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Thallium, total	MW-13A	11/17/2014	ND	0.001	mg/L		
Thallium, total	MW-13A	02/23/2015	ND	0.001	mg/L		
Thallium, total	MW-13A	05/19/2015	ND	0.001	mg/L		
Thallium, total	MW-13A	08/26/2015	ND	0.001	mg/L		
Thallium, total	MW-13A	11/10/2015	ND	0.001	mg/L		
Thallium, total	MW-13A	02/22/2016	ND	0.001	mg/L		
Thallium, total	MW-13A	05/16/2016	ND	0.001	mg/L		
Thallium, total	MW-13A	08/31/2016	ND	0.001	mg/L		
Thallium, total	MW-13A	11/14/2016	ND	0.001	mg/L		
Thallium, total	MW-13A	02/22/2017	ND	0.001	mg/L		
Thallium, total	MW-13A	05/24/2017	ND	0.001	mg/L		
Thallium, total	MW-13A	08/30/2017	ND	0.001	mg/L		
Thallium, total	MW-13A	11/13/2017	ND	0.001	mg/L		
Thallium, total	MW-13A	02/20/2018	ND	0.001	mg/L		
Thallium, total	MW-13A	05/15/2018	ND	0.001	mg/L		
Thallium, total	MW-13A	08/21/2018	ND	0.001	mg/L		
Thallium, total	MW-13A	11/12/2018	ND	0.001	mg/L		
Thallium, total	MW-13A	11/11/2019	ND	0.001	mg/L		
Thallium, total	MW-13A	11/19/2020	ND	0.001	mg/L		
Thallium, total	MW-13A	11/16/2021	ND	0.001	mg/L		
Thallium, total	MW-13A	11/17/2022	ND	0.001	mg/L		
Thallium, total	MW-13B	12/03/2013	ND	0.001	mg/L		
Thallium, total	MW-13B	03/04/2014	ND	0.001	mg/L		
Thallium, total	MW-13B	06/02/2014	ND	0.001	mg/L		
Thallium, total	MW-13B	09/22/2014	ND	0.001	mg/L		
Thallium, total	MW-13B	11/17/2014	ND	0.001	mg/L		
Thallium, total	MW-13B	02/23/2015	ND	0.001	mg/L		
Thallium, total	MW-13B	05/19/2015	ND	0.001	mg/L		
Thallium, total	MW-13B	08/26/2015	ND	0.001	mg/L		
Thallium, total	MW-13B	11/10/2015	ND	0.001	mg/L		
Thallium, total	MW-13B	02/22/2016	ND	0.001	mg/L		
Thallium, total	MW-13B	05/16/2016	ND	0.001	mg/L		
Thallium, total	MW-13B	08/31/2016	ND	0.001	mg/L		
Thallium, total	MW-13B	11/14/2016	ND	0.001	mg/L		
Thallium, total	MW-13B	02/22/2017	ND	0.001	mg/L		
Thallium, total	MW-13B	05/24/2017	ND	0.001	mg/L		
Thallium, total	MW-13B	08/30/2017	ND	0.001	mg/L		
Thallium, total	MW-13B	11/13/2017	ND	0.001	mg/L		
Thallium, total	MW-13B	02/20/2018	ND	0.001	mg/L		
Thallium, total	MW-13B	05/15/2018	ND	0.001	mg/L		
Thallium, total	MW-13B	08/21/2018	ND	0.001	mg/L		
Thallium, total	MW-13B	11/12/2018	ND	0.001	mg/L		
Thallium, total	MW-13B	11/11/2019	ND	0.001	mg/L		
Thallium, total	MW-13B	11/19/2020	ND	0.001	mg/L		
Thallium, total	MW-13B	11/16/2021	ND	0.001	mg/L		
Thallium, total	MW-13B	11/17/2022	ND	0.001	mg/L		
Thallium, total	MW-16	09/05/2013	ND	0.001	mg/L		
Thallium, total	MW-16	12/16/2013	ND	0.001	mg/L		
Thallium, total	MW-16	03/05/2014	ND	0.001	mg/L		
Thallium, total	MW-16	06/02/2014	ND	0.001	mg/L		
Thallium, total	MW-16	09/22/2014	ND	0.001	mg/L		
Thallium, total	MW-16	11/18/2014	ND	0.001	mg/L		
Thallium, total	MW-16	02/23/2015	ND	0.001	mg/L		
Thallium, total	MW-16	05/20/2015	ND	0.001	mg/L		
Thallium, total	MW-16	08/26/2015	ND	0.001	mg/L		
Thallium, total	MW-16	11/11/2015	ND	0.001	mg/L		
Thallium, total	MW-16	02/24/2016	ND	0.001	mg/L		
Thallium, total	MW-16	05/16/2016	ND	0.001	mg/L		
Thallium, total	MW-16	08/31/2016	ND	0.001	mg/L		
Thallium, total	MW-16	11/14/2016	ND	0.001	mg/L		
Thallium, total	MW-16	02/22/2017	ND	0.001	mg/L		
Thallium, total	MW-16	05/24/2017	ND	0.001	mg/L		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Thallium, total	MW-16	08/30/2017	ND	0.001	mg/L		
Thallium, total	MW-16	11/13/2017	ND	0.001	mg/L		
Thallium, total	MW-16	02/20/2018	ND	0.001	mg/L		
Thallium, total	MW-16	05/17/2018	ND	0.001	mg/L		
Thallium, total	MW-16	08/22/2018	ND	0.001	mg/L		
Thallium, total	MW-16	11/12/2018	ND	0.001	mg/L		
Thallium, total	MW-16	11/12/2019	ND	0.001	mg/L		
Thallium, total	MW-16	11/20/2020	ND	0.001	mg/L		
Thallium, total	MW-16	11/16/2021	ND	0.001	mg/L		
Thallium, total	MW-16	11/17/2022	ND	0.001	mg/L		
Thallium, total	MW-35	09/05/2013	ND	0.001	mg/L		
Thallium, total	MW-35	12/16/2013	ND	0.001	mg/L		
Thallium, total	MW-35	03/04/2014	ND	0.001	mg/L		
Thallium, total	MW-35	06/02/2014	ND	0.001	mg/L		
Thallium, total	MW-35	09/22/2014	ND	0.001	mg/L		
Thallium, total	MW-35	11/17/2014	ND	0.001	mg/L		
Thallium, total	MW-35	02/25/2015	ND	0.001	mg/L		
Thallium, total	MW-35	05/19/2015	ND	0.001	mg/L		
Thallium, total	MW-35	08/26/2015	ND	0.001	mg/L		
Thallium, total	MW-35	11/10/2015	ND	0.001	mg/L		
Thallium, total	MW-35	02/22/2016	ND	0.001	mg/L		
Thallium, total	MW-35	05/16/2016	ND	0.001	mg/L		
Thallium, total	MW-35	08/31/2016	ND	0.001	mg/L		
Thallium, total	MW-35	11/15/2016	ND	0.001	mg/L		
Thallium, total	MW-35	02/22/2017	ND	0.001	mg/L		
Thallium, total	MW-35	05/24/2017	ND	0.001	mg/L		
Thallium, total	MW-35	08/30/2017	ND	0.001	mg/L		
Thallium, total	MW-35	11/15/2017	ND	0.001	mg/L		
Thallium, total	MW-35	02/20/2018	ND	0.001	mg/L		
Thallium, total	MW-35	05/17/2018	ND	0.001	mg/L		
Thallium, total	MW-35	08/22/2018	ND	0.001	mg/L		
Thallium, total	MW-35	11/12/2018	ND	0.001	mg/L		
Thallium, total	MW-35	11/12/2019	ND	0.001	mg/L		
Thallium, total	MW-35	11/19/2020	ND	0.001	mg/L		
Thallium, total	MW-35	11/16/2021	ND	0.001	mg/L		
Thallium, total	MW-35	11/17/2022	ND	0.001	mg/L		
Total dissolved solids (tds)	MW-13A	03/22/2005		113	mg/L		
Total dissolved solids (tds)	MW-13A	06/15/2005		111	mg/L		
Total dissolved solids (tds)	MW-13A	09/27/2005		175	mg/L		
Total dissolved solids (tds)	MW-13A	12/15/2005		166	mg/L		
Total dissolved solids (tds)	MW-13A	03/28/2006		110	mg/L		
Total dissolved solids (tds)	MW-13A	06/21/2006		120	mg/L		
Total dissolved solids (tds)	MW-13A	09/26/2006		110	mg/L		
Total dissolved solids (tds)	MW-13A	12/13/2006		100	mg/L		
Total dissolved solids (tds)	MW-13A	03/27/2007		100	mg/L		
Total dissolved solids (tds)	MW-13A	06/19/2007		100	mg/L		
Total dissolved solids (tds)	MW-13A	09/19/2007		110	mg/L		
Total dissolved solids (tds)	MW-13A	12/19/2007		84	mg/L		
Total dissolved solids (tds)	MW-13A	03/25/2008		99	mg/L		
Total dissolved solids (tds)	MW-13A	06/18/2008		110	mg/L		
Total dissolved solids (tds)	MW-13A	09/17/2008		110	mg/L		
Total dissolved solids (tds)	MW-13A	12/17/2008		90	mg/L		
Total dissolved solids (tds)	MW-13A	03/24/2009		95	mg/L		
Total dissolved solids (tds)	MW-13A	06/17/2009		110	mg/L		
Total dissolved solids (tds)	MW-13A	09/10/2009		100	mg/L		
Total dissolved solids (tds)	MW-13A	12/03/2009		100	mg/L		
Total dissolved solids (tds)	MW-13A	03/25/2010		100	mg/L		
Total dissolved solids (tds)	MW-13A	06/23/2010		120	mg/L		
Total dissolved solids (tds)	MW-13A	09/23/2010		98	mg/L		
Total dissolved solids (tds)	MW-13A	12/08/2010		90	mg/L		
Total dissolved solids (tds)	MW-13A	03/30/2011		110	mg/L		
Total dissolved solids (tds)	MW-13A	06/06/2011		110	mg/L		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Total dissolved solids (tds)	MW-13A	09/27/2011		100	mg/L		
Total dissolved solids (tds)	MW-13A	12/14/2011		97	mg/L		
Total dissolved solids (tds)	MW-13A	03/21/2012		93	mg/L		
Total dissolved solids (tds)	MW-13A	06/08/2012		120	mg/L		
Total dissolved solids (tds)	MW-13A	09/26/2012		120	mg/L		
Total dissolved solids (tds)	MW-13A	12/03/2012		88	mg/L		
Total dissolved solids (tds)	MW-13A	03/11/2013		100	mg/L		
Total dissolved solids (tds)	MW-13A	06/05/2013		100	mg/L		
Total dissolved solids (tds)	MW-13A	12/03/2013		98	mg/L		
Total dissolved solids (tds)	MW-13A	03/04/2014		100	mg/L		
Total dissolved solids (tds)	MW-13A	06/02/2014		100	mg/L		
Total dissolved solids (tds)	MW-13A	09/22/2014		110	mg/L		
Total dissolved solids (tds)	MW-13A	11/17/2014		110	mg/L		
Total dissolved solids (tds)	MW-13A	02/23/2015		99	mg/L		
Total dissolved solids (tds)	MW-13A	05/19/2015		100	mg/L		
Total dissolved solids (tds)	MW-13A	08/26/2015		97	mg/L		
Total dissolved solids (tds)	MW-13A	11/10/2015		100	mg/L		
Total dissolved solids (tds)	MW-13A	02/22/2016		100	mg/L		
Total dissolved solids (tds)	MW-13A	05/16/2016		99	mg/L		
Total dissolved solids (tds)	MW-13A	08/31/2016		130	mg/L		
Total dissolved solids (tds)	MW-13A	11/14/2016		110	mg/L		
Total dissolved solids (tds)	MW-13A	02/22/2017		110	mg/L		
Total dissolved solids (tds)	MW-13A	05/24/2017		100	mg/L		
Total dissolved solids (tds)	MW-13A	08/30/2017		100	mg/L		
Total dissolved solids (tds)	MW-13A	11/13/2017		110	mg/L		
Total dissolved solids (tds)	MW-13A	02/20/2018		110	mg/L		
Total dissolved solids (tds)	MW-13A	05/15/2018		110	mg/L		
Total dissolved solids (tds)	MW-13A	08/21/2018		110	mg/L		
Total dissolved solids (tds)	MW-13A	11/12/2018		98	mg/L		
Total dissolved solids (tds)	MW-13A	11/11/2019		100	mg/L		
Total dissolved solids (tds)	MW-13A	11/19/2020		130	mg/L		
Total dissolved solids (tds)	MW-13A	11/16/2021		100	mg/L		
Total dissolved solids (tds)	MW-13A	11/17/2022		88	mg/L		
Total dissolved solids (tds)	MW-13B	03/22/2005		108	mg/L		
Total dissolved solids (tds)	MW-13B	06/15/2005		114	mg/L		
Total dissolved solids (tds)	MW-13B	09/27/2005		111	mg/L		
Total dissolved solids (tds)	MW-13B	12/15/2005		130	mg/L		
Total dissolved solids (tds)	MW-13B	03/29/2006		89	mg/L		
Total dissolved solids (tds)	MW-13B	06/21/2006		110	mg/L		
Total dissolved solids (tds)	MW-13B	09/26/2006		100	mg/L		
Total dissolved solids (tds)	MW-13B	12/13/2006		98	mg/L		
Total dissolved solids (tds)	MW-13B	03/27/2007		100	mg/L		
Total dissolved solids (tds)	MW-13B	06/19/2007		99	mg/L		
Total dissolved solids (tds)	MW-13B	09/18/2007		99	mg/L		
Total dissolved solids (tds)	MW-13B	12/19/2007		91	mg/L		
Total dissolved solids (tds)	MW-13B	03/25/2008		99	mg/L		
Total dissolved solids (tds)	MW-13B	06/18/2008		120	mg/L		
Total dissolved solids (tds)	MW-13B	09/17/2008		110	mg/L		
Total dissolved solids (tds)	MW-13B	12/16/2008		93	mg/L		
Total dissolved solids (tds)	MW-13B	03/24/2009		94	mg/L		
Total dissolved solids (tds)	MW-13B	06/17/2009		100	mg/L		
Total dissolved solids (tds)	MW-13B	09/10/2009		100	mg/L		
Total dissolved solids (tds)	MW-13B	12/03/2009		110	mg/L		
Total dissolved solids (tds)	MW-13B	03/25/2010		100	mg/L		
Total dissolved solids (tds)	MW-13B	06/23/2010		110	mg/L		
Total dissolved solids (tds)	MW-13B	09/23/2010		94	mg/L		
Total dissolved solids (tds)	MW-13B	12/08/2010		94	mg/L		
Total dissolved solids (tds)	MW-13B	03/30/2011		110	mg/L		
Total dissolved solids (tds)	MW-13B	06/06/2011		99	mg/L		
Total dissolved solids (tds)	MW-13B	09/27/2011		100	mg/L		
Total dissolved solids (tds)	MW-13B	12/14/2011		91	mg/L		
Total dissolved solids (tds)	MW-13B	03/21/2012		100	mg/L		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Total dissolved solids (tds)	MW-13B	06/08/2012		110	mg/L		
Total dissolved solids (tds)	MW-13B	09/26/2012		110	mg/L		
Total dissolved solids (tds)	MW-13B	12/03/2012		93	mg/L		
Total dissolved solids (tds)	MW-13B	03/11/2013		100	mg/L		
Total dissolved solids (tds)	MW-13B	06/05/2013		98	mg/L		
Total dissolved solids (tds)	MW-13B	12/03/2013		99	mg/L		
Total dissolved solids (tds)	MW-13B	03/04/2014		99	mg/L		
Total dissolved solids (tds)	MW-13B	06/02/2014		100	mg/L		
Total dissolved solids (tds)	MW-13B	09/22/2014		110	mg/L		
Total dissolved solids (tds)	MW-13B	11/17/2014		110	mg/L		
Total dissolved solids (tds)	MW-13B	02/23/2015		110	mg/L		
Total dissolved solids (tds)	MW-13B	05/19/2015		110	mg/L		
Total dissolved solids (tds)	MW-13B	08/26/2015		98	mg/L		
Total dissolved solids (tds)	MW-13B	11/10/2015		100	mg/L		
Total dissolved solids (tds)	MW-13B	02/22/2016		100	mg/L		
Total dissolved solids (tds)	MW-13B	05/16/2016		99	mg/L		
Total dissolved solids (tds)	MW-13B	08/31/2016		120	mg/L		
Total dissolved solids (tds)	MW-13B	11/14/2016		100	mg/L		
Total dissolved solids (tds)	MW-13B	02/22/2017		110	mg/L		
Total dissolved solids (tds)	MW-13B	05/24/2017		97	mg/L		
Total dissolved solids (tds)	MW-13B	08/30/2017		110	mg/L		
Total dissolved solids (tds)	MW-13B	11/13/2017		110	mg/L		
Total dissolved solids (tds)	MW-13B	02/20/2018		99	mg/L		
Total dissolved solids (tds)	MW-13B	05/15/2018		100	mg/L		
Total dissolved solids (tds)	MW-13B	08/21/2018		110	mg/L		
Total dissolved solids (tds)	MW-13B	11/12/2018		110	mg/L		
Total dissolved solids (tds)	MW-13B	11/11/2019		100	mg/L		
Total dissolved solids (tds)	MW-13B	11/19/2020		120	mg/L		
Total dissolved solids (tds)	MW-13B	11/16/2021		97	mg/L		
Total dissolved solids (tds)	MW-13B	11/17/2022		93	mg/L		
Total dissolved solids (tds)	MW-16	03/24/2009		87	mg/L		
Total dissolved solids (tds)	MW-16	06/16/2009		85	mg/L		
Total dissolved solids (tds)	MW-16	09/09/2009		89	mg/L		
Total dissolved solids (tds)	MW-16	12/03/2009		97	mg/L		
Total dissolved solids (tds)	MW-16	03/25/2010		83	mg/L		
Total dissolved solids (tds)	MW-16	06/24/2010		95	mg/L		
Total dissolved solids (tds)	MW-16	09/24/2010		120	mg/L		
Total dissolved solids (tds)	MW-16	12/09/2010		100	mg/L		
Total dissolved solids (tds)	MW-16	03/30/2011		91	mg/L		
Total dissolved solids (tds)	MW-16	06/07/2011		94	mg/L		
Total dissolved solids (tds)	MW-16	09/27/2011		100	mg/L		
Total dissolved solids (tds)	MW-16	12/13/2011		93	mg/L		
Total dissolved solids (tds)	MW-16	03/21/2012		71	mg/L		
Total dissolved solids (tds)	MW-16	06/08/2012		95	mg/L		
Total dissolved solids (tds)	MW-16	09/27/2012		87	mg/L		
Total dissolved solids (tds)	MW-16	12/04/2012		100	mg/L		
Total dissolved solids (tds)	MW-16	03/12/2013		100	mg/L		
Total dissolved solids (tds)	MW-16	06/04/2013		68	mg/L		
Total dissolved solids (tds)	MW-16	09/05/2013		100	mg/L		
Total dissolved solids (tds)	MW-16	12/16/2013		92	mg/L		
Total dissolved solids (tds)	MW-16	03/05/2014		82	mg/L		
Total dissolved solids (tds)	MW-16	06/02/2014		79	mg/L		
Total dissolved solids (tds)	MW-16	09/22/2014		93	mg/L		
Total dissolved solids (tds)	MW-16	11/18/2014		100	mg/L		
Total dissolved solids (tds)	MW-16	02/23/2015		80	mg/L		
Total dissolved solids (tds)	MW-16	05/20/2015		99	mg/L		
Total dissolved solids (tds)	MW-16	08/26/2015		93	mg/L		
Total dissolved solids (tds)	MW-16	11/11/2015		99	mg/L		
Total dissolved solids (tds)	MW-16	02/24/2016		79	mg/L		
Total dissolved solids (tds)	MW-16	05/16/2016		83	mg/L		
Total dissolved solids (tds)	MW-16	08/31/2016		93	mg/L		
Total dissolved solids (tds)	MW-16	11/14/2016		86	mg/L		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Total dissolved solids (tds)	MW-16	02/22/2017		80	mg/L		
Total dissolved solids (tds)	MW-16	05/24/2017		93	mg/L		
Total dissolved solids (tds)	MW-16	08/30/2017		85	mg/L		
Total dissolved solids (tds)	MW-16	11/13/2017		80	mg/L		
Total dissolved solids (tds)	MW-16	02/20/2018		80	mg/L		
Total dissolved solids (tds)	MW-16	05/17/2018		65	mg/L		
Total dissolved solids (tds)	MW-16	08/22/2018		100	mg/L		
Total dissolved solids (tds)	MW-16	11/12/2018		81	mg/L		
Total dissolved solids (tds)	MW-16	11/12/2019		82	mg/L		
Total dissolved solids (tds)	MW-16	11/20/2020		100	mg/L		
Total dissolved solids (tds)	MW-16	11/16/2021		98	mg/L		
Total dissolved solids (tds)	MW-16	11/17/2022		82	mg/L		
Total dissolved solids (tds)	MW-35	03/22/2005		100	mg/L		
Total dissolved solids (tds)	MW-35	06/14/2005		88	mg/L		
Total dissolved solids (tds)	MW-35	09/27/2005		123	mg/L		
Total dissolved solids (tds)	MW-35	12/15/2005		87	mg/L		
Total dissolved solids (tds)	MW-35	03/28/2006		91	mg/L		
Total dissolved solids (tds)	MW-35	06/21/2006		110	mg/L		
Total dissolved solids (tds)	MW-35	09/26/2006		110	mg/L		
Total dissolved solids (tds)	MW-35	12/12/2006		90	mg/L		
Total dissolved solids (tds)	MW-35	03/27/2007		93	mg/L		
Total dissolved solids (tds)	MW-35	06/20/2007		110	mg/L		
Total dissolved solids (tds)	MW-35	09/18/2007		90	mg/L		
Total dissolved solids (tds)	MW-35	12/20/2007		120	mg/L		
Total dissolved solids (tds)	MW-35	03/25/2008		76	mg/L		
Total dissolved solids (tds)	MW-35	06/18/2008		93	mg/L		
Total dissolved solids (tds)	MW-35	09/18/2008		92	mg/L		
Total dissolved solids (tds)	MW-35	12/19/2008		93	mg/L		
Total dissolved solids (tds)	MW-35	03/24/2009		84	mg/L		
Total dissolved solids (tds)	MW-35	06/16/2009		95	mg/L		
Total dissolved solids (tds)	MW-35	09/10/2009		83	mg/L		
Total dissolved solids (tds)	MW-35	12/03/2009		85	mg/L		
Total dissolved solids (tds)	MW-35	03/25/2010		96	mg/L		
Total dissolved solids (tds)	MW-35	06/23/2010		100	mg/L		
Total dissolved solids (tds)	MW-35	09/23/2010		86	mg/L		
Total dissolved solids (tds)	MW-35	12/09/2010		97	mg/L		
Total dissolved solids (tds)	MW-35	03/30/2011		91	mg/L		
Total dissolved solids (tds)	MW-35	06/06/2011		96	mg/L		
Total dissolved solids (tds)	MW-35	09/26/2011		100	mg/L		
Total dissolved solids (tds)	MW-35	12/13/2011		95	mg/L		
Total dissolved solids (tds)	MW-35	03/21/2012		85	mg/L		
Total dissolved solids (tds)	MW-35	06/06/2012		120	mg/L		
Total dissolved solids (tds)	MW-35	09/26/2012		110	mg/L		
Total dissolved solids (tds)	MW-35	12/04/2012		100	mg/L		
Total dissolved solids (tds)	MW-35	03/13/2013		96	mg/L		
Total dissolved solids (tds)	MW-35	06/06/2013		90	mg/L		
Total dissolved solids (tds)	MW-35	09/05/2013		100	mg/L		
Total dissolved solids (tds)	MW-35	12/16/2013		95	mg/L		
Total dissolved solids (tds)	MW-35	03/04/2014		94	mg/L		
Total dissolved solids (tds)	MW-35	06/02/2014		92	mg/L		
Total dissolved solids (tds)	MW-35	09/22/2014		99	mg/L		
Total dissolved solids (tds)	MW-35	11/17/2014		100	mg/L		
Total dissolved solids (tds)	MW-35	02/25/2015		93	mg/L		
Total dissolved solids (tds)	MW-35	05/19/2015		110	mg/L		
Total dissolved solids (tds)	MW-35	08/26/2015		99	mg/L		
Total dissolved solids (tds)	MW-35	11/10/2015		98	mg/L		
Total dissolved solids (tds)	MW-35	02/22/2016		93	mg/L		
Total dissolved solids (tds)	MW-35	05/16/2016		100	mg/L		
Total dissolved solids (tds)	MW-35	08/31/2016		95	mg/L		
Total dissolved solids (tds)	MW-35	11/15/2016		120	mg/L		
Total dissolved solids (tds)	MW-35	02/22/2017		100	mg/L		
Total dissolved solids (tds)	MW-35	05/24/2017		110	mg/L		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Total dissolved solids (tds)	MW-35	08/30/2017		99	mg/L		
Total dissolved solids (tds)	MW-35	11/15/2017		100	mg/L		
Total dissolved solids (tds)	MW-35	02/20/2018		98	mg/L		
Total dissolved solids (tds)	MW-35	05/17/2018		92	mg/L		
Total dissolved solids (tds)	MW-35	08/22/2018		110	mg/L		
Total dissolved solids (tds)	MW-35	11/12/2018		100	mg/L		
Total dissolved solids (tds)	MW-35	11/12/2019		89	mg/L		
Total dissolved solids (tds)	MW-35	11/19/2020		110	mg/L		
Total dissolved solids (tds)	MW-35	11/16/2021		97	mg/L		
Total dissolved solids (tds)	MW-35	11/17/2022		85	mg/L		
Total organic carbon (toc)	MW-13A	03/22/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/15/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/27/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/15/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/28/2006	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/21/2006		2.2	mg/L		
Total organic carbon (toc)	MW-13A	09/26/2006		6	mg/L		
Total organic carbon (toc)	MW-13A	12/13/2006	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/27/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/19/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/19/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/19/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/25/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/18/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/17/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/17/2008		1	mg/L		
Total organic carbon (toc)	MW-13A	03/24/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/17/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/10/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/03/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/25/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/23/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/23/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/08/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/30/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/06/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/27/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/14/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/21/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/08/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/26/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/03/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/11/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/05/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	12/03/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	03/04/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	06/02/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	09/22/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	11/17/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	05/19/2015	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	02/22/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	05/16/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	08/31/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	11/14/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	02/22/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	05/24/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	08/30/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	11/13/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	02/20/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	05/15/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	08/21/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	11/12/2018	ND	1	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Total organic carbon (toc)	MW-13A	11/11/2019	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	11/19/2020	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	11/16/2021	ND	1	mg/L		
Total organic carbon (toc)	MW-13A	11/17/2022	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/22/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/15/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/27/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	12/15/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/29/2006	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/21/2006	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/26/2006		4.8	mg/L		
Total organic carbon (toc)	MW-13B	12/13/2006	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/27/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/19/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/18/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	12/19/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/25/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/18/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/17/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	12/16/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/24/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/17/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/10/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	12/03/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/25/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/23/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/23/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	12/08/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/30/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/06/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/27/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	12/14/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/21/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/08/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/26/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	12/03/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/11/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/05/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	12/03/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	03/04/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	06/02/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	09/22/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	11/17/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	05/19/2015	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	02/22/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	05/16/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	08/31/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	11/14/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	02/22/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	05/24/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	08/30/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	11/13/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	02/20/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	05/15/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	08/21/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	11/12/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	11/11/2019	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	11/19/2020	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	11/16/2021	ND	1	mg/L		
Total organic carbon (toc)	MW-13B	11/17/2022	ND	1	mg/L		
Total organic carbon (toc)	MW-16	03/24/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-16	06/16/2009	ND	1	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Total organic carbon (toc)	MW-16	09/09/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-16	12/03/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-16	03/25/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-16	06/24/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-16	09/24/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-16	12/09/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-16	03/30/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-16	06/07/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-16	09/27/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-16	12/13/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-16	03/21/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-16	06/08/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-16	09/27/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-16	12/04/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-16	03/12/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-16	06/04/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-16	09/05/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-16	12/16/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-16	03/05/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-16	06/02/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-16	09/22/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-16	11/18/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-16	05/20/2015	ND	1	mg/L		
Total organic carbon (toc)	MW-16	02/24/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-16	05/16/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-16	08/31/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-16	11/14/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-16	02/22/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-16	05/24/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-16	08/30/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-16	11/13/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-16	02/20/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-16	05/17/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-16	08/22/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-16	11/12/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-16	11/12/2019	ND	1	mg/L		
Total organic carbon (toc)	MW-16	11/20/2020	ND	1	mg/L		
Total organic carbon (toc)	MW-16	11/16/2021	ND	1	mg/L		
Total organic carbon (toc)	MW-16	11/17/2022	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/22/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/14/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/27/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-35	12/15/2005	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/28/2006	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/21/2006		2.1	mg/L		
Total organic carbon (toc)	MW-35	09/26/2006		4.3	mg/L		
Total organic carbon (toc)	MW-35	12/12/2006	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/27/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/20/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/18/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-35	12/20/2007	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/25/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/18/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/18/2008	ND	1	mg/L		
Total organic carbon (toc)	MW-35	12/19/2008		1	mg/L		
Total organic carbon (toc)	MW-35	03/24/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/16/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/10/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-35	12/03/2009	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/25/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/23/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/23/2010	ND	1	mg/L		

* = outlier for that well/constituent

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ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Total organic carbon (toc)	MW-35	12/09/2010	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/30/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/06/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/26/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-35	12/13/2011	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/21/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/06/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/26/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-35	12/04/2012	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/13/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/06/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/05/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-35	12/16/2013	ND	1	mg/L		
Total organic carbon (toc)	MW-35	03/04/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-35	06/02/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-35	09/22/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-35	11/17/2014	ND	1	mg/L		
Total organic carbon (toc)	MW-35	05/19/2015	ND	1	mg/L		
Total organic carbon (toc)	MW-35	02/22/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-35	05/16/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-35	08/31/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-35	11/15/2016	ND	1	mg/L		
Total organic carbon (toc)	MW-35	02/22/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-35	05/24/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-35	08/30/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-35	11/15/2017	ND	1	mg/L		
Total organic carbon (toc)	MW-35	02/20/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-35	05/17/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-35	08/22/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-35	11/12/2018	ND	1	mg/L		
Total organic carbon (toc)	MW-35	11/12/2019	ND	1	mg/L		
Total organic carbon (toc)	MW-35	11/19/2020	ND	1	mg/L		
Total organic carbon (toc)	MW-35	11/16/2021	ND	1	mg/L		
Total organic carbon (toc)	MW-35	11/17/2022	ND	1	mg/L		
Vanadium, total	MW-13A	12/03/2013		0.0042	mg/L		
Vanadium, total	MW-13A	03/04/2014		0.0042	mg/L		
Vanadium, total	MW-13A	06/02/2014		0.0048	mg/L		
Vanadium, total	MW-13A	09/22/2014		0.0039	mg/L		
Vanadium, total	MW-13A	11/17/2014		0.0042	mg/L		
Vanadium, total	MW-13A	02/23/2015		0.0042	mg/L		
Vanadium, total	MW-13A	05/19/2015		0.0034	mg/L		
Vanadium, total	MW-13A	08/26/2015		0.0039	mg/L		
Vanadium, total	MW-13A	11/10/2015		0.004	mg/L		
Vanadium, total	MW-13A	02/22/2016		0.004	mg/L		
Vanadium, total	MW-13A	05/16/2016		0.0039	mg/L		
Vanadium, total	MW-13A	08/31/2016		0.0041	mg/L		
Vanadium, total	MW-13A	11/14/2016		0.0039	mg/L		
Vanadium, total	MW-13A	02/22/2017		0.0043	mg/L		
Vanadium, total	MW-13A	05/24/2017		0.0033	mg/L		
Vanadium, total	MW-13A	08/30/2017		0.0039	mg/L		
Vanadium, total	MW-13A	11/13/2017		0.0038	mg/L		
Vanadium, total	MW-13A	02/20/2018		0.0026	mg/L		
Vanadium, total	MW-13A	05/15/2018	ND	0.002	mg/L		
Vanadium, total	MW-13A	08/21/2018		0.0041	mg/L		
Vanadium, total	MW-13A	11/12/2018		0.0039	mg/L		
Vanadium, total	MW-13A	11/11/2019		0.0022	mg/L		
Vanadium, total	MW-13A	11/19/2020		0.0037	mg/L		
Vanadium, total	MW-13A	11/16/2021		0.0041	mg/L		
Vanadium, total	MW-13A	11/17/2022		0.0043	mg/L		
Vanadium, total	MW-13B	12/03/2013		0.0058	mg/L		
Vanadium, total	MW-13B	03/04/2014		0.0057	mg/L		
Vanadium, total	MW-13B	06/02/2014		0.0057	mg/L		

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TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Vanadium, total	MW-13B	09/22/2014		0.005	mg/L		
Vanadium, total	MW-13B	11/17/2014		0.0055	mg/L		
Vanadium, total	MW-13B	02/23/2015		0.0054	mg/L		
Vanadium, total	MW-13B	05/19/2015		0.0054	mg/L		
Vanadium, total	MW-13B	08/26/2015		0.0056	mg/L		
Vanadium, total	MW-13B	11/10/2015		0.0058	mg/L		
Vanadium, total	MW-13B	02/22/2016		0.0058	mg/L		
Vanadium, total	MW-13B	05/16/2016		0.0056	mg/L		
Vanadium, total	MW-13B	08/31/2016		0.0054	mg/L		
Vanadium, total	MW-13B	11/14/2016		0.0061	mg/L		
Vanadium, total	MW-13B	02/22/2017		0.0058	mg/L		
Vanadium, total	MW-13B	05/24/2017		0.0044	mg/L		
Vanadium, total	MW-13B	08/30/2017		0.0054	mg/L		
Vanadium, total	MW-13B	11/13/2017		0.0051	mg/L		
Vanadium, total	MW-13B	02/20/2018		0.0045	mg/L		
Vanadium, total	MW-13B	05/15/2018		0.0029	mg/L		
Vanadium, total	MW-13B	08/21/2018		0.0058	mg/L		
Vanadium, total	MW-13B	11/12/2018		0.0054	mg/L		
Vanadium, total	MW-13B	11/11/2019		0.0034	mg/L		
Vanadium, total	MW-13B	11/19/2020		0.0056	mg/L		
Vanadium, total	MW-13B	11/16/2021		0.0056	mg/L		
Vanadium, total	MW-13B	11/17/2022		0.0058	mg/L		
Vanadium, total	MW-16	09/05/2013		0.0034	mg/L		
Vanadium, total	MW-16	12/16/2013		0.0039	mg/L		
Vanadium, total	MW-16	03/05/2014		0.0042	mg/L		
Vanadium, total	MW-16	06/02/2014		0.0042	mg/L		
Vanadium, total	MW-16	09/22/2014		0.0042	mg/L		
Vanadium, total	MW-16	11/18/2014		0.004	mg/L		
Vanadium, total	MW-16	02/23/2015		0.0051	mg/L		
Vanadium, total	MW-16	05/20/2015		0.0042	mg/L		
Vanadium, total	MW-16	08/26/2015		0.0032	mg/L		
Vanadium, total	MW-16	11/11/2015		0.0034	mg/L		
Vanadium, total	MW-16	02/24/2016		0.0043	mg/L		
Vanadium, total	MW-16	05/16/2016		0.0034	mg/L		
Vanadium, total	MW-16	08/31/2016		0.0042	mg/L		
Vanadium, total	MW-16	11/14/2016		0.0049	mg/L		
Vanadium, total	MW-16	02/22/2017		0.0047	mg/L		
Vanadium, total	MW-16	05/24/2017		0.003	mg/L		
Vanadium, total	MW-16	08/30/2017		0.0033	mg/L		
Vanadium, total	MW-16	11/13/2017		0.0031	mg/L		
Vanadium, total	MW-16	02/20/2018		0.0029	mg/L		
Vanadium, total	MW-16	05/17/2018		0.0037	mg/L		
Vanadium, total	MW-16	08/22/2018		0.0034	mg/L		
Vanadium, total	MW-16	11/12/2018		0.0047	mg/L		
Vanadium, total	MW-16	11/12/2019		0.0036	mg/L		
Vanadium, total	MW-16	11/20/2020		0.009	mg/L		
Vanadium, total	MW-16	11/16/2021		0.0038	mg/L		
Vanadium, total	MW-16	11/17/2022		0.0039	mg/L		
Vanadium, total	MW-35	09/05/2013		0.0042	mg/L		
Vanadium, total	MW-35	12/16/2013		0.0046	mg/L		
Vanadium, total	MW-35	03/04/2014		0.0047	mg/L		
Vanadium, total	MW-35	06/02/2014		0.0042	mg/L		
Vanadium, total	MW-35	09/22/2014		0.0044	mg/L		
Vanadium, total	MW-35	11/17/2014		0.0042	mg/L		
Vanadium, total	MW-35	02/25/2015		0.0048	mg/L		
Vanadium, total	MW-35	05/19/2015		0.0042	mg/L		
Vanadium, total	MW-35	08/26/2015		0.0041	mg/L		
Vanadium, total	MW-35	11/10/2015		0.0043	mg/L		
Vanadium, total	MW-35	02/22/2016		0.0045	mg/L		
Vanadium, total	MW-35	05/16/2016		0.0046	mg/L		
Vanadium, total	MW-35	08/31/2016		0.0046	mg/L		
Vanadium, total	MW-35	11/15/2016		0.0043	mg/L		

* = outlier for that well/constituent
** = ND value replaced with median reporting limit
ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Vanadium, total	MW-35	02/22/2017		0.005	mg/L		
Vanadium, total	MW-35	05/24/2017		0.0034	mg/L		
Vanadium, total	MW-35	08/30/2017		0.0042	mg/L		
Vanadium, total	MW-35	11/15/2017		0.004	mg/L		
Vanadium, total	MW-35	02/20/2018		0.0032	mg/L		
Vanadium, total	MW-35	05/17/2018		0.0044	mg/L		
Vanadium, total	MW-35	08/22/2018		0.0042	mg/L		
Vanadium, total	MW-35	11/12/2018		0.0042	mg/L		
Vanadium, total	MW-35	11/12/2019		0.0041	mg/L		
Vanadium, total	MW-35	11/19/2020		0.0043	mg/L		
Vanadium, total	MW-35	11/16/2021		0.0046	mg/L		
Vanadium, total	MW-35	11/17/2022		0.0041	mg/L		
Zinc, total	MW-13A	12/03/2013	ND	0.005	mg/L		
Zinc, total	MW-13A	03/04/2014	ND	0.005	mg/L		
Zinc, total	MW-13A	06/02/2014	ND	0.005	mg/L		
Zinc, total	MW-13A	09/22/2014	ND	0.005	mg/L		
Zinc, total	MW-13A	11/17/2014	ND	0.005	mg/L		
Zinc, total	MW-13A	02/23/2015	ND	0.005	mg/L		
Zinc, total	MW-13A	05/19/2015	ND	0.005	mg/L		
Zinc, total	MW-13A	08/26/2015	ND	0.005	mg/L		
Zinc, total	MW-13A	11/10/2015	ND	0.005	mg/L		
Zinc, total	MW-13A	02/22/2016	ND	0.005	mg/L		
Zinc, total	MW-13A	05/16/2016	ND	0.005	mg/L		
Zinc, total	MW-13A	08/31/2016	ND	0.005	mg/L		
Zinc, total	MW-13A	11/14/2016	ND	0.005	mg/L		
Zinc, total	MW-13A	02/22/2017	ND	0.005	mg/L		
Zinc, total	MW-13A	05/24/2017	ND	0.005	mg/L		
Zinc, total	MW-13A	08/30/2017	ND	0.005	mg/L		
Zinc, total	MW-13A	11/13/2017	ND	0.005	mg/L		
Zinc, total	MW-13A	02/20/2018	ND	0.005	mg/L		
Zinc, total	MW-13A	05/15/2018	ND	0.005	mg/L		
Zinc, total	MW-13A	08/21/2018	ND	0.005	mg/L		
Zinc, total	MW-13A	11/12/2018	ND	0.005	mg/L		
Zinc, total	MW-13A	11/11/2019	ND	0.005	mg/L		
Zinc, total	MW-13A	11/19/2020	ND	0.005	mg/L		
Zinc, total	MW-13A	11/16/2021	ND	0.005	mg/L		
Zinc, total	MW-13A	11/17/2022	ND	0.005	mg/L		
Zinc, total	MW-13B	12/03/2013	ND	0.005	mg/L		
Zinc, total	MW-13B	03/04/2014	ND	0.005	mg/L		
Zinc, total	MW-13B	06/02/2014	ND	0.005	mg/L		
Zinc, total	MW-13B	09/22/2014	ND	0.005	mg/L		
Zinc, total	MW-13B	11/17/2014	ND	0.005	mg/L		
Zinc, total	MW-13B	02/23/2015	ND	0.005	mg/L		
Zinc, total	MW-13B	05/19/2015	ND	0.005	mg/L		
Zinc, total	MW-13B	08/26/2015	ND	0.005	mg/L		
Zinc, total	MW-13B	11/10/2015	ND	0.005	mg/L		
Zinc, total	MW-13B	02/22/2016	ND	0.005	mg/L		
Zinc, total	MW-13B	05/16/2016	ND	0.005	mg/L		
Zinc, total	MW-13B	08/31/2016	ND	0.005	mg/L		
Zinc, total	MW-13B	11/14/2016	ND	0.005	mg/L		
Zinc, total	MW-13B	02/22/2017	ND	0.005	mg/L		
Zinc, total	MW-13B	05/24/2017	ND	0.005	mg/L		
Zinc, total	MW-13B	08/30/2017	ND	0.005	mg/L		
Zinc, total	MW-13B	11/13/2017	ND	0.005	mg/L		
Zinc, total	MW-13B	02/20/2018	ND	0.005	mg/L		
Zinc, total	MW-13B	05/15/2018	ND	0.005	mg/L		
Zinc, total	MW-13B	08/21/2018	ND	0.005	mg/L		
Zinc, total	MW-13B	11/12/2018	ND	0.005	mg/L		
Zinc, total	MW-13B	11/11/2019	ND	0.005	mg/L		
Zinc, total	MW-13B	11/19/2020	ND	0.005	mg/L		
Zinc, total	MW-13B	11/16/2021	ND	0.005	mg/L		
Zinc, total	MW-13B	11/17/2022	ND	0.005	mg/L		

* = outlier for that well/constituent

** = ND value replaced with median reporting limit

ND = not detected; Result = reporting limit

TABLE 2-3
Upgradient Data Used to Calculate 2023 Prediction Limits

Zinc, total	MW-16	09/05/2013	ND	0.005	mg/L		
Zinc, total	MW-16	12/16/2013	ND	0.005	mg/L		
Zinc, total	MW-16	03/05/2014	ND	0.005	mg/L		
Zinc, total	MW-16	06/02/2014	ND	0.005	mg/L		
Zinc, total	MW-16	09/22/2014	ND	0.005	mg/L		
Zinc, total	MW-16	11/18/2014	ND	0.005	mg/L		
Zinc, total	MW-16	02/23/2015	ND	0.005	mg/L		
Zinc, total	MW-16	05/20/2015	ND	0.005	mg/L		
Zinc, total	MW-16	08/26/2015	ND	0.005	mg/L		
Zinc, total	MW-16	11/11/2015	ND	0.005	mg/L		
Zinc, total	MW-16	02/24/2016	ND	0.005	mg/L		
Zinc, total	MW-16	05/16/2016	ND	0.005	mg/L		
Zinc, total	MW-16	08/31/2016	ND	0.005	mg/L		
Zinc, total	MW-16	11/14/2016		0.0056	mg/L		
Zinc, total	MW-16	02/22/2017	ND	0.005	mg/L		
Zinc, total	MW-16	05/24/2017	ND	0.005	mg/L		
Zinc, total	MW-16	08/30/2017	ND	0.005	mg/L		
Zinc, total	MW-16	11/13/2017	ND	0.005	mg/L		
Zinc, total	MW-16	02/20/2018	ND	0.005	mg/L		
Zinc, total	MW-16	05/17/2018	ND	0.005	mg/L		
Zinc, total	MW-16	08/22/2018	ND	0.005	mg/L		
Zinc, total	MW-16	11/12/2018	ND	0.005	mg/L		
Zinc, total	MW-16	11/12/2019	ND	0.005	mg/L		
Zinc, total	MW-16	11/20/2020	ND	0.005	mg/L		
Zinc, total	MW-16	11/16/2021	ND	0.005	mg/L		
Zinc, total	MW-16	11/17/2022	ND	0.005	mg/L		
Zinc, total	MW-35	09/05/2013	ND	0.005	mg/L		
Zinc, total	MW-35	12/16/2013	ND	0.005	mg/L		
Zinc, total	MW-35	03/04/2014	ND	0.005	mg/L		
Zinc, total	MW-35	06/02/2014	ND	0.005	mg/L		
Zinc, total	MW-35	09/22/2014	ND	0.005	mg/L		
Zinc, total	MW-35	11/17/2014	ND	0.005	mg/L		
Zinc, total	MW-35	02/25/2015	ND	0.005	mg/L		
Zinc, total	MW-35	05/19/2015	ND	0.005	mg/L		
Zinc, total	MW-35	08/26/2015	ND	0.005	mg/L		
Zinc, total	MW-35	11/10/2015	ND	0.005	mg/L		
Zinc, total	MW-35	02/22/2016	ND	0.005	mg/L		
Zinc, total	MW-35	05/16/2016	ND	0.005	mg/L		
Zinc, total	MW-35	08/31/2016	ND	0.005	mg/L		
Zinc, total	MW-35	11/15/2016	ND	0.005	mg/L		
Zinc, total	MW-35	02/22/2017	ND	0.005	mg/L		
Zinc, total	MW-35	05/24/2017	ND	0.005	mg/L		
Zinc, total	MW-35	08/30/2017	ND	0.005	mg/L		
Zinc, total	MW-35	11/15/2017	ND	0.005	mg/L		
Zinc, total	MW-35	02/20/2018	ND	0.005	mg/L		
Zinc, total	MW-35	05/17/2018	ND	0.005	mg/L		
Zinc, total	MW-35	08/22/2018	ND	0.005	mg/L		
Zinc, total	MW-35	11/12/2018	ND	0.005	mg/L		
Zinc, total	MW-35	11/12/2019	ND	0.005	mg/L		
Zinc, total	MW-35	11/19/2020	ND	0.005	mg/L		
Zinc, total	MW-35	11/16/2021	ND	0.005	mg/L		
Zinc, total	MW-35	11/17/2022	ND	0.005	mg/L		

* = outlier for that well/constituent
** = ND value replaced with median reporting limit
ND = not detected; Result = reporting limit

TABLE 2-4
Shapiro-Wilk Multiple Group Test of Normality

Constituent	N (Detects)	N (Total)	Detection Frequency	G (raw)	G (log)	Critical Value	Distributional Form	Model Type
Alkalinity, bicarbonate (as caco3)	218	218	1.000	4.619	3.917	2.326	non-norm	nonpar
Alkalinity, total (as caco3)	222	222	1.000	4.669	3.996	2.326	non-norm	nonpar
Ammonia (as n)	73	217	0.336	6.182	0.835	2.326	lognor	nonpar
Antimony, total	3	102	0.029					nonpar
Arsenic, total	108	108	1.000	2.164	2.052	2.326	normal	normal
Barium, total	102	102	1.000	0.217	0.587	2.326	normal	normal
Beryllium, total	0	102	0.000					nonpar
Cadmium, total	0	102	0.000					nonpar
Calcium, dissolved	222	222	1.000	7.326	7.194	2.326	non-norm	nonpar
Chloride	202	222	0.910	6.876	5.156	2.326	non-norm	nonpar
Chromium, total	45	102	0.441	4.923	3.619	2.326	non-norm	nonpar
Cobalt, total	0	102	0.000					nonpar
Copper, total	1	102	0.010					nonpar
Iron, total	13	101	0.129	1.251	0.44	2.326	normal	nonpar
Lead, total	1	102	0.010					nonpar
Magnesium, dissolved	222	222	1.000	1.804	1.383	2.326	normal	normal
Manganese, total	30	102	0.294	2.324	0.771	2.326	normal	nonpar
Nickel, total	2	102	0.020					nonpar
Nitrate (as n)	207	209	0.990	9.204	5.616	2.326	non-norm	nonpar
pH	229	229	1.000	0.83	1.112	2.326	normal	normal
Potassium, dissolved	14	222	0.063	2.153	1.799	2.326	normal	nonpar
Selenium, total	0	102	0.000					nonpar
Silver, total	0	102	0.000					nonpar
Sodium, dissolved	222	222	1.000	5.67	4.618	2.326	non-norm	nonpar
Specific conductivity	231	231	1.000	8.402	11.092	2.326	non-norm	nonpar
Sulfate	205	222	0.923	6.308	3.428	2.326	non-norm	nonpar
Temperature	231	231	1.000	8.344	7.692	2.326	non-norm	nonpar
Thallium, total	0	102	0.000					nonpar
Total dissolved solids (tds)	222	222	1.000	5.277	4.689	2.326	non-norm	nonpar
Total organic carbon (toc)	7	210	0.033	0.146	2.225	2.326	normal	nonpar
Vanadium, total	101	102	0.990	7.551	7.688	2.326	non-norm	nonpar
Zinc, total	1	102	0.010					nonpar

Fit to distribution is confirmed if G <= critical value.
Model type may not match distributional form when detection frequency < 50%.
Data in this table are based on pooled data shown in Table 2-3, outliers excluded

TABLE 2-5
COMPARISON OF UPDATED (2023) PREDICTION LIMITS† TO PREVIOUS YEAR (2022) PREDICTION LIMITS
Olympic View Sanitary Landfill

Constituent	2023 Pred. Limit	unit	Distributional Assumption	Constituent	2022 Pred. Limit	unit	Distributional Assumption
Alkalinity, bicarbonate (as CaCO3)	96	mg/L	nonparametric	Alkalinity, bicarbonate (as CaCO3)	96	mg/L	nonparametric
Alkalinity, total (as CaCO3)	96	mg/L	nonparametric	Alkalinity, total (as CaCO3)	96	mg/L	nonparametric
Ammonia (as N)	0.28	mg/L	nonparametric	Ammonia (as N)	0.28	mg/L	nonparametric
Antimony, total	0.0013	mg/L	nonparametric	Antimony, total	0.0013	mg/L	nonparametric
Arsenic, total	0.480	ugL	normal	Arsenic, total	0.479	ugL	normal
Barium, total	0.0045	mg/L	normal	Barium, total	0.0045	mg/L	normal
Beryllium, total	Current RL*	mg/L	nonparametric	Beryllium, total	Current RL*	mg/L	nonparametric
Cadmium, total	Current RL*	mg/L	nonparametric	Cadmium, total	Current RL*	mg/L	nonparametric
Calcium, dissolved	18	mg/L	nonparametric	Calcium, dissolved	18	mg/L	nonparametric
Chloride	4.4	mg/L	nonparametric	Chloride	4.4	mg/L	nonparametric
Chromium, total	0.019	mg/L	nonparametric	Chromium, total	0.019	mg/L	nonparametric
Cobalt, total	Current RL*	mg/L	nonparametric	Cobalt, total	Current RL*	mg/L	nonparametric
Copper, total	0.0021	mg/L	nonparametric	Copper, total	0.0021	mg/L	nonparametric
Iron, total	0.31	mg/L	nonparametric	Iron, total	0.31	mg/L	nonparametric
Lead, total	0.0014	mg/L	nonparametric	Lead, total	0.0014	mg/L	nonparametric
Magnesium, dissolved	11.2	mg/L	normal	Magnesium, dissolved	11.2	mg/L	normal
Manganese, total	0.110	mg/L	nonparametric	Manganese, total	0.110	mg/L	nonparametric
Nickel, total	0.0055	mg/L	nonparametric	Nickel, total	0.0055	mg/L	nonparametric
Nitrate (as N)	1.6	mg/L	nonparametric	Nitrate (as N)	1.6	mg/L	nonparametric
pH	5.82 - 8.20	units	normal	pH	5.81 - 8.20	units	normal
Potassium, dissolved	1.4	mg/L	nonparametric	Potassium, dissolved	1.4	mg/L	nonparametric
Selenium, total	Current RL*	mg/L	nonparametric	Selenium, total	Current RL*	mg/L	nonparametric
Silver, total	Current RL*	mg/L	nonparametric	Silver, total	Current RL*	mg/L	nonparametric
Sodium, dissolved	7.7	mg/L	nonparametric	Sodium, dissolved	7.7	mg/L	nonparametric
Specific conductivity	0.18	mS/cm	nonparametric	Specific conductivity	0.18	mS/cm	nonparametric
Sulfate	9.9	mg/L	nonparametric	Sulfate	9.9	mg/L	nonparametric
Temperature	14.32	deg C	nonparametric	Temperature	14.32	deg C	nonparametric
Thallium, total	Current RL*	mg/L	nonparametric	Thallium, total	Current RL*	mg/L	nonparametric
Total dissolved solids (tds)	175	mg/L	nonparametric	Total dissolved solids (tds)	175	mg/L	nonparametric
Total organic carbon (toc)	6.0	mg/L	nonparametric	Total organic carbon (toc)	6.0	mg/L	nonparametric
Vanadium, total	0.009	mg/L	nonparametric	Vanadium, total	0.009	mg/L	nonparametric
Zinc, total	0.0056	mg/L	nonparametric	Zinc, total	0.0056	mg/L	nonparametric

† **Note that beginning in 2016, Prediction Limits for Trace Metals became based on "total" analyses vs "dissolved" previously**

* for background data sets with all non-detected values, a nonparametric prediction limit is the current constituent-specific laboratory reporting limit (RL)

mg/L = milligrams per liter

ug/L = micrograms per liter

mS/cm = milliSiemens per centimeter

deg C = degrees Celsius

3. Annual UCL Calculations using Preliminary Groundwater Cleanup Goals

- 2022 Annual Preliminary Groundwater Cleanup Goals Statistical Evaluation Summary (Table 3-1)

TABLE 3-1: 2022 Annual Groundwater Cleanup Level Statistical Evaluation Summary

Olympic View Sanitary Landfill

Statistical Methodology: calculation of 95% UCL of mean per MTCAStat

Data Input (general): 3-year "moving window", updated annually

Data Input (specific): January 1, 2020 through December 31, 2022

Wells Evaluated: (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-29A, MW-32, MW-33A, MW-33C, MW-36A

Monitoring Well	Monitoring Well Type	Corrective Action Monitoring Parameter	N[1]	% Detect	Max[2]	95% UCL of Mean[3]	Units[4]	Note	Groundwater Cleanup Level[5]	Units[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend?[6]
MW-15R	Compliance	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-15R	Compliance	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-15R	Compliance	Arsenic, total	6	100%	0.257	0.254	ug/L	LN	4.27	ug/L	No	No
MW-15R	Compliance	Iron, total	6	0%	0.06 (ND)	0.06	mg/L	B	1.9	mg/L	No	No
MW-15R	Compliance	Manganese, total	6	100%	0.0026	0.003	mg/L	LN	0.73	mg/L	No	Yes (▼)
MW-15R	Compliance	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-15R	Compliance	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-15R	Compliance	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-15R	Compliance	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-15R	Compliance	Ammonia as N	6	0%	0.03 (ND)	0.03	mg/L	B	0.19	mg/L	No	No
MW-34A	Compliance	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-34A	Compliance	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-34A	Compliance	Arsenic, total	6	100%	0.522	0.511	ug/L	LN	4.27	ug/L	No	No
MW-34A	Compliance	Iron, total	6	33%	0.11	0.11	mg/L	A	1.9	mg/L	No	No
MW-34A	Compliance	Manganese, total	6	50%	0.0028	0.0028	mg/L	A	0.73	mg/L	No	No
MW-34A	Compliance	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-34A	Compliance	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-34A	Compliance	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-34A	Compliance	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-34A	Compliance	Ammonia as N	6	0%	0.03 (ND)	0.030	mg/L	B	0.19	mg/L	No	No

TABLE 3-1: 2022 Annual Groundwater Cleanup Level Statistical Evaluation Summary

Olympic View Sanitary Landfill

Statistical Methodology: calculation of 95% UCL of mean per MTCAStat

Data Input (general): 3-year "moving window", updated annually

Data Input (specific): January 1, 2020 through December 31, 2022

Wells Evaluated: (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-29A, MW-32, MW-33A, MW-33C, MW-36A

Monitoring Well	Monitoring Well Type	Corrective Action Monitoring Parameter	N[1]	% Detect	Max[2]	95% UCL of Mean[3]	Units[4]	Note	Groundwater Cleanup Level[5]	Units[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend?[6]
MW-34C	Compliance	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-34C	Compliance	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-34C	Compliance	Arsenic, total	6	100%	25.8	17.9	ug/L	Z	4.27	ug/L	**Yes**	No
MW-34C	Compliance	Iron, total	6	100%	46	46	mg/L	A**	1.9	mg/L	**Yes**	No
MW-34C	Compliance	Manganese, total	6	100%	4.8	14.3	mg/L	LN	0.73	mg/L	**Yes**	No
MW-34C	Compliance	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-34C	Compliance	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-34C	Compliance	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-34C	Compliance	Vinyl Chloride	6	67%	0.033	0.033	ug/L	A	0.20	ug/L	No	**Yes (▼)**
MW-34C	Compliance	Ammonia as N	6	17%	0.036	0.036	mg/L	A	0.19	mg/L	No	No
MW-39	Compliance	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-39	Compliance	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-39	Compliance	Arsenic, total	6	100%	2.68	2.47	ug/L	Z	4.27	ug/L	No	No
MW-39	Compliance	Iron, total	6	100%	43	41	mg/L	Z	1.9	mg/L	**Yes**	No
MW-39	Compliance	Manganese, total	6	100%	0.49	0.51	mg/L	Z	0.73	mg/L	No	No
MW-39	Compliance	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-39	Compliance	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-39	Compliance	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-39	Compliance	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-39	Compliance	Ammonia as N	6	83%	0.94	0.94	mg/L	A**	0.19	mg/L	**Yes**	No

TABLE 3-1: 2022 Annual Groundwater Cleanup Level Statistical Evaluation Summary

Olympic View Sanitary Landfill

Statistical Methodology: calculation of 95% UCL of mean per MTCAStat

Data Input (general): 3-year "moving window", updated annually

Data Input (specific): January 1, 2020 through December 31, 2022

Wells Evaluated: (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-29A, MW-32, MW-33A, MW-33C, MW-36A

Monitoring Well	Monitoring Well Type	Corrective Action Monitoring Parameter	N[1]	% Detect	Max[2]	95% UCL of Mean[3]	Units[4]	Note	Groundwater Cleanup Level[5]	Units[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend?[6]
MW-42	Compliance	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-42	Compliance	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-42	Compliance	Arsenic, total	6	100%	2.18	2.02	ug/L	LN	4.27	ug/L	No	Yes (▲)
MW-42	Compliance	Iron, total	6	100%	29	27.5	mg/L	LN	1.9	mg/L	Yes	No
MW-42	Compliance	Manganese, total	6	100%	4.1	4.0	mg/L	Z	0.73	mg/L	Yes	Yes (▼)
MW-42	Compliance	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-42	Compliance	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-42	Compliance	Trichloroethene	6	0%	0.46 (ND)	0.47	ug/L	A	1.0	ug/L	No	No
MW-42	Compliance	Vinyl Chloride	6	83%	0.10	0.08	ug/L	N	0.20	ug/L	No	No
MW-42	Compliance	Ammonia as N	6	100%	7.3	5.3	mg/L	Z	0.19	mg/L	Yes	No
MW-43	Compliance	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-43	Compliance	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-43	Compliance	Arsenic, total	6	100.0%	0.157	0.103	ug/L	Z	4.27	ug/L	No	No
MW-43	Compliance	Iron, total	6	83%	6.6	6.6	mg/L	A**	1.9	mg/L	Yes	No
MW-43	Compliance	Manganese, total	6	100%	0.14	0.27	mg/L	LN	0.73	mg/L	No	No
MW-43	Compliance	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-43	Compliance	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-43	Compliance	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-43	Compliance	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-43	Compliance	Ammonia as N	6	0%	0.03 (ND)	0.03	mg/L	B	0.19	mg/L	No	Yes (▼)

TABLE 3-1: 2022 Annual Groundwater Cleanup Level Statistical Evaluation Summary

Olympic View Sanitary Landfill

Statistical Methodology: calculation of 95% UCL of mean per MTCAStat

Data Input (general): 3-year "moving window", updated annually

Data Input (specific): January 1, 2020 through December 31, 2022

Wells Evaluated: (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-29A, MW-32, MW-33A, MW-33C, MW-36A

Monitoring Well	Monitoring Well Type	Corrective Action Monitoring Parameter	N[1]	% Detect	Max[2]	95% UCL of Mean[3]	Units[4]	Note	Groundwater Cleanup Level[5]	Units[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend?[6]
MW-29A	Downgradient	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-29A	Downgradient	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-29A	Downgradient	Arsenic, total	6	100%	2.11	2.00	ug/L	Z	4.27	ug/L	No	No
MW-29A	Downgradient	Iron, total	6	100%	4.5	4.5	mg/L	Z	1.9	mg/L	Yes	No
MW-29A	Downgradient	Manganese, total	6	100%	1.5	1.47	mg/L	Z	0.73	mg/L	Yes	No
MW-29A	Downgradient	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-29A	Downgradient	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-29A	Downgradient	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-29A	Downgradient	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-29A	Downgradient	Ammonia as N	6	100%	0.15	0.12	mg/L	Z	0.19	mg/L	No	Yes (▼)
MW-32	Downgradient	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-32	Downgradient	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-32	Downgradient	Arsenic, total	6	100%	11.4	11.1	ug/L	LN	4.27	ug/L	Yes	No
MW-32	Downgradient	Iron, total	6	100%	1.1	0.94	mg/L	LN	1.9	mg/L	No	No
MW-32	Downgradient	Manganese, total	6	100%	2.6	2.2	mg/L	Z	0.73	mg/L	Yes	No
MW-32	Downgradient	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-32	Downgradient	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-32	Downgradient	Trichloroethene	6	67%	0.54	0.54	ug/L	A	1.0	ug/L	No	No
MW-32	Downgradient	Vinyl Chloride	6	100%	0.32	0.30	ug/L	LN	0.20	ug/L	Yes	Yes (▼)
MW-32	Downgradient	Ammonia as N	6	100%	0.085	0.08	mg/L	LN	0.19	mg/L	No	No

TABLE 3-1: 2022 Annual Groundwater Cleanup Level Statistical Evaluation Summary

Olympic View Sanitary Landfill

Statistical Methodology: calculation of 95% UCL of mean per MTCAStat

Data Input (general): 3-year "moving window", updated annually

Data Input (specific): January 1, 2020 through December 31, 2022

Wells Evaluated: (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-29A, MW-32, MW-33A, MW-33C, MW-36A

Monitoring Well	Monitoring Well Type	Corrective Action Monitoring Parameter	N[1]	% Detect	Max[2]	95% UCL of Mean[3]	Units[4]	Note	Groundwater Cleanup Level[5]	Units[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend?[6]
MW-33A	Downgradient	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-33A	Downgradient	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-33A	Downgradient	Arsenic, total	6	100%	1.57	0.968	ug/L	Z	4.27	ug/L	No	Yes (▲)
MW-33A	Downgradient	Iron, total	6	100%	5.1	4.5	mg/L	N	1.9	mg/L	Yes	No
MW-33A	Downgradient	Manganese, total	6	100%	0.099	0.080	mg/L	Z	0.73	mg/L	No	No
MW-33A	Downgradient	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-33A	Downgradient	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-33A	Downgradient	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-33A	Downgradient	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-33A	Downgradient	Ammonia as N	6	67%	0.38	0.26	mg/L	N	0.19	mg/L	Yes	No
MW-33C	Downgradient	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-33C	Downgradient	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-33C	Downgradient	Arsenic, total	6	100%	4.31	3.50	ug/L	Z	4.27	ug/L	No	Yes (▲)
MW-33C	Downgradient	Iron, total	6	100%	0.77	2.20	mg/L	LN	1.9	mg/L	Yes	No
MW-33C	Downgradient	Manganese, total	6	100%	0.96	0.99	mg/L	Z	0.73	mg/L	Yes	No
MW-33C	Downgradient	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-33C	Downgradient	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-33C	Downgradient	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-33C	Downgradient	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-33C	Downgradient	Ammonia as N	6	0%	0.03 (ND)	0.03	mg/L	B	0.19	mg/L	No	No

TABLE 3-1: 2022 Annual Groundwater Cleanup Level Statistical Evaluation Summary

Olympic View Sanitary Landfill

Statistical Methodology: calculation of 95% UCL of mean per MTCAStat

Data Input (general): 3-year "moving window", updated annually

Data Input (specific): January 1, 2020 through December 31, 2022

Wells Evaluated: (1) Compliance -- MW-15R, MW-34A, MW-34C, MW-39, MW-42, MW-43; (2) Downgradient -- MW-29A, MW-32, MW-33A, MW-33C, MW-36A

Monitoring Well	Monitoring Well Type	Corrective Action Monitoring Parameter	N[1]	% Detect	Max[2]	95% UCL of Mean[3]	Units[4]	Note	Groundwater Cleanup Level[5]	Units[4]	Does 95% UCL Exceed Cleanup Level?	Significant Trend?[6]
MW-36A	Downgradient	1,1-Dichloroethane	6	0%	0.38 (ND)	0.38	ug/L	B	50	ug/L	No	No
MW-36A	Downgradient	1,4-Dichlorobenzene	6	0%	0.84 (ND)	0.84	ug/L	B	2.0	ug/L	No	No
MW-36A	Downgradient	Arsenic, total	6	100%	0.667	0.614	ug/L	LN	4.27	ug/L	No	No
MW-36A	Downgradient	Iron, total	6	33%	0.17	0.17	mg/L	A	1.9	mg/L	No	No
MW-36A	Downgradient	Manganese, total	6	33%	0.0014	0.0014	mg/L	A	0.73	mg/L	No	No
MW-36A	Downgradient	cis-1,2-dichloroethene	6	0%	0.81 (ND)	0.81	ug/L	B	35	ug/L	No	No
MW-36A	Downgradient	Ethyl ether	6	0%	0.72 (ND)	0.72	ug/L	B	50	ug/L	No	No
MW-36A	Downgradient	Trichloroethene	6	0%	0.46 (ND)	0.46	ug/L	B	1.0	ug/L	No	No
MW-36A	Downgradient	Vinyl Chloride	6	0%	0.02 (ND)	0.02	ug/L	B	0.20	ug/L	No	No
MW-36A	Downgradient	Ammonia as N	6	0%	0.03 (ND)	0.030	mg/L	B	0.19	mg/L	No	No

NOTES:

[1] N = number of data points used for UCL calculation of the mean; only SIM results used for Vinyl Chloride (e.g., duplicate results with higher RLs by non-SIM were omitted).

[2] MAX = maximum detected result in the data set; if no detected results, then = maximum reporting limit for non-detect results (indicated with ND).

[3] A 3-year moving data set is used for calculation of the UCL.

[4] ug/L - micrograms per liter; mg/L = milligrams per liter.

[5] Groundwater Cleanup Levels for VOCs are from Table 3 of the Oct 2010 Draft Cleanup Action Plan; and for As, Fe, Mn and Ammonia-N from the July 15, 2021 Ecology letter approving Groundwater Quality Standards

[6] Trend analysis results are based on data for the period January 2005 through December 2022; arrows indicated increasing (▲) or decreasing (▼) trends.

A = Detection frequency of data set too low and/or N too few to calculate 95% UCL of mean; therefore, the highest detected result in the data set used to represent 95% UCL of mean.

A* = Same as note "A" except that the highest value in the data set is below the reporting limit of one or more non-detected results; therefore, the highest reporting limit is used to represent the 95% UCL of the mean.

A** = MTCAStat suggests use of lognormal formula but calculation of 95% UCL of mean by Land's formula provides unrealistic result; therefore, the highest detected result is used to represent the 95% UCL of the mean.

A*** = MTCAStat suggests use of the Z-score method but then cites inability to calculate due to presence of censored values; therefore, the highest detected result is used to represent the 95% UCL of the mean.

B = Detection frequency = 0; therefore, the highest reporting limit in the data set is used to represent the 95% UCL of mean.

LN = The 95% UCL of the mean is calculated using Land's formula since lognormal distribution is indicated.

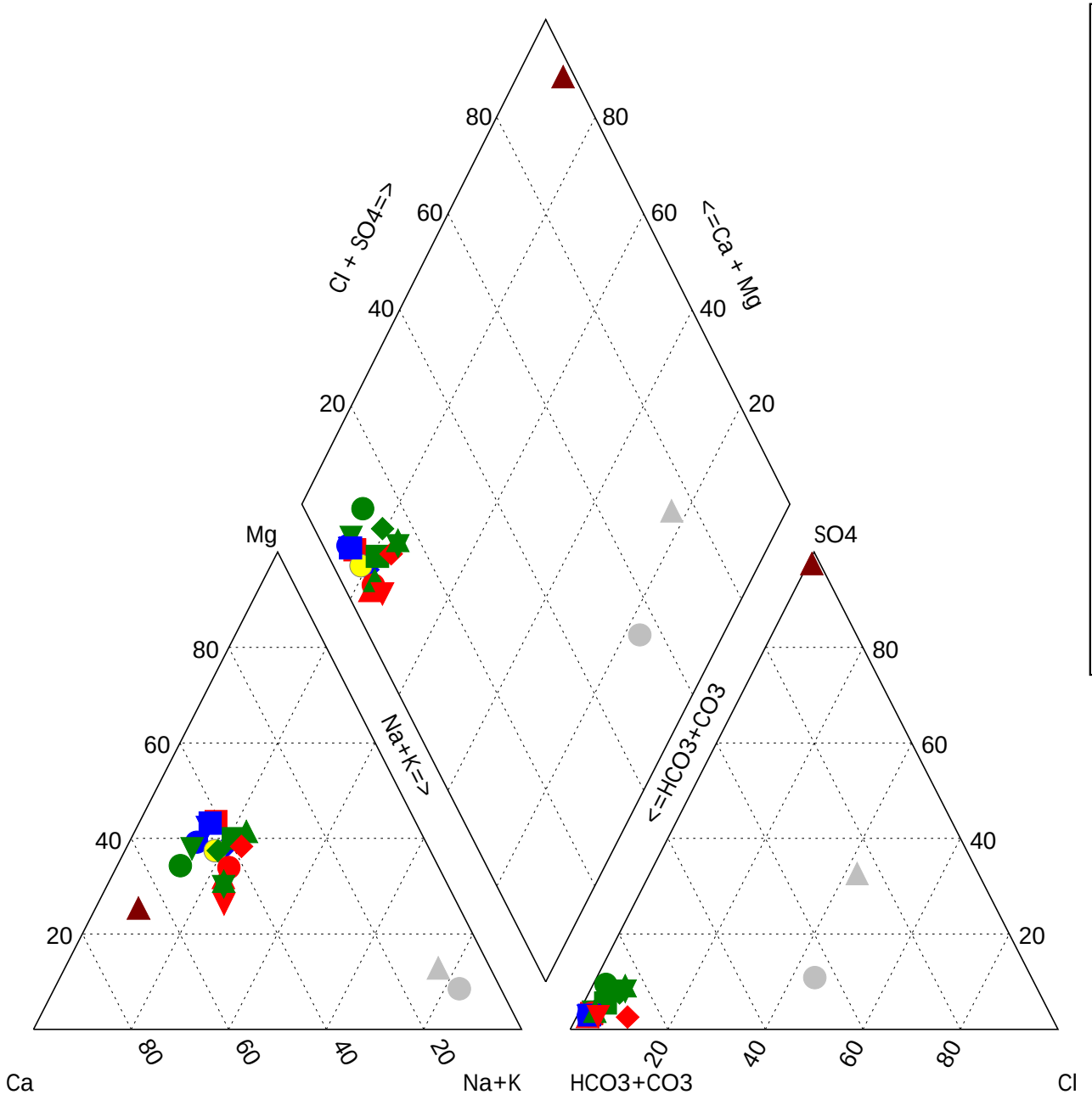
N = The 95% UCL of the mean is calculated using a normal-based t-statistic since a normal distribution is indicated.

Z = the 95% UCL of the mean is calculated using the Z-score method in MTCAStat since neither normal nor lognormal distribution can be determined.

Appendix D

November 2022 Groundwater Geochemical Evaluation

2022 Semi-annual #2 Piper Diagram



DESCRIPTION: Piper Diagram		
	PROJECT: Olympic View Sanitary Landfill	PROJECT NO: 04204027.26
	CLIENT: Waste Management Closed Sites	DATE: February 2023

Cation/Anion Balance

Location	MW-13A
Sample Date	11/17/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	5.40	0.23	
K	0.02258	0.56	0.014	
Ca	0.04990	15.00	0.75	
Mg	0.08229	8.90	0.73	
		Sum of Cations	1.73	meq/L
Cl	0.02821	<3.00	<0.08	
SO4	0.02082	<5.00	<0.10	
NO3	0.01613	0.48	0.01	
HCO3	0.01639	106.80	1.75	
		Sum of Anions	1.947	meq/L
Balance (% difference) *			-5.89	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	MW-13B
Sample Date	11/17/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	5.40	0.23	
K	0.02258	0.57	0.015	
Ca	0.04990	17.00	0.85	
Mg	0.08229	8.60	0.71	
		Sum of Cations	1.805	meq/L
Cl	0.02821	<3.00	<0.08	
SO4	0.02082	<5.00	<0.10	
NO3	0.01613	0.41	0.01	
HCO3	0.01639	106.80	1.75	
		Sum of Anions	1.946	meq/L
Balance (% difference) *			-3.74	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	MW-15R
Sample Date	11/16/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	5.20	0.23	
K	0.02258	0.88	0.023	
Ca	0.04990	13.00	0.65	
Mg	0.08229	8.40	0.69	
		Sum of Cations	1.59	meq/L
Cl	0.02821	<3.00	<0.08	
SO4	0.02082	<5.00	<0.10	
NO3	0.01613	0.21	0.00	
HCO3	0.01639	88.80	1.46	
		Sum of Anions	1.648	meq/L
Balance (% difference) *			-1.82	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	MW-16
Sample Date	11/17/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	5.20	0.23	
K	0.02258	0.75	0.019	
Ca	0.04990	10.00	0.50	
Mg	0.08229	5.60	0.46	
		Sum of Cations	1.205	meq/L
Cl	0.02821	<3.00	<0.08	
SO4	0.02082	<5.00	<0.10	
NO3	0.01613	<0.05	<0.00	
HCO3	0.01639	80.40	1.32	
		Sum of Anions	1.507	meq/L
Balance (% difference) *			-11.14	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	MW-19C
Sample Date	11/17/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	6.00	0.26	
K	0.02258	1.30	0.033	
Ca	0.04990	14.00	0.70	
Mg	0.08229	7.20	0.59	
		Sum of Cations	1.585	meq/L
Cl	0.02821	<3.00	<0.08	
SO4	0.02082	<5.00	<0.10	
NO3	0.01613	<0.05	<0.00	
HCO3	0.01639	96.00	1.57	
		Sum of Anions	1.763	meq/L
Balance (% difference) *			-5.30	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	MW-29A
Sample Date	11/16/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	3.40	0.15	
K	0.02258	0.29	0.007	
Ca	0.04990	5.80	0.29	
Mg	0.08229	3.60	0.30	
		Sum of Cations	0.741	meq/L
Cl	0.02821	<3.00	<0.08	
SO4	0.02082	<5.00	<0.10	
NO3	0.01613	<0.05	<0.00	
HCO3	0.01639	51.60	0.85	
		Sum of Anions	1.035	meq/L
Balance (% difference) *			-16.57	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	MW-32
Sample Date	11/17/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	11.00	0.48	
K	0.02258	0.98	0.025	
Ca	0.04990	23.00	1.15	
Mg	0.08229	12.00	0.99	
		Sum of Cations	2.64	meq/L
Cl	0.02821	6.60	0.19	
SO4	0.02082	11.00	0.23	
NO3	0.01613	<0.05	<0.00	
HCO3	0.01639	156.00	2.56	
		Sum of Anions	2.97	meq/L
Balance (% difference) *			-5.95	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	MW-33A
Sample Date	11/17/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	4.00	0.17	
K	0.02258	0.82	0.021	
Ca	0.04990	14.00	0.70	
Mg	0.08229	6.60	0.54	
		Sum of Cations	1.437	meq/L
Cl	0.02821	<3.00	<0.08	
SO4	0.02082	<5.00	<0.10	
NO3	0.01613	<0.05	<0.00	
HCO3	0.01639	81.60	1.34	
		Sum of Anions	1.527	meq/L
Balance (% difference) *			-3.04	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	MW-33C
Sample Date	11/17/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	4.10	0.18	
K	0.02258	1.20	0.031	
Ca	0.04990	17.00	0.85	
Mg	0.08229	6.70	0.55	
		Sum of Cations	1.61	meq/L
Cl	0.02821	<3.00	<0.08	
SO4	0.02082	7.40	0.15	
NO3	0.01613	<0.05	<0.00	
HCO3	0.01639	87.60	1.44	
		Sum of Anions	1.675	meq/L
Balance (% difference) *			-2.03	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	MW-34A
Sample Date	11/16/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	7.70	0.33	
K	0.02258	0.53	0.014	
Ca	0.04990	13.00	0.65	
Mg	0.08229	6.20	0.51	
		Sum of Cations	1.507	meq/L
Cl	0.02821	<3.00	<0.08	
SO4	0.02082	<5.00	<0.10	
NO3	0.01613	0.44	0.01	
HCO3	0.01639	87.60	1.44	
		Sum of Anions	1.63	meq/L
Balance (% difference) *			-3.95	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	MW-34C
Sample Date	11/16/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	10.00	0.43	
K	0.02258	0.85	0.022	
Ca	0.04990	18.00	0.90	
Mg	0.08229	7.70	0.63	
		Sum of Cations	1.99	meq/L
Cl	0.02821	<3.00	<0.08	
SO4	0.02082	<5.00	<0.10	
NO3	0.01613	<0.05	<0.00	
HCO3	0.01639	111.60	1.83	
		Sum of Anions	2.02	meq/L
Balance (% difference) *			-0.75	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	MW-35
Sample Date	11/17/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	5.20	0.23	
K	0.02258	0.60	0.015	
Ca	0.04990	14.00	0.70	
Mg	0.08229	8.70	0.72	
		Sum of Cations	1.656	meq/L
Cl	0.02821	<3.00	<0.08	
SO4	0.02082	<5.00	<0.10	
NO3	0.01613	0.39	0.01	
HCO3	0.01639	100.80	1.65	
		Sum of Anions	1.847	meq/L
Balance (% difference) *			-5.45	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	MW-36A
Sample Date	11/17/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	6.30	0.27	
K	0.02258	0.83	0.021	
Ca	0.04990	9.20	0.46	
Mg	0.08229	6.50	0.53	
		Sum of Cations	1.29	meq/L
Cl	0.02821	<3.00	<0.08	
SO4	0.02082	<5.00	<0.10	
NO3	0.01613	0.26	0.00	
HCO3	0.01639	76.80	1.26	
		Sum of Anions	1.452	meq/L
Balance (% difference) *			-5.93	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	MW-39
Sample Date	11/17/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	9.00	0.39	
K	0.02258	0.28	0.007	
Ca	0.04990	13.00	0.65	
Mg	0.08229	7.90	0.65	
		Sum of Cations	1.697	meq/L
Cl	0.02821	7.40	0.21	
SO4	0.02082	<5.00	<0.10	
NO3	0.01613	<0.05	<0.00	
HCO3	0.01639	105.60	1.73	
		Sum of Anions	2.044	meq/L
Balance (% difference) *			-9.27	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	MW-42
Sample Date	11/16/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	18.00	0.78	
K	0.02258	7.40	0.189	
Ca	0.04990	36.00	1.80	
Mg	0.08229	12.00	0.99	
		Sum of Cations	3.756	meq/L
Cl	0.02821	6.60	0.19	
SO4	0.02082	5.50	0.11	
NO3	0.01613	<0.05	<0.00	
HCO3	0.01639	240.00	3.93	
		Sum of Anions	4.235	meq/L
Balance (% difference) *			-5.99	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	MW-43
Sample Date	11/16/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	3.00	0.13	
K	0.02258	0.66	0.017	
Ca	0.04990	5.70	0.28	
Mg	0.08229	2.30	0.19	
		Sum of Cations	0.621	meq/L
Cl	0.02821	<3.00	<0.08	
SO4	0.02082	<5.00	<0.10	
NO3	0.01613	1.50	0.02	
HCO3	0.01639	31.20	0.51	
		Sum of Anions	0.724	meq/L
Balance (% difference) *			-7.67	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	OBWL-TD
Sample Date	11/28/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	7.80	0.34	
K	0.02258	3.40	0.087	
Ca	0.04990	64.00	3.19	
Mg	0.08229	15.00	1.23	
		Sum of Cations	4.85	meq/L
Cl	0.02821	3.10	0.09	
SO4	0.02082	550.00	11.46	
NO3	0.01613	0.77	0.01	
HCO3	0.01639	<12.00	<0.20	
		Sum of Anions	11.75	meq/L
Balance (% difference) *			-41.55	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	L-INF
Sample Date	11/28/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	920.00	40.02	
K	0.02258	130.00	3.325	
Ca	0.04990	120.00	5.99	
Mg	0.08229	89.00	7.32	
		Sum of Cations	56.7	meq/L
Cl	0.02821	2500.00	70.52	
SO4	0.02082	2600.00	54.17	
NO3	0.01613	0.11	0.00	
HCO3	0.01639	2520.00	41.30	
		Sum of Anions	166.0	meq/L
Balance (% difference) *			-49.11	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Cation/Anion Balance

Location	LP-LCD
Sample Date	11/17/2022

Major Ions	Conversion Factor +	mg/l	meq/l	
Mn	0.0364			
Fe	0.03581			
Na	0.04350	640.00	27.84	
K	0.02258	75.00	1.918	
Ca	0.04990	61.00	3.04	
Mg	0.08229	37.00	3.04	
		Sum of Cations	35.85	meq/L
Cl	0.02821	640.00	18.05	
SO4	0.02082	210.00	4.38	
NO3	0.01613	4.00	0.06	
HCO3	0.01639	1092.00	17.90	
		Sum of Anions	40.4	meq/L
Balance (% difference) *			-5.96	%

+ mg/l to meq/l

* [(Total anions - Total cations) / (Total anions + Total cations)]*100

Appendix E

Landfill Gas Monitoring Results

Table E1. 10 Year Historical Results of Methane (CH_4) Measurements
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Date Monitored	OV-GP-07	OV-GP-08	OV-GP-9S	OV-GP-9D	OV-GP10S	OV-GP10D	OV-GP11S	OV-GP11D	OV-GP12S	OV-GP12M	OV-GP12D	OV-GP13S	OV-GP13M	OV-GP13D	OV-GP14	OV-GP15	OV-GP16
11/17/2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0
9/29/2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7/11/2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/29/2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12/16/2021	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	0.0	0.0	2.2	0.0
10/19/2021	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
6/11/2021	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0
3/17/2021	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.1	0.0	0.0	0.0	0.5	0.0
11/18/2020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9/21/2020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
6/5/2020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0
3/11/2020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0
11/14/2019	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
8/5/2019	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0
4/22/2019	0.0	0.0	0.0	0.0	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/28/2019	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10/23/2018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9/10/2018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/16/2018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
3/14/2018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11/22/2017	—	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	0.5	0.0
8/28/2017	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0
5/30/2017	0.0	0.0	0.0	—	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0
3/17/2017	—	0.0	0.0	—	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0
11/15/2016	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0
9/20/2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/27/2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/24/2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
12/15/2015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9/29/2015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/7/2015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0
3/30/2015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	0.2	0.0
12/29/2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
9/24/2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/16/2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	1.0	0.0
3/28/2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—	0.0	0.0	0.0	0.0	3.7	0.0
12/13/2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0
7/13/2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.7	0.0
5/13/2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2/13/2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0

Notes:
OV-GP = Gas Probe
S = Shallow Monitoring Zone
M = Middle Monitoring Zone
D = Deep Monitoring Zone
Detected CH4>0.3% vol.
— Screened interval submerged

Table E2. 10 Year Historical Results of Carbon Dioxide (CO_2) Measurements
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Port Orchard, Washington

Date Monitored	OV-GP-07	OV-GP-08	OV-GP-9S	OV-GP-9D	OV-GP10S	OV-GP10D	OV-GP11S	OV-GP11D	OV-GP12S	OV-GP12M	OV-GP12D	OV-GP13S	OV-GP13M	OV-GP13D	OV-GP14	OV-GP15	OV-GP16
11/17/2022	9.8	6.3	1.5	1.5	0.7	0.7	2.4	2.2	1.7	0.9	0.9	1.7	4.5	4.5	7.5	10.2	2.5
9/29/2022	10.9	5.5	1.8	1.4	0.6	0.7	2.1	2.5	1.4	1.1	1.2	1.8	4.1	4.2	7.4	9.7	2.5
7/11/2022	7.4	3.8	2.5	1.3	0.4	0.6	1.0	2.8	0.5	1.3	1.2	3.1	3.2	4.5	4.7	5.5	4.0
3/29/2022	4.7	2.7	1.8	0.1	0.7	0.7	1.7	2.5	0.1	0.1	1.1	0.1	3.5	4.5	4.0	0.1	2.0
12/16/2021	2.5	4.3	2.7	1.7	1.0	0.8	3.0	2.4	1.3	1.5	—	5.5	4.4	4.1	5.5	6.4	3.5
10/19/2021	11.3	6.6	2.2	1.6	0.9	0.8	2.5	2.4	1.7	1.5	1.7	4.9	4.3	4.2	8.4	9.2	3.8
6/11/2021	8.0	3.7	2.1	1.5	0.8	0.7	3.2	2.4	1.3	1.2	1.2	4.5	3.7	3.7	6.1	6.8	3.0
3/17/2021	5.4	3.1	2.1	1.6	0.8	0.8	2.7	2.0	1.5	1.3	—	4.6	3.6	3.4	4.4	4.4	2.4
11/18/2020	11.2	4.4	2.5	1.4	1.1	0.9	3.1	2.8	1.8	1.7	1.7	5.3	4.5	4.4	9.2	9.4	4.2
9/21/2020	11.5	6.3	2.0	1.4	0.9	0.7	2.9	2.4	0.1	1.4	1.4	3.9	3.8	3.7	8.5	11.1	3.1
6/5/2020	8.9	3.8	2.2	1.4	0.8	0.7	3.0	2.1	1.3	1.2	1.0	4.3	3.3	3.2	6.1	6.1	4.3
3/11/2020	6.8	3.0	2.2	1.5	0.9	0.8	2.7	—	1.1	1.4	—	4.5	3.8	3.5	5.0	5.7	2.5
11/14/2019	10.9	6.3	2.3	1.5	1.1	0.8	2.9	2.7	1.6	1.5	1.5	4.3	4.0	3.8	8.6	11.2	4.1
8/5/2019	10.8	4.4	1.6	1.1	0.6	0.5	2.7	1.3	1.1	1.1	0.8	3.7	3.4	3.0	7.5	9.0	3.0
4/22/2019	7.7	3.1	2.2	1.8	—	—	3.0	0.7	0.9	1.2	0.9	4.0	3.5	2.8	6.5	0.1	2.8
3/28/2019	6.5	2.9	2.1	1.7	0.7	0.8	2.5	0.7	0.9	0.9	0.9	3.6	3.6	1.9	4.2	0.2	2.1
10/23/2018	10.0	0.1	1.6	1.4	0.7	0.7	2.1	0.6	1.1	1.0	1.4	3.0	3.6	3.1	7.6	9.5	2.2
9/10/2018	10.6	5.6	1.9	1.3	0.7	0.6	2.5	0.6	1.2	1.0	1.3	3.2	3.4	3.2	7.7	9.8	2.1
5/16/2018	5.8	2.1	1.1	1.7	0.6	0.5	0.8	2.5	0.9	1.6	0.6	3.4	3.0	1.7	4.3	5.2	2.3
3/14/2018	4.5	2.2	1.8	1.3	0.8	0.7	2.3	1.0	0.9	1.1	0.7	3.4	3.3	1.1	4.3	6.0	2.0
11/22/2017	—	3.7	2.0	1.6	0.9	0.7	2.7	—	1.3	1.2	—	3.4	3.6	0.0	6.5	5.8	2.8
8/28/2017	8.9	4.8	2.2	1.1	0.7	0.5	3.0	—	1.0	1.2	—	3.2	2.4	2.9	6.3	1.6	2.3
5/30/2017	4.5	1.1	2.3	—	0.8	0.6	3.2	—	1.0	2.5	—	3.5	3.2	—	4.7	3.7	1.5
3/17/2017	—	1.2	1.7	—	0.6	0.7	0.0	—	1.1	1.4	—	3.4	3.3	0.0	3.4	4.2	1.6
11/15/2016	8.2	3.6	2.1	1.4	0.9	0.7	2.2	1.5	1.2	1.3	0.4	3.0	2.6	0.2	5.6	6.6	1.5
9/20/2016	11.2	5.0	2.2	1.4	0.5	0.3	1.9	0.6	0.9	0.9	0.7	1.8	2.5	0.1	2.0	3.0	2.0
6/27/2016	7.3	2.8	1.9	1.0	0.7	0.5	1.0	2.9	1.0	1.1	0.5	2.8	2.4	0.3	5.8	3.3	2.5
3/24/2016	3.1	1.4	1.8	1.3	0.7	0.7	2.1	2.1	1.7	1.6	1.1	3.3	3.3	2.1	4.8	4.3	2.4
12/15/2015	6.4	2.3	1.9	1.6	0.9	0.7	2.6	2.0	1.2	1.0	1.0	3.9	3.5	1.6	5.9	3.5	3.8
9/29/2015	10.8	6.2	1.6	1.5	0.6	0.7	2.0	2.6	0.9	1.0	1.3	2.9	1.9	0.2	8.7	9.4	4.0
5/7/2015	7.9	3.6	2.6	1.7	0.9	0.8	3.6	—	1.1	2.4	—	3.4	3.3	0.0	6.1	5.0	4.5
3/30/2015	6.2	2.0	2.4	1.7	0.9	0.8	3.3	—	1.3	1.4	—	0.8	3.3	3.4	5.7	6.5	3.8
12/29/2014	8.3	2.6	2.6	1.8	1.0	0.9	3.2	3.5	1.3	1.2	1.7	3.6	3.5	0.1	6.8	7.3	3.9
9/24/2014	11.2	6.1	2.0	1.6	0.8	0.7	3.4	3.0	1.2	1.3	1.6	2.9	3.3	1.3	9.3	10.1	4.2
6/16/2014	8.9	4.0	2.9	1.8	1.2	1.0	4.2	—	2.0	1.7	—	3.7	3.3	1.1	6.6	6.1	5.0
3/28/2014	5.9	2.0	1.8	1.8	0.8	0.9	2.5	—	1.9	2.2	—	3.3	3.5	3.2	6.4	2.2	3.3
12/13/2013	9.6	5.4	2.6	1.7	1.1	0.9	3.5	3.6	1.7	1.9	1.7	3.9	3.8	3.7	8.5	9.5	5.1
7/13/2013	9.6	4.5	2.9	1.5	1.1	0.7	3.9	0.4	1.8	1.7	0.4	3.5	3.1	3.1	7.8	7.8	7.4
5/13/2013	6.2	2.6	2.3	1.7	0.8	0.7	2.4	2.2	1.9	1.0	0.8	2.3	2.6	0.1	5.3	4.0	5.0
2/13/2013	4.2	2.5	1.7	1.5	0.7	0.7	1.8	2.4	1.1	0.9	0.8	2.3	2.4	0.8	5.1	6.2	3.9

Notes:
OV-GP = Gas Probe
S = Shallow Monitoring Zone
M = Middle Monitoring Zone
D = Deep Monitoring Zone
Detected CO2>0.3% vol.
— Screened interval submerged

Table E3. 10 Year Historical Results of Oxygen (O_2) Measurements
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Port Orchard, Washington

Date Monitored	OV-GP-07	OV-GP-08	OV-GP-9S	OV-GP-9D	OV-GP10S	OV-GP10D	OV-GP11S	OV-GP11D	OV-GP12S	OV-GP12M	OV-GP12D	OV-GP13S	OV-GP13M	OV-GP13D	OV-GP14	OV-GP15	OV-GP16
11/17/2022	9.2	10.5	19.5	19.7	19.3	20.0	18.9	18.9	16.8	20.4	20.7	19.5	16.7	17.6	9.5	0.0	19.5
9/29/2022	8.0	11.2	20.2	19.7	19.6	20.3	18.2	18.1	14.8	19.5	19.7	18.5	15.8	17.3	20.6	4.4	19.2
7/11/2022	3.8	8.0	17.8	18.3	19.1	19.8	17.9	17.5	18.8	19.2	18.4	16.8	16.0	15.1	5.2	5.6	16.5
3/29/2022	6.0	20.9	19.2	21.1	18.8	20.5	18.3	18.7	21.1	21.1	20.3	21.1	16.6	16.2	7.6	21.2	18.6
12/16/2021	16.3	5.4	18.3	19.4	20.3	19.7	17.8	18.4	20.1	19.9	—	15.5	16.5	16.7	7.0	0.4	17.2
10/19/2021	6.4	7.9	19.0	19.4	20.2	19.7	18.3	18.8	17.7	18.6	16.0	16.3	16.6	16.6	8.1	0.3	17.1
6/11/2021	7.4	10.4	19.5	19.3	20.8	19.5	18.8	19.2	18.8	19.4	18.2	17.2	16.6	16.7	6.2	0.0	18.7
3/17/2021	5.0	8.9	19.5	18.7	20.5	18.8	18.6	18.5	19.2	19.2	—	16.8	17.5	16.8	5.9	0.0	18.6
11/18/2020	4.3	10.8	19.0	19.8	20.4	19.9	18.4	18.9	18.3	18.9	16.9	16.0	16.4	16.4	3.5	0.7	16.7
9/21/2020	8.0	9.9	19.3	19.1	20.3	19.6	18.9	18.7	20.9	18.7	15.8	17.6	16.7	16.6	6.6	0.1	18.4
6/5/2020	5.8	9.5	17.9	18.6	19.7	18.8	17.7	18.3	18.5	19.0	17.9	16.5	17.0	17.2	5.0	0.2	16.1
3/11/2020	4.1	10.5	19.1	18.7	20.7	19.0	18.9	—	21.0	20.5	—	17.2	17.7	18.1	7.1	0.3	18.2
11/14/2019	5.6	8.9	19.3	10.8	20.7	20.4	18.9	19.3	18.9	19.4	17.6	17.6	17.5	17.5	5.0	0.1	17.3
8/5/2019	7.7	11.1	21.7	21.7	22.5	21.8	20.6	21.7	19.7	20.6	19.7	18.6	18.0	19.7	7.1	0.0	19.5
4/22/2019	6.3	11.7	19.7	19.9	—	—	19.1	21.5	21.1	20.9	20.1	17.6	17.1	18.2	5.7	20.1	18.7
3/28/2019	5.5	12.1	19.3	19.2	20.6	19.1	18.9	21.0	20.6	20.6	19.1	17.5	17.4	19.6	8.3	21.6	19.2
10/23/2018	8.8	20.8	20.0	19.7	20.9	20.1	19.7	21.1	20.0	20.3	16.8	18.7	17.5	18.5	9.6	5.4	19.6
9/10/2018	8.8	10.4	19.7	19.7	20.9	20.0	19.5	20.8	17.9	19.6	15.4	17.7	16.7	17.1	8.8	4.0	19.2
5/16/2018	6.2	11.6	19.1	18.8	19.7	18.4	19.8	17.6	19.4	19.3	19.9	17.2	16.9	18.6	7.0	4.2	18.4
3/14/2018	6.1	10.5	19.9	19.3	20.8	19.3	17.4	19.6	20.5	19.9	18.7	17.6	17.4	20.2	5.4	1.5	19.2
11/22/2017	—	10.0	18.9	19.2	20.2	19.7	18.9	—	19.7	19.7	—	17.7	17.4	21.2	7.6	0.1	17.8
8/28/2017	7.8	8.6	18.7	18.5	20.1	18.9	18.1	—	16.4	16.4	—	17.3	17.0	16.1	8.0	16.1	19.0
5/30/2017	4.6	13.3	18.3	—	20.2	18.6	17.5	—	19.9	19.2	—	17.2	16.3	—	6.5	10.4	18.7
3/17/2017	—	8.8	18.2	—	20.0	18.1	0.0	—	19.7	19.1	—	17.7	17.0	0.0	6.7	1.1	19.2
11/15/2016	4.7	4.0	17.5	18.9	19.7	19.4	18.3	19.1	18.3	18.1	20.0	16.6	17.8	20.7	8.2	0.0	17.3
9/20/2016	7.7	11.9	19.7	19.6	20.5	20.7	19.2	19.9	19.5	20.0	17.8	18.5	17.9	21.1	15.8	16.8	18.8
6/27/2016	6.8	11.3	19.3	18.6	20.2	19.3	18.7	18.2	19.7	19.9	19.4	18.5	17.5	20.6	8.0	7.0	18.5
3/24/2016	9.7	6.7	18.4	18.8	20.1	18.2	17.5	15.6	18.7	18.8	17.7	16.7	15.9	18.5	4.9	0.0	17.6
12/15/2015	5.9	3.7	18.6	19.7	20.1	19.3	18.3	17.5	20.7	20.3	18.8	16.6	17.3	19.0	5.0	5.7	16.1
9/29/2015	7.0	7.8	19.8	19.6	20.4	19.6	19.2	18.5	19.9	19.6	16.2	17.4	18.4	20.4	7.4	5.0	16.6
5/7/2015	4.1	7.0	19.0	19.4	20.2	18.9	17.6	—	18.9	18.3	—	16.9	16.6	20.7	5.5	5.5	16.0
3/30/2015	4.5	9.4	18.6	19.0	20.3	18.9	17.7	—	19.3	18.3	—	19.7	17.1	17.7	5.0	0.1	16.3
12/29/2014	3.6	5.3	18.5	19.6	20.5	19.8	17.9	14.4	20.1	19.5	16.4	17.5	17.5	20.7	5.7	0.0	16.4
9/24/2014	8.3	8.6	19.9	19.6	20.4	19.4	18.6	17.4	19.5	18.7	15.2	18.5	17.7	19.5	7.0	3.2	17.7
6/16/2014	3.7	5.7	18.5	18.8	20.0	18.5	16.9	—	19.1	18.8	—	17.7	17.3	20.1	5.9	0.0	16.9
3/28/2014	4.8	3.3	19.0	19.5	20.9	18.8	18.7	—	18.7	18.2	—	18.3	18.1	18.2	5.5	5.8	16.8
12/13/2013	4.9	6.3	19.4	19.6	20.1	19.3	17.6	11.5	18.5	17.8	16.6	17.6	17.3	17.3	3.9	1.2	16.1
7/13/2013	4.4	5.8	18.5	19.1	20.0	19.2	16.9	20.2	17.3	16.3	19.1	17.0	17.7	18.0	0.0	0.0	13.6
5/13/2013	4.5	8.4	18.8	19.0	20.1	18.7	18.2	15.7	19.6	20.0	18.7	18.2	17.9	20.8	6.2	7.2	15.4
2/13/2013	4.0	7.4	19.2	18.2	20.4	18.4	18.9	14.2	20.5	20.2	18.1	18.6	17.1	20.2	5.8	0.3	15.9
11/20/2012	4.8	4.5	18.0	19.5	20.2	19.7	18.9	14.0	18.9	18.9	16.8	17.9	18.9	18.1	5.2	7.2	13.8
8/20/2012	5.0	6.7	18.5	18.4	19.3	18.6	17.9	12.5	18.3	18.0	—	16.9	17.5	18.4	4.3	19.1	15.3
5/18/2012	4.2	5.8	17.7	18.7	19.8	19.3	18.1	—	19.2	19.3	—	18.0	19.1	19.8	5.5	13.0	15.0
3/12/2012	3.5	5.4	18.6	19.0	20.1	18.6	19.1	15.4	18.0	17.7	21.4	18.2	17.6	18.3	—	0.0	15.6

Notes:
OV-GP = Gas Probe
S = Shallow Monitoring Zone
M = Middle Monitoring Zone
D = Deep Monitoring Zone
Depressed O2<20.3% vol.
— Screened interval submerged

Table E-4. 2022 Landfill Gas Collection (at Flare Inlet)
2022 Annual Monitoring Report
Olympic View Sanitary Landfill, Kitsap County, Washington

Device Name	Date Time	CH4 (Methane %)	CO_2 (Carbon Dioxide %)	O2 (Oxygen %)	Balance Gas (%)	Temperature (^oF)	Flow (SCFM)
OV-FL-IN	1/3/2022 14:39	28.5	18.3	1.6	51.6	45.20	187.2
OV-FL-IN	1/10/2022 18:09	23.8	16.8	2.4	57.0	49.40	162.7
OV-FL-IN	1/17/2022 13:53	25.4	16.7	2.5	55.4	51.20	183.6
OV-FL-IN	1/24/2022 7:39	23.9	15.9	3.0	57.2	48.70	182.9
OV-FL-IN	1/28/2022 6:27	23.4	15.7	3.2	57.7	39.10	191.6
OV-FL-IN	1/31/2022 7:58	21.9	15.2	3.7	59.2	46.90	166.5
OV-FL-IN	2/3/2022 10:31	22.2	15.0	3.5	59.3	54.30	175.5
OV-FL-IN	2/7/2022 8:00	22.6	15.4	3.4	58.6	53.90	170.3
OV-FL-IN	2/14/2022 7:47	40.6	20.1	0.9	38.4	52.20	234.9
OV-FL-IN	2/28/2022 7:28	29.6	18.1	1.0	51.3	54.70	204.1
OV-FL-IN	3/2/2022 7:02	27.2	16.9	1.7	54.2	54.40	171.1
OV-FL-IN	3/7/2022 7:30	23.9	16.0	2.3	57.8	50.80	170.3
OV-FL-IN	3/14/2022 6:15	24.1	16.2	1.9	57.8	50.60	163.6
OV-FL-IN	3/21/2022 10:35	23.6	16.1	2.0	58.3	54.70	161.3
OV-FL-IN	3/28/2022 10:55	26.7	16.9	1.4	55.0	59.20	169.1
OV-FL-IN	4/4/2022 12:28	0.0	0.1	21.1	78.8	49.00	0.2
OV-FL-IN	4/18/2022 12:15	30.3	17.5	1.3	50.9	51.80	200.0
OV-FL-IN	4/26/2022 8:16	26.1	16.2	2.3	55.4	51.60	170.9
OV-FL-IN	5/2/2022 11:25	27.4	16.6	1.8	54.2	65.70	162.0
OV-FL-IN	5/9/2022 9:46	21.4	13.7	5.0	59.9	61.40	170.1
OV-FL-IN	5/23/2022 12:17	22.4	13.0	5.8	58.8	80.10	184.9
OV-FL-IN	5/31/2022 12:29	19.7	12.4	5.4	62.5	83.30	1.8
OV-FL-IN	6/6/2022 9:59	18.8	12.6	5.6	63.0	67.60	130.4
OV-FL-IN	6/13/2022 9:33	22.7	14.9	3.1	59.3	67.00	124.7
OV-FL-IN	6/20/2022 10:10	21.7	14.7	3.1	60.5	64.80	127.1
OV-FL-IN	6/20/2022 10:19	21.5	14.7	3.3	60.5	64.50	127.1
OV-FL-IN	6/27/2022 9:56	24.0	15.0	3.0	58.0	86.20	138.7
OV-FL-IN	7/5/2022 10:00	22.0	14.4	3.8	59.8	75.70	139.7
OV-FL-IN	7/11/2022 9:40	21.3	14.0	4.0	60.7	81.60	145.6
OV-FL-IN	7/18/2022 10:08	20.3	14.0	3.8	61.9	71.60	136.4
OV-FL-IN	8/1/2022 10:45	19.1	12.5	5.9	62.5	85.30	155.0
OV-FL-IN	8/8/2022 9:03	20.3	13.5	5.2	61.0	79.90	152.4
OV-FL-IN	8/15/2022 13:44	24.6	14.1	5.3	56.0	101.20	181.3
OV-FL-IN	9/6/2022 9:37	21.5	12.6	6.6	59.3	76.40	169.4
OV-FL-IN	9/12/2022 9:06	21.4	12.7	6.3	59.6	71.10	159.3
OV-FL-IN	9/19/2022 13:23	21.1	12.9	5.9	60.1	80.10	151.7
OV-FL-IN	9/26/2022 11:31	13.8	7.8	11.9	66.5	82.90	257.9
OV-FL-IN	10/3/2022 11:21	24.6	16.2	3.0	56.2	67.10	128.1
OV-FL-IN	10/10/2022 11:40	25.0	16.5	2.8	55.7	62.00	136.2
OV-FL-IN	10/18/2022 10:30	34.3	19.3	1.7	44.7	56.50	151.6
OV-FL-IN	10/24/2022 12:24	26.7	16.3	2.7	54.3	61.40	142.5
OV-FL-IN	10/31/2022 10:24	28.8	17.2	1.7	52.3	60.10	145.8
OV-FL-IN	11/7/2022 10:36	40.1	20.5	0.7	38.7	49.20	171.9
OV-FL-IN	11/14/2022 9:30	23.6	15.6	3.5	57.3	50.80	140.4
OV-FL-IN	11/21/2022 10:12	23.8	15.5	3.5	57.2	52.90	139.8
OV-FL-IN	11/28/2022 11:07	41.9	20.2	0.9	37.0	50.10	165.7
OV-FL-IN	12/5/2022 10:37	52.0	27.5	0.0	20.5	43.30	1884.7
OV-FL-IN	12/12/2022 11:13	25.6	15.8	2.9	55.7	51.10	107.9
OV-FL-IN	12/19/2022 10:27	23.9	15.3	3.4	57.4	41.10	119.0
Annualized Averege LFG Component (%, ^0F or scfm)		**24.88**	**15.41**	**3.69**	**56.02**	**61.42**	**190.10**
Estimated Volume of LFG Removed During 2021 (MMscf)							**99.92**

-- = measurement not taken

% = percent by volume

^0F = degrees Fahrenheit

scfm = standard cubic foot per minute

MMscf = million cubic feet

Figure E-1: LFG Probe Methane Timeseries

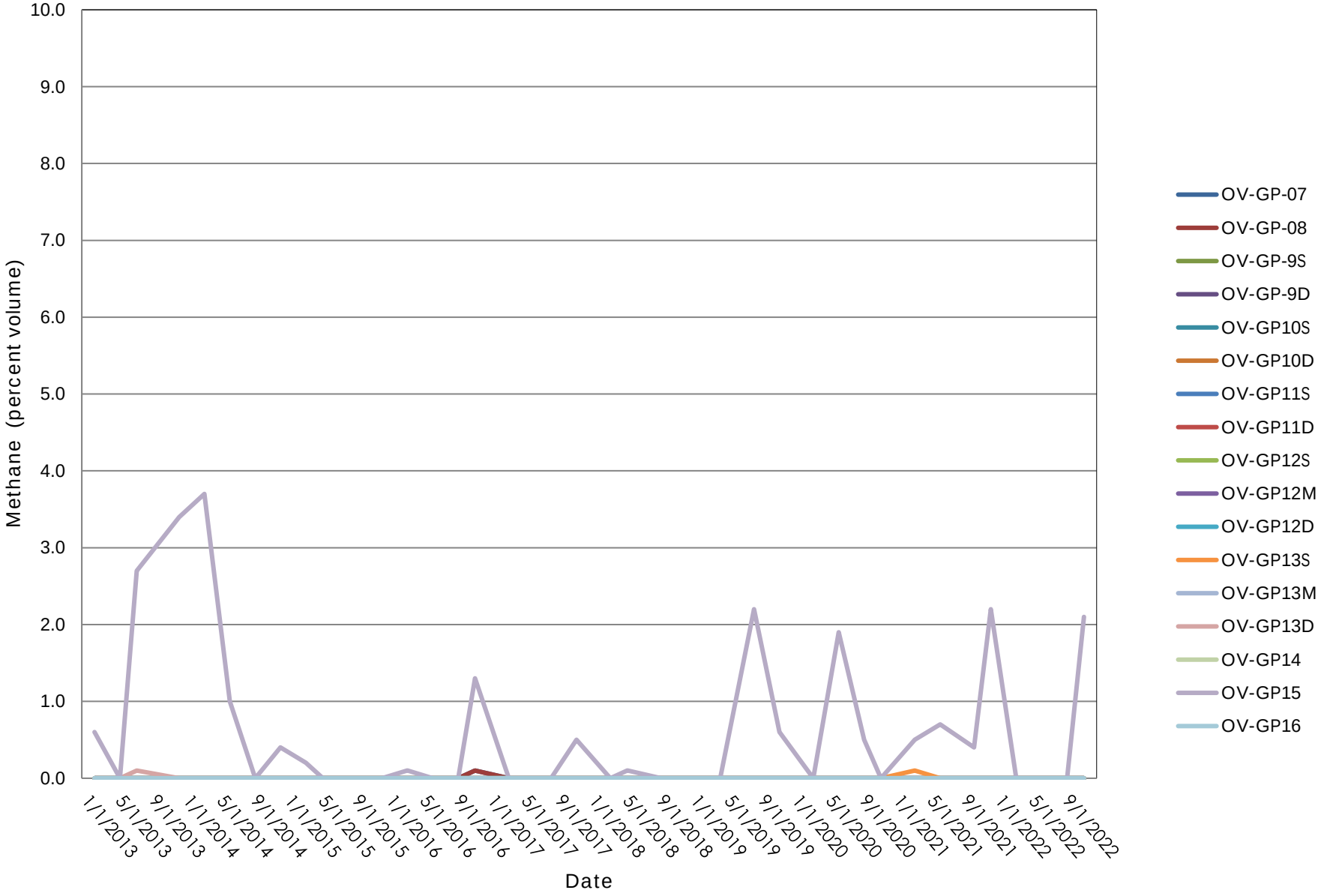


Figure E-2: LFG Probe Carbon Dioxide Timeseries

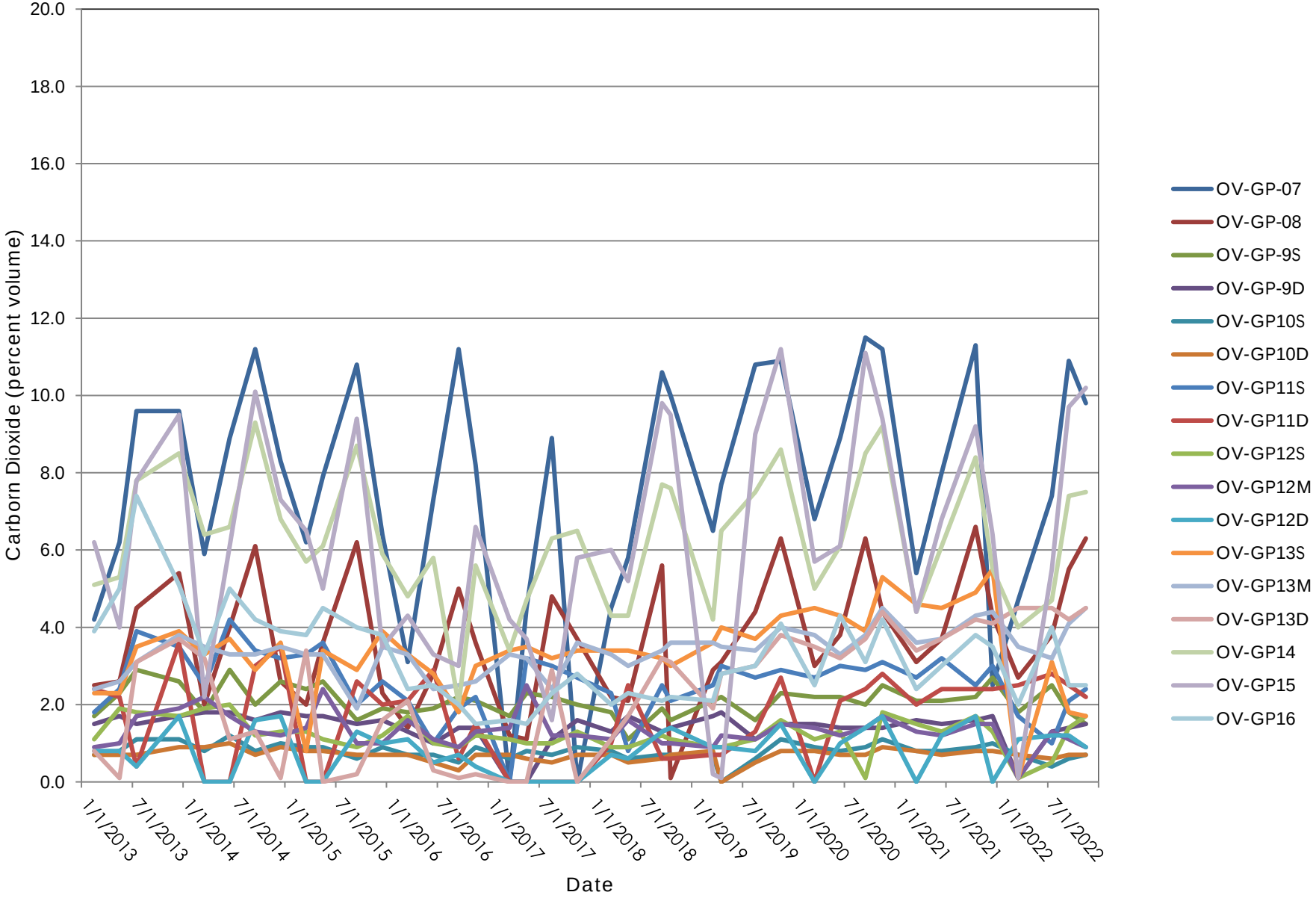


Figure E-3: LFG Probe Depressed Oxygen Timeseries