Aspect
A Geosyntec Company

May 31, 2024

Alexis McKinnon, Solid Waste Specialist
Kitsap County Public Works
Solid Waste Division
614 Division Street, MS-27
Port Orchard, WA 98366

**Re: First Quarter 2024 Environmental Monitoring Report - FINAL**
**Hansville Landfill, Kitsap County, Washington**
Project No. AS160423-005-05.1

Dear Alexis:

This quarterly report summarizes the results of environmental monitoring conducted at the Hansville Landfill (Site) during the first quarter of 2024, and was prepared by Aspect Consulting, (Aspect) on behalf of Kitsap County Public Works Solid Waste Division (County) and Waste Management of Washington (WMW). Ongoing environmental monitoring at the Site supports the selected remedy of natural attenuation of groundwater with enhanced monitoring and institutional controls that was established under Amended Consent Decree No. 95-2-03005-1 (August 5, 2011).

The datasets presented in this letter report were collected in accordance with the "Site Cleanup Action Plan" (CAP; Ecology, 2011) and the "Compliance Monitoring Plan with Sampling & Analysis Plan and Quality Assurance Plan" (SCS, 2011; herein referred as Compliance Monitoring Plan), except where otherwise noted. These documents were prepared and approved by the Washington State Department of Ecology (Ecology) as part of the Site-specific cleanup actions under the Model Toxics Control Act (MTCA) cleanup regulations.

Conditions monitored at the Site during the first quarter of 2024 were consistent with historical trends showing improvements in protection of human health and the environment, as reported in the last annual report (Aspect, 2024). This report is organized consistent with quarterly reporting topics listed in the Compliance Monitoring Plan (SCS, 2011) and includes the following:

- Site monitoring and maintenance activities, along with a discussion of any deviations from the CAP, or required tasks not otherwise documented in project plans
- Landfill gas monitoring results and gas collection system adjustments
- Determination of groundwater flow direction and gradient, including a groundwater surface elevation contour map
- Water quality sampling results, including tabulated field data and laboratory analyses

Also included are time-series plots and projected trends in groundwater concentrations for selected analytes at selected monitoring locations. Finally, this report discusses geochemical parameters as indicators of landfill effects on groundwater and surface water.

# Site Activities – First Quarter 2024

Site activities during the reporting period included environmental monitoring of landfill gas, groundwater, and surface water. Documentation of the quarterly activities is presented in the following attachments:

- **Attachment A** presents landfill gas monitoring data.
- **Attachment B** presents groundwater elevations, a groundwater contour map, and groundwater and surface water quality analytical results.
- **Attachment C** presents summary statistics, time-series graphs, and graphs of projected groundwater concentrations for arsenic and vinyl chloride at selected monitoring wells.
- **Attachment D** presents supporting field records, laboratory data reports, and chain-of-custody documentation.

A chronology of on-Site monitoring activities performed during the first quarter 2024 is provided below:

- On January 17, 2024, Aspect completed groundwater and surface water monitoring.
- On January 17, 2024, Aspect completed the monthly performance monitoring of the blower system and condensate management system. Aspect also notified the County that the condensate tank held approximately 1,800 gallons and requested condensate disposal.
- On January 23, 2024, the County emptied the condensate tank and sump.
- On January 24, 2024, Aspect checked the western condensate sump level and found the sump had been completely emptied. To restore the landfill gas collection system performance, Aspect added approximately 100 gallons of clean water to the sump to cover the bottom of the system vacuum pipe.
- On February 13, 2024, Aspect conducted monthly performance monitoring of the landfill gas blower system and condensate management system.
- On March 20, 2024, Aspect conducted vegetation management around compliance monitoring probes in preparation for the first quarter landfill gas compliance monitoring event.
- On March 28, 2024, Aspect conducted landfill gas compliance monitoring which included measuring landfill gas concentrations at compliance monitoring probes, across the extraction wellfield, and at the blower.

## *Deviations from the Compliance Monitoring Plan*

There were no deviations from the Compliance Monitoring Plan (SCS, 2011) during the first quarter 2024 environmental monitoring.

# Summary of Landfill Gas Conditions

The following sections provide a discussion of landfill gas monitoring and gas extraction system performance. The layout of the landfill gas extraction system is shown on Figure A-1.

## *Landfill Gas Monitoring*

Aspect monitored landfill gas concentrations at the blower on January 17, February 13, and March 28, 2024. Aspect monitored landfill gas concentrations at the compliance monitoring probes and the extraction wellfield on March 28, 2024.

Landfill gas conditions were measured with a calibrated GEM 5000 multi-gas meter. Landfill gas monitoring parameters collected for the compliance monitoring event are summarized in Table A-1 and listed below:

- Landfill gas composition measurements included methane ($CH_4$), carbon dioxide ($CO_2$), oxygen ($O_2$), and balance gas (Balance) concentrations.
- Pressure measurements included the system pressure representing the vacuum available at the wellhead, and the static pressure representing the equilibrium downhole pressure.
- Temperature measurements are made at the wellhead except near the blower.
- Collection system flow-rate measurements were obtained at selected locations via orifice plates. The differential pressure and gas temperature were measured to calculate flow. Table A-1 presents flow rates measured after valve adjustments.

## *Landfill Gas System Performance*

During the compliance monitoring event on March 28, 2024, conditions observed at the blower remained within the normal range. Methane and carbon dioxide concentrations at the blower inlet were approximately 3.1 percent by volume and 15 percent by volume, respectively. The oxygen concentration was approximately 3 percent by volume. Flow rates were approximately 116 standard cubic feet per minute (scfm) during the first quarter. Both blowers for the landfill gas collection system have been in operation since January 2023, resulting in greater landfill gas collection rates. Wellfield optimization will continue to focus on maximizing methane and carbon dioxide collection rates.

At the beginning of the first quarter of 2024, the 2,000-gallon condensate storage tank contained approximately 1,800 gallons. The County used a vacuum truck to remove and dispose of collected condensate in both the condensate storage tank and the western sump on January 23, 2024.

### Biofilter Bed Treatment Performance

The biofilter bed (biobed) was installed in early March 8, 2023, to replace the existing flare system. Based on surface methane concentrations measurements made during 2023, the biobed appears to be effectively reducing greenhouse gas emissions and controlling odor.

Surface methane concentrations were generally less than the design criterion of 1.25 percent methane (25 percent of the lower explosive limit), with the following exceptions. Methane was detected at concentrations of up to 3.1 percent by volume at four small depressions measuring less

than 3 by 3 inches wide and less than 3 inches deep. These conditions were observed when the sample tubing was held 1 inch above the depressions for 20 to 30 seconds. Biobed surface methane concentrations approaching the blower inlet concentrations may indicate preferential discharge pathways that could be addressed by roto-tilling the biofilter media or adding additional biofilter media.

## *Explosive Gas Control*

Methane was not detected in any of the compliance gas probes during the compliance monitoring event on March 28, 2024. Locations of on-property compliance probes GP-1, GP-2S, GP-2M, GP-2D, GP-3, GP-4, GP-5, and GP-6 are shown on Figure A-1, and the location of off-property compliance probe GP-7 is shown on Figure B-1. Carbon dioxide concentrations ranged from 0.1 to 4.3 percent by volume, reflecting natural conditions. Aspect observed an animal bore hole under monitoring probe GP-6.

# Summary of Groundwater and Surface Water Conditions

This section addresses groundwater and surface water conditions based on the monitoring event on January 17, 2024. Samples were collected from six groundwater monitoring wells and from four surface water monitoring locations (Figure B-1) for laboratory analysis.

## *Groundwater Flow*

Groundwater flow conditions during the first quarter of 2024 were consistent with those observed during previous monitoring events. Groundwater surface elevations were calculated using water levels measured on January 17, 2024 (Table B-1). Groundwater elevations ranged from 238.2 feet North American Vertical Datum of 1988 (NAVD88) in MW-12I to 266.4 feet NAVD88 in the upgradient, background monitoring well MW-5. The direction of groundwater flow at the Site was west across the landfill then shifted southwest, consistent with historical observations. Groundwater gradients ranged from 0.0074 feet over feet (feet/feet) in the upgradient areas, to 0.014 feet/feet farther downgradient, with the gradient steepening near the groundwater discharge area (Figure B-1).

## *Groundwater and Surface Water Quality*

Groundwater quality results from the first quarter of 2024 were consistent with historical ranges and trends. Groundwater quality results presented in Table B-2 include field parameters, conventional parameters, dissolved metals, and volatile organic compounds. During the reporting period, dissolved arsenic concentrations in groundwater were below the Site-specific cleanup level of 0.005 milligrams per liter (mg/L) at all monitoring wells except MW-13 (0.00505 mg/L) and MW-14 (0.0127 mg/L). Dissolved manganese concentrations were below the Site-specific cleanup level of 2.24 mg/L and below the MTCA Method B non-cancer formula value[1] of 0.75 mg/L at all wells except MW-14 (1.2 mg/L). Vinyl chloride concentrations in groundwater were below the

[1] As noted in the Agency Review Draft Remedial Action Status Report (Aspect, 2022), the MTCA Method B non-cancer formula value for manganese in groundwater was revised downwards to a concentration below the Site-specific cleanup level. This new state regulation does not affect the Site-specific restoration time frames. This new value will be included in reporting going forward to provide context. The Hansville Site Cleanup Levels were established by the 2011 CAP and Compliance Monitoring Plan and remain the basis for measuring remedial action performance.

Site-specific groundwater cleanup level of 0.025 micrograms per liter (µg/L) at all monitoring wells except MW-6 (0.053 µg/L) and MW-12I (0.062 µg/L). Consistent with previous years, cis-1,2-dichloroethene (cDCE) was detected in MW-14 at a low concentration (1.6 µg/L) that has been decreasing over time.

Surface water quality results from the first quarter 2024 are presented in Table B-3 and include field parameters, conventional parameters, dissolved metals, and volatile organic compounds. During the reporting period, surface water concentrations of dissolved arsenic, dissolved manganese, and vinyl chloride were below the respective Site-specific cleanup levels.

## *Time-Series Plots and Projected Trends*

Groundwater sampling results since 2007 are shown on time-series plots for dissolved arsenic (Figure C-1) and vinyl chloride (Figure C-2) at all compliance monitoring locations. Figure C-1 shows that dissolved arsenic concentrations in groundwater have consistently been less than the cleanup level of 0.005 mg/L at MW-5 (background well), MW-6, MW-7, and MW-12I. Dissolved arsenic concentrations at MW-13D were historically below the cleanup level until 2019. Dissolved arsenic concentrations at MW-14 have historically exceeded the Site-specific cleanup level and have been decreasing over time, although at a slower rate since 2020.

Figure C-2 shows vinyl chloride concentrations in groundwater have been less than the Site-specific cleanup level of 0.025 µg/L at MW-5 (background well), MW-7, and MW-13D. The concentrations of vinyl chloride at MW-6, MW-12I, and MW-14 have historically exceeded the Site-specific cleanup level and have been decreasing over time. In the first quarter 2024, the concentration of vinyl chloride at MW-12I was 0.062 µg/L, above the Site-specific cleanup level. Concentrations are expected to fluctuate but continue to decrease as indicated by the trends (discussed below). The vinyl chloride concentration at MW-14 during the first quarter of 2024 remain consistent with the historical decreasing trend.

Figure C-3 shows time-series plots of historical and 10-year projected groundwater concentrations for MW-6 (vinyl chloride), MW-12I (vinyl chloride), MW-14 (vinyl chloride and arsenic), and MW-13D (arsenic). The projected restoration time frames for vinyl chloride concentrations range from approximately 0 to 7 years. Concentrations of dissolved arsenic at MW-13D peaked slightly above the cleanup level in 2020 and now appear to be decreasing slowly over time. For context, a linear trendline is used to project dissolved arsenic concentrations at MW-13D, which remain below the Puget Sound regional background of 8 µg/L (Ecology, 2016; Ecology, 2022) for more than 10 years. The projected restoration time frame for arsenic in groundwater at MW-14 is more than 10 years. In January 2023, the landfill gas collection system flow rate was increased by operating both blowers with the intention of achieving groundwater cleanup levels within a shorter time frame than shown on Figure C-3.

## *Statistical Evaluation of Groundwater Trends*

Statistically significant decreasing trends in dissolved arsenic and/or vinyl chloride concentrations were identified at monitoring wells MW-6, MW-12I, and MW-14. We attribute the decreasing trends to the cleanup actions at the Site, and project concentrations will continue to decrease to Site-specific cleanup levels as described above and shown in Figure C-3.

A statistically significant increasing trend in dissolved arsenic concentrations was identified at monitoring well MW-13D. Dissolved arsenic concentrations were slightly below the Site-specific cleanup levels during this monitoring period and remain below the regional natural background value provided by Ecology (Ecology, 2016; Ecology, 2022) as shown on Figure C-3. Statistical trend analysis for dissolved arsenic concentrations in MW-13D has been conducted since the "2019 Annual Environmental Monitoring Report" (Aspect, 2020). As previously noted in the 2019 Report, based on the data available, it is likely that arsenic concentrations since 2007 reflect natural variations or off-Site influences, as opposed to effects from the Hansville Landfill Site. Dissolved arsenic concentrations in MW-13D and other locations continue to be closely monitored and evaluated.

Table C-1 provides results of statistical analysis for arsenic and vinyl chloride for monitoring wells MW-6, MW-12I, MW-13D, and MW-14. The trends are defined as "statistically significant" because the magnitude of the Mann-Kendall Test Value (Z) was greater than the Critical Value (which is based on the number of data points and alpha). A negative Sen's slope indicates a decreasing trend in concentrations while a positive Sen's slope indicates an increasing trend.[2] These statistics confirm what is visually apparent on Figure C-3 showing historical groundwater concentrations.

The statistical analysis of groundwater data was performed in accordance with the Compliance Monitoring Plan (SCS, 2011) for historical data collected since January 23, 2007. The program Sanitas (ver. 10) was used to evaluate the Mann-Kendall Test and Sen's slope. Mann-Kendall testing was performed to assess whether there were statistically significant trends in groundwater concentrations using the two-tailed test (alpha = 0.05). Mann-Kendall results are reported as an approximated normal distribution Test Value "Z" (where the number of data points was greater than 40). Sen's slope analysis was performed to identify the trend direction for statistically significant trends and reflects the median of the slopes of all pairs of historical data.

## *Geochemical Parameters*

Geochemical parameters in groundwater and surface water serve as indicators of landfill effects and can distinguish leachate impacts from gas-to-groundwater impacts. As shown in Tables B-2 and B-3, geochemical parameters collected at the Site include field parameters (dissolved oxygen, pH, Redox [reduction-oxidation potential], specific conductivity, and temperature), alkalinity/carbonate/bicarbonate, chloride, nitrate/nitrite/ammonia, sulfate, and total organic carbon.

Based on low concentrations of geochemical parameters identified as leachate indicators (such as chloride, sulfate, alkalinity, and bicarbonate) across the Site, there appears to be little if any leachate effect on groundwater and surface water quality. However, the downgradient monitoring wells show lower dissolved oxygen concentrations than the upgradient well (MW-5), which is likely caused by landfill gas coming in contact with groundwater directly beneath the landfill. Increasing the rate of landfill gas collection may prevent geochemically mediated effects on groundwater.

[2] Sen's slope values reflect the median of the slopes of historical data pairs, and were provided in units of µg/L per day in reports by SCS through 2016. Starting in 2017, Sen's slope values will be provided in units of µg/L per year to support interpretation. For comparison, Table C-1 provides Sen's slope values for both units.

# References

Aspect Consulting, LLC (Aspect), 2020, 2019 Annual Environmental Monitoring Report, Hansville Landfill, Kitsap County, Washington, February 28, 2020.

Aspect Consulting, LLC (Aspect), 2022, Agency Review Draft Remedial Action Status Report, Hansville Landfill Site, Kitsap County, Washington, June 28, 2022.

Aspect Consulting, (Aspect), 2024, Annual Environmental Monitoring Report, Hansville Landfill, Kitsap County, Washington, February 29, 2024.

SCS Engineers (SCS), 2011, Compliance Monitoring Plan with Sampling & Analysis Plan and Quality Assurance Plan – Remedial Action at the Hansville Landfill, September 15, 2011.

Washington State Department of Ecology (Ecology), 2011, Cleanup Action Plan Hansville Landfill, Kitsap County, Washington, Ecology Facility Site Identification Number: 2605, June 2011.

Washington State Department of Ecology (Ecology), 2016, Natural Background Groundwater Arsenic Concentrations in Washington State, Ecology Publication No. 14-09-044, March 2016.

Washington State Department of Ecology (Ecology), 2022, Natural Background Groundwater Arsenic Concentrations in Washington State, Ecology Publication No. 14-09-044, Draft for Public Comment published July 2021; Revised January 2022.

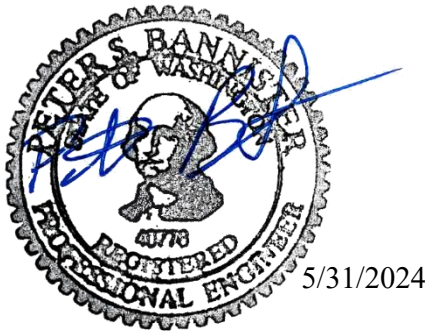
# Limitations

Work for this project was performed for Kitsap County Public Works (Client), and this letter was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This letter does not represent a legal opinion. No other warranty, expressed or implied, is made.

All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

Sincerely,

Aspect consulting, LLC




5/31/2024

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Attachments:
Attachment A – Landfill Gas Data
Attachment B – Water Quality Results
Attachment C – Groundwater Statistics and Time-Series Plots
Attachment D – Field Forms and Laboratory Reports

cc: Steve Brown, Kitsap County Public Health Department
Jakob Hughes, Kitsap County Public Health Department
Cris Matthews, Washington State Department of Ecology
Joshua Carter, Julie Raymond, and Roma Call, Port Gamble S'Klallam Tribe, Kitsap Public Health District

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# ATTACHMENT A

# Landfill Gas Data

## Table A-1. Landfill Gas Data, First Quarter, 2024

Project No. 160423, Hansville Landfill, Hansville, Washington

| Location | Map ID | Date/Time | Methane $CH_4$ (% by vol) | Carbon Dioxide $CO_2$ (% by vol) | Oxygen $O_2$ (% by vol) | Balance Bal (% by vol) | System Pressure ("$H_2O$) | Static Pressure ("$H_2O$) | Wellhead Temperature (°F) | Flow Rate (SCFM) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Blower Inlet** | | 3/28/24 8:30 | 3.1 | 15 | 3 | 78.9 | -7.38 | -6.37 | 49.3 | 116 |
| **Blower Outlet** | | 3/28/24 8:35 | 2.8 | 14.7 | 3 | 79.5 | 0.12 | N/A | 76.7 | N/A |
| **Extraction Well 001** | R-1 | 3/28/24 13:08 | 3 | 15.7 | 0.1 | 81.2 | -1.66 | -0.72 | 55.3 | 0.6 |
| **Extraction Well 002** | R-2 | 3/28/24 13:19 | 1.3 | 13.5 | 5.9 | 79.3 | -1.71 | N/A | 73.7 | N/A |
| **Extraction Well 003** | R-3 | 3/28/24 13:54 | 5.2 | 16.8 | 0 | 78 | -4.97 | -1.89 | 47.9 | 4 |
| **Extraction Well 004** | R-4 | 3/28/24 14:25 | 2.8 | 17.3 | 1.3 | 78.6 | -6.2 | -2.06 | 65.3 | 3.5 |
| **Extraction Well 005** | R-5 | 3/28/24 14:52 | 2.6 | 18.6 | 0.6 | 78.2 | -4.56 | -1.33 | 72.3 | 3.3 |
| **Extraction Well 006** | R-6 | 3/28/24 15:05 | 2.4 | 10 | 10.7 | 76.9 | -6.26 | -2.16 | 85.4 | 3.5 |
| **Extraction Well 007** | R-7 | 3/28/24 15:10 | 0 | 15.3 | 3.2 | 81.5 | -4.56 | -1.41 | 64.4 | 3.5 |
| **Extraction Well 008** | R-8 | 3/28/24 12:42 | 3.5 | 18.4 | 0 | 78.1 | -3.06 | -1.24 | 58.4 | 2.7 |
| **Extraction Well 009** | R-9 | 3/28/24 12:53 | 1.2 | 13 | 5.6 | 80.2 | -2.78 | N/A | 104.2 | N/A |
| **Extraction Well 010** | R-10 | 3/28/24 13:01 | 4.5 | 10.8 | 5.6 | 79.1 | -1.77 | -1.17 | 60.7 | 1.6 |
| **Extraction Well 011** | R-11 | 3/28/24 13:32 | 2.4 | 13.7 | 0 | 83.9 | -1.8 | -1.13 | 54.7 | 1.8 |
| **Extraction Well 012** | R-12 | 3/28/24 14:00 | 5.6 | 8.6 | 0 | 85.8 | -2.78 | -1.55 | 45.1 | 1.3 |
| **Extraction Well 013** | R-13 | 3/28/24 15:14 | 2.3 | 14.8 | 2.5 | 80.4 | -4.97 | N/A | 69.2 | N/A |
| **Trench Collector TD-1** | TD-1 | 3/28/24 12:33 | 1.2 | 19.5 | 0.1 | 79.2 | -0.08 | 0 | 53.8 | 0 |
| **Trench Collector TR-1** | TR-1 | 3/28/24 14:58 | 0.2 | 10.7 | 9.1 | 80 | -4.71 | -1.25 | 68.6 | 3.3 |
| **Trench Collector TR-2** | TR-2 | 3/28/24 12:48 | 4.2 | 16.7 | 0.8 | 78.3 | -1.7 | N/A | 54.4 | N/A |
| **Trench Collector TR-3** | TR-3 | 3/28/24 13:13 | 3.3 | 16.2 | 1.4 | 79.1 | -1.53 | N/A | 57.7 | N/A |
| **Trench Collector TR-4** | TR-4 | 3/28/24 14:34 | 0.9 | 18.1 | 0.4 | 80.6 | -5.09 | -1.27 | 57.2 | 3.3 |
| **Trench Collector TR-5** | TR-5 | 3/28/24 14:11 | 3.6 | 15.5 | 2.8 | 78.1 | -1.42 | N/A | 48.5 | N/A |
| **Trench Collector TR-6** | TR-6 | 3/28/24 14:04 | 5.3 | 15.2 | 1.8 | 77.7 | -1.61 | N/A | 49.7 | N/A |
| **Trench Collector TR-7** | TR-7 | 3/28/24 14:17 | 7.1 | 14.4 | 1.2 | 77.3 | -4.33 | -1.46 | 46.8 | 3.5 |
| **Gas Probe 1** | GP-1 | 3/23/23 8:46 | 0 | 1.5 | 19.4 | 79.1 | 0.01 | N/A | N/A | N/A |
| **Gas Probe 2 Shallow** | GP-2S | 3/23/23 9:12 | 0 | 0.6 | 20.7 | 79.1 | -0.01 | N/A | N/A | N/A |
| **Gas Probe 2 Middle** | GP-2M | 3/23/23 9:25 | 0 | 1.3 | 19.3 | 78.7 | 0.11 | N/A | N/A | N/A |
| **Gas Probe 2 Deep** | GP-2D | 3/23/23 9:38 | 0 | 1.6 | 18.3 | 79.4 | 0.19 | N/A | N/A | N/A |
| **Gas Probe 3** | GP-3 | 3/23/23 10:06 | 0 | 1.4 | 20.4 | 80.1 | 0.02 | N/A | N/A | N/A |
| **Gas Probe 4** | GP-4 | 3/23/23 10:32 | 0 | 1.6 | 20.3 | 78.2 | 0.02 | N/A | N/A | N/A |
| **Gas Probe 5** | GP-5 | 3/23/23 11:10 | 0 | 0.1 | 21.3 | 78.1 | 0 | N/A | N/A | N/A |
| **Gas Probe 6** | GP-6 | 3/23/23 11:24 | 0 | 4.4 | 15.2 | 78.6 | -0.03 | N/A | N/A | N/A |
| **Gas Probe 7** | GP-7 | 3/23/23 10:49 | 0 | 3 | 18.9 | 80.4 | -0.01 | N/A | N/A | N/A |

**Notes**

System pressure represents the vacuum available at the wellhead. Static pressure represents the equilibrium downhole pressure.

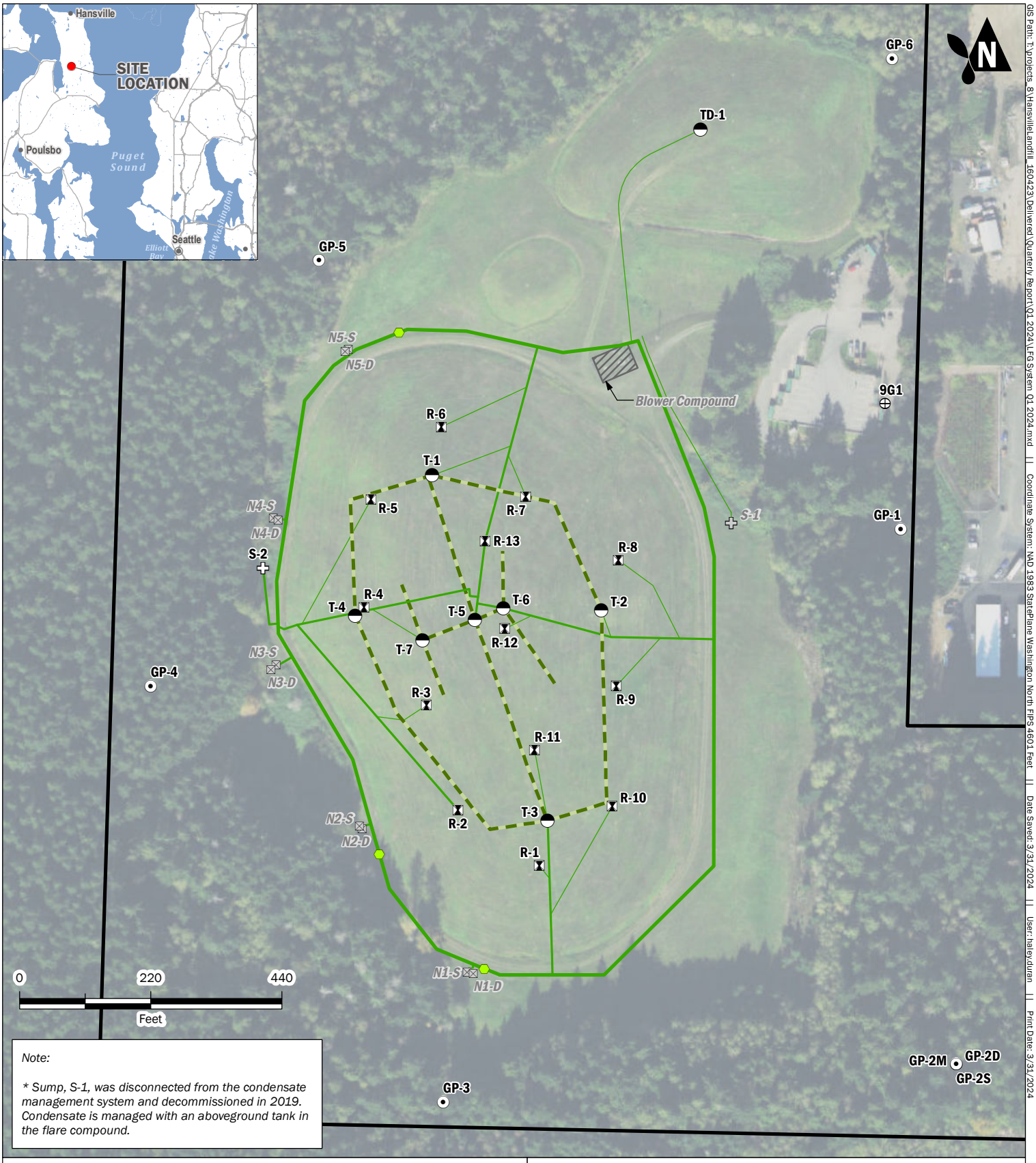
Flow rates measured using orifice plates (where installed).

N/A = indicates parameter not measured.

°F = degrees Fahrenheit

"$H_2O$ = inches water column

SCFM = standard cubici feet per minute




*Note:*

** Sump, S-1, was disconnected from the condensate management system and decommissioned in 2019. Condensate is managed with an aboveground tank in the flare compound.*

**Exploration**

- Gas Detection Probe
- Gas Extraction Well (in Refuse Completion)
- Gas Extraction Well (Native Soil Completion) *Disconnected in October, 2019*
- Trench Completion
- Well Geologic Control
- Condensate Sump
- Condensate Sump* *Decomissioned in 2019*

**Landfill Gas System**

- LFG Pipe - 2"
- LFG Pipe - 4"
- LFG Pipe - 6"
- Trench
- LFG Valve
- Landfill Boundary

# Landfill Gas System

2024 First Quarter Environmental Monitoring Report
Hansville Landfill
Kitsap County, Washington

| Aspect Consulting | MAR-2024 | BY: MLK / RAP | FIGURE NO. A-1 |
|---|---|---|---|
| | PROJECT NO. 160423 | REVISED BY: TDR / HMD | |

*Basemap Layer Credits || Copyright (C) 2020 - Kitsap County, HxGN Content Program*

GIS Path: T:\projects_8\Hansville Landfill_160423\Delivered\Quarterly Report\Q1 2024\LFG System Q1 2024.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 3/31/2024 || User: haley.duran || Print Date: 3/31/2024

# ATTACHMENT B

# Water Quality Results

# Table B-1. Water Level Elevations

DRAFT

Project No. 160423, Hansville Landfill, Hansville, WA

| Well | Ground Elevation (ft NAVD88) | Top of Casing Elevation (ft NAVD88) | Screen Elevation (ft NAVD88) | | Depth to Water (ft) | Water Level Elevation (ft NAVD88) |
|---|---|---|---|---|---|---|
| | | | Top | Bottom | | |
| **MW-5** | 363.7 | 366.9 | 244 | 234 | 100.41 | 266.5 |
| **MW-6** | 332.0 | 332.7 | 260 | 245 | 74.52 | 258.2 |
| **MW-7** | 344.3 | 346.0 | 259 | 244 | 85.28 | 260.7 |
| **MW-12I** | 245.6 | 248.1 | 217 | 207 | 9.95 | 238.2 |
| **MW-13D** | 258.1 | 260.4 | 205 | 195 | 11.30 | 249.1 |
| **MW-14** | 338.6 | 341.1 | 262 | 247 | 82.18 | 258.9 |

**Notes:**

Depths to water collected January 17, 2024.

Elevations relative to North American Vertical Datum of 1988 (NAVD88).

ft = feet

# Table B-2. Groundwater Quality Results

Project No. 160423, Hansville, Washington

| | | | Location | MW-5 | MW-6 | MW-7 | MW-12I | MW-13D | MW-14 |
|---|---|---|---|---|---|---|---|---|---|
| | | | Date | 01/17/2024 | 01/17/2024 | 01/17/2024 | 01/17/2024 | 01/17/2024 | 01/17/2024 |
| | | | Sample | MW-5-240117 | MW-6-240117 | MW-7-240117 | MW-12I-240117 | MW-13D-240117 | MW-14-240117 |
| Analyte | Unit | Hansville SCL | | | | | | | |
| **Conventionals** | | | | | | | | | |
| Alkalinity as Bicarbonate | mg/L | | | **77** | **100** | **130** | **120** | **72** | **89** |
| Alkalinity as Carbonate | mg/L | | | < 10 U | < 10 U | < 10 U | < 10 U | < 10 U | < 10 U |
| Alkalinity, Total | mg/L | | | **77** | **100** | **130** | **120** | **72** | **89** |
| Ammonia as Nitrogen | mg/L | | | < 0.03 U | < 0.03 U | **0.03** | < 0.03 U | **0.035** | **0.049** |
| Chloride | mg/L | | | < 3 U | **3.5** | < 3 U | **11** | **4.4** | **3.9** |
| Nitrate as Nitrogen | mg/L | | | **3.39** | **0.43** | **0.576** | < 0.1 U | < 0.1 U | **0.159** |
| Nitrite as Nitrogen | mg/L | | | < 0.1 U | < 0.1 U | < 0.1 U | < 0.1 U | < 0.1 U | < 0.1 U |
| Orthophosphate | mg/L | | | **0.037** | **0.033** | **0.06** | **0.045** | **0.085** | **0.136 J** |
| Sulfate | mg/L | | | **7.5** | **16** | **5.2** | **11** | **15** | **9** |
| Total Organic Carbon | mg/L | | | < 1 U | < 1 U | **1.6** | **2.2** | < 1 U | **1.6** |
| **Field Parameters** | | | | | | | | | |
| Temperature | deg C | | | **9** | **11.34** | **7.59** | **9.45** | **9.75** | **10** |
| Specific Conductance | uS/cm | | | **122.51** | **155.79** | **174.14** | **190.66** | **118.63** | **172.8** |
| Dissolved Oxygen | mg/L | | | **9.8** | **0.28** | **1.44** | **0.15** | **0.14** | **0.34** |
| pH | pH units | | | **7.14** | **7.21** | **6.43** | **7.12** | **7.66** | **7.21** |
| Oxidation Reduction Potential | mV | | | **120.5** | **73.2** | **134** | **97.3** | **68.6** | **96.1** |
| Turbidity | NTU | | | **5.54** | **2.93** | **20.5** | **2.57** | **18** | **23.1** |
| **Metals, dissolved** | | | | | | | | | |
| Arsenic | ug/L | 5 | | **1.75** | **1.92** | **1.49** | **2.24** | **5.05** | **12.7** |
| Manganese | ug/L | 2240 | | < 1 U | **200** | **2.2** | **68** | **11** | **1200** |
| **VOCs** | | | | | | | | | |
| Vinyl Chloride | ug/L | 0.025 | | < 0.02 U | **0.053** | < 0.02 U | **0.062** | < 0.02 U | **0.022** |

**Notes**

**Bold** - detected

Blue Shaded - Detected result exceeded screening level

U - Analyte not detected at or above Reporting Limit (RL) shown

J - Result value estimated

mV = millivolts

µS/cm = microSiemens per centimeter

deg C = degrees Celsius

NTU = Nephelometric Turbidity Units

mg/L = milligram per liter

ug/L = microgram per liter

# Table B-3. Surface Water Quality Results

Project No. 160423, Hansville, Washington

| | | | Location | SW-1 | SW-4 | SW-6 | SW-7 |
|---|---|---|---|---|---|---|---|
| | | | Date | 01/17/2024 | 01/17/2024 | 01/17/2024 | 01/17/2024 |
| | | | Sample | SW-1-240117 | SW-4-240117 | SW-6-240117 | SW-7-240117 |
| Analyte | Unit | Hansville SCL | | | | | |
| **Conventionals** | | | | | | | |
| Alkalinity as Bicarbonate | mg/L | | | **73** | **130** | **44** | **60** |
| Alkalinity as Carbonate | mg/L | | | < 10 U | < 10 U | < 10 U | < 10 U |
| Alkalinity, Total | mg/L | | | **73** | **130** | **44** | **60** |
| Ammonia as Nitrogen | mg/L | | | < 0.03 U | < 0.03 U | **0.068** | **0.055** |
| Chloride | mg/L | | | **4.3** | **8.5** | **3.7** | **3.6** |
| Nitrate as Nitrogen | mg/L | | | **2.76** | **0.755** | **0.128** | **1.04** |
| Nitrite as Nitrogen | mg/L | | | < 0.1 U | < 0.1 U | < 0.1 U | < 0.1 U |
| Orthophosphate | mg/L | | | **0.036** | **0.022** | **0.026** | **0.068** |
| Sulfate | mg/L | | | **10** | **18** | **6** | **8.8** |
| Total Organic Carbon | mg/L | | | **2** | **11** | **23** | **10** |
| **Field Parameters** | | | | | | | |
| Temperature | deg C | | | **7.1** | **4.4** | **2** | **3.7** |
| Specific Conductance | uS/cm | | | **478.8** | **237.2** | **98.4** | **130.2** |
| Dissolved Oxygen | mg/L | | | **8.04** | **11.02** | **11.97** | **10.53** |
| pH | pH units | | | **6.65** | **7.02** | **7.5** | **7.61** |
| Oxidation Reduction Potential | mV | | | **106.2** | **104.6** | **77.6** | **73.8** |
| Turbidity | NTU | | | **1.13** | **3.89** | **14.5** | **4.02** |
| **Metals, dissolved** | | | | | | | |
| Arsenic | ug/L | 5 | | **1.45** | **1.49** | **1.98** | **1.21** |
| Manganese | ug/L | 2240 | | < 1 U | **40** | **24** | **4.5** |
| **VOCs** | | | | | | | |
| Vinyl Chloride | ug/L | 0.025 | | < 0.02 U | < 0.02 U | < 0.02 U | < 0.02 U |

**Notes**

**Bold** - detected

Blue Shaded - Detected result exceeded screening level

U - Analyte not detected at or above Reporting Limit (RL) shown

mV = millivolts

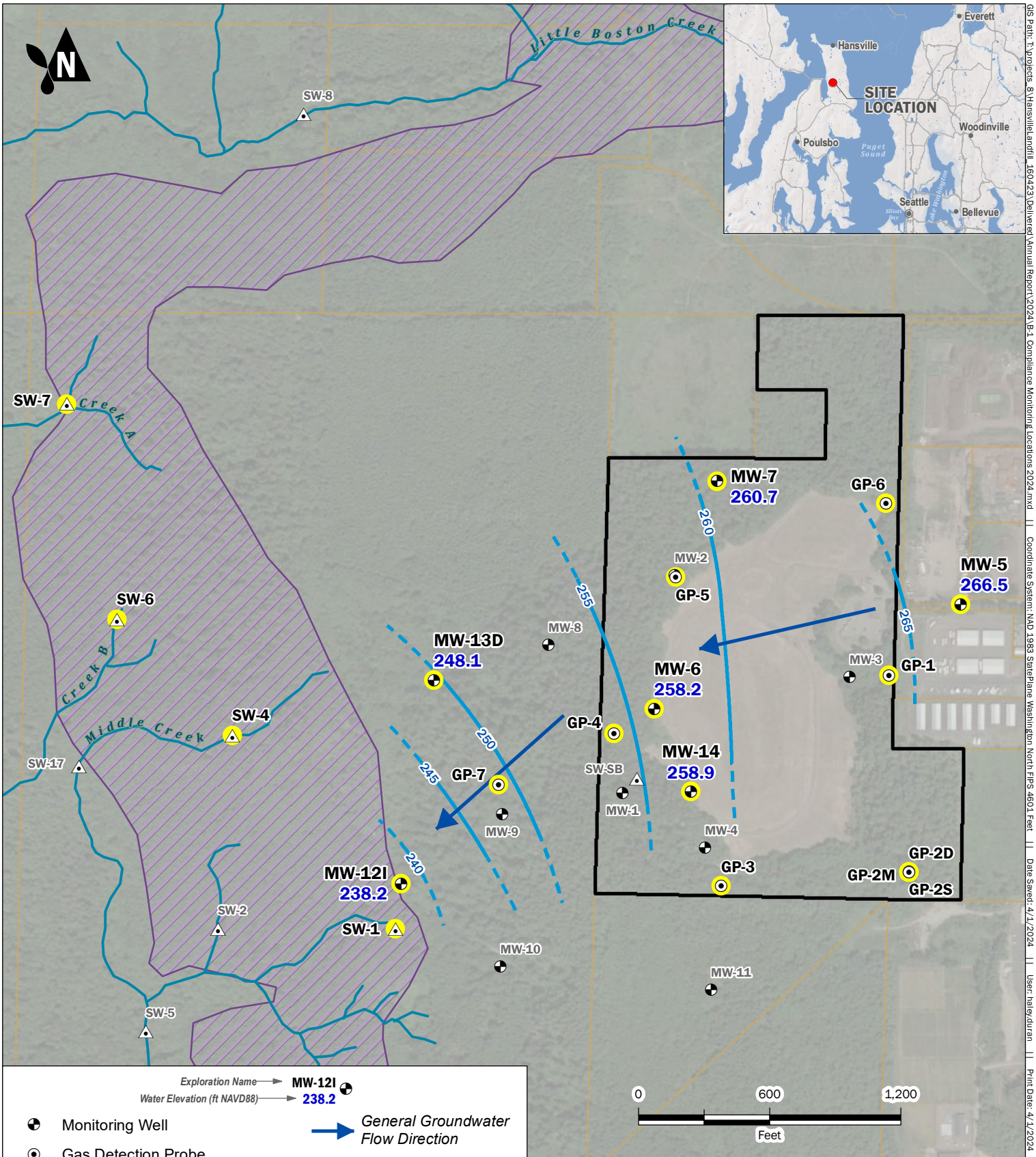
µS/cm = microSiemens per centimeter

deg C = degrees Celsius

NTU = Nephelometric Turbidity Units

mg/L = milligram per liter

ug/L = microgram per liter




Exploration Name → MW-12I
Water Elevation (ft NAVD88) → 238.2

- Monitoring Well
- Gas Detection Probe
- Surface Water Station
- Compliance Monitoring Location
- Water Elevation Contour (ft NAVD88, dashed where inferred) *Measured January 17, 2024*
- *General Groundwater Flow Direction*
- Approximate Area of Groundwater Discharge from Upper Aquifer
- Stream
- Landfill Boundary
- Tax Parcel

*Note: Vertical datum is NAVD88. Approximate area of groundwater discharge from upper aquifer delineation from Remedial Investigation Report (Parametrix, 2006).*

# Compliance Monitoring Locations

2024 First Quarter Environmental Monitoring Report
Hansville Landfill
Kitsap County, Washington

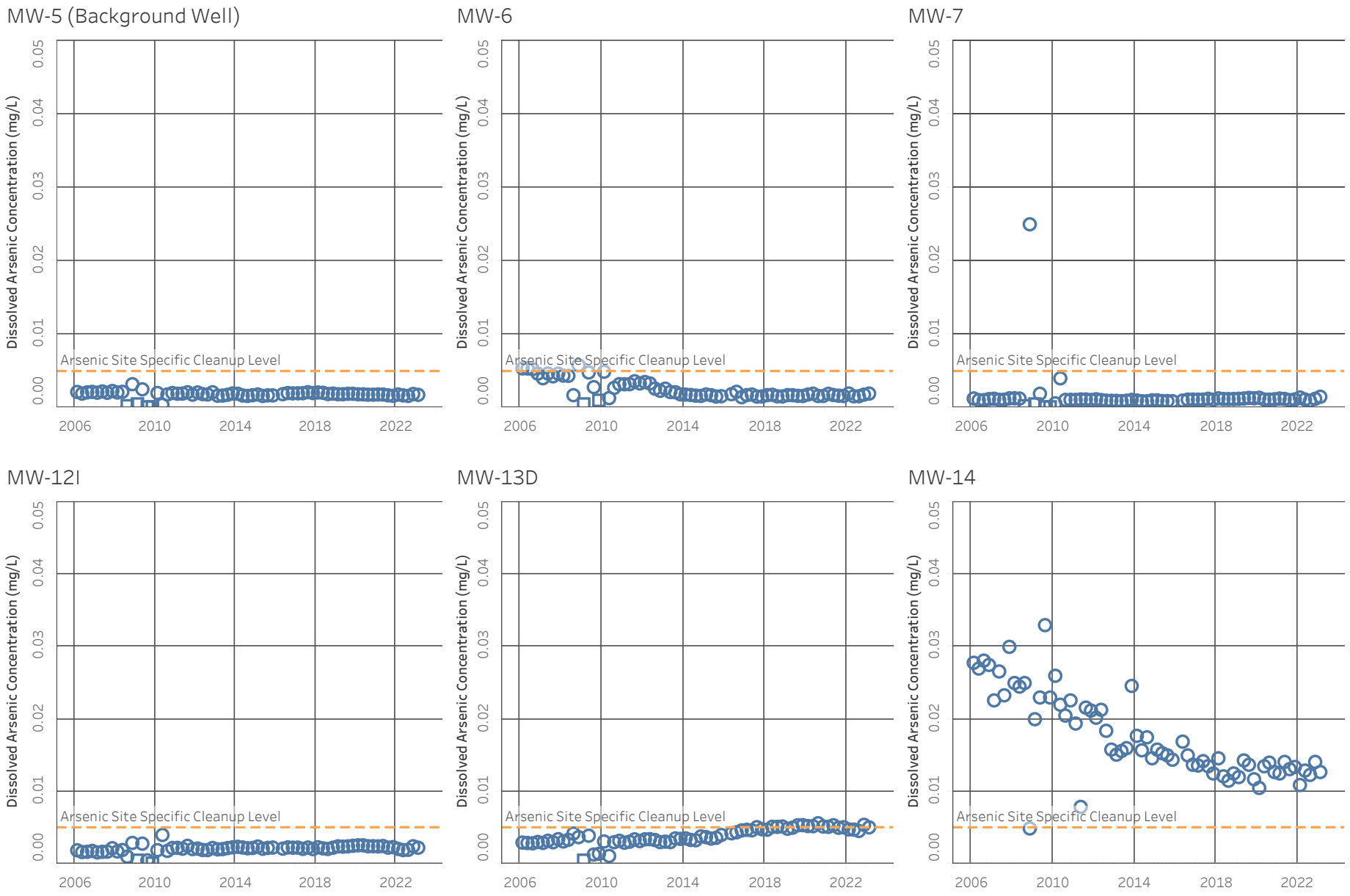
| Aspect Consulting | APR-2024 | BY: CMT / HMD | FIGURE NO. B-1 |
|---|---|---|---|
| | PROJECT NO. 160423 | REVISED BY: --- | |

Basemap Layer Credits || Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Copyright:(c) 2014 Esri

GIS Path: T:\projects_8\Hansville\Landfill_160423\Deliverer\Annual Report\2024\B-1 Compliance Monitoring Locations 2024.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 4/1/2024 || User: haley.duran || Print Date: 4/1/2024

# ATTACHMENT C

# Groundwater Statistics and Time-Series Plots




**Note:** Non-detected values are shown at 1/2 the reporting limit. Results from First Quarter 2017 were rejected. See text.

Result Flags

○ Detected

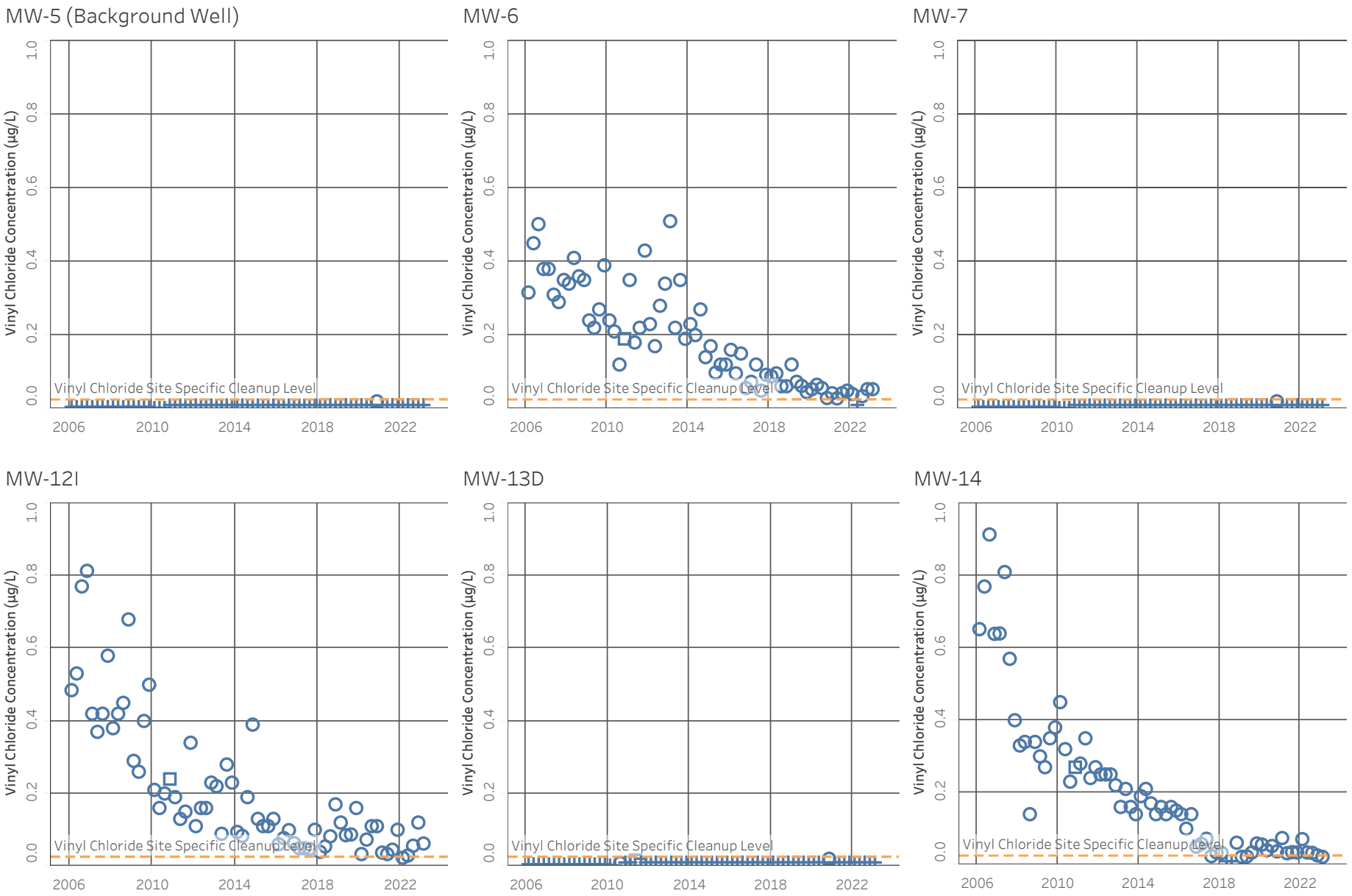
□ U - Non-Detect

Aspect CONSULTING

05/07/2024
Trend Plots (As)

**Figure C-1 - First Quarter Dissolved Arsenic Sampling Results**

2024 First Quarter Environmental Monitoring Report
Hansville Landfill
Kitsap County, WA




**Note:** Non-detected values are shown at 1/2 the reporting limit.

Result Flags

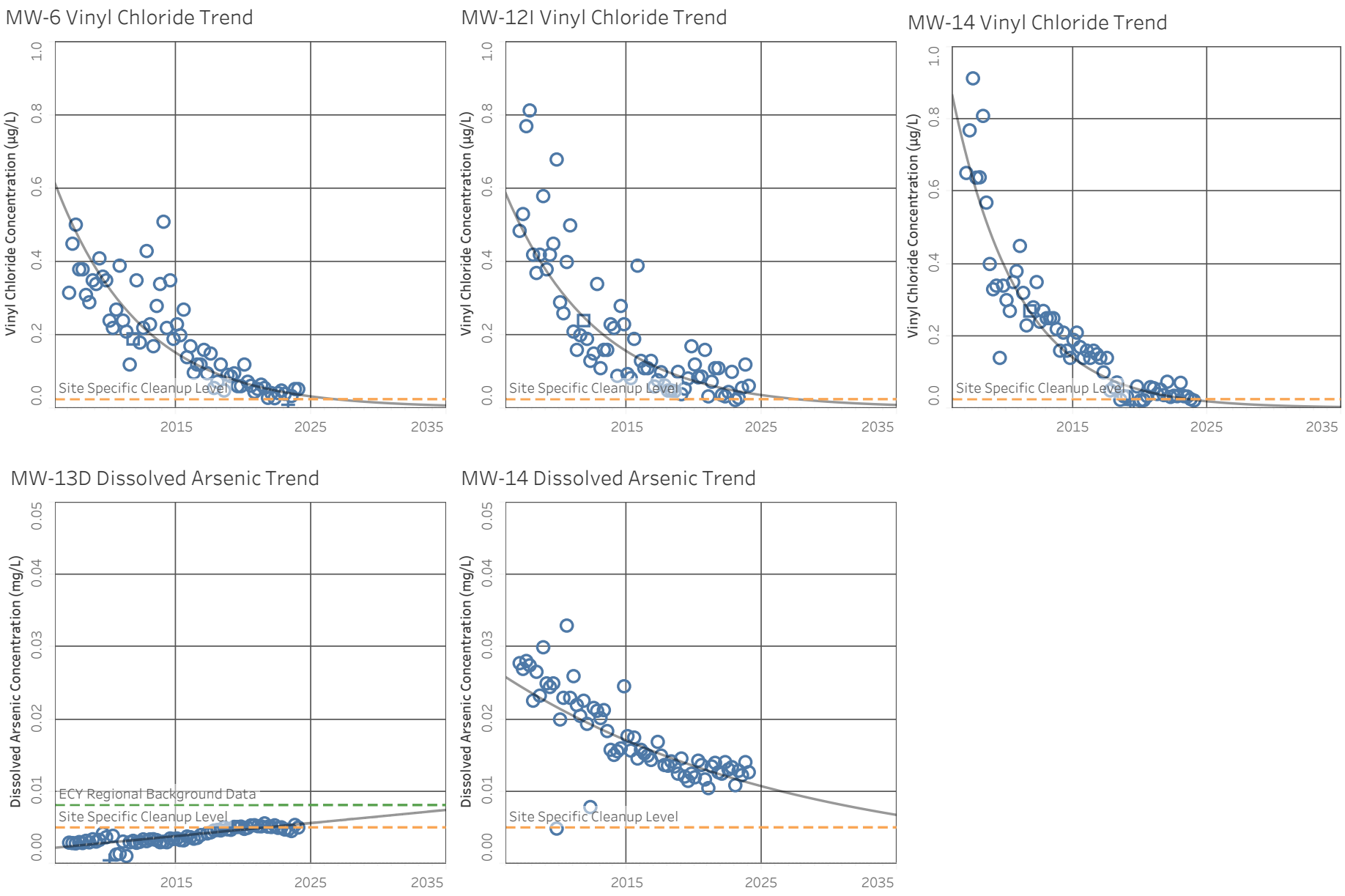
○ Detected □ J - Estimate + U - Non-Detect

Aspect CONSULTING

05/07/2024
Trend Plots (VC) 2021

**Figure C-2 - 2024 First Quarter Vinyl Chloride Sampling Results**

2024 First Quarter Environmental Monitoring Report
Hansville Landfill
Kitsap County, WA




**Note:** Non-detected values are shown at 1/2 the reporting limit.
Attentuation curves based on exponential least squares fit to the data.

Aspect CONSULTING

05/07/2024
Trend Plots (VC) 2021

**Figure C-3 - 10 Year Attenuation Curves**
2024 First Quarter Environmental Monitoring Report
Hansville Landfill
Kitsap County, WA

# ATTACHMENT D

# Field Forms and Laboratory Reports

Aspect CONSULTING

Sample ID: SW-1-240117

**GROUNDWATER SAMPLING RECORD** | **WELL NUMBER:** SW-1 | Page: 1 of 1

Project Name: Hansville Landfill Q1 2024 | Project Number: 160423

Date: 1/17/2024

Sampled by: CMT / RWN / FCE

Measuring Point of Well: NTOC

Screened Interval (ft. bgs): —

Filter Pack Interval (ft. bgs): —

Starting Water Level (ft TOC): —

Sample Intake Depth (ft TOC): —

Total Depth After Sampling (ft TOC): —

Casing Diameter (inches): —

Casing Volume ⌒ (ft Water) x ⌒ (L/ft) = ⌒ (L)

Casing volumes: 3/4"= 0.09 L/ft 2" = 0.62 L/ft 4" = 2.46 L/ft 6" = 5.56 L/ft

## WELL CONDITION

Vault Condition: ⌒ | Well Sealed? ⌒ | Lock Present? —

Standing Water in Vault? — | Ecology Well Tag Present (and Number if yes)? —

## PURGING MEASUREMENTS

| Stabilization Criteria (for 3 consecutive readings): | | Typical 0.1-0.5 Lpm | Stable (<0.3 ft target) | na | ± 3% | ± 10% (or ± 0.5 mg/L if < 1 mg/L) | ± 0.1 | ± 10 mV | ± 10% (or 3 succesive < 10 NTU) | |
|---|---|---|---|---|---|---|---|---|---|---|
| Time | Cumul. Volume (L) | Purge Rate (mL/min) | Water Level (ft) | Temp. (°C) | Specific Conductance (µS/cm) | Dissolved Oxygen (mg/L) | pH | ORP (mv) | Turbidity (NTU) | Comments |
| 1050 | | | — | 7.1 | 478.8 | 8.04 | 6.65 | 106.2 | 1.13 | clear, no odor, no sheen |

Total Liters Purged: ⌒ | Total Casing Volumes Removed: — | Ending Water Level (ft TOC): —

## SAMPLE INVENTORY

| Time | Volume | Bottle Type | Quantity | Filtration | Preservation | Appearance: Color | Appearance: Turbidity & Sediment | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1055 | 40 ml | VOA | 6 | No | HCL | Clear | 1.13 | |
| ↓ | 500 ml | Amber | 1 | No | H2SO4 | ↓ | ↓ | |
| ↓ | 500 ml | Poly | 2 | No | None | ↓ | ↓ | 1 to ARI (No3/No2), 1 to Denver (Alks/Cl/SO4) |
| ↓ | 500 ml | Poly | 2 | YES | HNO3 | ↓ | ↓ | Both FF, 1 to ARI (Diss As), 1 to Denver (Diss. Mn) |
| ↓ | 250 ml | Poly | 1 | YES | None | ↓ | ↓ | FF, O-phos, to ARI |
| | | | | | | | | |

## METHODS

Parameters measured with (instrument model & serial number): Orange YSI, ~~Purple and White WLI~~, Orange Turbidimeter

Purging Equipment: Dedicated Bladder pump or Red/White Peri-pump Decon Equipment: Alconox and DI water

Disposal of Discharged Water: On site

Observations/Comments: —

Aspect CONSULTING

Sample ID: SW-4-240117

## GROUNDWATER SAMPLING RECORD

WELL NUMBER: SW-4 Page: 1 of 1

Project Name: Hansville Landfill Q1 2024 Project Number: 160423

Date: 1/17/2024

Sampled by: CMT / RWN / FCE

Measuring Point of Well: NTOC

Screened Interval (ft. bgs) —

Filter Pack Interval (ft. bgs) —

Starting Water Level (ft TOC): —

Sample Intake Depth (ft TOC): —

Total Depth After Sampling (ft TOC): —

Casing Diameter (inches): —

Casing Volume — (ft Water) x — (L/ft) = — (L)

Casing volumes: 3/4"= 0.09 L/ft 2" = 0.62 L/ft 4" = 2.46 L/ft 6" = 5.56 L/ft

## WELL CONDITION

Vault Condition: — Well Sealed? — Lock Present? —

Standing Water in Vault? — Ecology Well Tag Present (and Number if yes)? —

## PURGING MEASUREMENTS

| Stabilization Criteria (for 3 consecutive readings): | | Typical 0.1-0.5 Lpm | Stable (<0.3 ft target) | na | ± 3% | ± 10% (or ± 0.5 mg/L if < 1 mg/L) | ± 0.1 | ± 10 mV | ± 10% (or 3 succesive < 10 NTU) | |
|---|---|---|---|---|---|---|---|---|---|---|
| Time | Cumul. Volume (L) | Purge Rate (mL/min) | Water Level (ft) | Temp. (°C) | Specific Conductance (µS/cm) | Dissolved Oxygen (mg/L) | pH | ORP (mv) | Turbidity (NTU) | Comments |
| 1140 | | | — | 4.4 | 273.2 | 11.02 | 7.02 | 104.6 | 3.89 | clear, no sheen, no odor |
| | | | | | | | | | | |
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Total Liters Purged: — Total Casing Volumes Removed: — Ending Water Level (ft TOC): —

## SAMPLE INVENTORY

| Time | Volume | Bottle Type | Quantity | Filtration | Preservation | Appearance: Color | Appearance: Turbidity & Sediment | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1145 | 40 ml | VOA | 6 | No | HCL | Clear | 3.89 | |
| ↓ | 500 ml | Amber | 1 | No | H2SO4 | ↓ | ↓ | |
| | 500 ml | Poly | 2 | No | None | | | 1 to ARI (No3/No2), 1 to Denver (Alks/Cl/SO4) |
| | 500 ml | Poly | 2 | YES | HNO3 | | | Both FF, 1 to ARI (Diss As), 1 to Denver (Diss. Mn) |
| ↓ | 250 ml | Poly | 1 | YES | None | ↓ | ↓ | FF, O-phos, to ARI |
| | | | | | | | | |

## METHODS

Parameters measured with (instrument model & serial number): Orange YSI, ~~Purple and White WLI~~, Orange Turbidimeter

Purging Equipment: Dedicated Bladder pump or Red/White Peri-pump Decon Equipment: Alconox and DI water

Disposal of Discharged Water: On site

Observations/Comments: —

Aspect CONSULTING

Sample ID: SW-6-240117

## GROUNDWATER SAMPLING RECORD

WELL NUMBER: SW-6 Page: 1 of 1

Project Name: Hansville Landfill Q1 2024 Project Number: 160423

Date: 1/17/2024

Sampled by: CMT / RWN / FCE

Measuring Point of Well: NTOC

Screened Interval (ft. bgs): —

Filter Pack Interval (ft. bgs): —

Starting Water Level (ft TOC): —

Sample Intake Depth (ft TOC): —

Total Depth After Sampling (ft TOC): —

Casing Diameter (inches): —

Casing Volume — (ft Water) x — (L/ft) = — (L)

Casing volumes: 3/4"= 0.09 L/ft 2" = 0.62 L/ft 4" = 2.46 L/ft 6" = 5.56 L/ft

## WELL CONDITION

Vault Condition: — Well Sealed? — Lock Present? —

Standing Water in Vault? — Ecology Well Tag Present (and Number if yes)? —

## PURGING MEASUREMENTS

| Stabilization Criteria (for 3 consecutive readings): | | Typical 0.1-0.5 Lpm | Stable (<0.3 ft target) | na | ± 3% | ± 10% (or ± 0.5 mg/L if < 1 mg/L) | ± 0.1 | ± 10 mV | ± 10% (or 3 succesive < 10 NTU) | |
|---|---|---|---|---|---|---|---|---|---|---|
| Time | Cumul. Volume (L) | Purge Rate (mL/min) | Water Level (ft) | Temp. (°C) | Specific Conductance (µS/cm) | Dissolved Oxygen (mg/L) | pH | ORP (mv) | Turbidity (NTU) | Comments |
| 1240 | | | — | 2.0 | 98.4 | 11.97 | 7.50 | 77.6 | 14.5 | |

Total Liters Purged: — Total Casing Volumes Removed: — Ending Water Level (ft TOC): —

## SAMPLE INVENTORY

| Time | Volume | Bottle Type | Quantity | Filtration | Preservation | Appearance: Color | Appearance: Turbidity & Sediment | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1245 | 40 ml | VOA | 6 | No | HCL | Clear | 14.5 | |
| ↓ | 500 ml | Amber | 1 | No | H2SO4 | ↓ | ↓ | |
| | 500 ml | Poly | 2 | No | None | | | 1 to ARI (No3/No2), 1 to Denver (Alks/Cl/SO4) |
| | 500 ml | Poly | 2 | YES | HNO3 | | | Both FF, 1 to ARI (Diss As), 1 to Denver (Diss. Mn) |
| ↓ | 250 ml | Poly | 1 | YES | None | ↓ | ↓ | FF, O-phos, to ARI |
| | | | | | | | | |

## METHODS

Parameters measured with (instrument model & serial number): Orange YSI, ~~Purple and White WLI~~, Orange Turbidimeter

Purging Equipment: Dedicated Bladder pump or Red/White Peri-pump Decon Equipment: Alconox and DI water

Disposal of Discharged Water: On site

Observations/Comments: —

Aspect CONSULTING

Sample ID: SW-7-240117

## GROUNDWATER SAMPLING RECORD

WELL NUMBER: SW-7 Page: 1 of 1

Project Name: Hansville Landfill Q1 2024 Project Number: 160423

Date: 1/17/2024

Sampled by: CMT / RWN / FCE

Measuring Point of Well: NTOC

Screened Interval (ft. bgs): —

Filter Pack Interval (ft. bgs): —

Starting Water Level (ft TOC): —

Sample Intake Depth (ft TOC): —

Total Depth After Sampling (ft TOC): —

Casing Diameter (inches): —

Casing Volume — (ft Water) x — (L/ft) = — (L)

Casing volumes: 3/4"= 0.09 L/ft 2" = 0.62 L/ft 4" = 2.46 L/ft 6" = 5.56 L/ft

## WELL CONDITION

Vault Condition: — Well Sealed? — Lock Present? —

Standing Water in Vault? — Ecology Well Tag Present (and Number if yes)? —

## PURGING MEASUREMENTS

| Stabilization Criteria (for 3 consecutive readings): | | Typical 0.1-0.5 Lpm | Stable (<0.3 ft target) | na | ± 3% | ± 10% (or ± 0.5 mg/L if < 1 mg/L) | ± 0.1 | ± 10 mV | ± 10% (or 3 succesive < 10 NTU) | |
|---|---|---|---|---|---|---|---|---|---|---|
| Time | Cumul. Volume (L) | Purge Rate (mL/min) | Water Level (ft) | Temp. (°C) | Specific Conductance (µS/cm) | Dissolved Oxygen (mg/L) | pH | ORP (mv) | Turbidity (NTU) | Comments |
| 1355 | | | — | 3.7 | 130.2 | 10.53 | 7.61 | 73.8 | 4.02 | clear, no sheen, no odor |

Total Liters Purged: — Total Casing Volumes Removed: — Ending Water Level (ft TOC): —

## SAMPLE INVENTORY

| Time | Volume | Bottle Type | Quantity | Filtration | Preservation | Appearance: Color | Appearance: Turbidity & Sediment | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1400 | 40 ml | VOA | 6 | No | HCL | clear | 4.02 | |
| ↓ | 500 ml | Amber | 1 | No | H2SO4 | ↓ | ↓ | |
| | 500 ml | Poly | 2 | No | None | | | 1 to ARI (No3/No2), 1 to Denver (Alks/Cl/SO4) |
| | 500 ml | Poly | 2 | YES | HNO3 | | | Both FF, 1 to ARI (Diss As), 1 to Denver (Diss. Mn) |
| ↓ | 250 ml | Poly | 1 | YES | None | ↓ | ↓ | FF, O-phos, to ARI |
| | | | | | | | | |

## METHODS

Parameters measured with (instrument model & serial number): Orange YSI, ~~Purple and White WL~~, Orange Turbidimeter

Purging Equipment: Dedicated Bladder pump or Red/White Peri-pump Decon Equipment: Alconox and DI water

Disposal of Discharged Water: On site

Observations/Comments: —

Aspect CONSULTING

Sample ID: MW-7 - 240117

## GROUNDWATER SAMPLING RECORD

WELL NUMBER: MW-7 Page: 1 of 1

Project Name: Hansville Landfill Q1 2024 Project Number: 160423

Date: 1/17/2024

Sampled by: CMT / RWN / FCE

Measuring Point of Well: NTOC

Screened Interval (ft. bgs): —

Filter Pack Interval (ft. bgs): —

Starting Water Level (ft TOC): 85.28

Sample Intake Depth (ft TOC): —

Total Depth After Sampling (ft TOC): —

Casing Diameter (inches): 2"

Casing Volume — (ft Water) x — (L/ft) = — (L)

Casing volumes: 3/4"= 0.09 L/ft 2" = 0.62 L/ft 4" = 2.46 L/ft 6" = 5.56 L/ft

## WELL CONDITION

Vault Condition: good Well Sealed? yes Lock Present? yes

Standing Water in Vault? no Ecology Well Tag Present (and Number if yes)? —

## PURGING MEASUREMENTS

| Stabilization Criteria (for 3 consecutive readings): | | Typical 0.1-0.5 Lpm | Stable (<0.3 ft target) | na | ± 3% | ± 10% (or ± 0.5 mg/L if < 1 mg/L) | ± 0.1 | ± 10 mV | ± 10% (or 3 succesive < 10 NTU) | |
|---|---|---|---|---|---|---|---|---|---|---|
| Time | Cumul. Volume (L) | Purge Rate (mL/min) | Water Level (ft) | Temp. (°C) | Specific Conductance (µS/cm) | Dissolved Oxygen (mg/L) | pH | ORP (mv) | Turbidity (NTU) | Comments |
| 0835 | | | — | | | | | | | START |
| 0840 | | | | | | | | | | Water frozen in tubing |
| 0902 | 0.5 | — | — | 8.11 | 176.38 | 3.44 | 6.41 | 164.7 | 90.8 | |
| 0907 | 1.0 | 0.1 | 85.31 | 8.28 | 177.98 | 1.29 | 6.43 | 158.8 | 107 | Cleaning up |
| 0912 | 1.5 | 0.1 | 85.32 | 8.22 | 178.98 | 1.49 | 6.48 | 150.6 | 96.9 | |
| 0917 | 2.0 | 0.1 | 85.32 | 8.26 | 178.82 | 1.41 | 6.43 | 146.1 | 88.2 | |
| 0922 | 2.5 | 0.1 | 85.32 | 7.87 | 178.55 | 1.37 | 6.40 | 143.2 | 81.7 | |
| 0927 | 3.0 | 0.1 | 85.32 | 7.99 | 176.48 | 1.39 | 6.37 | 141.3 | 72.1 | |
| 0932 | 3.5 | 0.1 | 85.32 | 7.72 | 174.68 | 1.41 | 6.42 | 138.0 | 49.4 | |
| 0937 | 4.0 | 0.1 | 85.32 | 7.59 | 174.14 | 1.44 | 6.43 | 134 | 20.5 | |
| | | | | | | | | | | |
| 0945 | | | | | | | | | | Sample |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

Total Liters Purged: 5.0 Total Casing Volumes Removed: — Ending Water Level (ft TOC): 85.33

## SAMPLE INVENTORY

| Time | Volume | Bottle Type | Quantity | Filtration | Preservation | Appearance: Color | Appearance: Turbidity & Sediment | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0945 | 40 ml | VOA | 6 | No | HCL | Clear | 17.6 | |
| | 500 ml | Amber | 1 | No | H2SO4 | | | |
| | 500 ml | Poly | 2 | No | None | | | 1 to ARI (No3/No2), 1 to Denver (Alks/Cl/SO4) |
| | 500 ml | Poly | 2 | YES | HNO3 | | | Both FF, 1 to ARI (Diss As), 1 to Denver (Diss. Mn) |
| | 250 ml | Poly | 1 | YES | None | | | FF, O-phos, to ARI |
| | | | | | | | | |

## METHODS

Green aquatroll, Green turbidimeter, purple white WL

Parameters measured with (instrument model & serial number): ~~Orange YSI, Purple and White WLI, Orange Turbidimeter~~

Purging Equipment: Dedicated Bladder pump or Red/White Peri-pump Decon Equipment: Alconox and DI water

Disposal of Discharged Water: On site

Observations/Comments: 1 Cycle per min, 40sec refill, 20sec discharge, 150-200 psi and/or 3 cpm & 10sec refill, 9 sec discharges.

No Chemical odor, no Sheen Observed.

Aspect CONSULTING

Sample ID: MW-5-240117

## GROUNDWATER SAMPLING RECORD

WELL NUMBER: MW-5 Page: 1 of 1

Project Name: Hansville Landfill Q1 2024 Project Number: 160423

Date: 1/17/2024

Sampled by: CMT / (RWN) / FCE

Measuring Point of Well: NTOC

Screened Interval (ft. bgs): –

Filter Pack Interval (ft. bgs): –

Starting Water Level (ft TOC): 100.41

Sample Intake Depth (ft TOC): Dedicated Pump

Total Depth After Sampling (ft TOC): –

Casing Diameter (inches): 2"

Casing Volume – (ft Water) × 0.62 (L/ft) = – (L)

Casing volumes: 3/4"= 0.09 L/ft (2" = 0.62 L/ft) 4" = 2.46 L/ft 6" = 5.56 L/ft

## WELL CONDITION

Vault Condition: Good condition Well Sealed? Yes Lock Present? Yes

Standing Water in Vault? N/A Ecology Well Tag Present (and Number if yes)? –

## PURGING MEASUREMENTS

| Stabilization Criteria (for 3 consecutive readings): | | Typical 0.1-0.5 Lpm | Stable (<0.3 ft target) | na | ± 3% | ± 10% (or ± 0.5 mg/L if < 1 mg/L) | ± 0.1 | ± 10 mV | ± 10% (or 3 succesive < 10 NTU) | |
|---|---|---|---|---|---|---|---|---|---|---|
| Time | Cumul. Volume (L) | Purge Rate (mL/min) | Water Level (ft) | Temp. (°C) | Specific Conductance (µS/cm) | Dissolved Oxygen (mg/L) | pH | ORP (mv) | Turbidity (NTU) | Comments |
| 1132 | | | 100.41 | | | | | | 7.61 | Begin Purging |
| 1137 | 0.50 | 0.10 | 100.43 | 9.26 | 119.67 | 8.86 | 6.76 | 130.7 | 5.05 | Clear, no odor, no sheen |
| 1142 | 1.00 | 0.10 | 100.43 | 9.10 | 121.02 | 9.44 | 7.11 | 121.4 | 5.77 | ↓ |
| 1147 | 1.50 | 0.10 | 100.44 | 9.22 | 121.67 | 9.67 | 7.20 | 118.1 | 5.19 | |
| 1152 | 2.00 | 0.10 | 100.43 | 9.00 | 122.51 | 9.80 | 7.14 | 120.5 | 5.54 | ↓ |
| | | | | | | | | | | |
| 1200 | | | | | | | | | | Sample |

Total Liters Purged: 2.00 Total Casing Volumes Removed: – Ending Water Level (ft TOC): 100.43

## SAMPLE INVENTORY

| Time | Volume | Bottle Type | Quantity | Filtration | Preservation | Appearance: Color | Appearance: Turbidity & Sediment | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1200 | 40 ml | VOA | 6 | No | HCL | Clear | 3.91 | |
| ↓ | 500 ml | Amber | 1 | No | H2SO4 | ↓ | ↓ | |
| | 500 ml | Poly | 2 | No | None | | | 1 to ARI (No3/No2), 1 to Denver (Alks/Cl/SO4) |
| | 500 ml | Poly | 2 | YES | HNO3 | | | Both FF, 1 to ARI (Diss As), 1 to Denver (Diss. Mn) |
| ↓ | 250 ml | Poly | 1 | YES | None | ↓ | ↓ | FF, O-phos, to ARI |
| | | | | | | | | |

## METHODS

Parameters measured with (instrument model & serial number): ~~Orange YSI~~ green AT500, Purple and White WLI, ~~Orange~~ green Turbidimeter

Purging Equipment: (Dedicated Bladder pump) or Red/White Peri-pump Decon Equipment: Alconox and DI water

Disposal of Discharged Water: On-site

Observations/Comments: (2 cycles/minute, 10 sec refill, 20 sec Discharge, 100-150 psi)

No Chemical odor, no sheen, low turbidity.

Aspect CONSULTING

Sample ID: MW-12I-240117

## GROUNDWATER SAMPLING RECORD

WELL NUMBER: MW-12I Page: 1 of 1

Project Name: Hansville Landfill Q1 2024 Project Number: 160423

Date: 1/17/2024

Sampled by: CMT / RWN / FCE

Measuring Point of Well: NTOC

Screened Interval (ft. bgs): -

Filter Pack Interval (ft. bgs): -

Starting Water Level (ft TOC): 9.95

Sample Intake Depth (ft TOC): Dedicated pump

Total Depth After Sampling (ft TOC): -

Casing Diameter (inches): 2"

Casing Volume - (ft Water) x 0.62 (L/ft) = - (L)

Casing volumes: 3/4"= 0.09 L/ft 2" = 0.62 L/ft 4" = 2.46 L/ft 6" = 5.56 L/ft

## WELL CONDITION

Vault Condition: Good Condition Well Sealed? Yes Lock Present? Yes

Standing Water in Vault? N/A Ecology Well Tag Present (and Number if yes)? -

## PURGING MEASUREMENTS

| Stabilization Criteria (for 3 consecutive readings): | | Typical 0.1-0.5 Lpm | Stable (<0.3 ft target) | na | ± 3% | ± 10% (or ± 0.5 mg/L if < 1 mg/L) | ± 0.1 | ± 10 mV | ± 10% (or 3 succesive < 10 NTU) | |
|---|---|---|---|---|---|---|---|---|---|---|
| Time | Cumul. Volume (L) | Purge Rate (mL/min) | Water Level (ft) | Temp. (°C) | Specific Conductance (µS/cm) | Dissolved Oxygen (mg/L) | pH | ORP (mv) | Turbidity (NTU) | Comments |
| 1340 | | | 9.95 | | | | | | 4.49 | Begin purging |
| 1345 | 1.50 | 0.3 | 9.99 | 9.35 | 195.25 | 0.39 | 7.15 | 103.9 | 3.20 | Clear, no odor, no sheen |
| 1350 | 3.00 | 0.3 | 10.00 | 9.43 | 191.68 | 0.18 | 7.18 | 98.2 | 3.44 | ↓ |
| 1355 | 4.50 | 0.3 | 10.00 | 9.45 | 190.66 | 0.15 | 7.12 | 97.3 | 2.57 | ↓ |
| | | | | | | | | | | |
| 1400 | | | | | | | | | | Sample |
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Total Liters Purged: 7.00 Total Casing Volumes Removed: - Ending Water Level (ft TOC): 9.98

## SAMPLE INVENTORY

| Time | Volume | Bottle Type | Quantity | Filtration | Preservation | Appearance: Color | Appearance: Turbidity & Sediment | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1400 | 40 ml | VOA | 6 | No | HCL | Clear | 2.27 | |
| ↓ | 500 ml | Amber | 1 | No | H2SO4 | ↓ | ↓ | |
| | 500 ml | Poly | 2 | No | None | | | 1 to ARI (No3/No2), 1 to Denver (Alks/Cl/SO4) |
| | 500 ml | Poly | 2 | YES | HNO3 | | | Both FF, 1 to ARI (Diss As), 1 to Denver (Diss. Mn) |
| ↓ | 250 ml | Poly | 1 | YES | None | ↓ | ↓ | FF, O-phos, to ARI |
| | | | | | | | | |

## METHODS

Parameters measured with (instrument model & serial number): ~~Orange YSI~~ Green AT500, Purple and White WLI, ~~Orange~~ Green Turbidimeter

Purging Equipment: Dedicated Bladder pump or Red/White Peri-pump Decon Equipment: Alconox and DI water

Disposal of Discharged Water: On site

Observations/Comments: 6 cycles per minute, 6 sec Refill, 3 sec discharge (~ 50 psi). Possible issue with QED Air Compressor + controller but issue was handled. Low turbidity, no Chemical Odor, no sheen.

Aspect CONSULTING

Sample ID: MW-13D - 240117

## GROUNDWATER SAMPLING RECORD

WELL NUMBER: MW-13D Page: 1 of 1

Project Name: Hansville Landfill Q1 2024 Project Number: 160423

Date: 1/17/2024

Sampled by: CMT / RWN / FCE

Measuring Point of Well: NTOC

Screened Interval (ft. bgs) –

Filter Pack Interval (ft. bgs) –

Starting Water Level (ft TOC): 11.30

Sample Intake Depth (ft TOC): Dedicated pump

Total Depth After Sampling (ft TOC): –

Casing Diameter (inches): 2"

Casing Volume – (ft Water) x 0.62 (L/ft) = – (L)

Casing volumes: 3/4"= 0.09 L/ft 2" = 0.62 L/ft 4" = 2.46 L/ft 6" = 5.56 L/ft

## WELL CONDITION

Vault Condition: Good Condition Well Sealed? yes Lock Present? yes

Standing Water in Vault? N/A Ecology Well Tag Present (and Number if yes)? –

## PURGING MEASUREMENTS

| Stabilization Criteria (for 3 consecutive readings): | | Typical 0.1-0.5 Lpm | Stable (<0.3 ft target) | na | ± 3% | ± 10% (or ± 0.5 mg/L if < 1 mg/L) | ± 0.1 | ± 10 mV | ± 10% (or 3 succesive < 10 NTU) | |
|---|---|---|---|---|---|---|---|---|---|---|
| Time | Cumul. Volume (L) | Purge Rate (mL/min) | Water Level (ft) | Temp. (°C) | Specific Conductance (µS/cm) | Dissolved Oxygen (mg/L) | pH | ORP (mv) | Turbidity (NTU) | Comments |
| 1530 | | | 11.30 | | | | | | 306 | Begin purging |
| 1535 | 1.50 | 0.30 | 11.61 | 9.59 | 118.25 | 0.40 | 7.61 | 85.9 | 91.1 | Cloudy, no odor, no sheen |
| 1540 | 3.00 | 0.30 | 11.64 | 9.67 | 118.33 | 0.20 | 7.52 | 88.3 | 51.6 | Clearing up |
| 1545 | 4.50 | 0.30 | 11.64 | 9.81 | 118.30 | 0.17 | 7.60 | 80.4 | 36.4 | ↓ |
| 1550 | 6.00 | 0.30 | 11.65 | 9.76 | 118.48 | 0.15 | 7.62 | 76.0 | 18.6 | ↓ |
| 1555 | 7.50 | 0.30 | 11.66 | 9.74 | 118.52 | 0.14 | 7.65 | 71.9 | 17.1 | ↓ |
| 1600 | 9.00 | 0.30 | 11.66 | 9.75 | 118.63 | 0.14 | 7.66 | 68.6 | 18.0 | ↓ |
| ~~1605~~ | | | | | | | | | | |
| | | | | | | | | | | |
| 1610 | | | | | | | | | | Sample |

Total Liters Purged: 11.25 Total Casing Volumes Removed: – Ending Water Level (ft TOC): 11.33

## SAMPLE INVENTORY

| Time | Volume | Bottle Type | Quantity | Filtration | Preservation | Appearance: Color | Appearance: Turbidity & Sediment | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1610 | 40 ml | VOA | 6 | No | HCL | Clear | 15.7 | |
| ↓ | 500 ml | Amber | 1 | No | H2SO4 | ↓ | ↓ | |
| | 500 ml | Poly | 2 | No | None | | | 1 to ARI (No3/No2), 1 to Denver (Alks/Cl/SO4) |
| | 500 ml | Poly | 2 | YES | HNO3 | | | Both FF, 1 to ARI (Diss As), 1 to Denver (Diss. Mn) |
| ↓ | 250 ml | Poly | 1 | YES | None | ↓ | ↓ | FF, O-phos, to ARI |
| | | | | | | | | |

## METHODS

Green AT500 Green

Parameters measured with (instrument model & serial number): ~~Orange YSI~~, Purple and White WLI, ~~Orange~~ Turbidimeter

Purging Equipment: Dedicated Bladder pump or Red/White Peri-pump Decon Equipment: Alconox and DI water

Disposal of Discharged Water: On-site

Observations/Comments: 4 Cycles/minute, 10 sec refill, 5 ~~min~~ sec discharge at ~~90~~ ~40 PSI. Frozen tubing at beginning. Very turbid initially. No color, no Chemical odor, no Sheen Observed.

Aspect CONSULTING

Sample ID: MW-6-240117

## GROUNDWATER SAMPLING RECORD

WELL NUMBER: MW-6 Page: 1 of 1

Project Name: Hansville Landfill Q1 2024 Project Number: 160423

Date: 1/17/2024

Sampled by: CMT / (RWN) / FCE

Measuring Point of Well: NTOC

Screened Interval (ft. bgs) –

Filter Pack Interval (ft. bgs) –

Starting Water Level (ft TOC): 74.52

Sample Intake Depth (ft TOC): Dedicated Pump

Total Depth After Sampling (ft TOC): –

Casing Diameter (inches): 2"

Casing Volume – (ft Water) x 0.62 (L/ft) = – (L)

Casing volumes: 3/4"= 0.09 L/ft (2" = 0.62 L/ft) 4" = 2.46 L/ft 6" = 5.56 L/ft

## WELL CONDITION

Vault Condition: Good Condition Well Sealed? Yes Lock Present? Yes

Standing Water in Vault? N/A Ecology Well Tag Present (and Number if yes)? –

## PURGING MEASUREMENTS

| Stabilization Criteria (for 3 consecutive readings): | | Typical 0.1-0.5 Lpm | Stable (<0.3 ft target) | na | ± 3% | ± 10% (or ± 0.5 mg/L if < 1 mg/L) | ± 0.1 | ± 10 mV | ± 10% (or 3 succesive < 10 NTU) | |
|---|---|---|---|---|---|---|---|---|---|---|
| Time | Cumul. Volume (L) | Purge Rate (mL/min) | Water Level (ft) | Temp. (°C) | Specific Conductance (µS/cm) | Dissolved Oxygen (mg/L) | pH | ORP (mv) | Turbidity (NTU) | Comments |
| 1710 | – | – | 74.52 | – | – | – | – | – | 11.2 | Begin purging |
| 1715 | 1.0 | 0.2 | 74.61 | 11.27 | 154.12 | 0.73 | 7.31 | 80.5 | 8.12 | Clear, no odor, no Sheen |
| 1720 | 2.0 | 0.2 | 74.62 | 11.59 | 154.04 | 0.33 | 7.16 | 80.2 | 4.93 | ↓ |
| 1725 | 3.0 | 0.2 | 74.62 | 11.52 | 154.70 | 0.28 | 7.26 | 73.8 | 3.44 | ↓ |
| 1730 | 4.0 | 0.2 | 74.63 | 11.34 | 155.79 | 0.28 | 7.21 | 73.2 | 2.93 | ↓ |
| | | | | | | | | | | |
| | | | | | | | | | | |
| 1735 | – | – | – | – | – | – | – | – | – | Sample |
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Total Liters Purged: 6.25 Total Casing Volumes Removed: – Ending Water Level (ft TOC): 74.52

## SAMPLE INVENTORY

| Time | Volume | Bottle Type | Quantity | Filtration | Preservation | Appearance: Color | Appearance: Turbidity & Sediment | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1735 | 40 ml | VOA | 6 | No | HCL | Clear | 2.06 | |
| ↓ | 500 ml | Amber | 1 | No | H2SO4 | ↓ | ↓ | |
| | 500 ml | Poly | 2 | No | None | | | 1 to ARI (No3/No2), 1 to Denver (Alks/Cl/SO4) |
| | 500 ml | Poly | 2 | YES | HNO3 | | | Both FF, 1 to ARI (Diss As), 1 to Denver (Diss. Mn) |
| ↓ | 250 ml | Poly | 1 | YES | None | ↓ | ↓ | FF, O-phos, to ARI |
| | | | | | | | | |

## METHODS

Parameters measured with (instrument model & serial number): ~~Orange YSI~~ Green AT500, Purple ~~and White~~ WLI, ~~Orange~~ Green Turbidimeter

Purging Equipment: Dedicated Bladder pump or Red/White Peri-pump Decon Equipment: Alconox and DI water

Disposal of Discharged Water: On site

Observations/Comments: 4 cycles/min, 5 sec refill, 10 sec Discharge, 60 psi / 1 150 ft. Low turbidity, No Color, no Chemical odor, no Sheen Observed.

Aspect CONSULTING

Sample ID: MW-14-240117

**GROUNDWATER SAMPLING RECORD** | **WELL NUMBER:** MW-14 | Page: 1 of 1

Project Name: Hansville Landfill Q1 2024 | Project Number: 160423

Date: 1/17/2024

Sampled by: CMT / RWN / FCE

Measuring Point of Well: NTOC

Screened Interval (ft. bgs): —

Filter Pack Interval (ft. bgs): —

Starting Water Level (ft TOC): ~~82.18~~

Sample Intake Depth (ft TOC): —

Total Depth After Sampling (ft TOC): —

Casing Diameter (inches): ~~2~~ 2"

Casing Volume — (ft Water) x — (L/ft) = — (L)

Casing volumes: 3/4"= 0.09 L/ft 2" = 0.62 L/ft 4" = 2.46 L/ft 6" = 5.56 L/ft

## WELL CONDITION

Vault Condition: — | Well Sealed? — | Lock Present? yes

Standing Water in Vault? — | Ecology Well Tag Present (and Number if yes)? —

## PURGING MEASUREMENTS

| Stabilization Criteria (for 3 consecutive readings): | | Typical 0.1-0.5 Lpm | Stable (<0.3 ft target) | na | ± 3% | ± 10% (or ± 0.5 mg/L if < 1 mg/L) | ± 0.1 | ± 10 mV | ± 10% (or 3 succesive < 10 NTU) | |
|---|---|---|---|---|---|---|---|---|---|---|
| Time | Cumul. Volume (L) | Purge Rate (mL/min) | Water Level (ft) | Temp. (°C) | Specific Conductance (µS/cm) | Dissolved Oxygen (mg/L) | pH | ORP (mv) | Turbidity (NTU) | Comments |
| 1503 | | | — | — | — | — | — | — | — | START |
| 1538 | | 0.1 | | | | | | | | * defrost tubing |
| 1540 | | | 82.24 | 9.9 | 177.5 | 0.65 | 7.33 | 74.0 | 48.5 | Start |
| 1545 | | | 82.18 | 9.6 | 176.8 | 0.58 | 7.25 | 77.1 | 38.6 | clear, no sheen, no odor |
| 1550 | | | 82.22 | 9.8 | 175.7 | 0.46 | 7.24 | 82.4 | 39.7 | |
| 1555 | | | 82.23 | 9.8 | 175.0 | 0.43 | 7.23 | 86.3 | 33.5 | |
| 1600 | | | 82.23 | 9.8 | 172.9 | 0.38 | 7.22 | 92.4 | 24.5 | |
| 1605 | 1.5 | ↓ | 82.24 | 10.0 | 172.8 | 0.34 | 7.21 | 90.1 | 23.1 | |
| 1610 | | | | | | | | | | Sampled |

Total Liters Purged: 1.5 | Total Casing Volumes Removed: — | Ending Water Level (ft TOC): 82.18

## SAMPLE INVENTORY

| Time | Volume | Bottle Type | Quantity | Filtration | Preservation | Appearance: Color | Appearance: Turbidity & Sediment | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1610 | 40 ml | VOA | 6 | No | HCL | clear | 17.4 | |
| ↓ | 500 ml | Amber | 1 | No | H2SO4 | ↓ | ↓ | |
| ↓ | 500 ml | Poly | 2 | No | None | ↓ | ↓ | 1 to ARI (No3/No2), 1 to Denver (Alks/Cl/SO4) |
| ↓ | 500 ml | Poly | 2 | YES | HNO3 | ↓ | ↓ | Both FF, 1 to ARI (Diss As), 1 to Denver (Diss. Mn) |
| ↓ | 250 ml | Poly | 1 | YES | None | ↓ | ↓ | FF, O-phos, to ARI |
| | | | | | | | | |

## METHODS

Parameters measured with (instrument model & serial number): Orange YSI, Purple ~~and White~~ WLI, Orange Turbidimeter

Purging Equipment: Dedicated Bladder pump or Red/White Peri-pump | Decon Equipment: Alconox and DI water

Disposal of Discharged Water: On site

Observations/Comments: Field dupe Collected. MW-200D-240117 @ 0700.
* Tubing in well (~10ft) defrosted w/ Hot water and paper towel.

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mr. Peter Bannister
Aspect Consulting
350 Madison Ave N
Bainbridge Island, Washington 98110

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## JOB DESCRIPTION

Hansville Landfill
1Q Sampling

## JOB NUMBER

280-186819-1

Eurofins Denver
4955 Yarrow Street
Arvada CO 80002

See page two for job notes and contact information.



my EOL

# Eurofins Denver

## Job Notes

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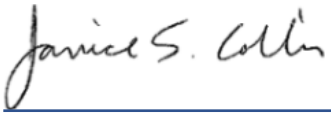

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Authorized for release by
Janice Collins, Project Manager
Janice.Collins@et.eurofinsus.com
(303)736-0100

# Table of Contents

# Definitions/Glossary

Client: Aspect Consulting
Project/Site: Hansville Landfill

Job ID: 280-186819-1

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| *+ | LCS and/or LCSD is outside acceptance limits, high biased. |
| F1 | MS and/or MSD recovery exceeds control limits. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## 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 Narrative**
**280-186819-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- 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) lower than Eurofins Environmental Testing standard reporting limits. 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.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 1/22/2024 9:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.6°C and 5.0°C

**Receipt Exceptions**
The following samples were received with broken VOA Vials due to the samples freezing in transit: MW-5-240117 (280-186819-1), MW-12I-240117 (280-186819-4), MW-13D-240117 (280-186819-5) and MW-20DD-240117 (280-186819-7). Sufficient volume remained for analysis.

**Subcontract Work**
Methods Dissolved As (ARI) - direct sub to ARI from field, Nitrate/Nitrite/o-phos(field filtered) (ARI) - direct sub to ARI from field: These methods were subcontracted to Analytical Resources, Inc. The subcontract laboratory certifications are different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

**GC/MS VOA**
Method 8260C: The initial calibration verification (ICV) result for batch 480-699186 was above the upper control limit. The affected analytes are Acrolein. Sample results were non-detects, and have been reported as qualified data.

Method 8260C: The initial calibration curve analyzed in batch 480-699186 was outside method criteria for the following analyte(s): Isobutyl alcohol. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is considered an estimated concentration.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-699186 recovered above the upper control limit for Isobutyl alcohol, Chlorodifluoromethane, n-Butanol and 1,4-Dioxane. 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-5-240117 (280-186819-1), MW-6-240117 (280-186819-2), MW-7-240117 (280-186819-3), MW-12I-240117 (280-186819-4), MW-13D-240117 (280-186819-5), MW-14-240117 (280-186819-6), MW-20DD-240117 (280-186819-7), SW-1-240117 (280-186819-8), SW-4-240117 (280-186819-9), SW-6-240117 (280-186819-10), SW-7-240117 (280-186819-11) and TB1-240117 (280-186819-12).

Method 8260C: The laboratory control sample (LCS) for analytical batch 480-699186 recovered outside control limits for the following analytes: 2-Methyl-2-propanol, Isobutyl alcohol and 1,4-Dioxane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-699343 recovered outside acceptance criteria, low biased, for Tetrahydrofuran. 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: TB2-240117 (280-186819-13).

Method 8260C: 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: TB2-240117 (280-186819-13). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

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

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

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

# Detection Summary

Client: Aspect Consulting
Project/Site: Hansville Landfill

Job ID: 280-186819-1

## Client Sample ID: MW-5-240117 — Lab Sample ID: 280-186819-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 7.5 | | 5.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Total Alkalinity | 77 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity | 77 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |

## Client Sample ID: MW-6-240117 — Lab Sample ID: 280-186819-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | 0.053 | | 0.020 | | ug/L | 1 | | 8260C SIM | Total/NA |
| Manganese | 200 | | 1.0 | | ug/L | 1 | | 6020 | Dissolved |
| Chloride | 3.5 | | 3.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 16 | | 5.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Total Alkalinity | 100 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity | 100 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |

## Client Sample ID: MW-7-240117 — Lab Sample ID: 280-186819-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 2.2 | | 1.0 | | ug/L | 1 | | 6020 | Dissolved |
| Sulfate | 5.2 | | 5.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Ammonia as N | 0.030 | | 0.030 | | mg/L | 1 | | 350.1 | Total/NA |
| Total Alkalinity | 130 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity | 130 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Organic Carbon - Average | 1.6 | | 1.0 | | mg/L | 1 | | SM 5310B | Total/NA |

## Client Sample ID: MW-12I-240117 — Lab Sample ID: 280-186819-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | 0.062 | | 0.020 | | ug/L | 1 | | 8260C SIM | Total/NA |
| Manganese | 68 | | 1.0 | | ug/L | 1 | | 6020 | Dissolved |
| Chloride | 11 | | 3.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 11 | | 5.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Total Alkalinity | 120 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity | 120 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Organic Carbon - Average | 2.2 | | 1.0 | | mg/L | 1 | | SM 5310B | Total/NA |

## Client Sample ID: MW-13D-240117 — Lab Sample ID: 280-186819-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 11 | | 1.0 | | ug/L | 1 | | 6020 | Dissolved |
| Chloride | 4.4 | | 3.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 15 | | 5.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Ammonia as N | 0.035 | | 0.030 | | mg/L | 1 | | 350.1 | Total/NA |
| Total Alkalinity | 72 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity | 72 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |

## Client Sample ID: MW-14-240117 — Lab Sample ID: 280-186819-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | 0.022 | | 0.020 | | ug/L | 1 | | 8260C SIM | Total/NA |
| cis-1,2-Dichloroethene | 1.6 | | 1.0 | | ug/L | 1 | | 8260C | Total/NA |
| Manganese | 1200 | | 1.0 | | ug/L | 1 | | 6020 | Dissolved |
| Chloride | 3.9 | | 3.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 9.0 | | 5.0 | | mg/L | 1 | | 300.0 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: MW-14-240117 (Continued) — Lab Sample ID: 280-186819-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.049 | | 0.030 | | mg/L | 1 | | 350.1 | Total/NA |
| Total Alkalinity | 89 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity | 89 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Organic Carbon - Average | 1.6 | | 1.0 | | mg/L | 1 | | SM 5310B | Total/NA |

## Client Sample ID: MW-20DD-240117 — Lab Sample ID: 280-186819-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | 0.020 | | 0.020 | | ug/L | 1 | | 8260C SIM | Total/NA |
| cis-1,2-Dichloroethene | 1.6 | | 1.0 | | ug/L | 1 | | 8260C | Total/NA |
| Manganese | 1200 | | 1.0 | | ug/L | 1 | | 6020 | Dissolved |
| Chloride | 3.7 | | 3.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 8.9 | | 5.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Total Alkalinity | 87 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity | 87 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Organic Carbon - Average | 1.5 | | 1.0 | | mg/L | 1 | | SM 5310B | Total/NA |

## Client Sample ID: SW-1-240117 — Lab Sample ID: 280-186819-8

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4.3 | | 3.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 10 | | 5.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Total Alkalinity | 73 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity | 73 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Organic Carbon - Average | 2.0 | | 1.0 | | mg/L | 1 | | SM 5310B | Total/NA |

## Client Sample ID: SW-4-240117 — Lab Sample ID: 280-186819-9

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 40 | | 1.0 | | ug/L | 1 | | 6020 | Dissolved |
| Chloride | 8.5 | | 3.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 18 | | 5.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Total Alkalinity | 130 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity | 130 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Organic Carbon - Average | 11 | | 2.0 | | mg/L | 2 | | SM 5310B | Total/NA |

## Client Sample ID: SW-6-240117 — Lab Sample ID: 280-186819-10

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 24 | | 1.0 | | ug/L | 1 | | 6020 | Dissolved |
| Chloride | 3.7 | | 3.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 6.0 | | 5.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Ammonia as N | 0.068 | | 0.030 | | mg/L | 1 | | 350.1 | Total/NA |
| Total Alkalinity | 44 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity | 44 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Organic Carbon - Average | 23 | | 2.0 | | mg/L | 2 | | SM 5310B | Total/NA |

## Client Sample ID: SW-7-240117 — Lab Sample ID: 280-186819-11

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 4.5 | | 1.0 | | ug/L | 1 | | 6020 | Dissolved |
| Chloride | 3.6 | | 3.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 8.8 | | 5.0 | | mg/L | 1 | | 300.0 | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Aspect Consulting
Project/Site: Hansville Landfill

Job ID: 280-186819-1

## Client Sample ID: SW-7-240117 (Continued) — Lab Sample ID: 280-186819-11

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.055 | | 0.030 | | mg/L | 1 | | 350.1 | Total/NA |
| Total Alkalinity | 60 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity | 60 | | 10 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Organic Carbon - Average | 10 | | 2.0 | | mg/L | 2 | | SM 5310B | Total/NA |

## Client Sample ID: TB1-240117 — Lab Sample ID: 280-186819-12

No Detections.

## Client Sample ID: TB2-240117 — Lab Sample ID: 280-186819-13

No Detections.

This Detection Summary does not include radiochemical test results.

# Method Summary

Client: Aspect Consulting
Project/Site: Hansville Landfill

Job ID: 280-186819-1

| 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 |
| 6020 | Metals (ICP/MS) | SW846 | EET DEN |
| 300.0 | Anions, Ion Chromatography | EPA | EET DEN |
| 350.1 | Nitrogen, Ammonia | EPA | EET DEN |
| SM 2320B | Alkalinity | SM | EET DEN |
| SM 5310B | Organic Carbon, Total (TOC) | SM | EET DEN |
| Subcontract | Dissolved As (ARI) - direct sub to ARI from field | None | SC0056 |
| Subcontract | Nitrate/Nitrite/o-phos(field filtered) (ARI) - direct sub to ARI from field | 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
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: Aspect Consulting
Project/Site: Hansville Landfill

Job ID: 280-186819-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 280-186819-1 | MW-5-240117 | Water | 01/17/24 12:00 | 01/22/24 09:40 |
| 280-186819-2 | MW-6-240117 | Water | 01/17/24 17:35 | 01/22/24 09:40 |
| 280-186819-3 | MW-7-240117 | Water | 01/17/24 09:45 | 01/22/24 09:40 |
| 280-186819-4 | MW-12I-240117 | Water | 01/17/24 14:00 | 01/22/24 09:40 |
| 280-186819-5 | MW-13D-240117 | Water | 01/17/24 16:10 | 01/22/24 09:40 |
| 280-186819-6 | MW-14-240117 | Water | 01/17/24 16:10 | 01/22/24 09:40 |
| 280-186819-7 | MW-20DD-240117 | Water | 01/17/24 07:00 | 01/22/24 09:40 |
| 280-186819-8 | SW-1-240117 | Water | 01/17/24 10:55 | 01/22/24 09:40 |
| 280-186819-9 | SW-4-240117 | Water | 01/17/24 11:45 | 01/22/24 09:40 |
| 280-186819-10 | SW-6-240117 | Water | 01/17/24 12:45 | 01/22/24 09:40 |
| 280-186819-11 | SW-7-240117 | Water | 01/17/24 14:00 | 01/22/24 09:40 |
| 280-186819-12 | TB1-240117 | Water | 01/17/24 00:00 | 01/22/24 09:40 |
| 280-186819-13 | TB2-240117 | Water | 01/17/24 00:00 | 01/22/24 09:40 |

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

**Client Sample ID: MW-5-240117**
**Date Collected: 01/17/24 12:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-1**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 0.020 | | ug/L | | | 01/26/24 20:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *113* | | *50 - 150* | | *01/26/24 20:51* | *1* |
| *TBA-d9 (Surr)* | *122* | | *50 - 150* | | *01/26/24 20:51* | *1* |

**Client Sample ID: MW-6-240117**
**Date Collected: 01/17/24 17:35**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-2**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Vinyl chloride** | **0.053** | | 0.020 | | ug/L | | | 01/26/24 21:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *111* | | *50 - 150* | | *01/26/24 21:15* | *1* |
| *TBA-d9 (Surr)* | *104* | | *50 - 150* | | *01/26/24 21:15* | *1* |

**Client Sample ID: MW-7-240117**
**Date Collected: 01/17/24 09:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-3**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 0.020 | | ug/L | | | 01/26/24 21:39 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *113* | | *50 - 150* | | *01/26/24 21:39* | *1* |
| *TBA-d9 (Surr)* | *98* | | *50 - 150* | | *01/26/24 21:39* | *1* |

**Client Sample ID: MW-12I-240117**
**Date Collected: 01/17/24 14:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-4**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Vinyl chloride** | **0.062** | | 0.020 | | ug/L | | | 01/26/24 22:03 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *112* | | *50 - 150* | | *01/26/24 22:03* | *1* |
| *TBA-d9 (Surr)* | *107* | | *50 - 150* | | *01/26/24 22:03* | *1* |

**Client Sample ID: MW-13D-240117**
**Date Collected: 01/17/24 16:10**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-5**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 0.020 | | ug/L | | | 01/26/24 22:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *115* | | *50 - 150* | | *01/26/24 22:27* | *1* |
| *TBA-d9 (Surr)* | *108* | | *50 - 150* | | *01/26/24 22:27* | *1* |

**Client Sample ID: MW-14-240117**
**Date Collected: 01/17/24 16:10**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-6**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Vinyl chloride** | **0.022** | | 0.020 | | ug/L | | | 01/26/24 22:51 | 1 |

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

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *113* | | *50 - 150* | | *01/26/24 22:51* | *1* |
| *TBA-d9 (Surr)* | *98* | | *50 - 150* | | *01/26/24 22:51* | *1* |

**Client Sample ID: MW-20DD-240117**
**Date Collected: 01/17/24 07:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-7**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Vinyl chloride** | **0.020** | | 0.020 | | ug/L | | | 01/26/24 23:14 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *112* | | *50 - 150* | | *01/26/24 23:14* | *1* |
| *TBA-d9 (Surr)* | *104* | | *50 - 150* | | *01/26/24 23:14* | *1* |

**Client Sample ID: SW-1-240117**
**Date Collected: 01/17/24 10:55**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-8**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 0.020 | | ug/L | | | 01/26/24 23:38 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *116* | | *50 - 150* | | *01/26/24 23:38* | *1* |
| *TBA-d9 (Surr)* | *101* | | *50 - 150* | | *01/26/24 23:38* | *1* |

**Client Sample ID: SW-4-240117**
**Date Collected: 01/17/24 11:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-9**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 0.020 | | ug/L | | | 01/27/24 00:02 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *116* | | *50 - 150* | | *01/27/24 00:02* | *1* |
| *TBA-d9 (Surr)* | *95* | | *50 - 150* | | *01/27/24 00:02* | *1* |

**Client Sample ID: SW-6-240117**
**Date Collected: 01/17/24 12:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-10**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 0.020 | | ug/L | | | 01/27/24 00:25 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *116* | | *50 - 150* | | *01/27/24 00:25* | *1* |
| *TBA-d9 (Surr)* | *94* | | *50 - 150* | | *01/27/24 00:25* | *1* |

**Client Sample ID: SW-7-240117**
**Date Collected: 01/17/24 14:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-11**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 0.020 | | ug/L | | | 01/27/24 00:50 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *115* | | *50 - 150* | | *01/27/24 00:50* | *1* |
| *TBA-d9 (Surr)* | *90* | | *50 - 150* | | *01/27/24 00:50* | *1* |

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

**Client Sample ID: TB1-240117**
**Date Collected: 01/17/24 00:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-12**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 0.020 | | ug/L | | | 01/27/24 01:13 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *115* | | *50 - 150* | | *01/27/24 01:13* | *1* |
| *TBA-d9 (Surr)* | *99* | | *50 - 150* | | *01/27/24 01:13* | *1* |

**Client Sample ID: TB2-240117**
**Date Collected: 01/17/24 00:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-13**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 0.020 | | ug/L | | | 01/27/24 01:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *115* | | *50 - 150* | | *01/27/24 01:37* | *1* |
| *TBA-d9 (Surr)* | *93* | | *50 - 150* | | *01/27/24 01:37* | *1* |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS

**Client Sample ID: MW-5-240117**
**Date Collected: 01/17/24 12:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-1**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,1-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,2-Dichloroethene, Total | ND | | 2.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,3,5-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,3-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 1,4-Dioxane | ND | *+ | 40 | | ug/L | | | 01/29/24 12:36 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 01/29/24 12:36 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 5.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 2-Hexanone | ND | | 5.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | | ug/L | | | 01/29/24 12:36 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: MW-5-240117**
**Date Collected: 01/17/24 12:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-1**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 10 | | ug/L | | | 01/29/24 12:36 | 1 |
| Acetonitrile | ND | | 15 | | ug/L | | | 01/29/24 12:36 | 1 |
| Acrolein | ND | | 20 | | ug/L | | | 01/29/24 12:36 | 1 |
| Acrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Benzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Bromobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Bromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Bromodichloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Bromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Butyl alcohol, n- | ND | | 40 | | ug/L | | | 01/29/24 12:36 | 1 |
| Butyl alcohol, tert- | ND | *+ | 10 | | ug/L | | | 01/29/24 12:36 | 1 |
| Carbon disulfide | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Chlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Chlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Chloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Chloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| cis-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| cis-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Cyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Dibromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Dibromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Dichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Ethyl acetate | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Ethyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Ethyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Hexachlorobutadiene | ND | | 2.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Hexane | ND | | 10 | | ug/L | | | 01/29/24 12:36 | 1 |
| Iodomethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Isobutanol | ND | *+ | 25 | | ug/L | | | 01/29/24 12:36 | 1 |
| Isopropyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Methacrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Methyl acetate | ND | | 2.5 | | ug/L | | | 01/29/24 12:36 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Methylcyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Methylene Chloride | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Naphthalene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| o-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| p-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| p-Cymene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: MW-5-240117**
**Date Collected: 01/17/24 12:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-1**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Styrene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Tert-amyl methyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| tert-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Tetrahydrofuran | ND | | 5.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| trans-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| trans-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Trichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Vinyl acetate | ND | | 5.0 | | ug/L | | | 01/29/24 12:36 | 1 |
| Vinyl chloride | ND | | 1.0 | | ug/L | | | 01/29/24 12:36 | 1 |

| *Tentatively Identified Compound* | *Est. Result* | *Qualifier* | *Unit* | *D* | *RT* | *CAS No.* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|---|---|---|
| *Hexachloroethane TIC* | *ND* | | *ug/L* | | | *67-72-1* | | *01/29/24 12:36* | *1* |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *101* | | *77 - 120* | | *01/29/24 12:36* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *73 - 120* | | *01/29/24 12:36* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *80 - 120* | | *01/29/24 12:36* | *1* |

**Client Sample ID: MW-6-240117**
**Date Collected: 01/17/24 17:35**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-2**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,1-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,2-Dichloroethene, Total | ND | | 2.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,3,5-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,3-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: MW-6-240117**
**Date Collected: 01/17/24 17:35**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-2**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | ND | *+ | 40 | | ug/L | | | 01/29/24 12:59 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 01/29/24 12:59 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 5.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 2-Hexanone | ND | | 5.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Acetone | ND | | 10 | | ug/L | | | 01/29/24 12:59 | 1 |
| Acetonitrile | ND | | 15 | | ug/L | | | 01/29/24 12:59 | 1 |
| Acrolein | ND | | 20 | | ug/L | | | 01/29/24 12:59 | 1 |
| Acrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Benzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Bromobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Bromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Bromodichloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Bromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Butyl alcohol, n- | ND | | 40 | | ug/L | | | 01/29/24 12:59 | 1 |
| Butyl alcohol, tert- | ND | *+ | 10 | | ug/L | | | 01/29/24 12:59 | 1 |
| Carbon disulfide | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Chlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Chlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Chloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Chloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| cis-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| cis-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Cyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Dibromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Dibromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Dichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Ethyl acetate | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Ethyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Ethyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Hexachlorobutadiene | ND | | 2.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Hexane | ND | | 10 | | ug/L | | | 01/29/24 12:59 | 1 |
| Iodomethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Isobutanol | ND | *+ | 25 | | ug/L | | | 01/29/24 12:59 | 1 |
| Isopropyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Methacrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Methyl acetate | ND | | 2.5 | | ug/L | | | 01/29/24 12:59 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Methylcyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Methylene Chloride | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Naphthalene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: MW-6-240117**
**Date Collected: 01/17/24 17:35**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-2**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| o-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| p-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| p-Cymene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Styrene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Tert-amyl methyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| tert-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Tetrahydrofuran | ND | | 5.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| trans-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| trans-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Trichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Vinyl acetate | ND | | 5.0 | | ug/L | | | 01/29/24 12:59 | 1 |
| Vinyl chloride | ND | | 1.0 | | ug/L | | | 01/29/24 12:59 | 1 |

| *Tentatively Identified Compound* | *Est. Result* | *Qualifier* | *Unit* | *D* | *RT* | *CAS No.* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|---|---|---|
| *Hexachloroethane TIC* | *ND* | | *ug/L* | | | *67-72-1* | | *01/29/24 12:59* | *1* |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *98* | | *77 - 120* | | *01/29/24 12:59* | *1* |
| *4-Bromofluorobenzene (Surr)* | *94* | | *73 - 120* | | *01/29/24 12:59* | *1* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 120* | | *01/29/24 12:59* | *1* |

**Client Sample ID: MW-7-240117**
**Date Collected: 01/17/24 09:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-3**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,1-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,2-Dichloroethene, Total | ND | | 2.0 | | ug/L | | | 01/29/24 13:22 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: MW-7-240117**
**Date Collected: 01/17/24 09:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-3**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,3,5-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,3-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 1,4-Dioxane | ND | *+ | 40 | | ug/L | | | 01/29/24 13:22 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 01/29/24 13:22 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 5.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 2-Hexanone | ND | | 5.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Acetone | ND | | 10 | | ug/L | | | 01/29/24 13:22 | 1 |
| Acetonitrile | ND | | 15 | | ug/L | | | 01/29/24 13:22 | 1 |
| Acrolein | ND | | 20 | | ug/L | | | 01/29/24 13:22 | 1 |
| Acrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Benzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Bromobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Bromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Bromodichloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Bromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Butyl alcohol, n- | ND | | 40 | | ug/L | | | 01/29/24 13:22 | 1 |
| Butyl alcohol, tert- | ND | *+ | 10 | | ug/L | | | 01/29/24 13:22 | 1 |
| Carbon disulfide | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Chlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Chlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Chloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Chloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| cis-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| cis-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Cyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Dibromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Dibromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Dichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Ethyl acetate | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Ethyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Ethyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Hexachlorobutadiene | ND | | 2.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Hexane | ND | | 10 | | ug/L | | | 01/29/24 13:22 | 1 |
| Iodomethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Isobutanol | ND | *+ | 25 | | ug/L | | | 01/29/24 13:22 | 1 |
| Isopropyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Methacrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 13:22 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: MW-7-240117**
**Date Collected: 01/17/24 09:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-3**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methyl acetate | ND | | 2.5 | | ug/L | | | 01/29/24 13:22 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Methylcyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Methylene Chloride | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Naphthalene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| o-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| p-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| p-Cymene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Styrene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Tert-amyl methyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| tert-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Tetrahydrofuran | ND | | 5.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| trans-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| trans-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Trichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Vinyl acetate | ND | | 5.0 | | ug/L | | | 01/29/24 13:22 | 1 |
| Vinyl chloride | ND | | 1.0 | | ug/L | | | 01/29/24 13:22 | 1 |

| *Tentatively Identified Compound* | *Est. Result* | *Qualifier* | *Unit* | *D* | *RT* | *CAS No.* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|---|---|---|
| *Hexachloroethane TIC* | *ND* | | *ug/L* | | | *67-72-1* | | *01/29/24 13:22* | *1* |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *97* | | *77 - 120* | | *01/29/24 13:22* | *1* |
| *4-Bromofluorobenzene (Surr)* | *97* | | *73 - 120* | | *01/29/24 13:22* | *1* |
| *Toluene-d8 (Surr)* | *97* | | *80 - 120* | | *01/29/24 13:22* | *1* |

**Client Sample ID: MW-12I-240117**
**Date Collected: 01/17/24 14:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-4**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,1-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: MW-12I-240117**
**Date Collected: 01/17/24 14:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-4**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,2-Dichloroethene, Total | ND | | 2.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,3,5-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,3-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 1,4-Dioxane | ND | *+ | 40 | | ug/L | | | 01/29/24 13:45 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 01/29/24 13:45 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 5.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 2-Hexanone | ND | | 5.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Acetone | ND | | 10 | | ug/L | | | 01/29/24 13:45 | 1 |
| Acetonitrile | ND | | 15 | | ug/L | | | 01/29/24 13:45 | 1 |
| Acrolein | ND | | 20 | | ug/L | | | 01/29/24 13:45 | 1 |
| Acrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Benzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Bromobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Bromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Bromodichloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Bromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Butyl alcohol, n- | ND | | 40 | | ug/L | | | 01/29/24 13:45 | 1 |
| Butyl alcohol, tert- | ND | *+ | 10 | | ug/L | | | 01/29/24 13:45 | 1 |
| Carbon disulfide | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Chlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Chlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Chloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Chloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| cis-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| cis-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Cyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Dibromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Dibromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Dichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Ethyl acetate | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Ethyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Ethyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Hexachlorobutadiene | ND | | 2.0 | | ug/L | | | 01/29/24 13:45 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: MW-12I-240117**
**Date Collected: 01/17/24 14:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-4**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Hexane | ND | | 10 | | ug/L | | | 01/29/24 13:45 | 1 |
| Iodomethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Isobutanol | ND | *+ | 25 | | ug/L | | | 01/29/24 13:45 | 1 |
| Isopropyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Methacrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Methyl acetate | ND | | 2.5 | | ug/L | | | 01/29/24 13:45 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Methylcyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Methylene Chloride | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Naphthalene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| o-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| p-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| p-Cymene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Styrene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Tert-amyl methyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| tert-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Tetrahydrofuran | ND | | 5.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| trans-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| trans-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Trichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Vinyl acetate | ND | | 5.0 | | ug/L | | | 01/29/24 13:45 | 1 |
| Vinyl chloride | ND | | 1.0 | | ug/L | | | 01/29/24 13:45 | 1 |

| *Tentatively Identified Compound* | *Est. Result* | *Qualifier* | *Unit* | *D* | *RT* | *CAS No.* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|---|---|---|
| *Hexachloroethane TIC* | *ND* | | *ug/L* | | | *67-72-1* | | *01/29/24 13:45* | *1* |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *96* | | *77 - 120* | | *01/29/24 13:45* | *1* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *73 - 120* | | *01/29/24 13:45* | *1* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 120* | | *01/29/24 13:45* | *1* |

**Client Sample ID: MW-13D-240117**
**Date Collected: 01/17/24 16:10**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-5**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: MW-13D-240117**
**Date Collected: 01/17/24 16:10**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-5**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,1-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,2-Dichloroethene, Total | ND | | 2.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,3,5-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,3-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 1,4-Dioxane | ND | *+ | 40 | | ug/L | | | 01/29/24 14:09 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 01/29/24 14:09 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 5.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 2-Hexanone | ND | | 5.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Acetone | ND | | 10 | | ug/L | | | 01/29/24 14:09 | 1 |
| Acetonitrile | ND | | 15 | | ug/L | | | 01/29/24 14:09 | 1 |
| Acrolein | ND | | 20 | | ug/L | | | 01/29/24 14:09 | 1 |
| Acrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Benzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Bromobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Bromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Bromodichloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Bromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Butyl alcohol, n- | ND | | 40 | | ug/L | | | 01/29/24 14:09 | 1 |
| Butyl alcohol, tert- | ND | *+ | 10 | | ug/L | | | 01/29/24 14:09 | 1 |
| Carbon disulfide | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Chlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Chlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Chloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Chloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| cis-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| cis-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Cyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Dibromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Dibromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: MW-13D-240117**
**Date Collected: 01/17/24 16:10**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-5**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Ethyl acetate | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Ethyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Ethyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Hexachlorobutadiene | ND | | 2.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Hexane | ND | | 10 | | ug/L | | | 01/29/24 14:09 | 1 |
| Iodomethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Isobutanol | ND | *+ | 25 | | ug/L | | | 01/29/24 14:09 | 1 |
| Isopropyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Methacrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Methyl acetate | ND | | 2.5 | | ug/L | | | 01/29/24 14:09 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Methylcyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Methylene Chloride | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Naphthalene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| o-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| p-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| p-Cymene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Styrene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Tert-amyl methyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| tert-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Tetrahydrofuran | ND | | 5.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| trans-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| trans-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Trichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Vinyl acetate | ND | | 5.0 | | ug/L | | | 01/29/24 14:09 | 1 |
| Vinyl chloride | ND | | 1.0 | | ug/L | | | 01/29/24 14:09 | 1 |

| *Tentatively Identified Compound* | *Est. Result* | *Qualifier* | *Unit* | *D* | *RT* | *CAS No.* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|---|---|---|
| *Hexachloroethane TIC* | *ND* | | *ug/L* | | | *67-72-1* | | *01/29/24 14:09* | *1* |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *77 - 120* | | *01/29/24 14:09* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *73 - 120* | | *01/29/24 14:09* | *1* |
| *Toluene-d8 (Surr)* | *97* | | *80 - 120* | | *01/29/24 14:09* | *1* |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS

**Client Sample ID: MW-14-240117**
**Date Collected: 01/17/24 16:10**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-6**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,1-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,2-Dichloroethene, Total | ND | | 2.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,3,5-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,3-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 1,4-Dioxane | ND | *+ | 40 | | ug/L | | | 01/29/24 14:32 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 01/29/24 14:32 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 5.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 2-Hexanone | ND | | 5.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Acetone | ND | | 10 | | ug/L | | | 01/29/24 14:32 | 1 |
| Acetonitrile | ND | | 15 | | ug/L | | | 01/29/24 14:32 | 1 |
| Acrolein | ND | | 20 | | ug/L | | | 01/29/24 14:32 | 1 |
| Acrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Benzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Bromobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Bromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Bromodichloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Bromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Butyl alcohol, n- | ND | | 40 | | ug/L | | | 01/29/24 14:32 | 1 |
| Butyl alcohol, tert- | ND | *+ | 10 | | ug/L | | | 01/29/24 14:32 | 1 |
| Carbon disulfide | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Chlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Chlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Chloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Chloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| **cis-1,2-Dichloroethene** | **1.6** | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: MW-14-240117**
**Date Collected: 01/17/24 16:10**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-6**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Cyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Dibromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Dibromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Dichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Ethyl acetate | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Ethyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Ethyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Hexachlorobutadiene | ND | | 2.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Hexane | ND | | 10 | | ug/L | | | 01/29/24 14:32 | 1 |
| Iodomethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Isobutanol | ND | *+ | 25 | | ug/L | | | 01/29/24 14:32 | 1 |
| Isopropyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Methacrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Methyl acetate | ND | | 2.5 | | ug/L | | | 01/29/24 14:32 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Methylcyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Methylene Chloride | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Naphthalene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| o-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| p-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| p-Cymene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Styrene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Tert-amyl methyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| tert-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Tetrahydrofuran | ND | | 5.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| trans-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| trans-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Trichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Vinyl acetate | ND | | 5.0 | | ug/L | | | 01/29/24 14:32 | 1 |
| Vinyl chloride | ND | | 1.0 | | ug/L | | | 01/29/24 14:32 | 1 |

| *Tentatively Identified Compound* | *Est. Result* | *Qualifier* | *Unit* | *D* | *RT* | *CAS No.* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|---|---|---|
| *Hexachloroethane TIC* | *ND* | | *ug/L* | | | *67-72-1* | | *01/29/24 14:32* | *1* |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *99* | | *77 - 120* | | *01/29/24 14:32* | *1* |
| *4-Bromofluorobenzene (Surr)* | *93* | | *73 - 120* | | *01/29/24 14:32* | *1* |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: MW-14-240117**
**Date Collected: 01/17/24 16:10**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-6**
**Matrix: Water**

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *96* | | *80 - 120* | | *01/29/24 14:32* | *1* |

**Client Sample ID: MW-20DD-240117**
**Date Collected: 01/17/24 07:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-7**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,1-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,2-Dichloroethene, Total | ND | | 2.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,3,5-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,3-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 1,4-Dioxane | ND | *+ | 40 | | ug/L | | | 01/29/24 14:55 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 01/29/24 14:55 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 5.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 2-Hexanone | ND | | 5.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Acetone | ND | | 10 | | ug/L | | | 01/29/24 14:55 | 1 |
| Acetonitrile | ND | | 15 | | ug/L | | | 01/29/24 14:55 | 1 |
| Acrolein | ND | | 20 | | ug/L | | | 01/29/24 14:55 | 1 |
| Acrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Benzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Bromobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Bromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Bromodichloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Bromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Butyl alcohol, n- | ND | | 40 | | ug/L | | | 01/29/24 14:55 | 1 |
| Butyl alcohol, tert- | ND | *+ | 10 | | ug/L | | | 01/29/24 14:55 | 1 |
| Carbon disulfide | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: MW-20DD-240117**
**Date Collected: 01/17/24 07:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-7**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Chlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Chloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Chloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| **cis-1,2-Dichloroethene** | **1.6** | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| cis-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Cyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Dibromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Dibromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Dichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Ethyl acetate | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Ethyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Ethyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Hexachlorobutadiene | ND | | 2.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Hexane | ND | | 10 | | ug/L | | | 01/29/24 14:55 | 1 |
| Iodomethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Isobutanol | ND | *+ | 25 | | ug/L | | | 01/29/24 14:55 | 1 |
| Isopropyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Methacrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Methyl acetate | ND | | 2.5 | | ug/L | | | 01/29/24 14:55 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Methylcyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Methylene Chloride | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Naphthalene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| o-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| p-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| p-Cymene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Styrene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Tert-amyl methyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| tert-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Tetrahydrofuran | ND | | 5.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| trans-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| trans-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Trichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Vinyl acetate | ND | | 5.0 | | ug/L | | | 01/29/24 14:55 | 1 |
| Vinyl chloride | ND | | 1.0 | | ug/L | | | 01/29/24 14:55 | 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 | | 01/29/24 14:55 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (Surr) | 97 | | 77 - 120 | | 01/29/24 14:55 | 1 |
| 4-Bromofluorobenzene (Surr) | 96 | | 73 - 120 | | 01/29/24 14:55 | 1 |
| Toluene-d8 (Surr) | 96 | | 80 - 120 | | 01/29/24 14:55 | 1 |

**Client Sample ID: SW-1-240117**
**Date Collected: 01/17/24 10:55**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-8**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,1-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,2-Dichloroethene, Total | ND | | 2.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,3,5-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,3-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 1,4-Dioxane | ND | *+ | 40 | | ug/L | | | 01/29/24 15:17 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 01/29/24 15:17 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 5.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 2-Hexanone | ND | | 5.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Acetone | ND | | 10 | | ug/L | | | 01/29/24 15:17 | 1 |
| Acetonitrile | ND | | 15 | | ug/L | | | 01/29/24 15:17 | 1 |
| Acrolein | ND | | 20 | | ug/L | | | 01/29/24 15:17 | 1 |
| Acrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Benzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Bromobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Bromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Bromodichloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Bromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Butyl alcohol, n- | ND | | 40 | | ug/L | | | 01/29/24 15:17 | 1 |
| Butyl alcohol, tert- | ND | *+ | 10 | | ug/L | | | 01/29/24 15:17 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: SW-1-240117**
**Date Collected: 01/17/24 10:55**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-8**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon disulfide | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Chlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Chlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Chloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Chloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| cis-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| cis-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Cyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Dibromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Dibromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Dichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Ethyl acetate | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Ethyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Ethyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Hexachlorobutadiene | ND | | 2.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Hexane | ND | | 10 | | ug/L | | | 01/29/24 15:17 | 1 |
| Iodomethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Isobutanol | ND | *+ | 25 | | ug/L | | | 01/29/24 15:17 | 1 |
| Isopropyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Methacrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Methyl acetate | ND | | 2.5 | | ug/L | | | 01/29/24 15:17 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Methylcyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Methylene Chloride | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Naphthalene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| o-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| p-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| p-Cymene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Styrene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Tert-amyl methyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| tert-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Tetrahydrofuran | ND | | 5.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| trans-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| trans-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Trichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: SW-1-240117**
**Date Collected: 01/17/24 10:55**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-8**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl acetate | ND | | 5.0 | | ug/L | | | 01/29/24 15:17 | 1 |
| Vinyl chloride | ND | | 1.0 | | ug/L | | | 01/29/24 15:17 | 1 |

| *Tentatively Identified Compound* | *Est. Result* | *Qualifier* | *Unit* | *D* | *RT* | *CAS No.* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|---|---|---|
| *Hexachloroethane TIC* | *ND* | | *ug/L* | | | *67-72-1* | | *01/29/24 15:17* | *1* |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *104* | | *77 - 120* | | *01/29/24 15:17* | *1* |
| *4-Bromofluorobenzene (Surr)* | *96* | | *73 - 120* | | *01/29/24 15:17* | *1* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 120* | | *01/29/24 15:17* | *1* |

**Client Sample ID: SW-4-240117**
**Date Collected: 01/17/24 11:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-9**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,1-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,2-Dichloroethene, Total | ND | | 2.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,3,5-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,3-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 1,4-Dioxane | ND | *+ | 40 | | ug/L | | | 01/29/24 15:40 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 01/29/24 15:40 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 5.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 2-Hexanone | ND | | 5.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Acetone | ND | | 10 | | ug/L | | | 01/29/24 15:40 | 1 |
| Acetonitrile | ND | | 15 | | ug/L | | | 01/29/24 15:40 | 1 |
| Acrolein | ND | | 20 | | ug/L | | | 01/29/24 15:40 | 1 |
| Acrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Benzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Bromobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: SW-4-240117**
**Date Collected: 01/17/24 11:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-9**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Bromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Bromodichloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Bromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Butyl alcohol, n- | ND | | 40 | | ug/L | | | 01/29/24 15:40 | 1 |
| Butyl alcohol, tert- | ND | *+ | 10 | | ug/L | | | 01/29/24 15:40 | 1 |
| Carbon disulfide | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Chlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Chlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Chloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Chloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| cis-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| cis-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Cyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Dibromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Dibromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Dichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Ethyl acetate | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Ethyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Ethyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Hexachlorobutadiene | ND | | 2.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Hexane | ND | | 10 | | ug/L | | | 01/29/24 15:40 | 1 |
| Iodomethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Isobutanol | ND | *+ | 25 | | ug/L | | | 01/29/24 15:40 | 1 |
| Isopropyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Methacrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Methyl acetate | ND | | 2.5 | | ug/L | | | 01/29/24 15:40 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Methylcyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Methylene Chloride | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Naphthalene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| o-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| p-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| p-Cymene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Styrene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Tert-amyl methyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| tert-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Tetrahydrofuran | ND | | 5.0 | | ug/L | | | 01/29/24 15:40 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: SW-4-240117**
**Date Collected: 01/17/24 11:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-9**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Toluene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| trans-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| trans-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Trichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Vinyl acetate | ND | | 5.0 | | ug/L | | | 01/29/24 15:40 | 1 |
| Vinyl chloride | ND | | 1.0 | | ug/L | | | 01/29/24 15:40 | 1 |

| *Tentatively Identified Compound* | *Est. Result* | *Qualifier* | *Unit* | *D* | *RT* | *CAS No.* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|---|---|---|
| *Hexachloroethane TIC* | *ND* | | *ug/L* | | | *67-72-1* | | *01/29/24 15:40* | *1* |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *103* | | *77 - 120* | | *01/29/24 15:40* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *73 - 120* | | *01/29/24 15:40* | *1* |
| *Toluene-d8 (Surr)* | *97* | | *80 - 120* | | *01/29/24 15:40* | *1* |

**Client Sample ID: SW-6-240117**
**Date Collected: 01/17/24 12:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-10**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,1-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,2-Dichloroethene, Total | ND | | 2.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,3,5-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,3-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 1,4-Dioxane | ND | *+ | 40 | | ug/L | | | 01/29/24 16:03 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 01/29/24 16:03 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 5.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 2-Hexanone | ND | | 5.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | | ug/L | | | 01/29/24 16:03 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: SW-6-240117**
**Date Collected: 01/17/24 12:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-10**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 10 | | ug/L | | | 01/29/24 16:03 | 1 |
| Acetonitrile | ND | | 15 | | ug/L | | | 01/29/24 16:03 | 1 |
| Acrolein | ND | | 20 | | ug/L | | | 01/29/24 16:03 | 1 |
| Acrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Benzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Bromobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Bromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Bromodichloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Bromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Butyl alcohol, n- | ND | | 40 | | ug/L | | | 01/29/24 16:03 | 1 |
| Butyl alcohol, tert- | ND | *+ | 10 | | ug/L | | | 01/29/24 16:03 | 1 |
| Carbon disulfide | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Chlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Chlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Chloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Chloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| cis-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| cis-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Cyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Dibromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Dibromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Dichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Ethyl acetate | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Ethyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Ethyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Hexachlorobutadiene | ND | | 2.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Hexane | ND | | 10 | | ug/L | | | 01/29/24 16:03 | 1 |
| Iodomethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Isobutanol | ND | *+ | 25 | | ug/L | | | 01/29/24 16:03 | 1 |
| Isopropyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Methacrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Methyl acetate | ND | | 2.5 | | ug/L | | | 01/29/24 16:03 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Methylcyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Methylene Chloride | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Naphthalene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| o-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| p-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| p-Cymene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: SW-6-240117**
**Date Collected: 01/17/24 12:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-10**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Styrene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Tert-amyl methyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| tert-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Tetrahydrofuran | ND | | 5.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| trans-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| trans-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Trichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Vinyl acetate | ND | | 5.0 | | ug/L | | | 01/29/24 16:03 | 1 |
| Vinyl chloride | ND | | 1.0 | | ug/L | | | 01/29/24 16:03 | 1 |

| *Tentatively Identified Compound* | *Est. Result* | *Qualifier* | *Unit* | *D* | *RT* | *CAS No.* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|---|---|---|
| *Hexachloroethane TIC* | *ND* | | *ug/L* | | | *67-72-1* | | *01/29/24 16:03* | *1* |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *77 - 120* | | *01/29/24 16:03* | *1* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *73 - 120* | | *01/29/24 16:03* | *1* |
| *Toluene-d8 (Surr)* | *97* | | *80 - 120* | | *01/29/24 16:03* | *1* |

**Client Sample ID: SW-7-240117**
**Date Collected: 01/17/24 14:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-11**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,1-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,2-Dichloroethene, Total | ND | | 2.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,3,5-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,3-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: SW-7-240117**
**Date Collected: 01/17/24 14:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-11**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | ND | *+ | 40 | | ug/L | | | 01/29/24 16:26 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 01/29/24 16:26 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 5.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 2-Hexanone | ND | | 5.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Acetone | ND | | 10 | | ug/L | | | 01/29/24 16:26 | 1 |
| Acetonitrile | ND | | 15 | | ug/L | | | 01/29/24 16:26 | 1 |
| Acrolein | ND | | 20 | | ug/L | | | 01/29/24 16:26 | 1 |
| Acrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Benzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Bromobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Bromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Bromodichloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Bromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Butyl alcohol, n- | ND | | 40 | | ug/L | | | 01/29/24 16:26 | 1 |
| Butyl alcohol, tert- | ND | *+ | 10 | | ug/L | | | 01/29/24 16:26 | 1 |
| Carbon disulfide | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Chlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Chlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Chloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Chloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| cis-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| cis-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Cyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Dibromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Dibromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Dichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Ethyl acetate | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Ethyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Ethyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Hexachlorobutadiene | ND | | 2.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Hexane | ND | | 10 | | ug/L | | | 01/29/24 16:26 | 1 |
| Iodomethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Isobutanol | ND | *+ | 25 | | ug/L | | | 01/29/24 16:26 | 1 |
| Isopropyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Methacrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Methyl acetate | ND | | 2.5 | | ug/L | | | 01/29/24 16:26 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Methylcyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Methylene Chloride | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Naphthalene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: SW-7-240117**
**Date Collected: 01/17/24 14:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-11**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| o-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| p-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| p-Cymene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Styrene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Tert-amyl methyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| tert-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Tetrahydrofuran | ND | | 5.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| trans-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| trans-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Trichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Vinyl acetate | ND | | 5.0 | | ug/L | | | 01/29/24 16:26 | 1 |
| Vinyl chloride | ND | | 1.0 | | ug/L | | | 01/29/24 16:26 | 1 |

| *Tentatively Identified Compound* | *Est. Result* | *Qualifier* | *Unit* | *D* | *RT* | *CAS No.* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|---|---|---|
| *Hexachloroethane TIC* | *ND* | | *ug/L* | | | *67-72-1* | | *01/29/24 16:26* | *1* |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *104* | | *77 - 120* | | *01/29/24 16:26* | *1* |
| *4-Bromofluorobenzene (Surr)* | *95* | | *73 - 120* | | *01/29/24 16:26* | *1* |
| *Toluene-d8 (Surr)* | *97* | | *80 - 120* | | *01/29/24 16:26* | *1* |

**Client Sample ID: TB1-240117**
**Date Collected: 01/17/24 00:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-12**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,1-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,2-Dichloroethene, Total | ND | | 2.0 | | ug/L | | | 01/29/24 16:50 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: TB1-240117**
**Date Collected: 01/17/24 00:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-12**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,3,5-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,3-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 1,4-Dioxane | ND | *+ | 40 | | ug/L | | | 01/29/24 16:50 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 01/29/24 16:50 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 5.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 2-Hexanone | ND | | 5.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Acetone | ND | | 10 | | ug/L | | | 01/29/24 16:50 | 1 |
| Acetonitrile | ND | | 15 | | ug/L | | | 01/29/24 16:50 | 1 |
| Acrolein | ND | | 20 | | ug/L | | | 01/29/24 16:50 | 1 |
| Acrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Benzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Bromobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Bromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Bromodichloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Bromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Butyl alcohol, n- | ND | | 40 | | ug/L | | | 01/29/24 16:50 | 1 |
| Butyl alcohol, tert- | ND | *+ | 10 | | ug/L | | | 01/29/24 16:50 | 1 |
| Carbon disulfide | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Chlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Chlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Chloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Chloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| cis-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| cis-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Cyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Dibromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Dibromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Dichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Ethyl acetate | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Ethyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Ethyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Hexachlorobutadiene | ND | | 2.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Hexane | ND | | 10 | | ug/L | | | 01/29/24 16:50 | 1 |
| Iodomethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Isobutanol | ND | *+ | 25 | | ug/L | | | 01/29/24 16:50 | 1 |
| Isopropyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Methacrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 16:50 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: TB1-240117**
**Date Collected: 01/17/24 00:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-12**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methyl acetate | ND | | 2.5 | | ug/L | | | 01/29/24 16:50 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Methylcyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Methylene Chloride | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Naphthalene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| o-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| p-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| p-Cymene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Styrene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Tert-amyl methyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| tert-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Tetrahydrofuran | ND | | 5.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| trans-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| trans-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Trichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Vinyl acetate | ND | | 5.0 | | ug/L | | | 01/29/24 16:50 | 1 |
| Vinyl chloride | ND | | 1.0 | | ug/L | | | 01/29/24 16:50 | 1 |

| *Tentatively Identified Compound* | *Est. Result* | *Qualifier* | *Unit* | *D* | *RT* | *CAS No.* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|---|---|---|
| *Hexachloroethane TIC* | *ND* | | *ug/L* | | | *67-72-1* | | *01/29/24 16:50* | *1* |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *98* | | *77 - 120* | | *01/29/24 16:50* | *1* |
| *4-Bromofluorobenzene (Surr)* | *95* | | *73 - 120* | | *01/29/24 16:50* | *1* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 120* | | *01/29/24 16:50* | *1* |

**Client Sample ID: TB2-240117**
**Date Collected: 01/17/24 00:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-13**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,1-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: TB2-240117**
**Date Collected: 01/17/24 00:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-13**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,2-Dichloroethene, Total | ND | | 2.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,3,5-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,3-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 1,4-Dioxane | ND | | 40 | | ug/L | | | 01/30/24 13:07 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 01/30/24 13:07 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 5.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 2-Hexanone | ND | | 5.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Acetone | ND | | 10 | | ug/L | | | 01/30/24 13:07 | 1 |
| Acetonitrile | ND | | 15 | | ug/L | | | 01/30/24 13:07 | 1 |
| Acrolein | ND | | 20 | | ug/L | | | 01/30/24 13:07 | 1 |
| Acrylonitrile | ND | | 5.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Benzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Bromobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Bromochloromethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Bromodichloromethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Bromomethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Butyl alcohol, n- | ND | | 40 | | ug/L | | | 01/30/24 13:07 | 1 |
| Butyl alcohol, tert- | ND | | 10 | | ug/L | | | 01/30/24 13:07 | 1 |
| Carbon disulfide | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Chlorobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Chlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Chloroethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Chloromethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| cis-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| cis-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Cyclohexane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Dibromochloromethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Dibromomethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Dichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Ethyl acetate | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Ethyl ether | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Ethyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Hexachlorobutadiene | ND | | 2.0 | | ug/L | | | 01/30/24 13:07 | 1 |

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Client Sample ID: TB2-240117**
**Date Collected: 01/17/24 00:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-13**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Hexane | ND | | 10 | | ug/L | | | 01/30/24 13:07 | 1 |
| Iodomethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Isobutanol | ND | | 25 | | ug/L | | | 01/30/24 13:07 | 1 |
| Isopropyl ether | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Methacrylonitrile | ND | | 5.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Methyl acetate | ND | | 2.5 | | ug/L | | | 01/30/24 13:07 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Methylcyclohexane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Methylene Chloride | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Naphthalene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| o-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| p-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| p-Cymene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Styrene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Tert-amyl methyl ether | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| tert-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Tetrahydrofuran | ND | | 5.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| trans-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| trans-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Trichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Vinyl acetate | ND | | 5.0 | | ug/L | | | 01/30/24 13:07 | 1 |
| Vinyl chloride | ND | | 1.0 | | ug/L | | | 01/30/24 13:07 | 1 |

| *Tentatively Identified Compound* | *Est. Result* | *Qualifier* | *Unit* | *D* | *RT* | *CAS No.* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|---|---|---|
| *Hexachloroethane TIC* | *ND* | | *ug/L* | | | *67-72-1* | | *01/30/24 13:07* | *1* |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *101* | | *77 - 120* | | *01/30/24 13:07* | *1* |
| *4-Bromofluorobenzene (Surr)* | *108* | | *73 - 120* | | *01/30/24 13:07* | *1* |
| *Toluene-d8 (Surr)* | *108* | | *80 - 120* | | *01/30/24 13:07* | *1* |

## Method: SW846 6020 - Metals (ICP/MS) - Dissolved

**Client Sample ID: MW-5-240117**
**Date Collected: 01/17/24 12:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-1**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | ND | | 1.0 | | ug/L | | 01/23/24 08:32 | 01/24/24 13:39 | 1 |

## Method: SW846 6020 - Metals (ICP/MS) - Dissolved

**Client Sample ID: MW-6-240117**
**Date Collected: 01/17/24 17:35**
**Date Received: 01/22/24 09:40**
**Lab Sample ID: 280-186819-2**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Manganese** | **200** | | 1.0 | | ug/L | | 01/23/24 08:32 | 01/24/24 13:57 | 1 |

**Client Sample ID: MW-7-240117**
**Date Collected: 01/17/24 09:45**
**Date Received: 01/22/24 09:40**
**Lab Sample ID: 280-186819-3**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Manganese** | **2.2** | | 1.0 | | ug/L | | 01/23/24 08:32 | 01/24/24 14:01 | 1 |

**Client Sample ID: MW-12I-240117**
**Date Collected: 01/17/24 14:00**
**Date Received: 01/22/24 09:40**
**Lab Sample ID: 280-186819-4**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Manganese** | **68** | | 1.0 | | ug/L | | 01/23/24 08:32 | 01/24/24 00:17 | 1 |

**Client Sample ID: MW-13D-240117**
**Date Collected: 01/17/24 16:10**
**Date Received: 01/22/24 09:40**
**Lab Sample ID: 280-186819-5**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Manganese** | **11** | | 1.0 | | ug/L | | 01/23/24 08:32 | 01/24/24 14:11 | 1 |

**Client Sample ID: MW-14-240117**
**Date Collected: 01/17/24 16:10**
**Date Received: 01/22/24 09:40**
**Lab Sample ID: 280-186819-6**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Manganese** | **1200** | | 1.0 | | ug/L | | 01/23/24 08:32 | 01/24/24 00:24 | 1 |

**Client Sample ID: MW-20DD-240117**
**Date Collected: 01/17/24 07:00**
**Date Received: 01/22/24 09:40**
**Lab Sample ID: 280-186819-7**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Manganese** | **1200** | | 1.0 | | ug/L | | 01/23/24 08:32 | 01/24/24 00:28 | 1 |

**Client Sample ID: SW-1-240117**
**Date Collected: 01/17/24 10:55**
**Date Received: 01/22/24 09:40**
**Lab Sample ID: 280-186819-8**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | ND | | 1.0 | | ug/L | | 01/23/24 08:32 | 01/24/24 14:15 | 1 |

**Client Sample ID: SW-4-240117**
**Date Collected: 01/17/24 11:45**
**Date Received: 01/22/24 09:40**
**Lab Sample ID: 280-186819-9**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Manganese** | **40** | | 1.0 | | ug/L | | 01/23/24 08:32 | 01/24/24 00:35 | 1 |

**Client Sample ID: SW-6-240117**
**Date Collected: 01/17/24 12:45**
**Date Received: 01/22/24 09:40**
**Lab Sample ID: 280-186819-10**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Manganese** | **24** | | 1.0 | | ug/L | | 01/23/24 08:32 | 01/24/24 00:39 | 1 |

## Method: SW846 6020 - Metals (ICP/MS) - Dissolved

**Client Sample ID: SW-7-240117**
**Date Collected: 01/17/24 14:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-11**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Manganese** | **4.5** | | 1.0 | | ug/L | | 01/23/24 08:32 | 01/24/24 14:18 | 1 |

## General Chemistry

**Client Sample ID: MW-5-240117**
**Date Collected: 01/17/24 12:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-1**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride (EPA 300.0) | ND | | 3.0 | | mg/L | | | 01/23/24 00:51 | 1 |
| **Sulfate (EPA 300.0)** | **7.5** | | 5.0 | | mg/L | | | 01/23/24 00:51 | 1 |
| Ammonia as N (EPA 350.1) | ND | | 0.030 | | mg/L | | | 01/31/24 16:13 | 1 |
| **Total Alkalinity (SM 2320B)** | **77** | | 10 | | mg/L | | | 01/23/24 17:56 | 1 |
| **Bicarbonate Alkalinity (SM 2320B)** | **77** | | 10 | | mg/L | | | 01/23/24 17:56 | 1 |
| Carbonate Alkalinity (SM 2320B) | ND | | 10 | | mg/L | | | 01/23/24 17:56 | 1 |
| Total Organic Carbon - Average (SM 5310B) | ND | | 1.0 | | mg/L | | | 01/24/24 02:14 | 1 |

**Client Sample ID: MW-6-240117**
**Date Collected: 01/17/24 17:35**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-2**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride (EPA 300.0)** | **3.5** | | 3.0 | | mg/L | | | 01/23/24 01:02 | 1 |
| **Sulfate (EPA 300.0)** | **16** | | 5.0 | | mg/L | | | 01/23/24 01:02 | 1 |
| Ammonia as N (EPA 350.1) | ND | | 0.030 | | mg/L | | | 02/01/24 15:00 | 1 |
| **Total Alkalinity (SM 2320B)** | **100** | | 10 | | mg/L | | | 01/23/24 18:02 | 1 |
| **Bicarbonate Alkalinity (SM 2320B)** | **100** | | 10 | | mg/L | | | 01/23/24 18:02 | 1 |
| Carbonate Alkalinity (SM 2320B) | ND | | 10 | | mg/L | | | 01/23/24 18:02 | 1 |
| Total Organic Carbon - Average (SM 5310B) | ND | | 1.0 | | mg/L | | | 01/24/24 03:01 | 1 |

**Client Sample ID: MW-7-240117**
**Date Collected: 01/17/24 09:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-3**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride (EPA 300.0) | ND | | 3.0 | | mg/L | | | 01/23/24 01:47 | 1 |
| **Sulfate (EPA 300.0)** | **5.2** | | 5.0 | | mg/L | | | 01/23/24 01:47 | 1 |
| **Ammonia as N (EPA 350.1)** | **0.030** | | 0.030 | | mg/L | | | 02/01/24 15:52 | 1 |
| **Total Alkalinity (SM 2320B)** | **130** | | 10 | | mg/L | | | 01/23/24 18:07 | 1 |
| **Bicarbonate Alkalinity (SM 2320B)** | **130** | | 10 | | mg/L | | | 01/23/24 18:07 | 1 |
| Carbonate Alkalinity (SM 2320B) | ND | | 10 | | mg/L | | | 01/23/24 18:07 | 1 |
| **Total Organic Carbon - Average (SM 5310B)** | **1.6** | | 1.0 | | mg/L | | | 01/24/24 03:15 | 1 |

**Client Sample ID: MW-12I-240117**
**Date Collected: 01/17/24 14:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-4**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride (EPA 300.0)** | **11** | | 3.0 | | mg/L | | | 01/23/24 02:33 | 1 |
| **Sulfate (EPA 300.0)** | **11** | | 5.0 | | mg/L | | | 01/23/24 02:33 | 1 |
| Ammonia as N (EPA 350.1) | ND | | 0.030 | | mg/L | | | 02/01/24 15:54 | 1 |
| **Total Alkalinity (SM 2320B)** | **120** | | 10 | | mg/L | | | 01/23/24 18:13 | 1 |

## General Chemistry (Continued)

**Client Sample ID: MW-12I-240117**
**Date Collected: 01/17/24 14:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-4**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Bicarbonate Alkalinity (SM 2320B)** | **120** | | 10 | | mg/L | | | 01/23/24 18:13 | 1 |
| Carbonate Alkalinity (SM 2320B) | ND | | 10 | | mg/L | | | 01/23/24 18:13 | 1 |
| **Total Organic Carbon - Average (SM 5310B)** | **2.2** | | 1.0 | | mg/L | | | 01/24/24 03:29 | 1 |

**Client Sample ID: MW-13D-240117**
**Date Collected: 01/17/24 16:10**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-5**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride (EPA 300.0)** | **4.4** | | 3.0 | | mg/L | | | 01/23/24 02:44 | 1 |
| **Sulfate (EPA 300.0)** | **15** | | 5.0 | | mg/L | | | 01/23/24 02:44 | 1 |
| **Ammonia as N (EPA 350.1)** | **0.035** | | 0.030 | | mg/L | | | 02/01/24 15:32 | 1 |
| **Total Alkalinity (SM 2320B)** | **72** | | 10 | | mg/L | | | 01/23/24 18:19 | 1 |
| **Bicarbonate Alkalinity (SM 2320B)** | **72** | | 10 | | mg/L | | | 01/23/24 18:19 | 1 |
| Carbonate Alkalinity (SM 2320B) | ND | | 10 | | mg/L | | | 01/23/24 18:19 | 1 |
| Total Organic Carbon - Average (SM 5310B) | ND | | 1.0 | | mg/L | | | 01/24/24 03:46 | 1 |

**Client Sample ID: MW-14-240117**
**Date Collected: 01/17/24 16:10**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-6**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride (EPA 300.0)** | **3.9** | | 3.0 | | mg/L | | | 01/23/24 03:18 | 1 |
| **Sulfate (EPA 300.0)** | **9.0** | | 5.0 | | mg/L | | | 01/23/24 03:18 | 1 |
| **Ammonia as N (EPA 350.1)** | **0.049** | | 0.030 | | mg/L | | | 02/01/24 15:34 | 1 |
| **Total Alkalinity (SM 2320B)** | **89** | | 10 | | mg/L | | | 01/23/24 18:24 | 1 |
| **Bicarbonate Alkalinity (SM 2320B)** | **89** | | 10 | | mg/L | | | 01/23/24 18:24 | 1 |
| Carbonate Alkalinity (SM 2320B) | ND | | 10 | | mg/L | | | 01/23/24 18:24 | 1 |
| **Total Organic Carbon - Average (SM 5310B)** | **1.6** | | 1.0 | | mg/L | | | 01/24/24 04:00 | 1 |

**Client Sample ID: MW-20DD-240117**
**Date Collected: 01/17/24 07:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-7**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride (EPA 300.0)** | **3.7** | | 3.0 | | mg/L | | | 01/23/24 03:29 | 1 |
| **Sulfate (EPA 300.0)** | **8.9** | | 5.0 | | mg/L | | | 01/23/24 03:29 | 1 |
| Ammonia as N (EPA 350.1) | ND | | 0.030 | | mg/L | | | 02/01/24 15:37 | 1 |
| **Total Alkalinity (SM 2320B)** | **87** | | 10 | | mg/L | | | 01/23/24 18:29 | 1 |
| **Bicarbonate Alkalinity (SM 2320B)** | **87** | | 10 | | mg/L | | | 01/23/24 18:29 | 1 |
| Carbonate Alkalinity (SM 2320B) | ND | | 10 | | mg/L | | | 01/23/24 18:29 | 1 |
| **Total Organic Carbon - Average (SM 5310B)** | **1.5** | | 1.0 | | mg/L | | | 01/24/24 04:14 | 1 |

**Client Sample ID: SW-1-240117**
**Date Collected: 01/17/24 10:55**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-8**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride (EPA 300.0)** | **4.3** | | 3.0 | | mg/L | | | 01/23/24 06:30 | 1 |
| **Sulfate (EPA 300.0)** | **10** | | 5.0 | | mg/L | | | 01/23/24 06:30 | 1 |
| Ammonia as N (EPA 350.1) | ND | | 0.030 | | mg/L | | | 02/01/24 15:39 | 1 |

## General Chemistry (Continued)

**Client Sample ID: SW-1-240117**
**Date Collected: 01/17/24 10:55**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-8**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Alkalinity (SM 2320B)** | **73** | | 10 | | mg/L | | | 01/23/24 18:35 | 1 |
| **Bicarbonate Alkalinity (SM 2320B)** | **73** | | 10 | | mg/L | | | 01/23/24 18:35 | 1 |
| Carbonate Alkalinity (SM 2320B) | ND | | 10 | | mg/L | | | 01/23/24 18:35 | 1 |
| **Total Organic Carbon - Average (SM 5310B)** | **2.0** | | 1.0 | | mg/L | | | 01/24/24 04:28 | 1 |

**Client Sample ID: SW-4-240117**
**Date Collected: 01/17/24 11:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-9**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride (EPA 300.0)** | **8.5** | | 3.0 | | mg/L | | | 01/23/24 06:41 | 1 |
| **Sulfate (EPA 300.0)** | **18** | | 5.0 | | mg/L | | | 01/23/24 06:41 | 1 |
| Ammonia as N (EPA 350.1) | ND | | 0.030 | | mg/L | | | 02/01/24 15:41 | 1 |
| **Total Alkalinity (SM 2320B)** | **130** | | 10 | | mg/L | | | 01/23/24 18:40 | 1 |
| **Bicarbonate Alkalinity (SM 2320B)** | **130** | | 10 | | mg/L | | | 01/23/24 18:40 | 1 |
| Carbonate Alkalinity (SM 2320B) | ND | | 10 | | mg/L | | | 01/23/24 18:40 | 1 |
| **Total Organic Carbon - Average (SM 5310B)** | **11** | | 2.0 | | mg/L | | | 01/24/24 05:16 | 2 |

**Client Sample ID: SW-6-240117**
**Date Collected: 01/17/24 12:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-10**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride (EPA 300.0)** | **3.7** | | 3.0 | | mg/L | | | 01/23/24 06:52 | 1 |
| **Sulfate (EPA 300.0)** | **6.0** | | 5.0 | | mg/L | | | 01/23/24 06:52 | 1 |
| **Ammonia as N (EPA 350.1)** | **0.068** | | 0.030 | | mg/L | | | 01/26/24 14:23 | 1 |
| **Total Alkalinity (SM 2320B)** | **44** | | 10 | | mg/L | | | 01/23/24 18:46 | 1 |
| **Bicarbonate Alkalinity (SM 2320B)** | **44** | | 10 | | mg/L | | | 01/23/24 18:46 | 1 |
| Carbonate Alkalinity (SM 2320B) | ND | | 10 | | mg/L | | | 01/23/24 18:46 | 1 |
| **Total Organic Carbon - Average (SM 5310B)** | **23** | | 2.0 | | mg/L | | | 01/24/24 05:31 | 2 |

**Client Sample ID: SW-7-240117**
**Date Collected: 01/17/24 14:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-11**
**Matrix: Water**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride (EPA 300.0)** | **3.6** | | 3.0 | | mg/L | | | 01/23/24 07:04 | 1 |
| **Sulfate (EPA 300.0)** | **8.8** | | 5.0 | | mg/L | | | 01/23/24 07:04 | 1 |
| **Ammonia as N (EPA 350.1)** | **0.055** | | 0.030 | | mg/L | | | 01/26/24 14:25 | 1 |
| **Total Alkalinity (SM 2320B)** | **60** | | 10 | | mg/L | | | 01/23/24 19:37 | 1 |
| **Bicarbonate Alkalinity (SM 2320B)** | **60** | | 10 | | mg/L | | | 01/23/24 19:37 | 1 |
| Carbonate Alkalinity (SM 2320B) | ND | | 10 | | mg/L | | | 01/23/24 19:37 | 1 |
| **Total Organic Carbon - Average (SM 5310B)** | **10** | | 2.0 | | mg/L | | | 01/24/24 07:35 | 2 |

# Surrogate Summary

Client: Aspect Consulting
Project/Site: Hansville Landfill

Job ID: 280-186819-1

## 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) |
| 280-186819-1 | MW-5-240117 | 101 | 99 | 99 |
| 280-186819-2 | MW-6-240117 | 98 | 94 | 96 |
| 280-186819-3 | MW-7-240117 | 97 | 97 | 97 |
| 280-186819-4 | MW-12I-240117 | 96 | 98 | 96 |
| 280-186819-5 | MW-13D-240117 | 100 | 99 | 97 |
| 280-186819-6 | MW-14-240117 | 99 | 93 | 96 |
| 280-186819-7 | MW-20DD-240117 | 97 | 96 | 96 |
| 280-186819-8 | SW-1-240117 | 104 | 96 | 96 |
| 280-186819-9 | SW-4-240117 | 103 | 99 | 97 |
| 280-186819-10 | SW-6-240117 | 100 | 98 | 97 |
| 280-186819-11 | SW-7-240117 | 104 | 95 | 97 |
| 280-186819-12 | TB1-240117 | 98 | 95 | 96 |
| 280-186819-13 | TB2-240117 | 101 | 108 | 108 |
| 480-216707-D-2 MS | Matrix Spike | 107 | 103 | 111 |
| 480-216707-D-2 MSD | Matrix Spike Duplicate | 106 | 100 | 107 |
| LCS 480-699186/6 | Lab Control Sample | 95 | 100 | 101 |
| LCS 480-699343/7 | Lab Control Sample | 102 | 104 | 109 |
| MB 480-699186/8 | Method Blank | 98 | 99 | 97 |
| MB 480-699343/10 | Method Blank | 98 | 100 | 102 |

**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) |
| 280-186819-1 | MW-5-240117 | 113 | 122 |
| 280-186819-2 | MW-6-240117 | 111 | 104 |
| 280-186819-3 | MW-7-240117 | 113 | 98 |
| 280-186819-4 | MW-12I-240117 | 112 | 107 |
| 280-186819-5 | MW-13D-240117 | 115 | 108 |
| 280-186819-6 | MW-14-240117 | 113 | 98 |
| 280-186819-7 | MW-20DD-240117 | 112 | 104 |
| 280-186819-8 | SW-1-240117 | 116 | 101 |
| 280-186819-9 | SW-4-240117 | 116 | 95 |
| 280-186819-10 | SW-6-240117 | 116 | 94 |
| 280-186819-11 | SW-7-240117 | 115 | 90 |
| 280-186819-12 | TB1-240117 | 115 | 99 |
| 280-186819-13 | TB2-240117 | 115 | 93 |
| LCS 480-699155/6 | Lab Control Sample | 102 | 100 |
| LCSD 480-699155/7 | Lab Control Sample Dup | 101 | 99 |
| MB 480-699155/9 | Method Blank | 112 | 112 |

**Surrogate Legend**

DBFM = Dibromofluoromethane (Surr)
TBA = TBA-d9 (Surr)

## Method: 8260C - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 480-699186/8**
**Matrix: Water**
**Analysis Batch: 699186**

**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 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,1-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,2-Dichloroethene, Total | ND | | 2.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,3,5-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,3-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 1,4-Dioxane | ND | | 40 | | ug/L | | | 01/29/24 11:48 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 01/29/24 11:48 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 5.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 2-Hexanone | ND | | 5.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Acetone | ND | | 10 | | ug/L | | | 01/29/24 11:48 | 1 |
| Acetonitrile | ND | | 15 | | ug/L | | | 01/29/24 11:48 | 1 |
| Acrolein | ND | | 20 | | ug/L | | | 01/29/24 11:48 | 1 |
| Acrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Benzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Bromobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Bromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Bromodichloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Bromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Butyl alcohol, n- | ND | | 40 | | ug/L | | | 01/29/24 11:48 | 1 |
| Butyl alcohol, tert- | ND | | 10 | | ug/L | | | 01/29/24 11:48 | 1 |
| Carbon disulfide | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Chlorobenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Chlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Chloroethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Chloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-699186/8**
**Matrix: Water**
**Analysis Batch: 699186**

**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 | | ug/L | | | 01/29/24 11:48 | 1 |
| cis-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Cyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Dibromochloromethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Dibromomethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Dichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Ethyl acetate | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Ethyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Ethyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Hexachlorobutadiene | ND | | 2.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Hexane | ND | | 10 | | ug/L | | | 01/29/24 11:48 | 1 |
| Iodomethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Isobutanol | ND | | 25 | | ug/L | | | 01/29/24 11:48 | 1 |
| Isopropyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Methacrylonitrile | ND | | 5.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Methyl acetate | ND | | 2.5 | | ug/L | | | 01/29/24 11:48 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Methylcyclohexane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Methylene Chloride | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Naphthalene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| o-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| p-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| p-Cymene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Styrene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Tert-amyl methyl ether | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| tert-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Tetrahydrofuran | ND | | 5.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| trans-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| trans-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Trichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Vinyl acetate | ND | | 5.0 | | ug/L | | | 01/29/24 11:48 | 1 |
| Vinyl chloride | ND | | 1.0 | | ug/L | | | 01/29/24 11:48 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *98* | | *77 - 120* | | *01/29/24 11:48* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *73 - 120* | | *01/29/24 11:48* | *1* |

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-699186/8**
**Matrix: Water**
**Analysis Batch: 699186**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| Toluene-d8 (Surr) | 97 | | 80 - 120 | | 01/29/24 11:48 | 1 |

**Lab Sample ID: LCS 480-699186/6**
**Matrix: Water**
**Analysis Batch: 699186**

**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 | 27.4 | | ug/L | | 110 | 80 - 120 |
| 1,1,1-Trichloroethane | 25.0 | 24.7 | | ug/L | | 99 | 73 - 126 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 24.7 | | ug/L | | 99 | 76 - 120 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 25.0 | 21.8 | | ug/L | | 87 | 61 - 148 |
| 1,1,2-Trichloroethane | 25.0 | 24.0 | | ug/L | | 96 | 76 - 122 |
| 1,1-Dichloroethane | 25.0 | 23.7 | | ug/L | | 95 | 77 - 120 |
| 1,1-Dichloroethene | 25.0 | 20.9 | | ug/L | | 84 | 66 - 127 |
| 1,1-Dichloropropene | 25.0 | 24.2 | | ug/L | | 97 | 72 - 122 |
| 1,2,3-Trichlorobenzene | 25.0 | 24.4 | | ug/L | | 98 | 75 - 123 |
| 1,2,3-Trichloropropane | 25.0 | 22.5 | | ug/L | | 90 | 68 - 122 |
| 1,2,4-Trichlorobenzene | 25.0 | 25.5 | | ug/L | | 102 | 79 - 122 |
| 1,2,4-Trimethylbenzene | 25.0 | 26.6 | | ug/L | | 106 | 76 - 121 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 22.5 | | ug/L | | 90 | 56 - 134 |
| 1,2-Dibromoethane (EDB) | 25.0 | 23.4 | | ug/L | | 94 | 77 - 120 |
| 1,2-Dichlorobenzene | 25.0 | 24.8 | | ug/L | | 99 | 80 - 124 |
| 1,2-Dichloroethane | 25.0 | 22.3 | | ug/L | | 89 | 75 - 120 |
| 1,2-Dichloroethene, Total | 50.0 | 46.4 | | ug/L | | 93 | 72 - 124 |
| 1,2-Dichloropropane | 25.0 | 23.6 | | ug/L | | 94 | 76 - 120 |
| 1,3,5-Trimethylbenzene | 25.0 | 26.2 | | ug/L | | 105 | 77 - 121 |
| 1,3-Dichlorobenzene | 25.0 | 25.2 | | ug/L | | 101 | 77 - 120 |
| 1,3-Dichloropropane | 25.0 | 23.9 | | ug/L | | 96 | 75 - 120 |
| 1,4-Dichlorobenzene | 25.0 | 24.5 | | ug/L | | 98 | 80 - 120 |
| 1,4-Dioxane | 500 | 921 | *+ | ug/L | | 184 | 50 - 150 |
| 2,2-Dichloropropane | 25.0 | 25.4 | | ug/L | | 102 | 63 - 136 |
| 2-Butanone (MEK) | 125 | 137 | | ug/L | | 110 | 57 - 140 |
| 2-Chloroethyl vinyl ether | 25.0 | 23.4 | | ug/L | | 94 | 70 - 129 |
| 2-Hexanone | 125 | 133 | | ug/L | | 106 | 65 - 127 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 119 | | ug/L | | 95 | 71 - 125 |
| Acetone | 125 | 143 | | ug/L | | 114 | 56 - 142 |
| Acrolein | 125 | 76.6 | | ug/L | | 61 | 52 - 143 |
| Acrylonitrile | 250 | 237 | | ug/L | | 95 | 63 - 125 |
| Benzene | 25.0 | 23.2 | | ug/L | | 93 | 71 - 124 |
| Bromobenzene | 25.0 | 23.8 | | ug/L | | 95 | 78 - 120 |
| Bromochloromethane | 25.0 | 21.2 | | ug/L | | 85 | 72 - 130 |
| Bromodichloromethane | 25.0 | 24.6 | | ug/L | | 98 | 80 - 122 |
| Bromoform | 25.0 | 30.2 | | ug/L | | 121 | 61 - 132 |
| Bromomethane | 25.0 | 21.1 | | ug/L | | 84 | 55 - 144 |
| Butyl alcohol, tert- | 250 | 398 | *+ | ug/L | | 159 | 75 - 125 |
| Carbon disulfide | 25.0 | 21.2 | | ug/L | | 85 | 59 - 134 |
| Carbon tetrachloride | 25.0 | 26.1 | | ug/L | | 104 | 72 - 134 |
| Chlorobenzene | 25.0 | 24.2 | | ug/L | | 97 | 80 - 120 |

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 480-699186/6**
**Matrix: Water**
**Analysis Batch: 699186**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Chloroethane | 25.0 | 21.4 | | ug/L | | 86 | 69 - 136 |
| Chloroform | 25.0 | 22.7 | | ug/L | | 91 | 73 - 127 |
| Chloromethane | 25.0 | 25.5 | | ug/L | | 102 | 68 - 124 |
| cis-1,2-Dichloroethene | 25.0 | 23.1 | | ug/L | | 92 | 74 - 124 |
| cis-1,3-Dichloropropene | 25.0 | 24.0 | | ug/L | | 96 | 74 - 124 |
| Cyclohexane | 25.0 | 24.4 | | ug/L | | 98 | 59 - 135 |
| Dibromochloromethane | 25.0 | 25.8 | | ug/L | | 103 | 75 - 125 |
| Dibromomethane | 25.0 | 22.0 | | ug/L | | 88 | 76 - 127 |
| Dichlorodifluoromethane | 25.0 | 20.9 | | ug/L | | 84 | 59 - 135 |
| Dichlorofluoromethane | 25.0 | 23.0 | | ug/L | | 92 | 76 - 127 |
| Ethyl ether | 25.0 | 22.1 | | ug/L | | 88 | 76 - 123 |
| Ethylbenzene | 25.0 | 25.0 | | ug/L | | 100 | 77 - 123 |
| Hexachlorobutadiene | 25.0 | 25.7 | | ug/L | | 103 | 68 - 131 |
| Hexane | 25.0 | 23.7 | | ug/L | | 95 | 54 - 146 |
| Iodomethane | 25.0 | 20.0 | | ug/L | | 80 | 78 - 123 |
| Isobutanol | 625 | 1130 | *+ | ug/L | | 180 | 51 - 150 |
| Isopropylbenzene | 25.0 | 26.3 | | ug/L | | 105 | 77 - 122 |
| Methyl acetate | 50.0 | 45.9 | | ug/L | | 92 | 74 - 133 |
| Methyl tert-butyl ether | 25.0 | 21.5 | | ug/L | | 86 | 77 - 120 |
| Methylcyclohexane | 25.0 | 22.7 | | ug/L | | 91 | 68 - 134 |
| Methylene Chloride | 25.0 | 21.7 | | ug/L | | 87 | 75 - 124 |
| m-Xylene & p-Xylene | 25.0 | 24.2 | | ug/L | | 97 | 76 - 122 |
| Naphthalene | 25.0 | 23.7 | | ug/L | | 95 | 66 - 125 |
| n-Butylbenzene | 25.0 | 27.9 | | ug/L | | 112 | 71 - 128 |
| N-Propylbenzene | 25.0 | 26.8 | | ug/L | | 107 | 75 - 127 |
| o-Chlorotoluene | 25.0 | 26.3 | | ug/L | | 105 | 76 - 121 |
| o-Xylene | 25.0 | 24.4 | | ug/L | | 98 | 76 - 122 |
| p-Chlorotoluene | 25.0 | 25.9 | | ug/L | | 104 | 77 - 121 |
| p-Cymene | 25.0 | 26.4 | | ug/L | | 106 | 73 - 120 |
| sec-Butylbenzene | 25.0 | 26.8 | | ug/L | | 107 | 74 - 127 |
| Styrene | 25.0 | 25.4 | | ug/L | | 102 | 80 - 120 |
| tert-Butylbenzene | 25.0 | 26.1 | | ug/L | | 104 | 75 - 123 |
| Tetrachloroethene | 25.0 | 24.7 | | ug/L | | 99 | 74 - 122 |
| Tetrahydrofuran | 50.0 | 47.4 | | ug/L | | 95 | 62 - 132 |
| Toluene | 25.0 | 24.6 | | ug/L | | 98 | 80 - 122 |
| trans-1,2-Dichloroethene | 25.0 | 23.3 | | ug/L | | 93 | 73 - 127 |
| trans-1,3-Dichloropropene | 25.0 | 21.7 | | ug/L | | 87 | 80 - 120 |
| trans-1,4-Dichloro-2-butene | 25.0 | 24.8 | | ug/L | | 99 | 41 - 131 |
| Trichloroethene | 25.0 | 23.0 | | ug/L | | 92 | 74 - 123 |
| Trichlorofluoromethane | 25.0 | 20.8 | | ug/L | | 83 | 62 - 150 |
| Vinyl acetate | 50.0 | 50.1 | | ug/L | | 100 | 50 - 144 |
| Vinyl chloride | 25.0 | 23.7 | | ug/L | | 95 | 65 - 133 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *95* | | *77 - 120* |
| *4-Bromofluorobenzene (Surr)* | *100* | | *73 - 120* |
| *Toluene-d8 (Surr)* | *101* | | *80 - 120* |

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-699343/10**
**Matrix: Water**
**Analysis Batch: 699343**

**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 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,1-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,2-Dichloroethene, Total | ND | | 2.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,3,5-Trichlorobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,3-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 1,4-Dioxane | ND | | 40 | | ug/L | | | 01/30/24 12:42 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 01/30/24 12:42 | 1 |
| 2-Chloroethyl vinyl ether | ND | | 5.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 2-Hexanone | ND | | 5.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Acetone | ND | | 10 | | ug/L | | | 01/30/24 12:42 | 1 |
| Acetonitrile | ND | | 15 | | ug/L | | | 01/30/24 12:42 | 1 |
| Acrolein | ND | | 20 | | ug/L | | | 01/30/24 12:42 | 1 |
| Acrylonitrile | ND | | 5.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Benzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Bromobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Bromochloromethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Bromodichloromethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Bromomethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Butyl alcohol, n- | ND | | 40 | | ug/L | | | 01/30/24 12:42 | 1 |
| Butyl alcohol, tert- | ND | | 10 | | ug/L | | | 01/30/24 12:42 | 1 |
| Carbon disulfide | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Chlorobenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Chlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Chloroethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Chloromethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-699343/10**
**Matrix: Water**
**Analysis Batch: 699343**

**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 | | ug/L | | | 01/30/24 12:42 | 1 |
| cis-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Cyclohexane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Dibromochloromethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Dibromomethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Dichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Ethyl acetate | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Ethyl ether | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Ethyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Hexachlorobutadiene | ND | | 2.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Hexane | ND | | 10 | | ug/L | | | 01/30/24 12:42 | 1 |
| Iodomethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Isobutanol | ND | | 25 | | ug/L | | | 01/30/24 12:42 | 1 |
| Isopropyl ether | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Methacrylonitrile | ND | | 5.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Methyl acetate | ND | | 2.5 | | ug/L | | | 01/30/24 12:42 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Methylcyclohexane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Methylene Chloride | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Naphthalene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| o-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| p-Chlorotoluene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| p-Cymene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Styrene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Tert-amyl methyl ether | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| tert-Butylbenzene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Tetrahydrofuran | ND | | 5.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| trans-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| trans-1,3-Dichloropropene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Trichlorofluoromethane | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Vinyl acetate | ND | | 5.0 | | ug/L | | | 01/30/24 12:42 | 1 |
| Vinyl chloride | ND | | 1.0 | | ug/L | | | 01/30/24 12:42 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *98* | | *77 - 120* | | *01/30/24 12:42* | *1* |
| *4-Bromofluorobenzene (Surr)* | *100* | | *73 - 120* | | *01/30/24 12:42* | *1* |

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-699343/10**
**Matrix: Water**
**Analysis Batch: 699343**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| Toluene-d8 (Surr) | 102 | | 80 - 120 | | 01/30/24 12:42 | 1 |

**Lab Sample ID: LCS 480-699343/7**
**Matrix: Water**
**Analysis Batch: 699343**

**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 | 27.4 | | ug/L | | 110 | 80 - 120 |
| 1,1,1-Trichloroethane | 25.0 | 24.8 | | ug/L | | 99 | 73 - 126 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 26.7 | | ug/L | | 107 | 76 - 120 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 25.0 | 25.1 | | ug/L | | 100 | 61 - 148 |
| 1,1,2-Trichloroethane | 25.0 | 25.6 | | ug/L | | 103 | 76 - 122 |
| 1,1-Dichloroethane | 25.0 | 24.0 | | ug/L | | 96 | 77 - 120 |
| 1,1-Dichloroethene | 25.0 | 24.8 | | ug/L | | 99 | 66 - 127 |
| 1,1-Dichloropropene | 25.0 | 24.4 | | ug/L | | 98 | 72 - 122 |
| 1,2,3-Trichlorobenzene | 25.0 | 27.0 | | ug/L | | 108 | 75 - 123 |
| 1,2,3-Trichloropropane | 25.0 | 27.3 | | ug/L | | 109 | 68 - 122 |
| 1,2,4-Trichlorobenzene | 25.0 | 27.5 | | ug/L | | 110 | 79 - 122 |
| 1,2,4-Trimethylbenzene | 25.0 | 28.1 | | ug/L | | 113 | 76 - 121 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 28.2 | | ug/L | | 113 | 56 - 134 |
| 1,2-Dibromoethane (EDB) | 25.0 | 26.1 | | ug/L | | 104 | 77 - 120 |
| 1,2-Dichlorobenzene | 25.0 | 27.1 | | ug/L | | 109 | 80 - 124 |
| 1,2-Dichloroethane | 25.0 | 22.8 | | ug/L | | 91 | 75 - 120 |
| 1,2-Dichloroethene, Total | 50.0 | 48.2 | | ug/L | | 96 | 72 - 124 |
| 1,2-Dichloropropane | 25.0 | 24.0 | | ug/L | | 96 | 76 - 120 |
| 1,3,5-Trimethylbenzene | 25.0 | 28.5 | | ug/L | | 114 | 77 - 121 |
| 1,3-Dichlorobenzene | 25.0 | 27.1 | | ug/L | | 109 | 77 - 120 |
| 1,3-Dichloropropane | 25.0 | 25.8 | | ug/L | | 103 | 75 - 120 |
| 1,4-Dichlorobenzene | 25.0 | 27.0 | | ug/L | | 108 | 80 - 120 |
| 1,4-Dioxane | 500 | 464 | | ug/L | | 93 | 50 - 150 |
| 2,2-Dichloropropane | 25.0 | 24.4 | | ug/L | | 97 | 63 - 136 |
| 2-Butanone (MEK) | 125 | 110 | | ug/L | | 88 | 57 - 140 |
| 2-Chloroethyl vinyl ether | 25.0 | 23.9 | | ug/L | | 95 | 70 - 129 |
| 2-Hexanone | 125 | 119 | | ug/L | | 95 | 65 - 127 |
| 4-Methyl-2-pentanone (MIBK) | 125 | 118 | | ug/L | | 94 | 71 - 125 |
| Acetone | 125 | 103 | | ug/L | | 82 | 56 - 142 |
| Acrolein | 125 | 103 | | ug/L | | 83 | 52 - 143 |
| Acrylonitrile | 250 | 218 | | ug/L | | 87 | 63 - 125 |
| Benzene | 25.0 | 23.5 | | ug/L | | 94 | 71 - 124 |
| Bromobenzene | 25.0 | 27.2 | | ug/L | | 109 | 78 - 120 |
| Bromochloromethane | 25.0 | 24.5 | | ug/L | | 98 | 72 - 130 |
| Bromodichloromethane | 25.0 | 24.3 | | ug/L | | 97 | 80 - 122 |
| Bromoform | 25.0 | 28.6 | | ug/L | | 114 | 61 - 132 |
| Bromomethane | 25.0 | 21.8 | | ug/L | | 87 | 55 - 144 |
| Butyl alcohol, tert- | 250 | 225 | | ug/L | | 90 | 75 - 125 |
| Carbon disulfide | 25.0 | 22.9 | | ug/L | | 91 | 59 - 134 |
| Carbon tetrachloride | 25.0 | 25.8 | | ug/L | | 103 | 72 - 134 |
| Chlorobenzene | 25.0 | 25.9 | | ug/L | | 104 | 80 - 120 |

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 480-699343/7**
**Matrix: Water**
**Analysis Batch: 699343**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Chloroethane | 25.0 | 23.3 | | ug/L | | 93 | 69 - 136 |
| Chloroform | 25.0 | 22.9 | | ug/L | | 92 | 73 - 127 |
| Chloromethane | 25.0 | 21.3 | | ug/L | | 85 | 68 - 124 |
| cis-1,2-Dichloroethene | 25.0 | 24.0 | | ug/L | | 96 | 74 - 124 |
| cis-1,3-Dichloropropene | 25.0 | 25.2 | | ug/L | | 101 | 74 - 124 |
| Cyclohexane | 25.0 | 24.3 | | ug/L | | 97 | 59 - 135 |
| Dibromochloromethane | 25.0 | 28.4 | | ug/L | | 114 | 75 - 125 |
| Dibromomethane | 25.0 | 23.5 | | ug/L | | 94 | 76 - 127 |
| Dichlorodifluoromethane | 25.0 | 22.1 | | ug/L | | 88 | 59 - 135 |
| Dichlorofluoromethane | 25.0 | 24.5 | | ug/L | | 98 | 76 - 127 |
| Ethyl ether | 25.0 | 21.5 | | ug/L | | 86 | 76 - 123 |
| Ethylbenzene | 25.0 | 26.2 | | ug/L | | 105 | 77 - 123 |
| Hexachlorobutadiene | 25.0 | 28.6 | | ug/L | | 114 | 68 - 131 |
| Hexane | 25.0 | 24.8 | | ug/L | | 99 | 54 - 146 |
| Iodomethane | 25.0 | 23.8 | | ug/L | | 95 | 78 - 123 |
| Isobutanol | 625 | 538 | | ug/L | | 86 | 51 - 150 |
| Isopropylbenzene | 25.0 | 28.7 | | ug/L | | 115 | 77 - 122 |
| Methyl acetate | 50.0 | 42.7 | | ug/L | | 85 | 74 - 133 |
| Methyl tert-butyl ether | 25.0 | 22.7 | | ug/L | | 91 | 77 - 120 |
| Methylcyclohexane | 25.0 | 25.1 | | ug/L | | 101 | 68 - 134 |
| Methylene Chloride | 25.0 | 23.0 | | ug/L | | 92 | 75 - 124 |
| m-Xylene & p-Xylene | 25.0 | 26.4 | | ug/L | | 106 | 76 - 122 |
| Naphthalene | 25.0 | 26.5 | | ug/L | | 106 | 66 - 125 |
| n-Butylbenzene | 25.0 | 29.6 | | ug/L | | 118 | 71 - 128 |
| N-Propylbenzene | 25.0 | 28.6 | | ug/L | | 114 | 75 - 127 |
| o-Chlorotoluene | 25.0 | 28.4 | | ug/L | | 114 | 76 - 121 |
| o-Xylene | 25.0 | 26.4 | | ug/L | | 105 | 76 - 122 |
| p-Chlorotoluene | 25.0 | 27.4 | | ug/L | | 110 | 77 - 121 |
| p-Cymene | 25.0 | 29.3 | | ug/L | | 117 | 73 - 120 |
| sec-Butylbenzene | 25.0 | 29.3 | | ug/L | | 117 | 74 - 127 |
| Styrene | 25.0 | 26.0 | | ug/L | | 104 | 80 - 120 |
| tert-Butylbenzene | 25.0 | 29.4 | | ug/L | | 118 | 75 - 123 |
| Tetrachloroethene | 25.0 | 27.6 | | ug/L | | 110 | 74 - 122 |
| Tetrahydrofuran | 50.0 | 41.5 | | ug/L | | 83 | 62 - 132 |
| Toluene | 25.0 | 26.0 | | ug/L | | 104 | 80 - 122 |
| trans-1,2-Dichloroethene | 25.0 | 24.2 | | ug/L | | 97 | 73 - 127 |
| trans-1,3-Dichloropropene | 25.0 | 27.9 | | ug/L | | 112 | 80 - 120 |
| trans-1,4-Dichloro-2-butene | 25.0 | 28.2 | | ug/L | | 113 | 41 - 131 |
| Trichloroethene | 25.0 | 24.5 | | ug/L | | 98 | 74 - 123 |
| Trichlorofluoromethane | 25.0 | 25.7 | | ug/L | | 103 | 62 - 150 |
| Vinyl acetate | 50.0 | 47.3 | | ug/L | | 95 | 50 - 144 |
| Vinyl chloride | 25.0 | 24.6 | | ug/L | | 98 | 65 - 133 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *102* | | *77 - 120* |
| *4-Bromofluorobenzene (Surr)* | *104* | | *73 - 120* |
| *Toluene-d8 (Surr)* | *109* | | *80 - 120* |

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: 480-216707-D-2 MS**
**Matrix: Water**
**Analysis Batch: 699343**

**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-Trichloroethane | ND | | 250 | 217 | | ug/L | | 87 | 73 - 126 |
| 1,1,2,2-Tetrachloroethane | ND | | 250 | 250 | | ug/L | | 100 | 76 - 120 |
| 1,1,2-Trichloroethane | ND | | 250 | 239 | | ug/L | | 96 | 76 - 122 |
| 1,1-Dichloroethane | ND | | 250 | 218 | | ug/L | | 87 | 77 - 120 |
| 1,1-Dichloroethene | ND | | 250 | 212 | | ug/L | | 85 | 66 - 127 |
| 1,2-Dibromo-3-Chloropropane | ND | | 250 | 260 | | ug/L | | 104 | 56 - 134 |
| 1,2-Dichloroethane | ND | | 250 | 215 | | ug/L | | 86 | 75 - 120 |
| 1,2-Dichloroethene, Total | ND | | 500 | 427 | | ug/L | | 85 | 72 - 124 |
| 1,2-Dichloropropane | ND | | 250 | 224 | | ug/L | | 89 | 76 - 120 |
| 2-Butanone (MEK) | ND | | 1250 | 991 | | ug/L | | 79 | 57 - 140 |
| 2-Hexanone | ND | | 1250 | 1150 | | ug/L | | 92 | 65 - 127 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 1250 | 1140 | | ug/L | | 91 | 71 - 125 |
| Acetone | ND | | 1250 | 815 | | ug/L | | 65 | 56 - 142 |
| Benzene | ND | | 250 | 217 | | ug/L | | 84 | 71 - 124 |
| Bromodichloromethane | ND | | 250 | 221 | | ug/L | | 88 | 80 - 122 |
| Bromoform | ND | | 250 | 252 | | ug/L | | 101 | 61 - 132 |
| Bromomethane | ND | | 250 | 211 | | ug/L | | 84 | 55 - 144 |
| Carbon disulfide | ND | | 250 | 181 | | ug/L | | 72 | 59 - 134 |
| Carbon tetrachloride | ND | | 250 | 221 | | ug/L | | 89 | 72 - 134 |
| Chlorobenzene | 410 | F1 | 250 | 587 | F1 | ug/L | | 70 | 80 - 120 |
| Chloroethane | ND | | 250 | 226 | | ug/L | | 90 | 69 - 136 |
| Chloroform | ND | | 250 | 208 | | ug/L | | 83 | 73 - 127 |
| Chloromethane | ND | | 250 | 200 | | ug/L | | 80 | 68 - 124 |
| cis-1,2-Dichloroethene | ND | | 250 | 216 | | ug/L | | 86 | 74 - 124 |
| cis-1,3-Dichloropropene | ND | | 250 | 221 | | ug/L | | 88 | 74 - 124 |
| Dibromochloromethane | ND | | 250 | 250 | | ug/L | | 100 | 75 - 125 |
| Ethylbenzene | ND | | 250 | 229 | | ug/L | | 91 | 77 - 123 |
| Methylene Chloride | ND | | 250 | 212 | | ug/L | | 85 | 75 - 124 |
| m-Xylene & p-Xylene | ND | | 250 | 234 | | ug/L | | 94 | 76 - 122 |
| o-Xylene | ND | | 250 | 234 | | ug/L | | 94 | 76 - 122 |
| Styrene | ND | | 250 | 233 | | ug/L | | 93 | 80 - 120 |
| Tetrachloroethene | ND | | 250 | 236 | | ug/L | | 94 | 74 - 122 |
| Toluene | ND | | 250 | 229 | | ug/L | | 91 | 80 - 122 |
| trans-1,2-Dichloroethene | ND | | 250 | 211 | | ug/L | | 84 | 73 - 127 |
| trans-1,3-Dichloropropene | ND | | 250 | 244 | | ug/L | | 98 | 80 - 120 |
| Trichloroethene | ND | | 250 | 214 | | ug/L | | 86 | 74 - 123 |
| Vinyl acetate | ND | | 500 | 466 | | ug/L | | 93 | 50 - 144 |
| Vinyl chloride | ND | | 250 | 227 | | ug/L | | 91 | 65 - 133 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *107* | | *77 - 120* |
| *4-Bromofluorobenzene (Surr)* | *103* | | *73 - 120* |
| *Toluene-d8 (Surr)* | *111* | | *80 - 120* |

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: 480-216707-D-2 MSD**
**Matrix: Water**
**Analysis Batch: 699343**

**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-Trichloroethane | ND | | 250 | 224 | | ug/L | | 90 | 73 - 126 | 3 | 15 |
| 1,1,2,2-Tetrachloroethane | ND | | 250 | 237 | | ug/L | | 95 | 76 - 120 | 5 | 15 |
| 1,1,2-Trichloroethane | ND | | 250 | 235 | | ug/L | | 94 | 76 - 122 | 2 | 15 |
| 1,1-Dichloroethane | ND | | 250 | 221 | | ug/L | | 88 | 77 - 120 | 1 | 20 |
| 1,1-Dichloroethene | ND | | 250 | 219 | | ug/L | | 88 | 66 - 127 | 3 | 16 |
| 1,2-Dibromo-3-Chloropropane | ND | | 250 | 245 | | ug/L | | 98 | 56 - 134 | 6 | 15 |
| 1,2-Dichloroethane | ND | | 250 | 217 | | ug/L | | 87 | 75 - 120 | 1 | 20 |
| 1,2-Dichloroethene, Total | ND | | 500 | 439 | | ug/L | | 88 | 72 - 124 | 3 | 20 |
| 1,2-Dichloropropane | ND | | 250 | 227 | | ug/L | | 91 | 76 - 120 | 2 | 20 |
| 2-Butanone (MEK) | ND | | 1250 | 990 | | ug/L | | 79 | 57 - 140 | 0 | 20 |
| 2-Hexanone | ND | | 1250 | 1120 | | ug/L | | 90 | 65 - 127 | 2 | 15 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 1250 | 1120 | | ug/L | | 89 | 71 - 125 | 2 | 35 |
| Acetone | ND | | 1250 | 816 | | ug/L | | 65 | 56 - 142 | 0 | 15 |
| Benzene | ND | | 250 | 223 | | ug/L | | 86 | 71 - 124 | 3 | 13 |
| Bromodichloromethane | ND | | 250 | 223 | | ug/L | | 89 | 80 - 122 | 1 | 15 |
| Bromoform | ND | | 250 | 249 | | ug/L | | 100 | 61 - 132 | 1 | 15 |
| Bromomethane | ND | | 250 | 218 | | ug/L | | 87 | 55 - 144 | 3 | 15 |
| Carbon disulfide | ND | | 250 | 190 | | ug/L | | 76 | 59 - 134 | 5 | 15 |
| Carbon tetrachloride | ND | | 250 | 229 | | ug/L | | 92 | 72 - 134 | 4 | 15 |
| Chlorobenzene | 410 | F1 | 250 | 584 | F1 | ug/L | | 69 | 80 - 120 | 0 | 25 |
| Chloroethane | ND | | 250 | 235 | | ug/L | | 94 | 69 - 136 | 4 | 15 |
| Chloroform | ND | | 250 | 212 | | ug/L | | 85 | 73 - 127 | 2 | 20 |
| Chloromethane | ND | | 250 | 198 | | ug/L | | 79 | 68 - 124 | 1 | 15 |
| cis-1,2-Dichloroethene | ND | | 250 | 222 | | ug/L | | 89 | 74 - 124 | 3 | 15 |
| cis-1,3-Dichloropropene | ND | | 250 | 227 | | ug/L | | 91 | 74 - 124 | 3 | 15 |
| Dibromochloromethane | ND | | 250 | 248 | | ug/L | | 99 | 75 - 125 | 1 | 15 |
| Ethylbenzene | ND | | 250 | 230 | | ug/L | | 92 | 77 - 123 | 1 | 15 |
| Methylene Chloride | ND | | 250 | 219 | | ug/L | | 87 | 75 - 124 | 3 | 15 |
| m-Xylene & p-Xylene | ND | | 250 | 232 | | ug/L | | 93 | 76 - 122 | 1 | 16 |
| o-Xylene | ND | | 250 | 233 | | ug/L | | 93 | 76 - 122 | 1 | 16 |
| Styrene | ND | | 250 | 232 | | ug/L | | 93 | 80 - 120 | 0 | 20 |
| Tetrachloroethene | ND | | 250 | 236 | | ug/L | | 95 | 74 - 122 | 0 | 20 |
| Toluene | ND | | 250 | 230 | | ug/L | | 92 | 80 - 122 | 0 | 15 |
| trans-1,2-Dichloroethene | ND | | 250 | 217 | | ug/L | | 87 | 73 - 127 | 3 | 20 |
| trans-1,3-Dichloropropene | ND | | 250 | 243 | | ug/L | | 97 | 80 - 120 | 0 | 15 |
| Trichloroethene | ND | | 250 | 223 | | ug/L | | 89 | 74 - 123 | 4 | 16 |
| Vinyl acetate | ND | | 500 | 467 | | ug/L | | 93 | 50 - 144 | 0 | 23 |
| Vinyl chloride | ND | | 250 | 234 | | ug/L | | 94 | 65 - 133 | 3 | 15 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *106* | | *77 - 120* |
| *4-Bromofluorobenzene (Surr)* | *100* | | *73 - 120* |
| *Toluene-d8 (Surr)* | *107* | | *80 - 120* |

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

**Lab Sample ID: MB 480-699155/9**
**Matrix: Water**
**Analysis Batch: 699155**

**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 | | ug/L | | | 01/26/24 20:28 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *112* | | *50 - 150* | | *01/26/24 20:28* | *1* |
| *TBA-d9 (Surr)* | *112* | | *50 - 150* | | *01/26/24 20:28* | *1* |

**Lab Sample ID: LCS 480-699155/6**
**Matrix: Water**
**Analysis Batch: 699155**

**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 | 0.218 | | ug/L | | 109 | 50 - 150 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *102* | | *50 - 150* |
| *TBA-d9 (Surr)* | *100* | | *50 - 150* |

**Lab Sample ID: LCSD 480-699155/7**
**Matrix: Water**
**Analysis Batch: 699155**

**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 | 0.220 | | ug/L | | 110 | 50 - 150 | 1 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *101* | | *50 - 150* |
| *TBA-d9 (Surr)* | *99* | | *50 - 150* |

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 280-640672/1-A**
**Matrix: Water**
**Analysis Batch: 640975**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 640672**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | ND | | 1.0 | | ug/L | | 01/23/24 08:32 | 01/24/24 13:32 | 1 |

**Lab Sample ID: LCS 280-640672/2-A**
**Matrix: Water**
**Analysis Batch: 640975**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 640672**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Manganese | | | 40.0 | 42.8 | | ug/L | | 107 | 85 - 117 | | |

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 280-186819-1 MS**
**Matrix: Water**
**Analysis Batch: 640975**

**Client Sample ID: MW-5-240117**
**Prep Type: Dissolved**
**Prep Batch: 640672**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | ND | | 40.0 | 40.8 | | ug/L | | 102 | 85 - 117 |

**Lab Sample ID: 280-186819-1 MSD**
**Matrix: Water**
**Analysis Batch: 640975**

**Client Sample ID: MW-5-240117**
**Prep Type: Dissolved**
**Prep Batch: 640672**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Manganese | ND | | 40.0 | 40.9 | | ug/L | | 102 | 85 - 117 | 0 | 20 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 280-640634/46**
**Matrix: Water**
**Analysis Batch: 640634**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 3.0 | | mg/L | | | 01/23/24 01:36 | 1 |
| Sulfate | ND | | 5.0 | | mg/L | | | 01/23/24 01:36 | 1 |

**Lab Sample ID: MB 280-640634/6**
**Matrix: Water**
**Analysis Batch: 640634**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 3.0 | | mg/L | | | 01/22/24 14:32 | 1 |
| Sulfate | ND | | 5.0 | | mg/L | | | 01/22/24 14:32 | 1 |

**Lab Sample ID: LCS 280-640634/4**
**Matrix: Water**
**Analysis Batch: 640634**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 100 | 93.5 | | mg/L | | 94 | 90 - 110 |
| Sulfate | 100 | 95.4 | | mg/L | | 95 | 90 - 110 |

**Lab Sample ID: LCS 280-640634/44**
**Matrix: Water**
**Analysis Batch: 640634**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 100 | 95.3 | | mg/L | | 95 | 90 - 110 |
| Sulfate | 100 | 96.8 | | mg/L | | 97 | 90 - 110 |

**Lab Sample ID: LCSD 280-640634/45**
**Matrix: Water**
**Analysis Batch: 640634**

**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 | 100 | 95.3 | | mg/L | | 95 | 90 - 110 | 0 | 10 |
| Sulfate | 100 | 96.9 | | mg/L | | 97 | 90 - 110 | 0 | 10 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 280-640634/5**
**Matrix: Water**
**Analysis Batch: 640634**

**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 | | | 100 | 93.6 | | mg/L | | 94 | 90 - 110 | 0 | 10 |
| Sulfate | | | 100 | 94.9 | | mg/L | | 95 | 90 - 110 | 1 | 10 |

**Lab Sample ID: MRL 280-640634/3**
**Matrix: Water**
**Analysis Batch: 640634**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 5.00 | 4.22 | | mg/L | | 84 | 50 - 150 | | |
| Sulfate | | | 5.00 | 4.63 | J | mg/L | | 93 | 50 - 150 | | |

**Lab Sample ID: 280-186819-3 MS**
**Matrix: Water**
**Analysis Batch: 640634**

**Client Sample ID: MW-7-240117**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 50.0 | 47.8 | | mg/L | | 92 | 80 - 120 | | |
| Sulfate | 5.2 | | 50.0 | 55.2 | | mg/L | | 100 | 80 - 120 | | |

**Lab Sample ID: 280-186819-3 MSD**
**Matrix: Water**
**Analysis Batch: 640634**

**Client Sample ID: MW-7-240117**
**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 | 47.8 | | mg/L | | 93 | 80 - 120 | 0 | 20 |
| Sulfate | 5.2 | | 50.0 | 55.3 | | mg/L | | 100 | 80 - 120 | 0 | 20 |

**Lab Sample ID: 280-186819-3 DU**
**Matrix: Water**
**Analysis Batch: 640634**

**Client Sample ID: MW-7-240117**
**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 | 5.2 | | | 5.25 | | mg/L | | | | 0.5 | 15 |

## Method: 350.1 - Nitrogen, Ammonia

**Lab Sample ID: MB 280-641187/54**
**Matrix: Water**
**Analysis Batch: 641187**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | ND | | 0.030 | | mg/L | | | 01/26/24 12:54 | 1 |

**Lab Sample ID: LCS 280-641187/55**
**Matrix: Water**
**Analysis Batch: 641187**

**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 | 2.55 | | mg/L | | 102 | 90 - 110 | | |

## Method: 350.1 - Nitrogen, Ammonia (Continued)

**Lab Sample ID: LCSD 280-641187/56**
**Matrix: Water**
**Analysis Batch: 641187**

**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 | 2.49 | | mg/L | | 100 | 90 - 110 | 2 | 10 |

**Lab Sample ID: MB 280-641611/19**
**Matrix: Water**
**Analysis Batch: 641611**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | ND | | 0.030 | | mg/L | | | 01/31/24 16:07 | 1 |

**Lab Sample ID: LCS 280-641611/20**
**Matrix: Water**
**Analysis Batch: 641611**

**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 | 2.48 | | mg/L | | 99 | 90 - 110 | | |

**Lab Sample ID: LCSD 280-641611/21**
**Matrix: Water**
**Analysis Batch: 641611**

**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 | 2.49 | | mg/L | | 100 | 90 - 110 | 1 | 10 |

**Lab Sample ID: 280-186819-1 MS**
**Matrix: Water**
**Analysis Batch: 641611**

**Client Sample ID: MW-5-240117**
**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 | 0.993 | | mg/L | | 99 | 90 - 110 | | |

**Lab Sample ID: 280-186819-1 MSD**
**Matrix: Water**
**Analysis Batch: 641611**

**Client Sample ID: MW-5-240117**
**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 | 1.01 | | mg/L | | 101 | 90 - 110 | 1 | 10 |

**Lab Sample ID: MB 280-641801/132**
**Matrix: Water**
**Analysis Batch: 641801**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | ND | | 0.030 | | mg/L | | | 02/01/24 15:17 | 1 |

**Lab Sample ID: MB 280-641801/94**
**Matrix: Water**
**Analysis Batch: 641801**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | ND | | 0.030 | | mg/L | | | 02/01/24 13:55 | 1 |

## Method: 350.1 - Nitrogen, Ammonia

**Lab Sample ID: LCS 280-641801/133**
**Matrix: Water**
**Analysis Batch: 641801**

**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 | 2.54 | | mg/L | | 102 | 90 - 110 |

**Lab Sample ID: LCS 280-641801/95**
**Matrix: Water**
**Analysis Batch: 641801**

**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 | 2.55 | | mg/L | | 102 | 90 - 110 |

**Lab Sample ID: LCSD 280-641801/134**
**Matrix: Water**
**Analysis Batch: 641801**

**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 | 2.56 | | mg/L | | 102 | 90 - 110 | 1 | 10 |

**Lab Sample ID: LCSD 280-641801/96**
**Matrix: Water**
**Analysis Batch: 641801**

**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 | 1 | 10 |

**Lab Sample ID: 280-186819-2 MS**
**Matrix: Water**
**Analysis Batch: 641801**

**Client Sample ID: MW-6-240117**
**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 | 1.06 | | mg/L | | 106 | 90 - 110 |

**Lab Sample ID: 280-186819-2 MSD**
**Matrix: Water**
**Analysis Batch: 641801**

**Client Sample ID: MW-6-240117**
**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 | 1.07 | | mg/L | | 107 | 90 - 110 | 2 | 10 |

**Lab Sample ID: 280-186376-G-5 MS**
**Matrix: Water**
**Analysis Batch: 641187**

**Client Sample ID: Matrix Spike**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 1.6 | | 1.00 | 2.58 | | mg/L | | 101 | 90 - 110 |

**Lab Sample ID: 280-186376-G-5 MSD**
**Matrix: Water**
**Analysis Batch: 641187**

**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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 1.6 | | 1.00 | 2.61 | | mg/L | | 104 | 90 - 110 | 1 | 10 |

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 280-640894/31**
**Matrix: Water**
**Analysis Batch: 640894**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Alkalinity | ND | | 10 | | mg/L | | | 01/23/24 19:11 | 1 |
| Bicarbonate Alkalinity | ND | | 10 | | mg/L | | | 01/23/24 19:11 | 1 |
| Carbonate Alkalinity | ND | | 10 | | mg/L | | | 01/23/24 19:11 | 1 |

**Lab Sample ID: MB 280-640894/5**
**Matrix: Water**
**Analysis Batch: 640894**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Alkalinity | ND | | 10 | | mg/L | | | 01/23/24 16:18 | 1 |
| Bicarbonate Alkalinity | ND | | 10 | | mg/L | | | 01/23/24 16:18 | 1 |
| Carbonate Alkalinity | ND | | 10 | | mg/L | | | 01/23/24 16:18 | 1 |

**Lab Sample ID: LCS 280-640894/30**
**Matrix: Water**
**Analysis Batch: 640894**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Alkalinity | | | 200 | 205 | | mg/L | | 102 | 89 - 110 | | |

**Lab Sample ID: LCS 280-640894/4**
**Matrix: Water**
**Analysis Batch: 640894**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Alkalinity | | | 200 | 209 | | mg/L | | 104 | 89 - 110 | | |

**Lab Sample ID: 280-186762-B-1 DU**
**Matrix: Water**
**Analysis Batch: 640894**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Alkalinity | 680 | | | 688 | | mg/L | | | | 0.4 | 10 |
| Bicarbonate Alkalinity | 680 | | | 688 | | mg/L | | | | 0.4 | 20 |
| Carbonate Alkalinity | ND | | | ND | | mg/L | | | | NC | 20 |

**Lab Sample ID: 280-186825-A-2 DU**
**Matrix: Water**
**Analysis Batch: 640894**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Alkalinity | 220 | | | 221 | | mg/L | | | | 1 | 10 |
| Bicarbonate Alkalinity | 220 | | | 221 | | mg/L | | | | 1 | 20 |
| Carbonate Alkalinity | ND | | | ND | | mg/L | | | | NC | 20 |

## Method: SM 5310B - Organic Carbon, Total (TOC)

**Lab Sample ID: MB 280-640886/35**
**Matrix: Water**
**Analysis Batch: 640886**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Organic Carbon - Average | ND | | 1.0 | | mg/L | | | 01/23/24 21:36 | 1 |

**Lab Sample ID: LCS 280-640886/34**
**Matrix: Water**
**Analysis Batch: 640886**

**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 | | |

**Lab Sample ID: 280-186819-1 MS**
**Matrix: Water**
**Analysis Batch: 640886**

**Client Sample ID: MW-5-240117**
**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 | | 105 | 88 - 112 | | |

**Lab Sample ID: 280-186819-1 MSD**
**Matrix: Water**
**Analysis Batch: 640886**

**Client Sample ID: MW-5-240117**
**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 | 26.3 | | mg/L | | 104 | 88 - 112 | 1 | 15 |

## GC/MS VOA

### Analysis Batch: 699155

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-186819-1 | MW-5-240117 | Total/NA | Water | 8260C SIM | |
| 280-186819-2 | MW-6-240117 | Total/NA | Water | 8260C SIM | |
| 280-186819-3 | MW-7-240117 | Total/NA | Water | 8260C SIM | |
| 280-186819-4 | MW-12I-240117 | Total/NA | Water | 8260C SIM | |
| 280-186819-5 | MW-13D-240117 | Total/NA | Water | 8260C SIM | |
| 280-186819-6 | MW-14-240117 | Total/NA | Water | 8260C SIM | |
| 280-186819-7 | MW-20DD-240117 | Total/NA | Water | 8260C SIM | |
| 280-186819-8 | SW-1-240117 | Total/NA | Water | 8260C SIM | |
| 280-186819-9 | SW-4-240117 | Total/NA | Water | 8260C SIM | |
| 280-186819-10 | SW-6-240117 | Total/NA | Water | 8260C SIM | |
| 280-186819-11 | SW-7-240117 | Total/NA | Water | 8260C SIM | |
| 280-186819-12 | TB1-240117 | Total/NA | Water | 8260C SIM | |
| 280-186819-13 | TB2-240117 | Total/NA | Water | 8260C SIM | |
| MB 480-699155/9 | Method Blank | Total/NA | Water | 8260C SIM | |
| LCS 480-699155/6 | Lab Control Sample | Total/NA | Water | 8260C SIM | |
| LCSD 480-699155/7 | Lab Control Sample Dup | Total/NA | Water | 8260C SIM | |

### Analysis Batch: 699186

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-186819-1 | MW-5-240117 | Total/NA | Water | 8260C | |
| 280-186819-2 | MW-6-240117 | Total/NA | Water | 8260C | |
| 280-186819-3 | MW-7-240117 | Total/NA | Water | 8260C | |
| 280-186819-4 | MW-12I-240117 | Total/NA | Water | 8260C | |
| 280-186819-5 | MW-13D-240117 | Total/NA | Water | 8260C | |
| 280-186819-6 | MW-14-240117 | Total/NA | Water | 8260C | |
| 280-186819-7 | MW-20DD-240117 | Total/NA | Water | 8260C | |
| 280-186819-8 | SW-1-240117 | Total/NA | Water | 8260C | |
| 280-186819-9 | SW-4-240117 | Total/NA | Water | 8260C | |
| 280-186819-10 | SW-6-240117 | Total/NA | Water | 8260C | |
| 280-186819-11 | SW-7-240117 | Total/NA | Water | 8260C | |
| 280-186819-12 | TB1-240117 | Total/NA | Water | 8260C | |
| MB 480-699186/8 | Method Blank | Total/NA | Water | 8260C | |
| LCS 480-699186/6 | Lab Control Sample | Total/NA | Water | 8260C | |

### Analysis Batch: 699343

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-186819-13 | TB2-240117 | Total/NA | Water | 8260C | |
| MB 480-699343/10 | Method Blank | Total/NA | Water | 8260C | |
| LCS 480-699343/7 | Lab Control Sample | Total/NA | Water | 8260C | |
| 480-216707-D-2 MS | Matrix Spike | Total/NA | Water | 8260C | |
| 480-216707-D-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260C | |

## Metals

### Prep Batch: 640672

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-186819-1 | MW-5-240117 | Dissolved | Water | 3005A | |
| 280-186819-2 | MW-6-240117 | Dissolved | Water | 3005A | |
| 280-186819-3 | MW-7-240117 | Dissolved | Water | 3005A | |
| 280-186819-4 | MW-12I-240117 | Dissolved | Water | 3005A | |
| 280-186819-5 | MW-13D-240117 | Dissolved | Water | 3005A | |

## Metals (Continued)

### Prep Batch: 640672 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-186819-6 | MW-14-240117 | Dissolved | Water | 3005A | |
| 280-186819-7 | MW-20DD-240117 | Dissolved | Water | 3005A | |
| 280-186819-8 | SW-1-240117 | Dissolved | Water | 3005A | |
| 280-186819-9 | SW-4-240117 | Dissolved | Water | 3005A | |
| 280-186819-10 | SW-6-240117 | Dissolved | Water | 3005A | |
| 280-186819-11 | SW-7-240117 | Dissolved | Water | 3005A | |
| MB 280-640672/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 280-640672/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 280-186819-1 MS | MW-5-240117 | Dissolved | Water | 3005A | |
| 280-186819-1 MSD | MW-5-240117 | Dissolved | Water | 3005A | |

### Analysis Batch: 640862

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-186819-4 | MW-12I-240117 | Dissolved | Water | 6020 | 640672 |
| 280-186819-6 | MW-14-240117 | Dissolved | Water | 6020 | 640672 |
| 280-186819-7 | MW-20DD-240117 | Dissolved | Water | 6020 | 640672 |
| 280-186819-9 | SW-4-240117 | Dissolved | Water | 6020 | 640672 |
| 280-186819-10 | SW-6-240117 | Dissolved | Water | 6020 | 640672 |

### Analysis Batch: 640975

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-186819-1 | MW-5-240117 | Dissolved | Water | 6020 | 640672 |
| 280-186819-2 | MW-6-240117 | Dissolved | Water | 6020 | 640672 |
| 280-186819-3 | MW-7-240117 | Dissolved | Water | 6020 | 640672 |
| 280-186819-5 | MW-13D-240117 | Dissolved | Water | 6020 | 640672 |
| 280-186819-8 | SW-1-240117 | Dissolved | Water | 6020 | 640672 |
| 280-186819-11 | SW-7-240117 | Dissolved | Water | 6020 | 640672 |
| MB 280-640672/1-A | Method Blank | Total Recoverable | Water | 6020 | 640672 |
| LCS 280-640672/2-A | Lab Control Sample | Total Recoverable | Water | 6020 | 640672 |
| 280-186819-1 MS | MW-5-240117 | Dissolved | Water | 6020 | 640672 |
| 280-186819-1 MSD | MW-5-240117 | Dissolved | Water | 6020 | 640672 |

## General Chemistry

### Analysis Batch: 640634

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-186819-1 | MW-5-240117 | Total/NA | Water | 300.0 | |
| 280-186819-2 | MW-6-240117 | Total/NA | Water | 300.0 | |
| 280-186819-3 | MW-7-240117 | Total/NA | Water | 300.0 | |
| 280-186819-4 | MW-12I-240117 | Total/NA | Water | 300.0 | |
| 280-186819-5 | MW-13D-240117 | Total/NA | Water | 300.0 | |
| 280-186819-6 | MW-14-240117 | Total/NA | Water | 300.0 | |
| 280-186819-7 | MW-20DD-240117 | Total/NA | Water | 300.0 | |
| 280-186819-8 | SW-1-240117 | Total/NA | Water | 300.0 | |
| 280-186819-9 | SW-4-240117 | Total/NA | Water | 300.0 | |
| 280-186819-10 | SW-6-240117 | Total/NA | Water | 300.0 | |
| 280-186819-11 | SW-7-240117 | Total/NA | Water | 300.0 | |
| MB 280-640634/46 | Method Blank | Total/NA | Water | 300.0 | |
| MB 280-640634/6 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 280-640634/4 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCS 280-640634/44 | Lab Control Sample | Total/NA | Water | 300.0 | |

## General Chemistry (Continued)

### Analysis Batch: 640634 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCSD 280-640634/45 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| LCSD 280-640634/5 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| MRL 280-640634/3 | Lab Control Sample | Total/NA | Water | 300.0 | |
| 280-186819-3 MS | MW-7-240117 | Total/NA | Water | 300.0 | |
| 280-186819-3 MSD | MW-7-240117 | Total/NA | Water | 300.0 | |
| 280-186819-3 DU | MW-7-240117 | Total/NA | Water | 300.0 | |

### Analysis Batch: 640886

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-186819-1 | MW-5-240117 | Total/NA | Water | SM 5310B | |
| 280-186819-2 | MW-6-240117 | Total/NA | Water | SM 5310B | |
| 280-186819-3 | MW-7-240117 | Total/NA | Water | SM 5310B | |
| 280-186819-4 | MW-12I-240117 | Total/NA | Water | SM 5310B | |
| 280-186819-5 | MW-13D-240117 | Total/NA | Water | SM 5310B | |
| 280-186819-6 | MW-14-240117 | Total/NA | Water | SM 5310B | |
| 280-186819-7 | MW-20DD-240117 | Total/NA | Water | SM 5310B | |
| 280-186819-8 | SW-1-240117 | Total/NA | Water | SM 5310B | |
| 280-186819-9 | SW-4-240117 | Total/NA | Water | SM 5310B | |
| 280-186819-10 | SW-6-240117 | Total/NA | Water | SM 5310B | |
| 280-186819-11 | SW-7-240117 | Total/NA | Water | SM 5310B | |
| MB 280-640886/35 | Method Blank | Total/NA | Water | SM 5310B | |
| LCS 280-640886/34 | Lab Control Sample | Total/NA | Water | SM 5310B | |
| 280-186819-1 MS | MW-5-240117 | Total/NA | Water | SM 5310B | |
| 280-186819-1 MSD | MW-5-240117 | Total/NA | Water | SM 5310B | |

### Analysis Batch: 640894

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-186819-1 | MW-5-240117 | Total/NA | Water | SM 2320B | |
| 280-186819-2 | MW-6-240117 | Total/NA | Water | SM 2320B | |
| 280-186819-3 | MW-7-240117 | Total/NA | Water | SM 2320B | |
| 280-186819-4 | MW-12I-240117 | Total/NA | Water | SM 2320B | |
| 280-186819-5 | MW-13D-240117 | Total/NA | Water | SM 2320B | |
| 280-186819-6 | MW-14-240117 | Total/NA | Water | SM 2320B | |
| 280-186819-7 | MW-20DD-240117 | Total/NA | Water | SM 2320B | |
| 280-186819-8 | SW-1-240117 | Total/NA | Water | SM 2320B | |
| 280-186819-9 | SW-4-240117 | Total/NA | Water | SM 2320B | |
| 280-186819-10 | SW-6-240117 | Total/NA | Water | SM 2320B | |
| 280-186819-11 | SW-7-240117 | Total/NA | Water | SM 2320B | |
| MB 280-640894/31 | Method Blank | Total/NA | Water | SM 2320B | |
| MB 280-640894/5 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 280-640894/30 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCS 280-640894/4 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| 280-186762-B-1 DU | Duplicate | Total/NA | Water | SM 2320B | |
| 280-186825-A-2 DU | Duplicate | Total/NA | Water | SM 2320B | |

### Analysis Batch: 641187

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-186819-10 | SW-6-240117 | Total/NA | Water | 350.1 | |
| 280-186819-11 | SW-7-240117 | Total/NA | Water | 350.1 | |
| MB 280-641187/54 | Method Blank | Total/NA | Water | 350.1 | |
| LCS 280-641187/55 | Lab Control Sample | Total/NA | Water | 350.1 | |

## General Chemistry (Continued)

### Analysis Batch: 641187 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCSD 280-641187/56 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |
| 280-186376-G-5 MS | Matrix Spike | Dissolved | Water | 350.1 | |
| 280-186376-G-5 MSD | Matrix Spike Duplicate | Dissolved | Water | 350.1 | |

### Analysis Batch: 641611

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-186819-1 | MW-5-240117 | Total/NA | Water | 350.1 | |
| MB 280-641611/19 | Method Blank | Total/NA | Water | 350.1 | |
| LCS 280-641611/20 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCSD 280-641611/21 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |
| 280-186819-1 MS | MW-5-240117 | Total/NA | Water | 350.1 | |
| 280-186819-1 MSD | MW-5-240117 | Total/NA | Water | 350.1 | |

### Analysis Batch: 641801

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-186819-2 | MW-6-240117 | Total/NA | Water | 350.1 | |
| 280-186819-3 | MW-7-240117 | Total/NA | Water | 350.1 | |
| 280-186819-4 | MW-12I-240117 | Total/NA | Water | 350.1 | |
| 280-186819-5 | MW-13D-240117 | Total/NA | Water | 350.1 | |
| 280-186819-6 | MW-14-240117 | Total/NA | Water | 350.1 | |
| 280-186819-7 | MW-20DD-240117 | Total/NA | Water | 350.1 | |
| 280-186819-8 | SW-1-240117 | Total/NA | Water | 350.1 | |
| 280-186819-9 | SW-4-240117 | Total/NA | Water | 350.1 | |
| MB 280-641801/132 | Method Blank | Total/NA | Water | 350.1 | |
| MB 280-641801/94 | Method Blank | Total/NA | Water | 350.1 | |
| LCS 280-641801/133 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCS 280-641801/95 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCSD 280-641801/134 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |
| LCSD 280-641801/96 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |
| 280-186819-2 MS | MW-6-240117 | Total/NA | Water | 350.1 | |
| 280-186819-2 MSD | MW-6-240117 | Total/NA | Water | 350.1 | |

# Lab Chronicle

Client: Aspect Consulting
Project/Site: Hansville Landfill

Job ID: 280-186819-1

## Client Sample ID: MW-5-240117
**Date Collected: 01/17/24 12:00**
**Date Received: 01/22/24 09:40**

## Lab Sample ID: 280-186819-1
**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 | 699186 | 01/29/24 12:36 | LCH | EET BUF |
| Total/NA | Analysis | 8260C SIM | | 1 | 25 mL | 25 mL | 699155 | 01/26/24 20:51 | CDC | EET BUF |
| Dissolved | Prep | 3005A | | | 50 mL | 50 mL | 640672 | 01/23/24 08:32 | MSM | EET DEN |
| Dissolved | Analysis | 6020 | | 1 | | | 640975 | 01/24/24 13:39 | LMT | EET DEN |
| Total/NA | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 640634 | 01/23/24 00:51 | IRC | EET DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 641611 | 01/31/24 16:13 | LBR | EET DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 640894 | 01/23/24 17:56 | LL | EET DEN |
| Total/NA | Analysis | SM 5310B | | 1 | 20 mL | 20 mL | 640886 | 01/24/24 02:14 | ABW | EET DEN |

## Client Sample ID: MW-6-240117
**Date Collected: 01/17/24 17:35**
**Date Received: 01/22/24 09:40**

## Lab Sample ID: 280-186819-2
**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 | 699186 | 01/29/24 12:59 | LCH | EET BUF |
| Total/NA | Analysis | 8260C SIM | | 1 | 25 mL | 25 mL | 699155 | 01/26/24 21:15 | CDC | EET BUF |
| Dissolved | Prep | 3005A | | | 50 mL | 50 mL | 640672 | 01/23/24 08:32 | MSM | EET DEN |
| Dissolved | Analysis | 6020 | | 1 | | | 640975 | 01/24/24 13:57 | LMT | EET DEN |
| Total/NA | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 640634 | 01/23/24 01:02 | IRC | EET DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 641801 | 02/01/24 15:00 | LBR | EET DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 640894 | 01/23/24 18:02 | LL | EET DEN |
| Total/NA | Analysis | SM 5310B | | 1 | 20 mL | 20 mL | 640886 | 01/24/24 03:01 | ABW | EET DEN |

## Client Sample ID: MW-7-240117
**Date Collected: 01/17/24 09:45**
**Date Received: 01/22/24 09:40**

## Lab Sample ID: 280-186819-3
**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 | 699186 | 01/29/24 13:22 | LCH | EET BUF |
| Total/NA | Analysis | 8260C SIM | | 1 | 25 mL | 25 mL | 699155 | 01/26/24 21:39 | CDC | EET BUF |
| Dissolved | Prep | 3005A | | | 50 mL | 50 mL | 640672 | 01/23/24 08:32 | MSM | EET DEN |
| Dissolved | Analysis | 6020 | | 1 | | | 640975 | 01/24/24 14:01 | LMT | EET DEN |
| Total/NA | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 640634 | 01/23/24 01:47 | IRC | EET DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 641801 | 02/01/24 15:52 | LBR | EET DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 640894 | 01/23/24 18:07 | LL | EET DEN |
| Total/NA | Analysis | SM 5310B | | 1 | 20 mL | 20 mL | 640886 | 01/24/24 03:15 | ABW | EET DEN |

## Client Sample ID: MW-12I-240117
**Date Collected: 01/17/24 14:00**
**Date Received: 01/22/24 09:40**

## Lab Sample ID: 280-186819-4
**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 | 699186 | 01/29/24 13:45 | LCH | EET BUF |

## Client Sample ID: MW-12I-240117

**Lab Sample ID: 280-186819-4**

**Date Collected: 01/17/24 14:00**

**Matrix: Water**

**Date Received: 01/22/24 09:40**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260C SIM | | 1 | 25 mL | 25 mL | 699155 | 01/26/24 22:03 | CDC | EET BUF |
| Dissolved | Prep | 3005A | | | 50 mL | 50 mL | 640672 | 01/23/24 08:32 | MSM | EET DEN |
| Dissolved | Analysis | 6020 | | 1 | | | 640862 | 01/24/24 00:17 | LMT | EET DEN |
| Total/NA | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 640634 | 01/23/24 02:33 | IRC | EET DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 641801 | 02/01/24 15:54 | LBR | EET DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 640894 | 01/23/24 18:13 | LL | EET DEN |
| Total/NA | Analysis | SM 5310B | | 1 | 20 mL | 20 mL | 640886 | 01/24/24 03:29 | ABW | EET DEN |

## Client Sample ID: MW-13D-240117

**Lab Sample ID: 280-186819-5**

**Date Collected: 01/17/24 16:10**

**Matrix: Water**

**Date Received: 01/22/24 09:40**

| 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 | 699186 | 01/29/24 14:09 | LCH | EET BUF |
| Total/NA | Analysis | 8260C SIM | | 1 | 25 mL | 25 mL | 699155 | 01/26/24 22:27 | CDC | EET BUF |
| Dissolved | Prep | 3005A | | | 50 mL | 50 mL | 640672 | 01/23/24 08:32 | MSM | EET DEN |
| Dissolved | Analysis | 6020 | | 1 | | | 640975 | 01/24/24 14:11 | LMT | EET DEN |
| Total/NA | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 640634 | 01/23/24 02:44 | IRC | EET DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 641801 | 02/01/24 15:32 | LBR | EET DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 640894 | 01/23/24 18:19 | LL | EET DEN |
| Total/NA | Analysis | SM 5310B | | 1 | 20 mL | 20 mL | 640886 | 01/24/24 03:46 | ABW | EET DEN |

## Client Sample ID: MW-14-240117

**Lab Sample ID: 280-186819-6**

**Date Collected: 01/17/24 16:10**

**Matrix: Water**

**Date Received: 01/22/24 09:40**

| 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 | 699186 | 01/29/24 14:32 | LCH | EET BUF |
| Total/NA | Analysis | 8260C SIM | | 1 | 25 mL | 25 mL | 699155 | 01/26/24 22:51 | CDC | EET BUF |
| Dissolved | Prep | 3005A | | | 50 mL | 50 mL | 640672 | 01/23/24 08:32 | MSM | EET DEN |
| Dissolved | Analysis | 6020 | | 1 | | | 640862 | 01/24/24 00:24 | LMT | EET DEN |
| Total/NA | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 640634 | 01/23/24 03:18 | IRC | EET DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 641801 | 02/01/24 15:34 | LBR | EET DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 640894 | 01/23/24 18:24 | LL | EET DEN |
| Total/NA | Analysis | SM 5310B | | 1 | 20 mL | 20 mL | 640886 | 01/24/24 04:00 | ABW | EET DEN |

## Client Sample ID: MW-20DD-240117

**Lab Sample ID: 280-186819-7**

**Date Collected: 01/17/24 07:00**

**Matrix: Water**

**Date Received: 01/22/24 09:40**

| 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 | 699186 | 01/29/24 14:55 | LCH | EET BUF |
| Total/NA | Analysis | 8260C SIM | | 1 | 25 mL | 25 mL | 699155 | 01/26/24 23:14 | CDC | EET BUF |

## Client Sample ID: MW-20DD-240117

**Lab Sample ID: 280-186819-7**

**Date Collected: 01/17/24 07:00**

**Matrix: Water**

**Date Received: 01/22/24 09:40**

| 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 | 640672 | 01/23/24 08:32 | MSM | EET DEN |
| Dissolved | Analysis | 6020 | | 1 | | | 640862 | 01/24/24 00:28 | LMT | EET DEN |
| Total/NA | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 640634 | 01/23/24 03:29 | IRC | EET DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 641801 | 02/01/24 15:37 | LBR | EET DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 640894 | 01/23/24 18:29 | LL | EET DEN |
| Total/NA | Analysis | SM 5310B | | 1 | 20 mL | 20 mL | 640886 | 01/24/24 04:14 | ABW | EET DEN |

## Client Sample ID: SW-1-240117

**Lab Sample ID: 280-186819-8**

**Date Collected: 01/17/24 10:55**

**Matrix: Water**

**Date Received: 01/22/24 09:40**

| 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 | 699186 | 01/29/24 15:17 | LCH | EET BUF |
| Total/NA | Analysis | 8260C SIM | | 1 | 25 mL | 25 mL | 699155 | 01/26/24 23:38 | CDC | EET BUF |
| Dissolved | Prep | 3005A | | | 50 mL | 50 mL | 640672 | 01/23/24 08:32 | MSM | EET DEN |
| Dissolved | Analysis | 6020 | | 1 | | | 640975 | 01/24/24 14:15 | LMT | EET DEN |
| Total/NA | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 640634 | 01/23/24 06:30 | IRC | EET DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 641801 | 02/01/24 15:39 | LBR | EET DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 640894 | 01/23/24 18:35 | LL | EET DEN |
| Total/NA | Analysis | SM 5310B | | 1 | 20 mL | 20 mL | 640886 | 01/24/24 04:28 | ABW | EET DEN |

## Client Sample ID: SW-4-240117

**Lab Sample ID: 280-186819-9**

**Date Collected: 01/17/24 11:45**

**Matrix: Water**

**Date Received: 01/22/24 09:40**

| 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 | 699186 | 01/29/24 15:40 | LCH | EET BUF |
| Total/NA | Analysis | 8260C SIM | | 1 | 25 mL | 25 mL | 699155 | 01/27/24 00:02 | CDC | EET BUF |
| Dissolved | Prep | 3005A | | | 50 mL | 50 mL | 640672 | 01/23/24 08:32 | MSM | EET DEN |
| Dissolved | Analysis | 6020 | | 1 | | | 640862 | 01/24/24 00:35 | LMT | EET DEN |
| Total/NA | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 640634 | 01/23/24 06:41 | IRC | EET DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 641801 | 02/01/24 15:41 | LBR | EET DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 640894 | 01/23/24 18:40 | LL | EET DEN |
| Total/NA | Analysis | SM 5310B | | 2 | 20 mL | 20 mL | 640886 | 01/24/24 05:16 | ABW | EET DEN |

## Client Sample ID: SW-6-240117

**Lab Sample ID: 280-186819-10**

**Date Collected: 01/17/24 12:45**

**Matrix: Water**

**Date Received: 01/22/24 09:40**

| 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 | 699186 | 01/29/24 16:03 | LCH | EET BUF |
| Total/NA | Analysis | 8260C SIM | | 1 | 25 mL | 25 mL | 699155 | 01/27/24 00:25 | CDC | EET BUF |

# Lab Chronicle

Client: Aspect Consulting
Project/Site: Hansville Landfill

Job ID: 280-186819-1

## Client Sample ID: SW-6-240117
**Date Collected: 01/17/24 12:45**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-10**
**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 | 640672 | 01/23/24 08:32 | MSM | EET DEN |
| Dissolved | Analysis | 6020 | | 1 | | | 640862 | 01/24/24 00:39 | LMT | EET DEN |
| Total/NA | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 640634 | 01/23/24 06:52 | IRC | EET DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 641187 | 01/26/24 14:23 | LBR | EET DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 640894 | 01/23/24 18:46 | LL | EET DEN |
| Total/NA | Analysis | SM 5310B | | 2 | 20 mL | 20 mL | 640886 | 01/24/24 05:31 | ABW | EET DEN |

## Client Sample ID: SW-7-240117
**Date Collected: 01/17/24 14:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-11**
**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 | 699186 | 01/29/24 16:26 | LCH | EET BUF |
| Total/NA | Analysis | 8260C SIM | | 1 | 25 mL | 25 mL | 699155 | 01/27/24 00:50 | CDC | EET BUF |
| Dissolved | Prep | 3005A | | | 50 mL | 50 mL | 640672 | 01/23/24 08:32 | MSM | EET DEN |
| Dissolved | Analysis | 6020 | | 1 | | | 640975 | 01/24/24 14:18 | LMT | EET DEN |
| Total/NA | Analysis | 300.0 | | 1 | 10 mL | 10 mL | 640634 | 01/23/24 07:04 | IRC | EET DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 641187 | 01/26/24 14:25 | LBR | EET DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 640894 | 01/23/24 19:37 | LL | EET DEN |
| Total/NA | Analysis | SM 5310B | | 2 | 20 mL | 20 mL | 640886 | 01/24/24 07:35 | ABW | EET DEN |

## Client Sample ID: TB1-240117
**Date Collected: 01/17/24 00:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-12**
**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 | 699186 | 01/29/24 16:50 | LCH | EET BUF |
| Total/NA | Analysis | 8260C SIM | | 1 | 25 mL | 25 mL | 699155 | 01/27/24 01:13 | CDC | EET BUF |

## Client Sample ID: TB2-240117
**Date Collected: 01/17/24 00:00**
**Date Received: 01/22/24 09:40**

**Lab Sample ID: 280-186819-13**
**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 | 699343 | 01/30/24 13:07 | CC | EET BUF |
| Total/NA | Analysis | 8260C SIM | | 1 | 25 mL | 25 mL | 699155 | 01/27/24 01:37 | 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

SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200

**Analytical Resources, LLC**
**Analytical Chemists and Consultants**
**Tukwila, WA**

16 February 2024

Janice Collins
Eurofins - Test America - Denver
4955 Yarrow Street
Arvada, CO 80002

RE: Hansville Landfill (28006013-1Q Sampling)

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) |
|---|---|
| 24A0372 | 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

**Eurofins Denver**
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Phone (303) 431-7171

24A0372

# Chain of Custody Record

eurofins | Environment Testing

ARI

| Client Information | Sampler: Carmen + Pat | Lab PM: Collins, Janice S | Carrier Tracking No(s): | COC No: 280-125973-19522.1 |
|---|---|---|---|---|
| Client Contact: Peter Bannister | Phone: 404-210-6437 | E-Mail: Janice.Collins@et.eurofinsus.com | State of Origin: | Page: |
| Company: Aspect Consulting, LLC | PWSID: | | | Job #: |
| Address: 350 Madison Ave N | Due Date Requested: | | | |
| City: Bainbridge Island | TAT Requested (days): | | | |
| State, Zip: WA, 98110 | Compliance Project: Δ Yes Δ No | | | |
| Phone: 404-210-6437 | PO #: Purchase Order not required | | | |
| Email: Peter.Bannister@aspectconsulting.com | WO #: | | | |
| Project Name: Hansville Landfill | Project #:skip sites/events 28006013 - 1Q Sampling | | | |
| 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) | Alks/Cl/SO4 | 6020 - Dissolved Manganese (field filtered) | Ammonia/TOC | 8260C SIM - Vinyl Chloride (Buffalo) | 8260C - Full Scan VOCs (Buffalo) | | Ortho-phosphate (field filtered) - Direct sub to ARI | Dissolved Arsenic (field filtered) - Direct sub to ARI | Nitrate/Nitrite (IC) - Direct sub to ARI | | | | | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | N | D | S | A | A | | N | D | N | | | | | | |
| MW-5-240117 | 1/17/24 | 1200 | G | W | | | | | | | | | X | X | X | | | | | | Diss As,NO3,NO2,o-phos subbed direct to ARI |
| MW-6-240117 | | 1735 | | | | | | | | | | | | | | | | | | | |
| MW-7-240117 | | 0945 | | | | | | | | | | | | | | | | | | | |
| MW-12I-240117 | | 1400 | | | | | | | | | | | | | | | | | | | |
| MW-13D-240117 | | 1610 | | | | | | | | | | | | | | | | | | | |
| MW-14-240117 | | 1610 | | | | | | | | | | | | | | | | | | | |
| MW-200D-240117 | | 0700 | | | | | | | | | | | | | | | | | | | |
| SW-1-240117 | | 1055 | | | | | | | | | | | | | | | | | | | |
| SW-4-240117 | | 1145 | | | | | | | | | | | | | | | | | | | |
| SW-6-240117 | | 1245 | | | | | | | | | | | | | | | | | | | |
| SW-7-240117 | | 1400 | | | | | | | | | | | | | | | | | | | |

**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 |
|---|---|---|---|---|---|---|
| | | 01/18/2024 1306 | Aspect | | 011824 1306 | ARIIC |
| | 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:

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| MW-5-240117 | 24A0372-01 | Water | 17-Jan-2024 12:00 | 18-Jan-2024 13:06 |
| MW-6-240117 | 24A0372-02 | Water | 17-Jan-2024 17:35 | 18-Jan-2024 13:06 |
| MW-7-240117 | 24A0372-03 | Water | 17-Jan-2024 09:45 | 18-Jan-2024 13:06 |
| MW-12I-240117 | 24A0372-04 | Water | 17-Jan-2024 14:00 | 18-Jan-2024 13:06 |
| MW-13D-240117 | 24A0372-05 | Water | 17-Jan-2024 16:10 | 18-Jan-2024 13:06 |
| MW-14-240117 | 24A0372-06 | Water | 17-Jan-2024 16:10 | 18-Jan-2024 13:06 |
| MW-20DD-240117 | 24A0372-07 | Water | 17-Jan-2024 07:00 | 18-Jan-2024 13:06 |
| SW-1-240117 | 24A0372-08 | Water | 17-Jan-2024 10:55 | 18-Jan-2024 13:06 |
| SW-4-240117 | 24A0372-09 | Water | 17-Jan-2024 11:45 | 18-Jan-2024 13:06 |
| SW-6-240117 | 24A0372-10 | Water | 17-Jan-2024 12:45 | 18-Jan-2024 13:06 |
| SW-7-240117 | 24A0372-11 | Water | 17-Jan-2024 14:00 | 18-Jan-2024 13:06 |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

# Work Order Case Narrative

**Client:** Eurofins - Test America - Denver
**Project:** Hansville Landfill
**Project Number:** 28006013-1Q Sampling
**Work Order:** 24A0372

**Sample receipt**

Samples as listed on the preceding page were received 18-Jan-2024 13:06 under ARI work order 24A0372. For details regarding sample receipt, please refer to the Cooler Receipt Form.

**Dissolved Metals - EPA Method 200.8**

The sample(s) were prepared 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.

**Wet Chemistry**

The sample(s) were prepared 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.

**WORK ORDER**

24A0372

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:** Hansville Landfill
**Project Number:** 28006013-1Q Sampling

## Preservation Confirmation

| Container ID | Container Type | pH |
|---|---|---|
| 24A0372-01 A | HDPE NM, 500 mL, 1:1 HNO3 (FF) | <2 pass |
| 24A0372-01 B | HDPE NM, 500 mL | |
| 24A0372-01 C | HDPE NM, 500 mL (FF) | |
| 24A0372-02 A | HDPE NM, 500 mL, 1:1 HNO3 (FF) | <2 pass |
| 24A0372-02 B | HDPE NM, 500 mL | |
| 24A0372-02 C | HDPE NM, 500 mL (FF) | |
| 24A0372-03 A | HDPE NM, 500 mL, 1:1 HNO3 (FF) | <2 pass |
| 24A0372-03 B | HDPE NM, 500 mL | |
| 24A0372-03 C | HDPE NM, 500 mL (FF) | |
| 24A0372-04 A | HDPE NM, 500 mL, 1:1 HNO3 (FF) | <2 pass |
| 24A0372-04 B | HDPE NM, 500 mL | |
| 24A0372-04 C | HDPE NM, 500 mL (FF) | |
| 24A0372-05 A | HDPE NM, 500 mL, 1:1 HNO3 (FF) | <2 pass |
| 24A0372-05 B | HDPE NM, 500 mL | |
| 24A0372-05 C | HDPE NM, 500 mL (FF) | |
| 24A0372-06 A | HDPE NM, 500 mL, 1:1 HNO3 (FF) | <2 pass |
| 24A0372-06 B | HDPE NM, 500 mL | |
| 24A0372-06 C | HDPE NM, 500 mL (FF) | |
| 24A0372-07 A | HDPE NM, 500 mL, 1:1 HNO3 (FF) | <2 pass |
| 24A0372-07 B | HDPE NM, 500 mL | |
| 24A0372-07 C | HDPE NM, 500 mL (FF) | |
| 24A0372-08 A | HDPE NM, 500 mL, 1:1 HNO3 (FF) | <2 pass |
| 24A0372-08 B | HDPE NM, 500 mL | |
| 24A0372-08 C | HDPE NM, 500 mL (FF) | |
| 24A0372-09 A | HDPE NM, 500 mL, 1:1 HNO3 (FF) | <2 pass |
| 24A0372-09 B | HDPE NM, 500 mL | |
| 24A0372-09 C | HDPE NM, 500 mL (FF) | |
| 24A0372-10 A | HDPE NM, 500 mL, 1:1 HNO3 (FF) | <2 pass |
| 24A0372-10 B | HDPE NM, 500 mL | |
| 24A0372-10 C | HDPE NM, 500 mL (FF) | |
| 24A0372-11 A | HDPE NM, 500 mL, 1:1 HNO3 (FF) | <2 pass |
| 24A0372-11 B | HDPE NM, 500 mL | |
| 24A0372-11 C | HDPE NM, 500 mL (FF) | |

Reviewed By

Date

**WORK ORDER**

24A0372

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:** Hansville Landfill
**Project Number:** 28006013-1Q Sampling

MD
Preservation Confirmed By

01/18/24
Date

Reviewed By

Date

Analytical Resources, LLC
Analytical Chemists and Consultants

# Cooler Receipt Form

ARI Client: Aspect Consulting
COC No(s): _____ NA
Assigned ARI Job No: 24A0372

Project Name: Hansville landfill
Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
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 1306 — 0.5

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID#: 30097098

Cooler Accepted by: KFC Date: 011824 Time: 1306

***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: MP Date: 01/18/24 Time: 1458 Labels checked by: MP

***** 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: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-5-240117**
**24A0372-01 (Water)**

**Metals and Metallic Compounds (dissolved)**

Method: EPA 200.8 UCT-KED — Sampled: 01/17/2024 12:00
Instrument: ICPMS1 Analyst: HAL — Analyzed: 01/27/2024 01:40

Sample Preparation: Preparation Method: REN - EPA 3010A M — Extract ID: 24A0372-01 A
Preparation Batch: BMA0658 — Sample Size: 25 mL
Prepared: 01/26/2024 — Final Volume: 25 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Arsenic, Dissolved | 7440-38-2 | 1 | 0.0373 | 0.200 | 1.75 | ug/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-5-240117**

**24A0372-01 (Water)**

## Wet Chemistry

Method: EPA 300.0 — Sampled: 01/17/2024 12:00

Instrument: IC930 Analyst: CDE — Analyzed: 01/18/2024 19:54

Sample Preparation: Preparation Method: No Prep Wet Chem; Preparation Batch: BMA0445; Prepared: 01/18/2024; Sample Size: 10 mL; Final Volume: 10 mL — Extract ID: 24A0372-01 B

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrate-N | 14797-55-8 | 1 | 0.100 | 0.100 | 3.39 | mg/L | |

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrite-N | 14797-65-0 | 1 | 0.100 | 0.100 | ND | mg/L | U |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-5-240117**

**24A0372-01 (Water)**

## Wet Chemistry

Method: SM 4500-P E-99 — Sampled: 01/17/2024 12:00

Instrument: UV1800-1 Analyst: ELM2 — Analyzed: 01/18/2024 23:19

Sample Preparation: Preparation Method: SM 4500-P B-1 SRP — Extract ID: 24A0372-01 C

Preparation Batch: BMA0456 — Sample Size: 50 mL

Prepared: 01/18/2024 — Final Volume: 50 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Orthophosphorus | 1426-44-42 | 1 | 0.0040 | 0.0040 | 0.0370 | mg-P/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-6-240117**

**24A0372-02 (Water)**

**Metals and Metallic Compounds (dissolved)**

Method: EPA 200.8 UCT-KED — Sampled: 01/17/2024 17:35

Instrument: ICPMS1 Analyst: HAL — Analyzed: 01/27/2024 00:55

Sample Preparation: Preparation Method: REN - EPA 3010A M — Extract ID: 24A0372-02 A

Preparation Batch: BMA0658 — Sample Size: 25 mL

Prepared: 01/26/2024 — Final Volume: 25 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Arsenic, Dissolved | 7440-38-2 | 1 | 0.0373 | 0.200 | 1.92 | ug/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-6-240117**

**24A0372-02 (Water)**

## Wet Chemistry

Method: EPA 300.0 — Sampled: 01/17/2024 17:35

Instrument: IC930 Analyst: CDE — Analyzed: 01/18/2024 20:54

Sample Preparation: Preparation Method: No Prep Wet Chem; Preparation Batch: BMA0445; Prepared: 01/18/2024; Sample Size: 10 mL; Final Volume: 10 mL — Extract ID: 24A0372-02 B

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrate-N | 14797-55-8 | 1 | 0.100 | 0.100 | 0.430 | mg/L | |

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrite-N | 14797-65-0 | 1 | 0.100 | 0.100 | ND | mg/L | U |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-6-240117**

**24A0372-02 (Water)**

## Wet Chemistry

Method: SM 4500-P E-99 — Sampled: 01/17/2024 17:35

Instrument: UV1800-1 Analyst: ELM2 — Analyzed: 01/18/2024 23:23

Sample Preparation: Preparation Method: SM 4500-P B-1 SRP — Extract ID: 24A0372-02 C

Preparation Batch: BMA0456 — Sample Size: 50 mL

Prepared: 01/18/2024 — Final Volume: 50 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Orthophosphorus | 1426-44-42 | 1 | 0.0040 | 0.0040 | 0.0330 | mg-P/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-7-240117**

**24A0372-03 (Water)**

**Metals and Metallic Compounds (dissolved)**

Method: EPA 200.8 UCT-KED — Sampled: 01/17/2024 09:45

Instrument: ICPMS1 Analyst: HAL — Analyzed: 01/27/2024 00:58

Sample Preparation: Preparation Method: REN - EPA 3010A M — Extract ID: 24A0372-03 A

Preparation Batch: BMA0658 — Sample Size: 25 mL

Prepared: 01/26/2024 — Final Volume: 25 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Arsenic, Dissolved | 7440-38-2 | 1 | 0.0373 | 0.200 | 1.49 | ug/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-7-240117**

**24A0372-03 (Water)**

## Wet Chemistry

Method: EPA 300.0 — Sampled: 01/17/2024 09:45

Instrument: IC930 Analyst: CDE — Analyzed: 01/18/2024 21:14

Sample Preparation: Preparation Method: No Prep Wet Chem; Preparation Batch: BMA0445; Prepared: 01/18/2024; Sample Size: 10 mL; Final Volume: 10 mL — Extract ID: 24A0372-03 B

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrate-N | 14797-55-8 | 1 | 0.100 | 0.100 | 0.576 | mg/L | |

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrite-N | 14797-65-0 | 1 | 0.100 | 0.100 | ND | mg/L | U |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-7-240117**

**24A0372-03 (Water)**

## Wet Chemistry

Method: SM 4500-P E-99 — Sampled: 01/17/2024 09:45

Instrument: UV1800-1 Analyst: ELM2 — Analyzed: 01/18/2024 23:24

Sample Preparation: Preparation Method: SM 4500-P B-1 SRP — Extract ID: 24A0372-03 C

Preparation Batch: BMA0456 — Sample Size: 50 mL

Prepared: 01/18/2024 — Final Volume: 50 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Orthophosphorus | 1426-44-42 | 1 | 0.0040 | 0.0040 | 0.0600 | mg-P/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-12I-240117**

**24A0372-04 (Water)**

**Metals and Metallic Compounds (dissolved)**

Method: EPA 200.8 UCT-KED — Sampled: 01/17/2024 14:00

Instrument: ICPMS1 Analyst: HAL — Analyzed: 01/27/2024 01:01

Sample Preparation: Preparation Method: REN - EPA 3010A M — Extract ID: 24A0372-04 A

Preparation Batch: BMA0658 — Sample Size: 25 mL

Prepared: 01/26/2024 — Final Volume: 25 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Arsenic, Dissolved | 7440-38-2 | 1 | 0.0373 | 0.200 | 2.24 | ug/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-12I-240117**

**24A0372-04 (Water)**

## Wet Chemistry

Method: EPA 300.0 — Sampled: 01/17/2024 14:00

Instrument: IC930 Analyst: CDE — Analyzed: 01/18/2024 22:34

Sample Preparation: Preparation Method: No Prep Wet Chem; Preparation Batch: BMA0445; Prepared: 01/18/2024; Sample Size: 10 mL; Final Volume: 10 mL — Extract ID: 24A0372-04 B

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrate-N | 14797-55-8 | 1 | 0.100 | 0.100 | ND | mg/L | U |

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrite-N | 14797-65-0 | 1 | 0.100 | 0.100 | ND | mg/L | U |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-12I-240117**

**24A0372-04 (Water)**

## Wet Chemistry

Method: SM 4500-P E-99 — Sampled: 01/17/2024 14:00

Instrument: UV1800-1 Analyst: ELM2 — Analyzed: 01/18/2024 23:25

Sample Preparation: Preparation Method: SM 4500-P B-1 SRP — Extract ID: 24A0372-04 C

Preparation Batch: BMA0456 — Sample Size: 50 mL

Prepared: 01/18/2024 — Final Volume: 50 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Orthophosphorus | 1426-44-42 | 1 | 0.0040 | 0.0040 | 0.0450 | mg-P/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-13D-240117**

**24A0372-05 (Water)**

**Metals and Metallic Compounds (dissolved)**

Method: EPA 200.8 UCT-KED — Sampled: 01/17/2024 16:10

Instrument: ICPMS1 Analyst: HAL — Analyzed: 01/27/2024 01:04

Sample Preparation: Preparation Method: REN - EPA 3010A M — Extract ID: 24A0372-05 A

Preparation Batch: BMA0658 — Sample Size: 25 mL

Prepared: 01/26/2024 — Final Volume: 25 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Arsenic, Dissolved | 7440-38-2 | 1 | 0.0373 | 0.200 | 5.05 | ug/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-13D-240117**

**24A0372-05 (Water)**

## Wet Chemistry

Method: EPA 300.0 — Sampled: 01/17/2024 16:10

Instrument: IC930 Analyst: CDE — Analyzed: 01/18/2024 22:54

Sample Preparation: Preparation Method: No Prep Wet Chem; Preparation Batch: BMA0445; Prepared: 01/18/2024; Sample Size: 10 mL; Final Volume: 10 mL — Extract ID: 24A0372-05 B

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrate-N | 14797-55-8 | 1 | 0.100 | 0.100 | ND | mg/L | U |

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrite-N | 14797-65-0 | 1 | 0.100 | 0.100 | ND | mg/L | U |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-13D-240117**

**24A0372-05 (Water)**

## Wet Chemistry

Method: SM 4500-P E-99 — Sampled: 01/17/2024 16:10

Instrument: UV1800-1 Analyst: ELM2 — Analyzed: 01/18/2024 23:25

Sample Preparation: Preparation Method: SM 4500-P B-1 SRP — Extract ID: 24A0372-05 C

Preparation Batch: BMA0456 — Sample Size: 50 mL

Prepared: 01/18/2024 — Final Volume: 50 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Orthophosphorus | 1426-44-42 | 1 | 0.0040 | 0.0040 | 0.0850 | mg-P/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-14-240117**

**24A0372-06 (Water)**

**Metals and Metallic Compounds (dissolved)**

Method: EPA 200.8 UCT-KED — Sampled: 01/17/2024 16:10

Instrument: ICPMS1 Analyst: HAL — Analyzed: 01/27/2024 01:08

Sample Preparation: Preparation Method: REN - EPA 3010A M — Extract ID: 24A0372-06 A

Preparation Batch: BMA0658 — Sample Size: 25 mL

Prepared: 01/26/2024 — Final Volume: 25 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Arsenic, Dissolved | 7440-38-2 | 1 | 0.0373 | 0.200 | 12.7 | ug/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-14-240117**

**24A0372-06 (Water)**

## Wet Chemistry

Method: EPA 300.0 — Sampled: 01/17/2024 16:10

Instrument: IC930 Analyst: CDE — Analyzed: 01/18/2024 23:14

Sample Preparation: Preparation Method: No Prep Wet Chem; Preparation Batch: BMA0445; Prepared: 01/18/2024; Sample Size: 10 mL; Final Volume: 10 mL — Extract ID: 24A0372-06 B

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrate-N | 14797-55-8 | 1 | 0.100 | 0.100 | 0.159 | mg/L | |

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrite-N | 14797-65-0 | 1 | 0.100 | 0.100 | ND | mg/L | U |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-14-240117**

**24A0372-06 (Water)**

## Wet Chemistry

Method: SM 4500-P E-99 — Sampled: 01/17/2024 16:10

Instrument: UV1800-1 Analyst: ELM2 — Analyzed: 01/18/2024 23:27

Sample Preparation: Preparation Method: SM 4500-P B-1 SRP — Extract ID: 24A0372-06 C

Preparation Batch: BMA0456 — Sample Size: 50 mL

Prepared: 01/18/2024 — Final Volume: 50 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Orthophosphorus | 1426-44-42 | 1 | 0.0040 | 0.0040 | 0.136 | mg-P/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-20DD-240117**

**24A0372-07 (Water)**

**Metals and Metallic Compounds (dissolved)**

Method: EPA 200.8 UCT-KED — Sampled: 01/17/2024 07:00

Instrument: ICPMS1 Analyst: HAL — Analyzed: 01/27/2024 01:23

Sample Preparation: Preparation Method: REN - EPA 3010A M — Extract ID: 24A0372-07 A 01

Preparation Batch: BMA0658 — Sample Size: 25 mL

Prepared: 01/26/2024 — Final Volume: 25 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Arsenic, Dissolved | 7440-38-2 | 1 | 0.0373 | 0.200 | 12.7 | ug/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-20DD-240117**

**24A0372-07 (Water)**

## Wet Chemistry

Method: EPA 300.0 — Sampled: 01/17/2024 07:00

Instrument: IC930 Analyst: CDE — Analyzed: 01/18/2024 23:34

Sample Preparation: Preparation Method: No Prep Wet Chem; Preparation Batch: BMA0445; Prepared: 01/18/2024; Sample Size: 10 mL; Final Volume: 10 mL — Extract ID: 24A0372-07 B

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrate-N | 14797-55-8 | 1 | 0.100 | 0.100 | 0.148 | mg/L | |

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrite-N | 14797-65-0 | 1 | 0.100 | 0.100 | ND | mg/L | U |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**MW-20DD-240117**

**24A0372-07 (Water)**

## Wet Chemistry

Method: SM 4500-P E-99 — Sampled: 01/17/2024 07:00

Instrument: UV1800-1 Analyst: ELM2 — Analyzed: 01/18/2024 23:28

Sample Preparation: Preparation Method: SM 4500-P B-1 SRP — Extract ID: 24A0372-07 C

Preparation Batch: BMA0456 — Sample Size: 50 mL

Prepared: 01/18/2024 — Final Volume: 50 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Orthophosphorus | 1426-44-42 | 1 | 0.0040 | 0.0040 | 0.187 | mg-P/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**SW-1-240117**

**24A0372-08 (Water)**

**Metals and Metallic Compounds (dissolved)**

Method: EPA 200.8 UCT-KED — Sampled: 01/17/2024 10:55

Instrument: ICPMS1 Analyst: HAL — Analyzed: 01/27/2024 01:27

Sample Preparation: Preparation Method: REN - EPA 3010A M — Extract ID: 24A0372-08 A 01

Preparation Batch: BMA0658 — Sample Size: 25 mL

Prepared: 01/26/2024 — Final Volume: 25 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Arsenic, Dissolved | 7440-38-2 | 1 | 0.0373 | 0.200 | 1.45 | ug/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**SW-1-240117**

**24A0372-08 (Water)**

## Wet Chemistry

Method: EPA 300.0 — Sampled: 01/17/2024 10:55

Instrument: IC930 Analyst: CDE — Analyzed: 01/18/2024 23:54

Sample Preparation: Preparation Method: No Prep Wet Chem; Preparation Batch: BMA0445; Prepared: 01/18/2024; Sample Size: 10 mL; Final Volume: 10 mL — Extract ID: 24A0372-08 B

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrate-N | 14797-55-8 | 1 | 0.100 | 0.100 | 2.76 | mg/L | |

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrite-N | 14797-65-0 | 1 | 0.100 | 0.100 | ND | mg/L | U |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**SW-1-240117**

**24A0372-08 (Water)**

## Wet Chemistry

Method: SM 4500-P E-99 — Sampled: 01/17/2024 10:55

Instrument: UV1800-1 Analyst: ELM2 — Analyzed: 01/18/2024 23:28

Sample Preparation: Preparation Method: SM 4500-P B-1 SRP — Extract ID: 24A0372-08 C

Preparation Batch: BMA0456 — Sample Size: 50 mL

Prepared: 01/18/2024 — Final Volume: 50 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Orthophosphorus | 1426-44-42 | 1 | 0.0040 | 0.0040 | 0.0360 | mg-P/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**SW-4-240117**

**24A0372-09 (Water)**

**Metals and Metallic Compounds (dissolved)**

Method: EPA 200.8 UCT-KED — Sampled: 01/17/2024 11:45

Instrument: ICPMS1 Analyst: HAL — Analyzed: 01/29/2024 19:12

Sample Preparation: Preparation Method: REN - EPA 3010A M — Extract ID: 24A0372-09 A

Preparation Batch: BMA0658 — Sample Size: 25 mL

Prepared: 01/26/2024 — Final Volume: 25 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Arsenic, Dissolved | 7440-38-2 | 1 | 0.0373 | 0.200 | 1.49 | ug/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**SW-4-240117**

**24A0372-09 (Water)**

## Wet Chemistry

Method: EPA 300.0 — Sampled: 01/17/2024 11:45

Instrument: IC930 Analyst: CDE — Analyzed: 01/19/2024 00:14

Sample Preparation: Preparation Method: No Prep Wet Chem; Preparation Batch: BMA0445; Prepared: 01/18/2024; Sample Size: 10 mL; Final Volume: 10 mL — Extract ID: 24A0372-09 B

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrate-N | 14797-55-8 | 1 | 0.100 | 0.100 | 0.755 | mg/L | |

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrite-N | 14797-65-0 | 1 | 0.100 | 0.100 | ND | mg/L | U |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**SW-4-240117**

**24A0372-09 (Water)**

## Wet Chemistry

Method: SM 4500-P E-99 — Sampled: 01/17/2024 11:45

Instrument: UV1800-1 Analyst: ELM2 — Analyzed: 01/18/2024 23:29

Sample Preparation: Preparation Method: SM 4500-P B-1 SRP — Extract ID: 24A0372-09 C

Preparation Batch: BMA0456 — Sample Size: 50 mL

Prepared: 01/18/2024 — Final Volume: 50 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Orthophosphorus | 1426-44-42 | 1 | 0.0040 | 0.0040 | 0.0220 | mg-P/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**SW-6-240117**

**24A0372-10 (Water)**

**Metals and Metallic Compounds (dissolved)**

Method: EPA 200.8 UCT-KED — Sampled: 01/17/2024 12:45

Instrument: ICPMS1 Analyst: HAL — Analyzed: 01/27/2024 01:34

Sample Preparation: Preparation Method: REN - EPA 3010A M — Extract ID: 24A0372-10 A

Preparation Batch: BMA0658 — Sample Size: 25 mL

Prepared: 01/26/2024 — Final Volume: 25 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Arsenic, Dissolved | 7440-38-2 | 1 | 0.0373 | 0.200 | 1.98 | ug/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**SW-6-240117**

**24A0372-10 (Water)**

## Wet Chemistry

Method: EPA 300.0 — Sampled: 01/17/2024 12:45

Instrument: IC930 Analyst: CDE — Analyzed: 01/19/2024 00:34

Sample Preparation: Preparation Method: No Prep Wet Chem; Preparation Batch: BMA0445; Prepared: 01/18/2024; Sample Size: 10 mL; Final Volume: 10 mL — Extract ID: 24A0372-10 B

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrate-N | 14797-55-8 | 1 | 0.100 | 0.100 | 0.128 | mg/L | |

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrite-N | 14797-65-0 | 1 | 0.100 | 0.100 | ND | mg/L | U |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**SW-6-240117**

**24A0372-10 (Water)**

## Wet Chemistry

Method: SM 4500-P E-99 — Sampled: 01/17/2024 12:45

Instrument: UV1800-1 Analyst: ELM2 — Analyzed: 01/18/2024 23:29

Sample Preparation: Preparation Method: SM 4500-P B-1 SRP — Extract ID: 24A0372-10 C

Preparation Batch: BMA0456 — Sample Size: 50 mL

Prepared: 01/18/2024 — Final Volume: 50 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Orthophosphorus | 1426-44-42 | 1 | 0.0040 | 0.0040 | 0.0260 | mg-P/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**SW-7-240117**

**24A0372-11 (Water)**

**Metals and Metallic Compounds (dissolved)**

Method: EPA 200.8 UCT-KED — Sampled: 01/17/2024 14:00

Instrument: ICPMS1 Analyst: HAL — Analyzed: 01/27/2024 01:37

Sample Preparation: Preparation Method: REN - EPA 3010A M — Extract ID: 24A0372-11 A

Preparation Batch: BMA0658 — Sample Size: 25 mL

Prepared: 01/26/2024 — Final Volume: 25 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Arsenic, Dissolved | 7440-38-2 | 1 | 0.0373 | 0.200 | 1.21 | ug/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**SW-7-240117**

**24A0372-11 (Water)**

## Wet Chemistry

Method: EPA 300.0 — Sampled: 01/17/2024 14:00

Instrument: IC930 Analyst: CDE — Analyzed: 01/19/2024 00:54

Sample Preparation: Preparation Method: No Prep Wet Chem; Preparation Batch: BMA0445; Prepared: 01/18/2024; Sample Size: 10 mL; Final Volume: 10 mL — Extract ID: 24A0372-11 B

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrate-N | 14797-55-8 | 1 | 0.100 | 0.100 | 1.04 | mg/L | |

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Nitrite-N | 14797-65-0 | 1 | 0.100 | 0.100 | ND | mg/L | U |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**SW-7-240117**

**24A0372-11 (Water)**

## Wet Chemistry

Method: SM 4500-P E-99 — Sampled: 01/17/2024 14:00

Instrument: UV1800-1 Analyst: ELM2 — Analyzed: 01/18/2024 23:30

Sample Preparation: Preparation Method: SM 4500-P B-1 SRP — Extract ID: 24A0372-11 C

Preparation Batch: BMA0456 — Sample Size: 50 mL

Prepared: 01/18/2024 — Final Volume: 50 mL

| Analyte | CAS Number | Dilution | Detection Limit | Reporting Limit | Result | Units | Notes |
|---|---|---|---|---|---|---|---|
| Orthophosphorus | 1426-44-42 | 1 | 0.0040 | 0.0040 | 0.0680 | mg-P/L | |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**Analysis by: Analytical Resources, LLC**

## Metals and Metallic Compounds (dissolved) - Quality Control

### Batch BMA0658 - EPA 200.8 UCT-KED

Instrument: ICPMS1 Analyst: HAL

| QC Sample/Analyte | Isotope | Result | Detection Limit | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (BMA0658-BLK1)** | | | | | | Prepared: 26-Jan-2024 Analyzed: 27-Jan-2024 00:42 | | | | | | |
| Arsenic, Dissolved | 75a | ND | 0.0373 | 0.200 | ug/L | | | | | | | U |
| **LCS (BMA0658-BS1)** | | | | | | Prepared: 26-Jan-2024 Analyzed: 27-Jan-2024 00:46 | | | | | | |
| Arsenic, Dissolved | 75a | 24.8 | 0.0373 | 0.200 | ug/L | 25.0 | | 99.2 | 80-120 | | | |
| **Duplicate (BMA0658-DUP1)** | | | **Source: 24A0372-01** | | | Prepared: 26-Jan-2024 Analyzed: 27-Jan-2024 01:43 | | | | | | |
| Arsenic, Dissolved | 75a | 1.72 | 0.0373 | 0.200 | ug/L | | 1.75 | | | 1.38 | 20 | |
| **Matrix Spike (BMA0658-MS1)** | | | **Source: 24A0372-01** | | | Prepared: 26-Jan-2024 Analyzed: 27-Jan-2024 01:47 | | | | | | |
| Arsenic, Dissolved | 75a | 26.8 | 0.0373 | 0.200 | ug/L | 25.0 | 1.75 | 100 | 75-125 | | | |

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**Analysis by: Analytical Resources, LLC**

## Wet Chemistry - Quality Control

### Batch BMA0445 - EPA 300.0

Instrument: IC930 Analyst: CDE

| QC Sample/Analyte | Result | Detection Limit | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (BMA0445-BLK1)** | | | | Prepared: 18-Jan-2024 Analyzed: 18-Jan-2024 18:54 | | | | | | | |
| Nitrate-N | ND | 0.100 | 0.100 | mg/L | | | | | | | U |
| Nitrite-N | ND | 0.100 | 0.100 | mg/L | | | | | | | U |
| **LCS (BMA0445-BS1)** | | | | Prepared: 18-Jan-2024 Analyzed: 18-Jan-2024 19:14 | | | | | | | |
| Nitrate-N | 5.11 | 0.100 | 0.100 | mg/L | 5.00 | | 102 | 90-110 | | | |
| Nitrite-N | 4.98 | 0.100 | 0.100 | mg/L | 5.00 | | 99.5 | 90-110 | | | |
| **Duplicate (BMA0445-DUP1)** | | **Source: 24A0372-01** | | Prepared: 18-Jan-2024 Analyzed: 18-Jan-2024 20:14 | | | | | | | |
| Nitrate-N | 3.40 | 0.100 | 0.100 | mg/L | | 3.39 | | | 0.12 | 20 | |
| Nitrite-N | ND | 0.100 | 0.100 | mg/L | | ND | | | | | U |
| **Matrix Spike (BMA0445-MS1)** | | **Source: 24A0372-01** | | Prepared: 18-Jan-2024 Analyzed: 18-Jan-2024 20:34 | | | | | | | |
| Nitrate-N | 5.62 | 0.100 | 0.100 | mg/L | 1.98 | 3.39 | 112 | 75-125 | | | |
| Nitrite-N | 1.79 | 0.100 | 0.100 | mg/L | 2.03 | ND | 88.3 | 75-125 | | | |

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

**Analysis by: Analytical Resources, LLC**

## Wet Chemistry - Quality Control

### Batch BMA0456 - SM 4500-P E-99

Instrument: UV1800-1 Analyst: ELM2

| QC Sample/Analyte | Result | Detection Limit | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (BMA0456-BLK1)** | | | | Prepared: 18-Jan-2024 Analyzed: 18-Jan-2024 22:58 | | | | | | | |
| Orthophosphorus | ND | 0.0040 | 0.0040 | mg-P/L | | | | | | | U |
| **LCS (BMA0456-BS1)** | | | | Prepared: 18-Jan-2024 Analyzed: 18-Jan-2024 23:19 | | | | | | | |
| Orthophosphorus | 0.156 | 0.0040 | 0.0040 | mg-P/L | 0.150 | | 104 | 90-110 | | | |
| **Duplicate (BMA0456-DUP1)** | | **Source: 24A0372-01** | | Prepared: 18-Jan-2024 Analyzed: 18-Jan-2024 23:21 | | | | | | | |
| Orthophosphorus | 0.0380 | 0.0040 | 0.0040 | mg-P/L | | 0.0370 | | | 2.67 | 20 | |
| **Matrix Spike (BMA0456-MS1)** | | **Source: 24A0372-01** | | Prepared: 18-Jan-2024 Analyzed: 18-Jan-2024 23:22 | | | | | | | |
| Orthophosphorus | 0.130 | 0.0040 | 0.0040 | mg-P/L | 0.101 | 0.0370 | 92.5 | 75-125 | | | |

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

## Certified Analyses included in this Report

| Analyte | Certifications |
|---|---|
| ***EPA 200.8 UCT-KED in Water*** | |
| Arsenic-75a | NELAP,WADOE,WA-DW,DoD-ELAP |
| ***EPA 300.0 in Water*** | |
| Nitrate-N | DoD-ELAP,WADOE,WA-DW,NELAP |
| Nitrite-N | DoD-ELAP,WADOE,WA-DW,NELAP |
| ***SM 4500-P E-99 in Water*** | |
| Orthophosphorus | WADOE,NELAP |

| Code | Description | Number | Expires |
|---|---|---|---|
| ADEC | Alaska Dept of Environmental Conservation | 17-015 | 03/28/2025 |
| DoD-ELAP | DoD-Environmental Laboratory Accreditation Program, PJLA Testing | 66169 | 02/28/2025 |
| NELAP | ORELAP - Oregon Laboratory Accreditation Program | WA100006-012 | 05/12/2024 |
| WADOE | WA Dept of Ecology | C558 | 06/30/2024 |
| WA-DW | Ecology - Drinking Water | C558 | 06/30/2024 |

| | | |
|---|---|---|
| Eurofins - Test America - Denver | Project: Hansville Landfill | |
| 4955 Yarrow Street | Project Number: 28006013-1Q Sampling | **Reported:** |
| Arvada CO, 80002 | Project Manager: Janice Collins | 16-Feb-2024 15:05 |

## Notes and Definitions

| | |
|---|---|
| B | This analyte was detected in the method blank. |
| 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

eurofins | Environment Testing

TA

| Client Information | Sampler: Carmen + Risi | Lab PM: Collins, Janice S | Carrier Tracking No(s): | COC No: 280-125973-19522.1 |
|---|---|---|---|---|
| Client Contact: Peter Bannister | Phone: 404-210-6437 | E-Mail: Janice.Collins@et.eurofinsus.com | State of Origin: | Page: |
| Company: Aspect Consulting, LLC | PWSID: | | | Job #: |
| Address: 350 Madison Ave N | Due Date Requested: | | | |
| City: Bainbridge Island | TAT Requested (days): | | | |
| State, Zip: WA, 98110 | Compliance Project: Δ Yes Δ No | | | |
| Phone: 404-210-6437 | PO #: Purchase Order not required | | | |
| Email: Peter.Bannister@aspectconsulting.com | WO #: | | | |
| Project Name: Hansville Landfill | Project #:skip sites/events 28006013 - 1Q Sampling | | | |
| 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) | Alks/Cl/SO4 | 6020 - Dissolved Manganese (field filtered) | Ammonia/TOC | 8260C SIM - Vinyl Chloride (Buffalo) | 8260C - Full Scan VOCs (Buffalo) | Ortho-phosphate (field filtered) - Direct sub to ARI | Dissolved Arsenic (field filtered) - Direct sub to ARI | Nitrate/Nitrite (IC) - Direct sub to ARI | | | | | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | N | D | S | A | A | N | D | N | | | | | | |
| MW-5-240117 | 1/17/24 | 1200 | G | W | | | X | X | X | X | X | | | | | | | | | Diss As,NO3,NO2,o-phos subbed direct to ARI |
| MW-6-240117 | | 1735 | | | | | | | | | | | | | | | | | | |
| MW-7-240117 | | 0945 | | | | | | | | | | | | | | | | | | |
| MW-12I-240117 | | 1400 | | | | | | | | | | | | | | | | | | |
| MW-13D-240117 | | 1610 | | | | | | | | | | | | | | | | | | |
| MW-14-240117 | | 1610 | | | | | | | | | | | | | | | | | | |
| MW-200D-240117 | | 0700 | | | | | | | | | | | | | | | | | | |
| SW-1-240117 | | 1055 | | | | | | | | | | | | | | | | | | |
| SW-4-240117 | | 1145 | | | | | | | | | | | | | | | | | | |
| SW-6-240117 | | 1245 | | | | | | | | | | | | | | | | | | |
| SW-7-240117 | | 1400 | | | | | | | | | | | | | | | | | | |

280-186819 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 |
|---|---|---|---|---|---|
| | 01/18/24 1205 | Aspect | | 1/22/24 0940 | EFD |
| 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: 4.8, 0.4 APPA CF. 2 |
|---|---|---|

Ver: 01/16/2019

**Eurofins Denver**
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Phone (303) 431-7171

# Chain of Custody Record

TA

eurofins | Environment Testing

| Client Information | Sampler: Carmen + Risi | Lab PM: Collins, Janice S | Carrier Tracking No(s): | COC No: 280-125973-19522.1 |
|---|---|---|---|---|
| Client Contact: Peter Bannister | Phone: 404-210-6437 | E-Mail: Janice.Collins@et.eurofinsus.com | State of Origin: | Page: |
| Company: Aspect Consulting, LLC | PWSID: | | | Job #: |
| Address: 350 Madison Ave N | Due Date Requested: | | | |
| City: Bainbridge Island | TAT Requested (days): | | | |
| State, Zip: WA, 98110 | Compliance Project: Δ Yes Δ No | | | |
| Phone: 404-210-6437 | PO #: Purchase Order not required | | | |
| Email: Peter.BannisterCaspectconsulting.com | WO #: | | | |
| Project Name: Hansville Landfill | Project #:skip sites/events 28006013 - 1Q Sampling | | | |
| 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) | Alks/Cl/SO4 | 6020 - Dissolved Manganese (field filtered) | Ammonia/TOC | 8260C SIM - Vinyl Chloride (Buffalo) | 8260C - Full Scan VOCs (Buffalo) | | Ortho-phosphate (field filtered) - Direct sub to ARI | Dissolved Arsenic (field filtered) - Direct sub to ARI | Nitrate/Nitrite (IC) - Direct sub to ARI | | | | | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | X | X | N | D | S | A | A | | N | D | N | | | | | X | |
| TB1 - 240117 | — | — | | AQ | | | | | | X | X | | | | | | | | | | Diss As,NO3,NO2,o-phos subbed direct to ARI |
| TB2 - 240117 | — | — | | AQ | | | | | | X | X | | | | | | | | | | |

**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)

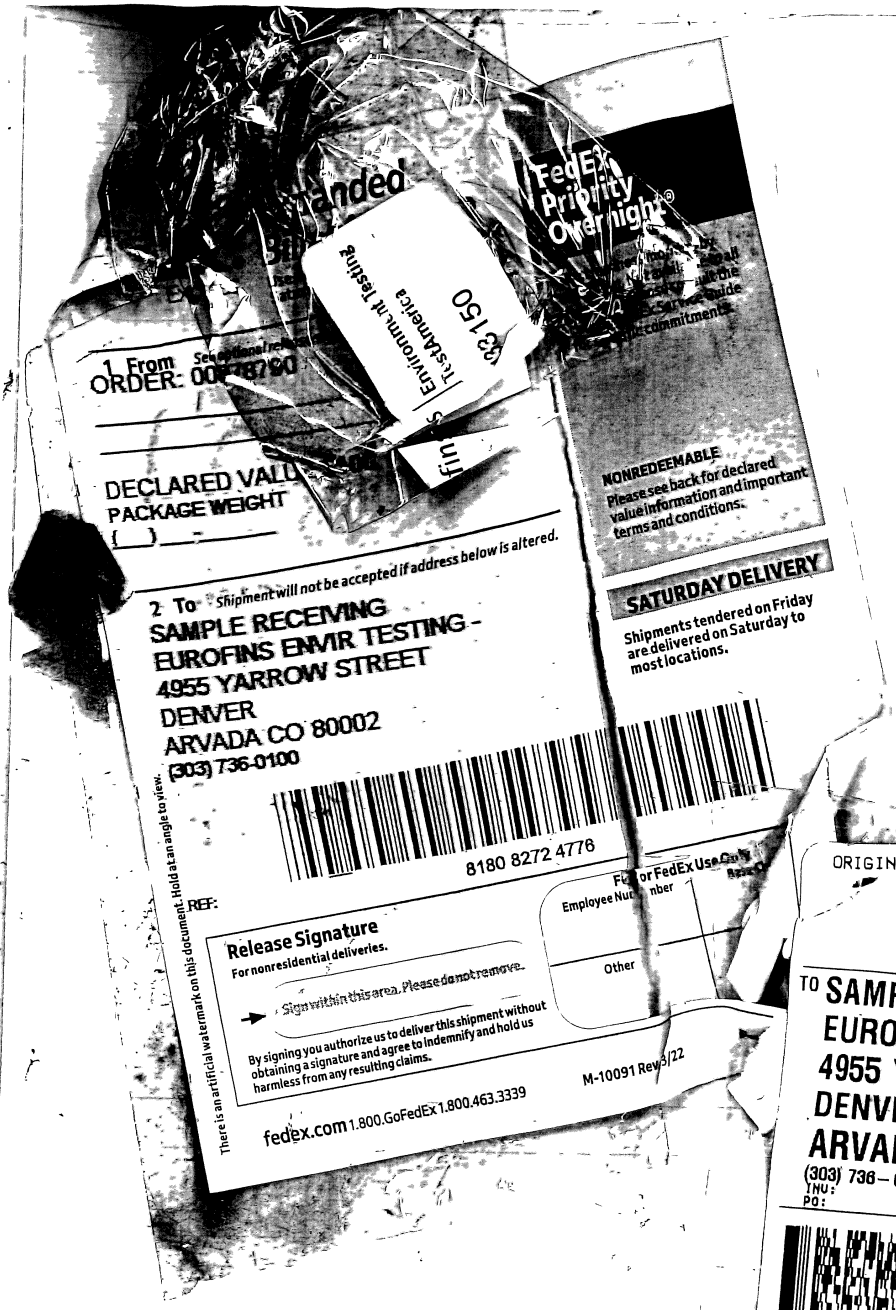
Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|---|
| | | 01/18/24 / 1205 | Aspect | | 01/22/24 0940 | ESDI |
| | 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: 4.8, 0.4 APPA (FO) |
|---|---|---|

Ver: 01/16/2019




280-186819 Waybill

**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: 280-689440.1 |
|---|---|---|---|---|
| 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 Program - Washington | | Job #: 280-186819-1 |
| Address: 10 Hazelwood Drive, , | Due Date Requested: 2/5/2024 | | | |
| City: Amherst | TAT Requested (days): | | | |
| State, Zip: NY, 14228-2298 | | | | |
| Phone: 716-691-2600(Tel) 716-691-7991(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: Hansville Landfill | Project #: 28006013 | | | |
| Site: Hansville | 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_SIM/5030C (MOD) Local Method | 8260C/5030C (MOD) Appendix II Volatiles | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | | |
| MW-5-240117 (280-186819-1) | 1/17/24 | 12:00 Pacific | | Water | | | X | X | 4 | |
| MW-6-240117 (280-186819-2) | 1/17/24 | 17:35 Pacific | | Water | | | X | X | 6 | |
| MW-7-240117 (280-186819-3) | 1/17/24 | 09:45 Pacific | | Water | | | X | X | 6 | |
| MW-12I-240117 (280-186819-4) | 1/17/24 | 14:00 Pacific | | Water | | | X | X | 5 | |
| MW-13D-240117 (280-186819-5) | 1/17/24 | 16:10 Pacific | | Water | | | X | X | 4 | |
| MW-14-240117 (280-186819-6) | 1/17/24 | 16:10 Pacific | | Water | | | X | X | 6 | |
| MW-20DD-240117 (280-186819-7) | 1/17/24 | 07:00 Pacific | | Water | | | X | X | 4 | |
| SW-1-240117 (280-186819-8) | 1/17/24 | 10:55 Pacific | | Water | | | X | X | 6 | |
| SW-4-240117 (280-186819-9) | 1/17/24 | 11:45 Pacific | | Water | | | X | X | 6 | |

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our 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 compliance 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: Lisa Nielsen | Date/Time: 1/24/24 1540 | Company EEDen | Received by: [illegible] 1.0 1D |
| Relinquished by: | Date/Time: | Company | Received by: |
| Relinquished by: | Date/Time: | Company | Received by: |

| Date/Time: | Company |
|---|---|
| 01/26/24 1045 | TA |
| Date/Time: | Company |
| Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 2.2 #1 ICF |
|---|---|---|

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: 280-689440.2 |
|---|---|---|---|---|
| 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 Program - Washington | | Job #: 280-186819-1 |
| Address: 10 Hazelwood Drive, , | Due Date Requested: 2/5/2024 | | | |
| City: Amherst | TAT Requested (days): | | | |
| State, Zip: NY, 14228-2298 | | | | |
| Phone: 716-691-2600(Tel) 716-691-7991(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: Hansville Landfill | Project #: 28006013 | | | |
| Site: Hansville | 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_SIM/5030C (MOD) Local Method | 8260C/5030C (MOD) Appendix II Volatiles | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | | |
| SW-6-240117 (280-186819-10) | 1/17/24 | 12:45 Pacific | | Water | | | X | X | 6 | |
| SW-7-240117 (280-186819-11) | 1/17/24 | 14:00 Pacific | | Water | | | X | X | 6 | |
| TB1-240117 (280-186819-12) | 1/17/24 | Pacific | | Water | | | X | X | 6 | |
| TB2-240117 (280-186819-13) | 1/17/24 | Pacific | | Water | | | X | X | 6 | |

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our 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 compliance 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: Lisa Nielsen | Date/Time: 1/24/24 1540 | Company EETDen | Received by: See 851 | Date/Time: | Company |
| 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: |
|---|---|---|

Ver: 06/08/2021

# Login Sample Receipt Checklist

Client: Aspect Consulting

Job Number: 280-186819-1

**Login Number: 186819**
**List Number: 1**
**Creator: Naylis, Patrick J**

**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. | False | Refer to job narrative for details |
| 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 | No: Headspace larger than ¼” |
| If necessary, staff have been informed of any short hold time or quick TAT needs | N/A | |
| 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. | False | |
| Samples requiring field filtration have been filtered in the field. | True | |
| Chlorine Residual checked. | N/A | |

# Login Sample Receipt Checklist

Client: Aspect Consulting

Job Number: 280-186819-1

**Login Number: 186819**
**List Number: 2**
**Creator: Kolb, Chris M**

**List Source: Eurofins Buffalo**
**List Creation: 01/26/24 01:44 PM**

| 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 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 | |